



Needham Board of Health

AGENDA

Thursday October 14, 2021

9:00 a.m. to 11:00 a.m.

**Powers Hall
Needham Town Hall
1471 Highland Avenue, Needham MA 02492**

Or via Zoom

To listen/view this meeting, download the "Zoom Cloud Meeting" app in any app store or at [www.zoom.us](https://zoom.us). At the above date and time, click on "Join a Meeting" and enter the meeting ID 831-7570-3530 or click the link below to register: <https://us02web.zoom.us/j/83175703530?pwd=REl4TlptcDhVS0w2NUd2MjdMeE10Zz09>

- **9:00 to 9:05 – Welcome & Review of Minutes (September 23)**
- **9:05 to 9:30 – Staff Reports (September)**
- **9:30 to 9:45 – COVID-19 Update**
- **9:45 to 10:00 – Discussion of Tobacco Free Generation Policy**
- **10:00 to 10:15 – Continued Discussion of Pesticide Use Reduction Project**
- **10:15 to 10:30 – Continued Discussion about Sira Naturals Request for Modifications to Operating Permit and Underlying Regulations**
- **10:40 to 10:45 – Update on Priorities for American Rescue Plan Act Spending**
- **10:45 to 10:50 – Update on FY 2023 Town Budget Process**
- **10:50 to 11:00 – Accessory Dwelling Units and Affordable Housing**
- **Other Items**
 - Discussion of Camp Non-compliance: Saint Sebastian's Summer Sports Camps
 - Background Info on MassCALL3 Regional Grant
- **Topics for Upcoming BOH Meetings**
 - Status Update on BOH CY21-22 Goals
- **Next BOH meetings**

○ Regular Monthly Meeting	November 16, 2021	5:00 p.m.
○ Regular Monthly Meeting	December 14, 2021	7:00 p.m.
- **Adjournment**

(Please note that all times are approximate)



NEEDHAM PUBLIC HEALTH DIVISION



Board of Health Meeting Minutes Regular Meeting DRAFT

Date: September 23, 2021

Location: Remote via Zoom per Governor Charles Baker's COVID-19 Executive Order 3/12/2020 and amended as of 6/15/2021

Members: Robert A. Partridge, MD, MPH, Chair
Christina S. Mathews, MPH, Vice Chair
Edward Cosgrove, PhD, Member
Stephen Epstein, MD, MPP, Member
Kathleen Ward Brown, ScD, Member

Staff Present: Timothy Muir McDonald, Director of Needham Department of Health and Human Services; Tara Gurge, Assistant Director of the Public Health Division; Tiffany Zike, Assistant Director of Public Health; Mary Fountaine; Karen Shannon; Carol Read; Lynn Schoeff; and Diana Acosta

Call to Order

Dr. Partridge called the meeting to order at 6:00PM and initiated roll call. Present were Dr. Brown-Y, Dr. Cosgrove-Y, Dr. Epstein-Y, Ms. Mathews-Y and Dr. Partridge-Y.

The meeting is being conducted in-person and remotely using Zoom consistent with Governor Baker's March 12th executive order and as amended on June 15, 2021, regarding COVID-19. The materials for this meeting were circulated previously and are available on the Town website. This meeting is being recorded.

Approval of Minutes – July 29, 2021

Upon motion duly made by Dr. Epstein and seconded by Dr. Cosgrove, it was unanimously voted to approve the above minutes as amended. Dr. Brown-Y, Dr. Cosgrove-Y, Dr. Epstein-Y, Ms. Mathews-Y and Dr. Partridge-Y. Motion passed 5-0.

Approval of Minutes – August 12, 2021

Upon motion duly made by Dr. Epstein and seconded by Dr. Brown, it was unanimously voted to approve the above minutes as amended. Dr. Brown-Y, Dr. Cosgrove-Y, Dr. Epstein-Y, Ms. Mathews-Y and Dr. Partridge-Y. Motion passed 5-0.



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Approval of Minutes – August 17, 2021

Upon motion duly made by Dr. Brown and seconded by Dr. Epstein, it was unanimously voted to approve the above minutes as amended. Dr. Brown-Y, Dr. Cosgrove-Y, Dr. Epstein-Y, Ms. Mathews-Y and Dr. Partridge-Y. Motion passed 5-0.

Mental Health Impacts of COVID-19 –

Presentation and Discussion with Sara Shine, Director of Youth & Family Services

Ms. Shine presented her report on the impact of the pandemic on youth and family mental health as follows. See attached PowerPoint presentation for specific details:

Results of MetroWest Adolescent Health Survey 2018 – High School and Middle School students
Data Released in the Report

Local Trends

Signs and Symptoms

Family Services Data Chart

Improving outcomes requires identifying those at risk and connecting them to resources

Town and School Supports in Place

Discussion ensued on the challenges of identifying youth at risk. Ms. Shine noted that due to remote learning, coaches and teachers have lost typical daily access to their students, and the ability to recognize emerging problems. Even with in-person learning, the wearing of masks further increases the problem. There is a backlog of cases and professional staff shortages, once identified as in need of treatment, families are unable to access treatment in a timely manner. As an interim measure, cases are prioritized according to acuity, and strategies are suggested to manage the high caseload until the availability of long-term treatment.

Ms. Shine pointed out that prior to the pandemic, health and wellness classes presented stress reduction strategies in regularly scheduled workshops. These classes were extremely helpful in proactively educating students on mental health issues as well as developing programs to foster peer-to-peer identification of problems in fellow students. Continuation of these classes post-pandemic is crucial in addressing the overall mental health needs of students.

Discussion also ensued on equity problems in gaining access to resources. Ms. Shine reported that there are racial and social inequities that range from social media's negative impact on young girls' self-esteem and identity, as well as higher suicide rates among the LGBTQ and black male population. Outreach efforts to these vulnerable groups is an ongoing process.

Ms. Shine reported that she is in the process of replacing two full-time staff positions. In addition, Ms. Shine is requesting an additional two-year position to help with pandemic related issues and increased mental health needs in the community. She will assess the ongoing need toward the end of the two-year period. Toward that end, Mr. McDonald noted that both the needs of Ms. Shine's Youth and Family Services Division and the Aging Services Division were identified in a recent memo to town administration for consideration of funding additional resources.



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Needham Water Quality - Presentation and Discussion with Carys Lustig, Director of Public Works, and Steve Cusick, Water Treatment Plant Manager

Ms. Lustig and Mr. Cusick presented their report on Needham's drinking water, its sources, its treatment and testing to assure water quality as follows. See attached PowerPoint presentation for specific details:

Brief Overview of Water Treatment
Defining the two Sources of Water
Primary Source - Charles River Water Treatment plan
Secondary Source - MWRA
Distribution
Testing

Discussion ensued on the results of testing for per- and polyfluoroalkyl substances (PFAS) in the water supply. While Wellesley and Needham pull from the same Charles River water source, Wellesley is seeing a higher degree of PFAS contamination than Needham. Ms. Lustig reported that even though Needham is well below the acceptable limit of contamination, data is scarce on understanding how PFAS gets into the water supply. Testing is done less than once a year.

Mr. Cusick noted that even though it is generally known where PFAS comes from (i.e. firefighters' foam, Teflon and landfills, etc.) understanding how it actually gets into the water supply is an ongoing task of the Department of Public Health. It is not known at this point whether a weather-related event or other events impacts the level of contamination.

Discussion also ensued on the effects of climate change. Studies are ongoing in the metrowest area on how climate change may affect water supplies. One major concern is drought. However, this past summer had a high degree of precipitation and multiple sources of water as a diversification advantage on water sources. Needham well levels are high. Additionally, water usage was much lower than usual this past summer.

Ms. Lustig noted that for consumer informational and educational purposes PFAS data is collected monthly and posted on the Town website and featured in its online newsletter.

Update on Pesticide Use Reduction Project – Ms. Ally Littlefield

Ms. Littlefield updated the Board on creating a pesticide reduction campaign in response to health concerns from a resident, as well as the general widespread use of pesticides on residential lawns. Contributors to the campaign included several town department heads, as well as community-based organizations and Needham Pediatrics. An earlier version of a Town public health message from the Board of Health was updated and a brochure generated, "Healthy Lawns and Landscapes". These may be included in residents' water bills and distributed at the Town Harvest Fair on October 3rd. The brochure educates residents on the harmful effects of pesticides and provides resources for alternative lawncare methods.



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Discussion ensued on the variety of opinions in the community and effective ways to navigate the conversation about reduced pesticide use. Mr. McDonald noted that he and his staff are working with Town department heads to generate reliable data on the health impacts of pesticide use on vulnerable populations, especially children. While not endorsing the services of organic lawncare vendors, expanding the concept of traditional grass lawns to include other plants and the benefits thereof may provide environmental incentives to homeowners.

Ellen, Fine, a Needham resident, addressed the Board on the effects of pesticide use on her own health as well as the population in general. She referenced several studies on the possible carcinogenic effects of pesticide use on the neurological, endocrinal and respiratory systems of adults and children.

She requested the Board to review its policies on the use of pesticides and to include additional people in that process. Dr. Partridge responded that the Board would so review and issue an initial draft of its findings.

Discussion with SIRA Naturals

Ms. Dwan Packett, Ms. Michelle Foley and Mr. John Fernandes presented their report on SIRA Naturals operations. They are requesting modifications to its operating permit and the underlying regulations which govern that permit. See letter of request, Board of Health Regulations and PowerPoint presentation for detailed information:

Environment of the Dispensary

Safety Protocols to Conduct Business

Nature of the Industry

Board of Health Inspections

Cannabis Industry History - 2018 to present

Suggested Revisions to Board of Health – Sections 20.5.2 Plan Review for MIP Storage and Handling at RMD Retail Location and Section 20.6.5(b) and (c) – Marijuana Sales

Discussion ensued on the SIRA's request of reconsideration of Article 20 governing discounted products and labelling, signage and other materials. Ms. Packett noted that promotional discounts are used in other neighboring medical dispensaries. In addition to discounts for senior citizens, veterans, financial hardship and HIV patients, Garden Remedies in Newton offers promotional discounts for first-time patients as well as discounts in the range of 20% on product categories like edibles. SIRA is currently offering discounts only to veterans, senior citizens and those with financial hardship.

Ms. Packett confirmed that medical consumers need to have a medical card to enter the facility, and all promotional discounts would be in strict adherence to Cannabis Control Commission's (CCC) rules for general discounts and nothing offered for free. Medical cards are issued by CCC and not by the facility.

She also noted that discounts are available for medical consumers only and not recreational consumers. Although medical consumers are not assessed the 20% tax that recreational consumers are, the medical



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consumer benefits from discounts due to the consistent and recurring expenses of marijuana purchases. Additionally, the purchase of a medical card is an upfront cost to the medical consumer.

Discussion ensued on the practice of pharmacies like CVS and Walgreens which do not provide discounts on pharmaceutical products. Ms. Packett noted that as a licensed cannabis retailer, SIRA would like to be able to offer the same discounts that competitors provide, and which are allowed by the CCC. These discounts would be advertised in a newsletter that is strictly controlled and sent only to medical consumers. Background CORI checks are not only submitted to the CCC but to Board of Health inspectors and the police department.

Mr. McDonald noted that Section 20.5.2 determines environmental health inspections to avoid foodborne illness. Ms. Packett confirmed that edible products are not made at the facility. The development of metric software previously unavailable has allowed CCC visibility into “seed to sale” tracking, i.e. where the product is grown and transferred as well as all testing results and sales to independent retailers.

Mr. McDonald noted that there may in fact be redundant regulations at the local level to the Cannabis Control Commission regulations. Mr. McDonald noted that changes to the operating permit are to be approved by the Planning Board. Ms. Packett reported that business is by appointment only and restrictions on number of staff present at any given time limit the number of consumers in the building.

Mr. McDonald also noted his concern for youth substance abuse. Ms. Foley noted that SIRA is committed to maintaining good government relations in the municipalities in which they operate and is currently working with the City of Somerville to develop diversion programs to educate youth on the dangers of marijuana use. SIRA would welcome the opportunity to work similarly with the Town of Needham.

Mr. McDonald stated the Board would address SIRA’s request for amendment. This process would begin with the redlining of the amendment, posting thereof online and in the newspaper, scheduling the date for hearing and conducting the hearing itself.

Update on TCE and Mitigation Efforts at The Kendrick

Ms. Acosta updated the Board on the status of mitigation. She had met with Erin O’Donnell, a representative of The Kendrick along with Joe Vitale and Jason Wilkinson of Ramboll. Ramboll is working with the Department of Environmental Protection (DEP) to resolve the TCE problem, which appears to be isolated in the northwest wing of the building. The higher TCE levels were detected up to the third floor in the northwest wing. An isolated unit on the third floor in a different part of the building has been determined to not be due to vapor intrusion. It is possible the resident is using a cleaning agent or has job site exposure to TCE which is causing the higher reading in their unit. The building has a sub depression system to mitigate vapor intrusion. It was found that the system was not functioning properly in the northwest wing and a vacuum was not being created to prevent vapor intrusion. Ramboll has formed a solution to reestablish the vacuum.



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Ms. Gurge reported that Ramboll will submit the proposed changes to fix the sub slab depression system to the building engineering department for approval that meets code requirements.

The interim report from Ramboll is due to DEP on October 6th. Ms. Acosta will receive an update in two weeks, and she is confident the problem will be resolved through mitigation efforts.

Public Hearing on Proposed Revision to Article 1:

Regulation Affecting Smoking and the Sale and Distribution of Tobacco Products in Needham

Dr. Partridge opened the hearing at 7:30PM and closed the hearing at 7:40PM.

The Board of Health had received guidance from D. J. Wilson Tobacco Control Director of the Massachusetts Municipal Association, with regard to existing Board of Health Tobacco Regulations. To bring the regulation up to date, the Board needs to revise the above article defining the “Person” by swapping out the word “individual” for “retailer.”

Public comments were not submitted.

Upon motion duly made by Dr. Cosgrove and seconded by Ms. Mathews, it was unanimously voted to adopt the proposed revisions to Article 1 as discussed and outlined in the attached agenda packet. Dr. Brown-Y, Dr. Cosgrove-Y, Dr. Epstein-Y, Ms. Mathews-Y and Dr. Partridge-Y. Motion passed 5-0.

Public Health Hearing on Proposed Revision to Article 12:

Rules and Regulations for the Registration and Construction of Private Water Supplies

Dr. Partridge opened the hearing at 7:40 and closed the hearing at 7:50PM.

The Board of Health reviewed proposed changes on the existing well regulation. Sections have been added on well pre-operation inspection requirements, per guidance of the Water and Sewer Department, as well as sections on ground source heat pump wells.

Public comments were not submitted.

Upon motion duly made by Dr. Cosgrove and seconded by Ms. Mathews, it was unanimously voted to adopt the proposed revisions to Article 12 as discussed and outlined in the attached agenda packet. Dr. Brown-Y, Dr. Cosgrove-Y, Dr. Epstein-Y, Ms. Mathews-Y and Dr. Partridge-Y. Motion passed 5-0.

Public Health Hearing on 11 Gatewood Drive Septic Variance Request

Dr. Partridge opened the hearing at 7:50PM and closed the hearing at 8:00PM.

The septic installer for the property located above is requesting a variance from Section 310 CMR 15.211 with regard to minimum setback distances, specifically to decrease the setback distance from the septic tank to the building foundation. The setback distance requirement is 10 feet, and the current setback distance noted on the septic as-built plan is 9.4 feet.



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Mr. Malone, the owner of the property, appeared before the Board and reported that the location of the tank was checked three times during the engineering process and registered the required ten foot distance from the house. Due to ledge the septic system could be installed after the house was built.

Public comments were not submitted.

Upon motion duly made by Dr. Epstein and seconded by Ms. Mathews, it was unanimously voted to grant the variance as requested. Dr. Brown-Y, Dr. Cosgrove-Y, Dr. Epstein-Y, Ms. Mathews-Y and Dr. Partridge-Y. Motion passed 5-0.

Staff reports

Travelling Meals Program – Tara Gurge

On behalf of Ms. Dinell, Ms. Gurge reported that there are no updates.

Environmental Health – Tara Gurge and Diana Acosta

Ms. Acosta reported that the second annual “Nutritionally Needham” will be held the week of October 3rd with participation by local restaurants and Needham Public Schools. The program will guide residents in making nutritious choices when eating out. Ms. Ally Littlefield will promote this event in social media and a food demonstration will be set up at the Harvest Fair showcasing recipes made from fresh vegetables purchased at the local farmers’ market.

Ms. Acosta also reported that she and Ms. Gurge continue to work with Mr. Wilson of the IT department in developing additional online permit applications on ViewPoint Cloud. The septic installer trench permit, well permit, and soil testing training permit are now live. The septic plan review and construction permits are in the pipeline.

Ms. Acosta reported that she had received notice from the animal control officer that ducks were being housed on private property in a chicken coup. In addition a complaint was called in about goats. After investigating, it was found that the goats were being used for landscaping purposes.

In both situations the homeowners were keeping animals on a temporary basis and the current Board regulations do not address housing animals temporarily. Discussion ensued on goats being used for landscaping purposes at homes and on golf courses and the on the use of electric fences to contain the animals. Ms. Acosta will survey other towns on updating regulations to address these types of issues to see if it is possible to create an update to the current regulation.

Ms. Gurge reported a problem with beavers building dams that resulted in the flooding of a manhole and threatening the towns West Street pump station and flooding complaints from residents who are downstream on Central Avenue and Cefalo Road. The Conservation Commission permitted the breaching of these dams, but no further beaver activity was observed, and no traps were set. The area will be continued to be monitored by Mr. Callahan of Beaver Solutions.



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Activities and Accomplishments – Lynn Schoeff

Ms. Schoeff reported that the Public Health Division is participating in a national survey of public health workers addressed workforce training needs. She also reported that the Public Health Accreditation Board (PHAB) is developing a system to recognize smaller health departments which may not be positioned to apply for full accreditation. A rollout of the program is expected in 2022 and she will present a summary of the program for the next Board meeting.

Emergency Management Administration – Michael Lethin

Mr. Lethin is working to identify Town staff to fill specific positions in the Incident Command System before an incident occurs so staff members are provided appropriate training for those roles and functions. Needham's Comprehensive Emergency Management Plan (CEMP) will be updated once Emergency Operations Center job action sheets are completed. The CEMP will also incorporate necessary improvements from the final COVID After-Action Report.

Mr. McDonald welcomed back Mr. Lethin after a military deployment and affirmed the need for a full-time professional in this position with the professional background and training to move things forward for more effective emergency preparedness.

Emergency Management Support – Ms. Zike

In Mr. Abdelrahim's absence, Ms. Zike reported that the first draft of a warming and cooling center plan had been submitted. The flu clinics will take the place of a third Medical Reserve Corps training in September. Mr. Abdelrahim is helping to apply for a Barclay-Giel Seed Grant to expand services for the MRC, including combating misinformation during public health emergencies and potentially create a Junior MRC. MRC volunteers have been updated on flu clinic information.

Public Health Nursing – Mary Fountaine, Hanna Burnett and Tiffany Zike

Ms. Fountaine reported that training had begun for Park and Recreation coaches about the concussion regulation protocol for fall sports. The training will also connect the leagues and coaches with the nursing team. Ms. Fountaine also reported that she had participated in the quarterly infection control meeting with Newton Wellesley and BID Needham hospitals.

Ms. Fountaine reported that COVID-19 continues to decrease as well as tickborne illness and food poisoning. One salmonella case was linked to a multi-state cluster and one Vibrio case linked to shellfish. Ms. Fountaine also reported that there have been no cases of Eastern Equine Encephalitis, but the West Nile virus is increasing.

Ms. Fountaine is also preparing for flu and COVID booster vaccine clinics.

Substance Use Prevention – Karen Shannon

Ms. Shannon reported that the Drug Free Communities grant was completed on August 30th. Monica DeWinter will work with the new project coordinator, Jazmine Hurley, on the STOP Act grant.

Ms. Shannon reported that she is working with the Director of Wellness for the School Department, Denise Domarski, to promote the youth vaping cessation program in the new academic year. Ms.



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Shannon and two SALSA students presented an overview of the SPAN program that connects students and parents to resources on substance use. They also pointed out the important role that coaches play with student athletes around decisions not to use alcohol and other substances.

Ms. Shannon also reported that the community action team is working on developing several prevention messaging campaigns on impaired driving as a way to enhance students' good decision making.

Substance Use Prevention – Carol Read

Ms. Read reported that the MassCALL3 prevention program contract had been executed between Dedham, Westwood and Walpole with Needham as the lead. Communities working regionally address the common problems of marijuana, vaping and alcohol abuse. Feedback is provided by the police department at monthly core meetings. Emergency shelter placement of the homeless was exacerbated by the closing of Norwood Hospital and the emergent need for dedicated service providers and funds to address regional health needs.

COVID-19 Update – Timothy Muir McDonald and Tiffany Zike

Mr. McDonald and Ms. Zike presented the COVID monthly report as of August. See the PowerPoint presentation for detailed information:

Case and incidence rate
Incidence and percent positivity
Rolling 7-day average case count
Case demographics
Cases by age
August cases by vaccination status
Breakthrough cases
Unvaccinated cases
Total vaccinated breakthrough May-September 19, 2021
August contacts
July and August clusters
Household transmissions
September school cases and contacts
Vaccination coverage
State trends in Hospitalizations
Massachusetts Hospitalizations
Cases and Hospitalizations
MA hospitalization per 100K by age
Hospitalization among children
Percentage of hospitalization of children

Ms. Zike noted that Pfizer had approved a booster shot for 65+ adults and those with compromised immune systems. It is expected that, once approved, school-aged children will receive one-third of the adult Covid vaccine dose. The nursing staff is planning to set up joint flu and covid vaccine clinics.



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Ms. Zike also reported that the Department of Public Health clarified that fully vaccinated persons do not need to quarantine even if they have been determined to be a close contact. However, if a vaccinated person is symptomatic, and if they test positive, they should self-quarantine. If a vaccinated person is symptomatic but tests negative, that person would need to stay home until symptoms subside.

Accessory Dwelling Units and Affordable Housing – Timothy Muir McDonald

Mr. McDonald presented the draft Citizens Petition with regard to accessory dwelling units and affordable housing proposed for the October Town Meeting. He also presented a request from the housing working group of Equal Justice Needham for the Board to review the petition.

Discussion ensued on the Board's support of an accessory dwelling unit bylaw as one means of increasing affordable housing and allowing older residents to remain in the community. However, championing the cause of the citizen's petition itself would not be appropriate. The present accessory dwelling unit bylaw limits the scope of this type of housing.

Mr. McDonald will obtain more information and put this topic on the agenda for the October meeting.

Next Meetings

October 14th @ 9:00AM; November 16 @ 5:00PM; December 14 @ 7:00PM.

Adjournment

Upon motion duly made by Dr. Cosgrove and seconded by Ms. Mathews, it was unanimously voted to adjourn. Dr. Brown-Y, Dr. Epstein-Y, Ms. Matthews-Y, Dr. Cosgrove-Y and Dr. Partridge-Y. Motion passed 5-0. The meeting adjourned at 9:11PM.

Respectfully submitted,

Christine Martin Barraford

*Attachments:
September 23rd Meeting Packet*



Needham Public Health Division

September 2021

Assist. Health Director - Tara Gurge

Health Agents - Diana Acosta and Monica Pancare



Unit: Environmental Health

Date: 10/14/2021

Staff members: Tara Gurge, Diana Acosta and Monica Pancare

Intern: Ally Littlefield

Activities and Accomplishments

Activity	Notes
Town Online Permitting System	The Septic Soil test application is now live. Diana and Tara are continuing to work with Terry Wolfson from IT Department in developing additional online permit applications on ViewPoint Cloud. Currently working Septic Plan Review Checklist form and the Septic Construction Permit application. Diana, Tara, and Dawn continue to take part in monthly zoom permit meetings with IT.
Held Annual Food Advisory Board virtual Zoom meeting	We hosted, along with the help of our intern, Ally, our annual Food Advisory Board meeting, which took place via Zoom on Monday, Sept. 20 th from 9:30-10:30 AM. We discussed a variety of food-related topics with our stakeholders which included local representatives from the Town of Needham, owners from restaurants/retail stores and residents.
Nutritionally Needham Healthy Eating Week – Launches Week of Oct. 3rd- 9th, 2021	From October 3 rd - 9 th local restaurants, along with Needham Public Schools, highlighted healthy menu items as part of Needham Public Health's 2nd annual "Nutritionally Needham" healthy eating week. The program will guide residents in making nutritious choices when eating out. Visit https://nutritionallyneedham.wixsite.com/my-site for more information and resources. Ally has promoted the event through the Needham Cable Channel, the online Patch, town's weekly newsletter, and the Public Health Divisions Facebook and Twitter social media pages. A booth was set up at the NBA Harvest Fair on Sunday, Oct. 3 rd , to help kick-off the week. A healthy food demo was showcased and presented by Colin Boisvert, Needham's new School Food Service Nutrition Director. The healthy salsa was made from fresh vegetables and herbs purchased at the local Needham Farmers Market. An article in the Boston Globe was written about the event ahead of the kickoff - https://www.bostonglobe.com/2021/09/14/metro/healthy-eating-week-returns-needham-october/
Part-time Env. Health Agent	A new part-time health agent is in the process of being hired. We have a tentative start date of Monday, Oct. 25 th .
2021 FDA/AFDO Retail Food Protection Seminar	Env. Team staff attended the annual 2021 FDA/AFDO virtual meeting, which was scheduled for the week of September 13-16 th .
2021 Yankee Conference	Diana, Tara, and Ally attended the 2021 Yankee Conference which was held at the Foxwoods Casino Resort in Connecticut on Sept. 22-24 th .
NEHA-FDA RFFM Grant	Portal for new Retail Flexible Funding Model Grant Program is now open. Diana registered for a login and will apply to the grant. The project plan and budget are due by November 15, 2021.

Other Public Health Division activities this month: (See report below.)

Activities

Activity	Notes
Animals	3– Animal Control/permit follow-ups: <u>Stockdale Road</u> – Cats released from 45-day quarantine. <u>Nehoiden Street</u> – Dog released from 45-day quarantine. <u>Elmwood Road</u> – Goats reported on property. Were on temporarily. (See nuisance complaint for full description)
Biotechnology	New Biotechnology lab is taking over the Celldex location, 115 Fourth Ave. Animal, Disposal of Sharps, and Biotech permit applications have been submitted. Review Complete – awaiting inspection walk through. Tentatively scheduled for October 11.
COVID -19 Complaint	1 – Complaint Received: - Complaint received from a resident about the lack of having a mandatory face covering ordinance to require food workers to wear masks while inside the kitchen actively prepping food. (Shared the BOH Advisory with the resident and stated that we are continuing to track the current COVID-19 data and will continue to assess the public health risk in our community.)
Demo Reviews/ Approvals	11 - Demolition signoffs: - 170 Greendale Ave - 15 Barrett St - 94 Ardmore Rd - 20 Harding Rd - 49 Colby St - 39 Donna Rd - 1177 Central Ave - 10 Manson Rd - 119 Woodbine Cir - 70 Edwardel Rd - 94 Mackintosh Ave
Farmer's Market	33 – Inspections conducted - 10/3/2021 – Nutritionally Needham kickoff event. Hosted healthy food demo at booth during the NBA Harvest Fair from 11-4 PM.
Food	5 – Food Establishment Pre-Operations: - <u>Little Spoon (formerly known as Thai Story) (2x)</u> – Still in process. Two Pre-Operation inspections conducted. - <u>Starbucks (2x)</u>– Reopening pre-operation inspections conducted. - <u>Trip Advisor</u> – Reopening inspection conducted ahead of cafeteria reopening. 1 – Plan Review Items/inquiries received from: - <u>Smoothie Bar a 915 Great Plain Ave</u> – Application Submitted. Pending.
Temporary Food Permits	10 – Temporary Food Permits Issued - Concession stand for NHS Varsity Football - Jog Your Memory 5k - Ellie Bloom Special Olympics - Needham Open Studios – Inside Out - Music Bingo Scholarship Night @ Knights of Columbus - Harvest Fair (5x) - o Dunkin Donuts/Needham General Store - o Hearth

	- o Abbotts - o Sheraton - o The James
Food Complaints	1/1 – Food Complaints/Follow-ups – - <u>Blue on Highland (1/1)</u>– A resident reported walking by Blue on Highland and noticed liquid flowing from the dumpster area. The reason they did not think it was just water is because their dog was attracted to it like it was food. Diana followed up with a site visit and saw a dark mark in the asphalt leading from the grease barrel in the dumpster enclosure. A follow up was sent to the owner of the establishment. The owner was on site and reported the grease barrel was full. The cover was not properly closed so when it rained, it caused an overflow. The pickup schedule has been adjusted to be picked up every 6 weeks instead of 8 weeks.
Housing Complaints/ Follow-ups –	6/6 – Housing Complaints/Follow-ups conducted at: – <u>Union Street (0/1)</u> – Email from contractor was sent stating work was completed. Need to schedule final inspection. <u>UPDATE</u> – Final inspection was due to be scheduled the week of Sept. 27th, but homeowner did not reach out to set that up. (Still pending.) – <u>Needham Housing Authority (Capt. Robin Cook Dr.) (2/1)</u> - A resident reported excessive moisture and mold in their unit. Diana conducted an onsite inspection and sent a letter to the Needham Housing Authority. A second complaint was called in from a nearby unit with similar issues. The resident cancelled their inspection as they had cleaned up the mildew with a spray and there would not be much to be witnessed. Both units were given dehumidifiers by NHA. Diana requested more work to be done to the building to prevent ongoing chronic dampness. - <u>Webster Green (1/1)</u> – A resident reported a non-functional washing machine in the common laundry room in the basement of the building. The washer was reportedly full of standing water. Diana conducted an onsite visit and did not witness any water. There were some cracked tiles and coving was damaged in the room. Diana reported the machine and condition of the floor to management. Awaiting follow up. - <u>Needham Housing Authority (1/1)</u> – A resident reported a work order to fix tiles/grout had not been completed over a few weeks. Additionally, a woodpecker was reportedly causing structural damage to a post nearby the property. Diana followed up with NHA management who were aware of the issues. Maintenance was set to complete the work order in the same week. - <u>Webster Green (North Building) (1/1)</u> - Received a report of pest activity on site. Also a report of the elevator being down for many days. Tara called and spoke to the Webster Green property manager, and when did not see items being addressed, reached out to Alan Cusson, Division Dir., Residential Property Mgmt., of The Hamilton Company Corp. Office. In process of working with Corp. to address these concerns. Elevator has since been repaired, but a long-term plan for the elevator, which tends to break down often, needs to be submitted to Health and the Building Commissioner. (In process.) - <u>Needham Housing Authority (Chambers St.) (1/1)</u> - Received a call from Needham Police and Fire about an apartment that had unsanitary conditions. Occupant was taken off site and NHA (and the occupant) were ordered to remove clutter and hire a professional Biohazard cleaning company to clean and disinfect the unit, prior to allowing the occupant to move back in. (A follow-up inspection will be conducted of the cleaned unit, once a copy of the cleaning report is provided and once permission is granted.)
Nuisance – Complaints/ Follow-ups	5/6 – Nuisance Complaints/Follow-ups: - <u>Central Ave (0/1)</u> – Followed up with complainant on status of the property on Central Ave. A pest control report was submitted by the contractor confirming there was no evidence of pests or wildlife inside. - <u>Elmwood Road (1/1)</u> -Neighbor reported goats on property next door. Goats were brought on for landscaping purposes. The temporary housing was set up against the shared fence and complainant reported a foul odor. Diana conducted a site visit and witnessed a few

	goats in the yard. Followed up with the owners who reported the goats were from a company called Goats of Dover. Someone from the company was checking in on the animals daily. Goats were on property for about a week. - <u>Chapel Street Shared Dumpster (1/1)</u>- Received a complaint on the shared dumpsters having a bad odor along with rodent sightings. Diana followed up with the managers who have the dumpster contract. Dumpsters are emptied every other day. - <u>Valley Road (1/1)</u>– A concerned neighbor reported a home that had overgrown vegetation and had reportedly seen pests. They were concerned with the resident inside as well. Diana conducted a site visit to the property and confirmed that there was a significant amount of overgrowth. Public Health connected with Aging Services and Public Works. An application for the Town’s Small Repair Grant fund will be submitted, which we hope will pay for the yard services needed. - <u>Charles Court East Condos (#1210 Greendale Avenue) (2/2)</u> - Report of on-going construction occurring at neighboring condo, that’s located directly above the complainants unit. Initial concern was reported about complainant hearing an electrical ‘buzzing’ noise in her wall. Tara contacted Building Dept. to verify that a proper Electrical permit was applied for. Second concern reported by same complainant about the owner using an industrial blower and blowing construction dust debris that is migrating into the condo unit below. (Pictures and a video were emailed to Health Division.) This is causing not just a nuisance dust concern, but also a nuisance noise issue, since this blower is being left on over the entire weekend. Tara is working with condo property manager on this concern, and they have sent a letter to the condo owner about the blower. The owner is also working on Sundays, which is against the Condo Associations rules. The Building Dept. Is also in the loop.
Planning Board site plan review	1 - Planning Board review conducted for: - #915 Great Plain Ave. (Comments sent.)
Septic – Failed System/Follow-ups	Failed Title 5 Septic reports, follow-ups received, for: - <u>#463 South St.</u> - Still waiting for update from new owner on sewer connection process. Septic abandonment form still pending. (On-going) - <u>#39 Brookside Rd.</u> - Still waiting to start approved septic system installation. To be conducted before the cold weather sets in. (Pending.)
Septic – Addition reviews	2 – Addition to a Home on a Septic reviews conducted for: - <u>395 Charles River Street</u> – Memo sent. - <u>299 Charles River Street</u> – Memo sent.
Septic – Plan Reviews/Approvals/Permits issued	3- Septic-related Plan Reviews/Conditional approval issued to: - <u>185 Charles River Street</u> – Conditional Plan approval issued. - <u>18 Brookside Rd.</u> - Initial plan review conducted. - <u>94 Brookside Rd.</u> - Initial proposed house layout plans submitted for review. (Hard copy of plans still pending.) (On-going.) 1 – Trench Permit: - 18 Starr Ridge 2 – Septic Disposal System Construction Permit issued - 92 Pine Street - 18 Starr Ridge 1 - Septic Abandonment Received - 63 Thornton Road 1 – Septic Variance Approval issued for: - <u>#11 Gatewood Drive</u> – Board of Health approval issued for a decrease in setback distance from septic tank to foundation. (From 10 ft to 9.4 ft.)
Septic – Installation inspections	3 – Inspections - 92 Pine Street (2x) – bottom check; check distribution box and vent - 18 Starr Ridge – check setbacks due to neighbor complaint
Well Follow-ups/Permits issued	0 - Irrigation Well Permit Follow-ups conducted/permits issued.

Zoning Board of Appeals plan reviews	0 – Zoning Board of Appeals plan reviews conducted.
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FY 21 Priority FBI Risk Violations Chart (By Date)

Restaurant	Insp. Date	Priority Violation	Description
New Garden Restaurant	9/11/2021	5-202.11 (A) Approved System/Cleanable Fixtures - Code: A plumbing system shall be designed, constructed, and installed according to law.	Bar -Both faucets on the Handsinks are broken rendering them unusable. One of the sinks was used as a dump sink. The other sink was for employees to wash hands while serving food at the bar. This inspector required PIC to temporarily use pliers to turn the faucet on. Repair by Monday 9/13/21, and provide pictures. Failure to correct and maintain may result in not having the ability to serve food in the bar/ lounge area.
Avita of Needham	9/18/2021	COS - 3-304.11 Food Contact with Soiled Items Code: Food shall only contact surfaces of: equipment and utensils that are cleaned and sanitized; single-service and single-use articles; or linens, such as cloth napkins that are used to line a container for the service of foods AND are replaced each time the container is refilled for a new consumer.	Kitchen - Ice machine lip soiled. Clean and sanitize
Briarwood Healthcare Center	9/18/2021	COS 3-501.14 (A) Cooling Cooked Foods Code: Cooked TCS foods shall be cooled within 2 hours from 135°F to 70°F and within a total of 6 hours from 135°F to 41°F or less.	Kitchen - Puréed dense cooked chicken from lunch was stored in 8 inch container the walk in @ 128-130F. Cooked squash 121. Products were removed and put into smaller pans to cool rapidly. Discussion w PIC on methods to cool properly
McDonald's	9/21/21	3-501.16 (A)(2) (B) Proper Cold Holding Temps. Code: Except during preparation, cooking, or cooling, or when time is used as the public health control as specified under section 3-501.19, and except as specified under paragraph (B) and in paragraph (C) of this section, TCS food shall be maintained at 41°F or less. Eggs that have not been treated to destroy all viable Salmonellae shall be stored in refrigerated equipment that maintains an ambient air temperature of 45°F or less.	Kitchen -The temperature of the Ambient in the Milk juice cooler front of house was 45 degrees. One door would close and the other would open letting in air from outside.
Bertucci's	9/25/2021	3-501.16 (A)(2) (B) Proper Cold Holding Temps. - Code: Except during preparation, cooking, or cooling, or when time is used as the public health control as specified under section 3-501.19, and except as specified under paragraph (B) and in paragraph (C) of this section, TCS food shall be maintained at 41°F or less.	Kitchen - 2 drawer refrigerator 55f Cooked chicken wings 52 f Raw beef meatballs 54 Cooked chicken filets 52-54 All products voluntarily discarded PIC stated that they were stored in that location overnight Repair or replace this unit.

		<i>Eggs that have not been treated to destroy all viable Salmonellae shall be stored in refrigerated equipment that maintains an ambient air temperature of 45°F or less.</i>	Cease using.
Yummi Sushi @ Sudbury Farms	9/25/2021	7-201.11 Storage Separation Code: <i>Poisonous or toxic materials shall be stored so they cannot contaminate food, equipment, utensils, linens, and single service and single use articles by: (A) Separating the poisonous or toxic materials by spacing or partitioning; an (B) Locating the poisonous or toxic materials in an area that is not above food, equipment, utensils, linens, and single-service or single-use articles.</i>	Cabinet under sink - Single use tissue was stored in same area as a pest control device. Do not store open food service supplies in this location.
Fuji Steakhouse	9/27/2021	COS 3-302.11 (A)(2) Raw Animal Foods Separated from each other - Code: <i>Foods shall be protected from cross contamination by: Except when combined as ingredients, separating types of raw animal foods from each other such as beef, fish, lamb, pork and poultry during storage, preparation, holding, and display by: (a) Using separate equipment for each type, or (b) Arranging each type of food in equipment so that cross contamination of one type with another is prevented and (c) preparing each type of food at different times or in separate areas.</i> 4-501.114 (A)-(C) Chem.San. Temp./pH/Concentr./Hard. - Code: <i>A chemical sanitizer used in a sanitizing solution for a manual or mechanical operation at contact times specified under paragraph 4-703.11(C) shall meet the criteria specified under section 7-204.11 Sanitizers, Criteria, shall be used in accordance with the EPA registered label use instructions, and shall be used as follows: A chlorine solution shall have a temperature of 55°F-120°F, depending on water hardness, and concentration range of 25ppm to 100ppm. An iodine solution shall have a minimum temperature of 68°F with a concentration range of 12.5ppm to 25ppm. A quaternary ammonium compound solution shall have a minimum temperature of 75°F, have a concentration as specified under section 7-204.11 and as indicated by the manufacturer's use directions included in the labeling, and be used only in water with 500 MG/L hardness or less or in water having a hardness no greater than specified by the EPA-registered label use instructions.</i>	Kitchen -Raw shrimp in double bowl stored next to wrapped raw beef. Shrimp moved to higher shelf. Sushi bar - Sanitizer in bucket tested at 10 ppm. Remade.

Fuji Steakhouse	9/27/2021	3-501.16 (A)(2) (B) Proper Cold Holding Temps. - Code: Except during preparation, cooking, or cooling, or when time is used as the public health control as specified under section 3-501.19, and except as specified under paragraph (B) and in paragraph (C) of this section, TCS food shall be maintained at 41°F or less. Eggs that have not been treated to destroy all viable Salmonellae shall be stored in refrigerated equipment that maintains an ambient air temperature of 45°F or less.	Kitchen - The temperature of the Ambient in the Walk-in Cooler was 46 degrees. Need to readjust temperature.
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Category	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	FY'22	FY'21	FY '20	FY' 19	FY' 18
Biotech registrations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Bodywork Estab. Insp.	0	0	0	0	0	0	0	0	0	0	0	0	0	6	7	14	11
Bodywork Estab. Permits	0	0	0	0	0	0	0	0	0	0	0	0	0	13	9	9	6
Bodywork Pract. Permits	0	0	0	0	0	0	0	0	0	0	0	0	0	12	23	21	22
COVID 19 Complaints	0	1	1	0	0	0	0	0	0	0	0	0	2	123	0	0	0
COVID 19 Follow Ups	0	1	1	0	0	0	0	0	0	0	0	0	2	122	0	0	0
Demo reviews	8	8	11	0	0	0	0	0	0	0	0	0	27	76	73	104	105
Domestic Animal permits	3	1	0	0	0	0	0	0	0	0	0	0	4	29	1	21	19
Domestic Animal Inspections	0	3	3	0	0	0	0	0	0	0	0	0	6	8	3	22	3
Food Service Routine insp.	16	24	14	0	0	0	0	0	0	0	0	0	54	134	149	200	225
Food Service Pre-oper. Insp.	5	0	5	0	0	0	0	0	0	0	0	0	10	16	48	12	32
Retail Food Routine insp. Or 6 month check in	0	0	1	0	0	0	0	0	0	0	0	0	1	12	33	46	60
Residential Kitchen Routine insp.	0	2	1	0	0	0	0	0	0	0	0	0	3	5	3	6	8
Mobile Routine insp.	0	0	1	0	0	0	0	0	0	0	0	0	1	10	4	17	13
Food Service Re-insp.	0	0	0	0	0	0	0	0	0	0	0	0	0	7	21	28	53
Food Establishment Annual/Seasonal Permits	4	1	0	0	0	0	0	0	0	0	0	0	5	134	155	140	171
Temp. food permits	1	2	10	0	0	0	0	0	0	0	0	0	13	9	67	134	163
Temp. food inspections	1	1	3	0	0	0	0	0	0	0	0	0	5	3	10	37	29
Farmers Market permits	3	1	0	0	0	0	0	0	0	0	0	0	4	15	14	14	14
Farmers Market insp.	31	24	33	0	0	0	0	0	0	0	0	0	88	124	158	229	127
Food Complaints	2	0	1	0	0	0	0	0	0	0	0	0	3	7	49	18	20
Follow-ups food complaints	2	0	1	0	0	0	0	0	0	0	0	0	3	8	48	21	21
Food Service Plan Reviews	2	2	1	0	0	0	0	0	0	0	0	0	5	12	14	20	42
Food Service Admin. Hearings	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0
Grease/ Septage Hauler Permits	0	0	1	0	0	0	0	0	0	0	0	0	1	13	20	21	24
Housing (Chap II Housing) Annual routine inspection	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7	0	14
Housing Follow-up insp.	1	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	5
Housing New Complaint	3	1	6	0	0	0	0	0	0	0	0	0	10	40	41	22	22
Housing Follow-ups	9	3	6	0	0	0	0	0	0	0	0	0	18	63	56	28	24
Hotel Annual inspection	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3
Hotel Follow-ups	0	0	0	0	0	0	0	0	0	0	0	0	0	1	15	0	0
Nuisance Complaints	8	6	5	0	0	0	0	0	0	0	0	0	19	45	34	55	42
Nuisance Follow-ups	7	8	6	0	0	0	0	0	0	0	0	0	21	60	55	69	42
Pool inspections	0	1	0	0	0	0	0	0	0	0	0	0	1	15	13	20	12
Pool Follow up inspections	0	1	0	0	0	0	0	0	0	0	0	0	1	5	3	12	7
Pool permits	0	1	0	0	0	0	0	0	0	0	0	0	1	17	11	19	12
Pool plan reviews	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	3	44
Pool variances	0	1	0	0	0	0	0	0	0	0	0	0	1	5	6	5	7
Septic Abandonment	1	1	1	0	0	0	0	0	0	0	0	0	3	17	21	9	5

Category	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	FY'22	FY'21	FY '20	FY' 19	FY' 18
Addition to a home on a septic plan rev/approval	0	3	2	0	0	0	0	0	0	0	0	0	5	5	5	2	2
Septic Install. Insp.	0	2	2	0	0	0	0	0	0	0	0	0	4	11	13	21	28
Septic COC for repairs	0	1	0	0	0	0	0	0	0	0	0	0	1	2	5	3	1
Septic COC for complete septic system	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	4	3
Septic Info. requests	5	4	3	0	0	0	0	0	0	0	0	0	12	86	61	62	51
Septic Soil/Perc Test.	1	0	0	0	0	0	0	0	0	0	0	0	1	8	1	1	2
Septic Const. permits	0	0	2	0	0	0	0	0	0	0	0	0	2	6	6	6	5
Septic Installer permits	0	0	1	0	0	0	0	0	0	0	0	0	1	8	6	8	9
Septic Installer Tests	0	0	1	0	0	0	0	0	0	0	0	0	1	3	2	5	3
Septic Deed Restrict.	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	1	3
Septic Plan reviews	1	3	3	0	0	0	0	0	0	0	0	0	7	14	8	9	23
Septic Trench permits	0	1	1	0	0	0	0	0	0	0	0	0	2				
Disposal of Sharps permits	0	0	0	0	0	0	0	0	0	0	0	0	0	8	7	7	9
Disposal of Sharps Inspections	0	0	0	0	0	0	0	0	0	0	0	0	0	8	7	7	7
Planning Board Subdivision Sp Permit Plan reviews/Insp. of lots	0	1	1	0	0	0	0	0	0	0	0	0	2	20	4	1	1
Subdivision Bond Releases	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
Special Permit/Zoning	2	1	0	0	0	0	0	0	0	0	0	0	3	18	17	34	15
Tobacco permits	0	0	0	0	0	0	0	0	0	0	0	0	0	7	10	10	11
Tobacco Routine insp	0	0	0	0	0	0	0	0	0	0	0	0	0	7	8	14	18
Tobacco Follow-up insp.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	8	3	3
Tobacco Compliance checks	0	0	0	0	0	0	0	0	0	0	0	0	0	6	30	30	41
Tobacco complaints	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	4
Tobacco Compl. follow-ups	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	4
Trash Hauler permits	0	0	0	0	0	0	0	0	0	0	0	0	0	16	15	17	14
Medical Waste Hauler permits	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	1
Well - Plan Reviews, Permission to drill letters, Insp.	3	0	0	0	0	0	0	0	0	0	0	0	3	11	2	6	2
Well Permits	3	0	0	0	0	0	0	0	0	0	0	0	3	1	1	1	0



NEEDHAM PUBLIC HEALTH DIVISION



Unit: Traveling Meals Program

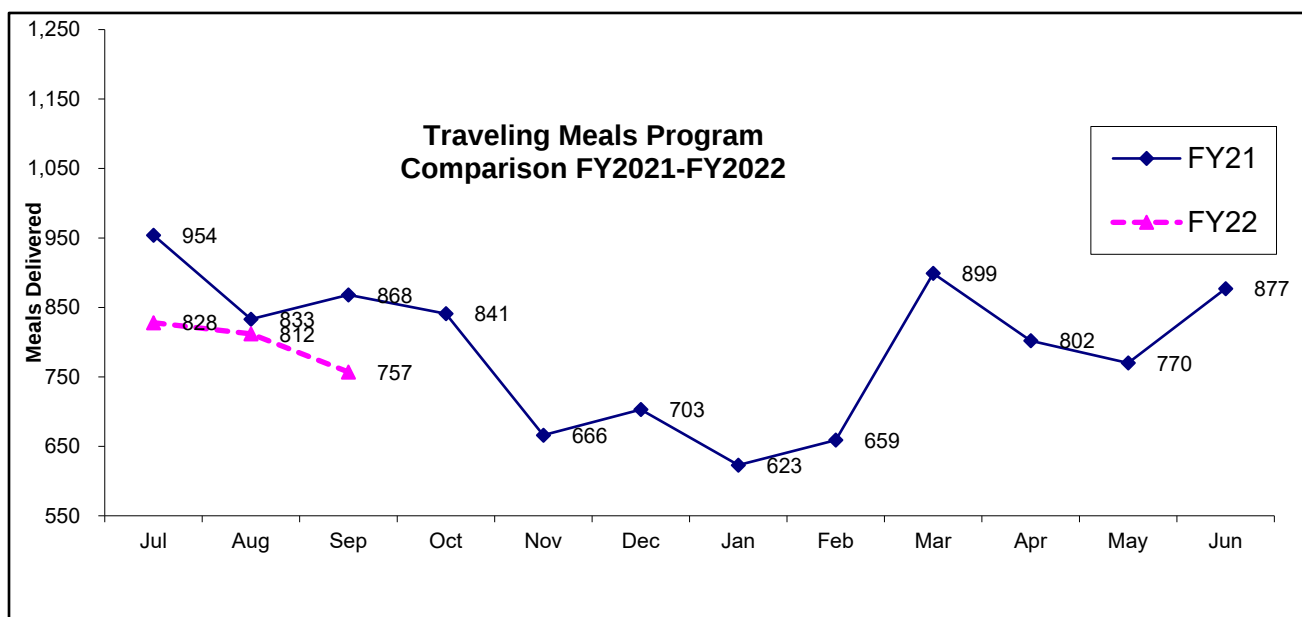
Monthly Report for September, 2021

Staff member: **Maryanne Dinell, Program Coordinator**

Activities

Activity	Notes
COVID 19 –precautions continue by summer staff as they deliver meals to homebound Needham residents in need of food.	Summer Traveling Meals Program ends Meal delivery for month completed by 28 volunteers
757 Meals delivered in September, 2021. 41 Consumers currently enrolled for the month. 31 Springwell 10 Private Pay 1 enrollment for September 1 Springwell consumer not on Program 1 Private Pay consumer not on Program	No issues or incidents 1 first time on Program-Springwell Into rehab facility Hospitalized and then into rehab.

Summary overview for the month: **Graph of Meal Deliveries for the month September, 2021**





NEEDHAM PUBLIC HEALTH DIVISION



Date: September 2021

Staff: Lynn Schoeff

Activities and Accomplishments

Activity	Notes
Update Board of Health regulations	Finalized the wells and tobacco regulations
Accreditation	Participated in a focus group about PHAB Pathways, a new recognition program for small health departments which will be launched in 2022. The recognition program may serve as a stepping stone toward accreditation or it may be an end in itself.
PH WINS (Public Health Workforce Interests and Needs Survey)	Managed the Needham participation in a national survey of public health employees. This should help determine professional development.
Review and revise existing policies and develop new ones	Nursing: - Anaphylaxis response; needle stick; concussion Environmental Health: - Housing code – housing occupant complaints; asbestos; grease traps;; foodborne illness;; tobacco permits;; temporary food event; food code enforcement; grease traps; lead and copper; residential kitchen permits; farmers market permit; food permit; food code enforcement Administrative: - After-action review



NEEDHAM **PUBLIC HEALTH DIVISION**



Unit: Substance Use Prevention

Date: September 2021

Staff: Karen Shannon, Karen Mullen, Monica De Winter, Angi MacDonnell, and Jazmine Hurley

Activities and Accomplishments

Activity	Notes
Vaping Grant	Angi MacDonnell, Vaping Grant Coordinator, and Karen Shannon met with Tom Denton, Director of Guidance for NPS, to share plans for a resource card targeted towards middle and high school students. Mr. Denton will be overseeing SBIRT screenings this year for 7th and 9th grade students. The Prevention Team sees this as an opportunity to share the card with students during their screening interview. The card will provide a QR code (and url) to the SPAN website where teens can find resources for the vaping cessation program and other substance use and mental health resources. On 9/15 Angi and Karen S. met with the new NPS Director of Health Services, Susannah Hann, to introduce her to SPAN and the Vaping Cessation Program. While the school nurses are tremendously busy with COVID-related matters during this time, Susannah and the NHS nurses are supportive of the program. The nurses welcome a new Vaping Cessation program flyer to have on hand as a resource when meeting with NHS students.
SPAN Projects	<u>The Parent Action Team</u> distributed a membership recruitment letter to parents of 5th grade students to the Parent Teacher Councils at each elementary school and will be sending a letter in similar fashion to parents of 6th graders. The hope is to increase participation among parents of younger children in the Parent Action Team, cultivate relationships with parents of elementary-aged students, and help start conversations with tweens and pre-teens and their parents/caregivers around wellness and healthy decision making. <u>Impaired driving campaign</u>: The Community Action Team is finalizing a PSA video for impaired driving while using cannabis and plans to run a small pilot test among high school students to gauge message strength, appeal and dosage among the target audience: teens and young adults. R.J. Poirier met with Karen S. and Angi to work on messaging strategy, using Officer Rocket photos as a brand ambassador for impaired driving awareness. A new <u>SPAN newsletter</u> launched to the SPAN community. Content included SPAN events and SALSA accomplishments. The goal is to send a quarterly newsletter. Positive Community Norms (PCN) training met on 9/9 for the last of the contracted six sessions with The Montana Institute. The working group plans to continue their work in developing a series of messages using the PCN approach.



NEEDHAM **PUBLIC HEALTH DIVISION**



STOP Act grant	SAMHSA grant: STOPing Underage Access and Use of Alcohol: Codifying Youth, Parent and Retailer Education and Compliance in Needham, MA” a four-year grant starting 4/30/21. Jazmine Hurley, started the week of August 16 as a new Project Coordinator who will be working with Monica De Winter on grant administration.
SALSA	SALSA held its first, in-person general meeting of the school year with 75 students in attendance. Students signed up for Action Teams which cover a range of topics including vaping awareness, distracted driving, social media development, mental health awareness. During September, 73 SALSA students provided 130 hours of service in Needham.
Mental Health First Aid for Youth	Karen Shannon and Sara Shine are scheduled to conduct a virtual session for the Needham Public Schools Wellness staff on October 20 and November 3. 10-12 teachers are anticipated to attend.
Parent Al-anon group	Meetings held every Monday evening. Attendance remains steady averaging 6-8 people each week.
Training	NWH “Hiding in Plain Sight” 9/22, Karen M, Karen S Prevention First Conference: 9/28 and 9/29, Karen M., Karen S. Angi, Monica MWHF Equity Training, Session 1, 9/23, Karen S., Angi PTTC Coalition Building, 9/16 & 17, Karen S., Angi FCD Youth Prevention Conference, 9/21, Karen M. Cybersecurity Education, ongoing Open meeting law and Standards of Conflict of Interest, Monica, Karen S.
Other Meetings	Dedham DOSA meeting, 9/14 Coffee with Town Manager, 9/21 MassCall3 kickoff meeting, 9/22 SPAN Community Action Team, Impaired Driving Campaign, 9/30 SPAN Parent Action Team, 9/30 HHS Racial Equity Committee, 9/23 BILH Community Benefits meeting, 9/23 MetroWest SAPA meeting, Karen M.

Summary for Month of September 2021: Focus this month included preparations for the fall SPAN Quarterly meeting (October 5) and development of SPAN communications including the new SPAN newsletter and a resource card for middle and high school students. The SPAN Parent and Community Action Teams have continued work on their respective projects.



NEEDHAM PUBLIC HEALTH DIVISION

Unit: Public Health Nursing

Month: September 2021

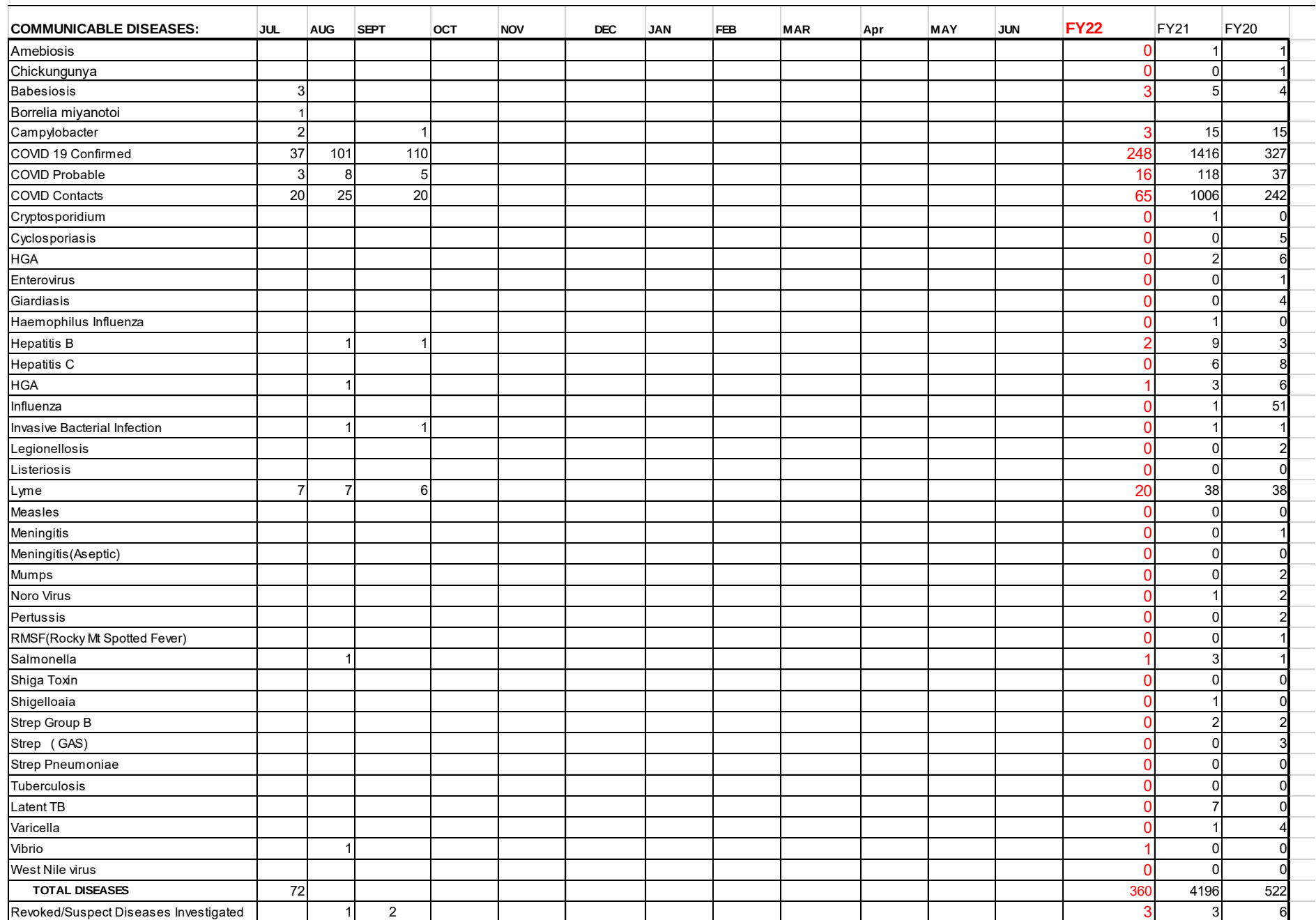
Staff member: Tiffany Zike, Hanna Burnett, Mary Fountaine

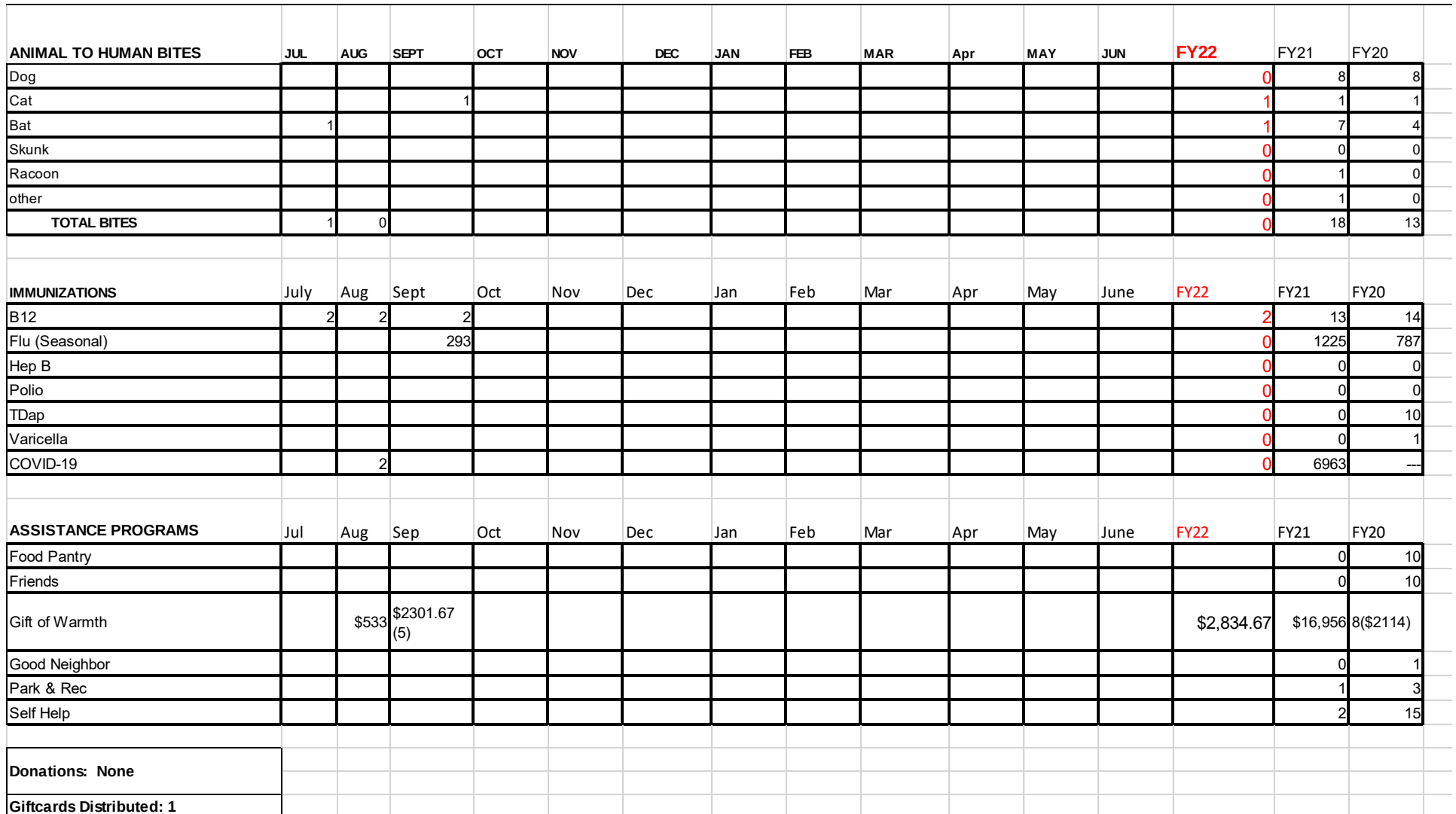
Activities and Accomplishments

Activity	Notes
COVID-19 Communicable disease investigation	Primary and Secondary disease investigation and contact tracing. Continues to decrease.
Flu Clinics	First flu clinic was held Sept 30 th .
Interviews	Interviewing for the EPI position, working on Contact tracers.
Preparing for COVID booster clinics	Ordering, working on acquiring vaccine

Summary overview for the month:

We provided our first flu vaccination clinic and did almost 300 doses in 3 hours. We have been working the new State system, Color, to make sure our access to sign up for flu clinics work well. Working on ordering Narcan to begin the Narcan program.







Emergency Management Support Monthly Report September 2021

Prepared by: Taleb Abdelrahim

This monthly report is to provide an update on what I have been doing under supervision of Tiffany Zike.

Summary of work:

- Applying for Public Health Service Commissioned Officers Foundation (PHS COF) Seed Grants.
- September is National Preparedness Month. We promoted personal and family emergency preparedness; and safety tips about tropical storms.
- Coordinating with the Brookline Police Department to share a training series with Needham MRC for Houses of Worship to prepare for the unthinkable.
- Assisting with vaccination clinics tasks.



NEEDHAM PUBLIC HEALTH DIVISION



Unit: Emergency Management

Date: October 2021

Staff member: Michael Lethin

Activities and Accomplishments

Activity	Notes
Commodity Points of Distribution	Begun planning with Needham Police and MEMA to develop Commodity Point of Distribution Plans in Town. These could be used, for example, to hand out water to residents in the event of a disruption in the water supply.
EOC Staffing and Plans Update	Ongoing effort to restructure the Town's Emergency Operations Center and update associated plans and standard operating procedures.
Grants	Pursuing an Emergency Management Performance Grant to fund a Hazard and Vulnerability Assessment (HVA), as the last HVA was performed in 2017.



**Board of Health
TOWN OF NEEDHAM
AGENDA FACT SHEET**



MEETING DATE: 10/14/2021

Agenda Item	COVID-19 Update
Presenter(s)	Timothy McDonald, Director of Health & Human Services

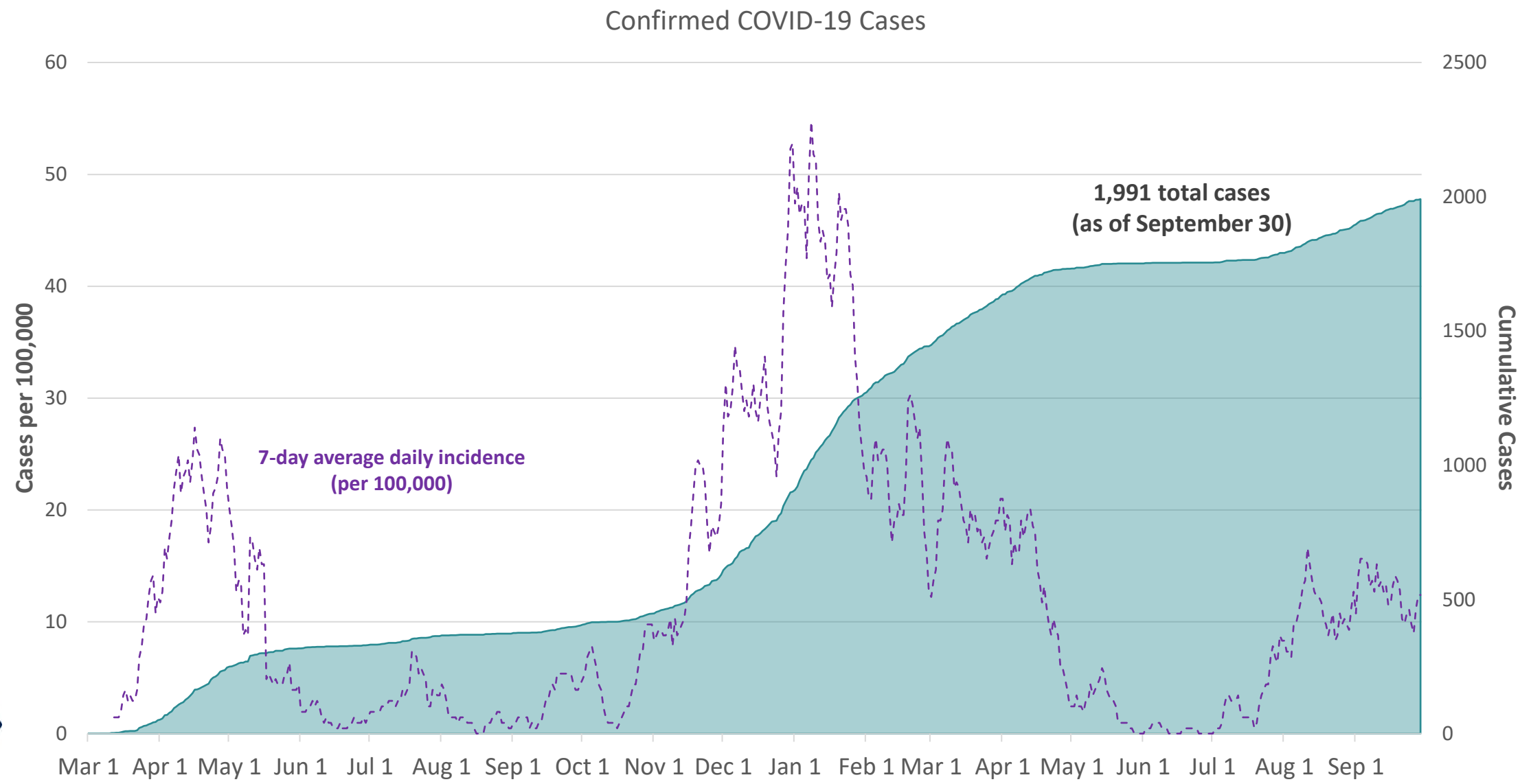
1.	BRIEF DESCRIPTION OF TOPIC TO BE DISCUSSED
	Mr. McDonald will review data from the month of September about COVID-19 in Needham – the case prevalence, positive testing rate, data and demographics, as well information about vaccination levels in Needham.
2.	VOTE REQUIRED BY BOARD OF HEALTH
	No vote is required, nor is one expected.
3.	BACK UP INFORMATION:
	- September 2021 COVID Report presentation



COVID-19 Update

September 2021

COVID-19 Incidence

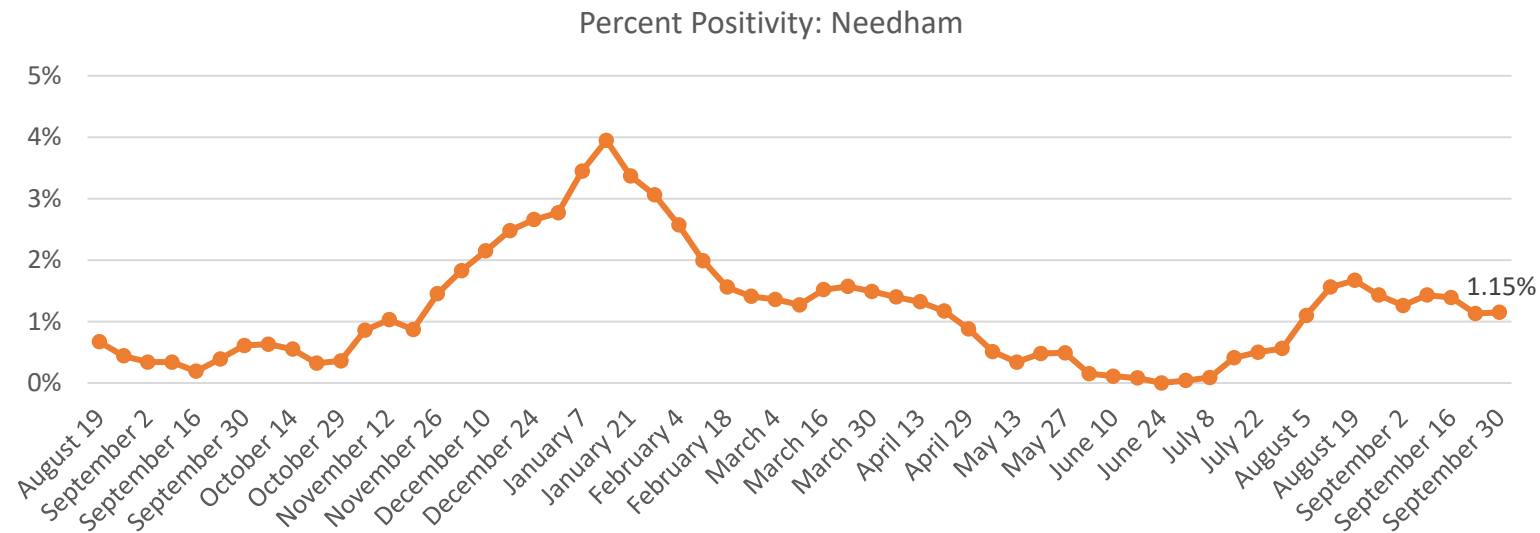
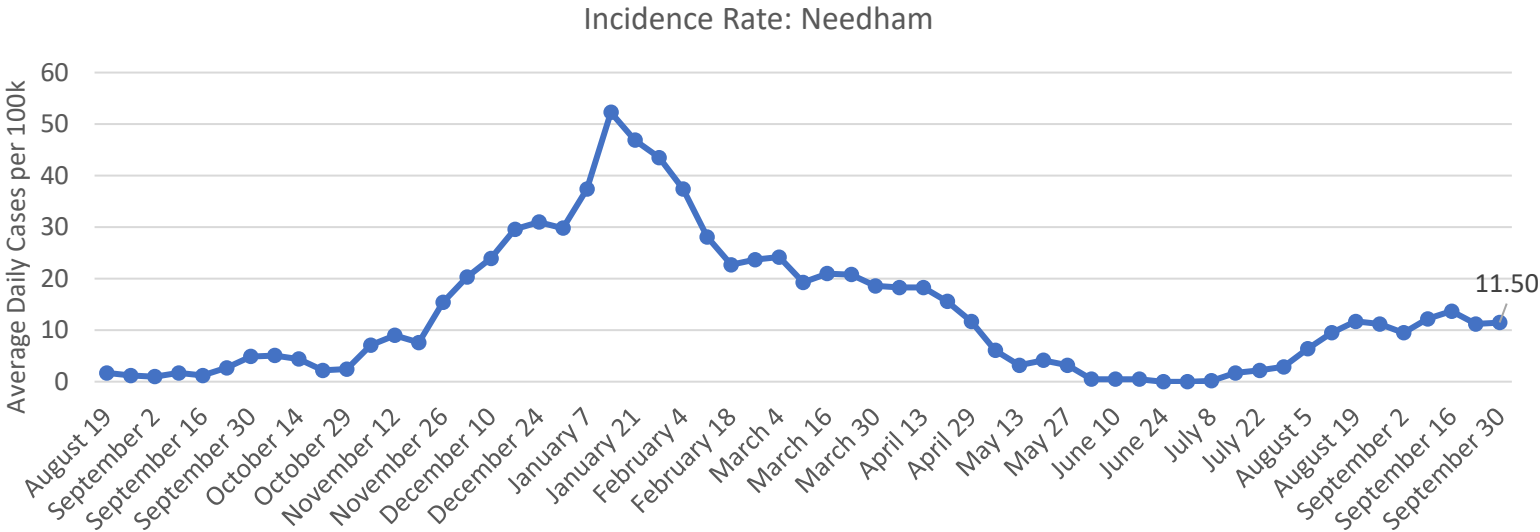


Prevent. Promote. Protect.

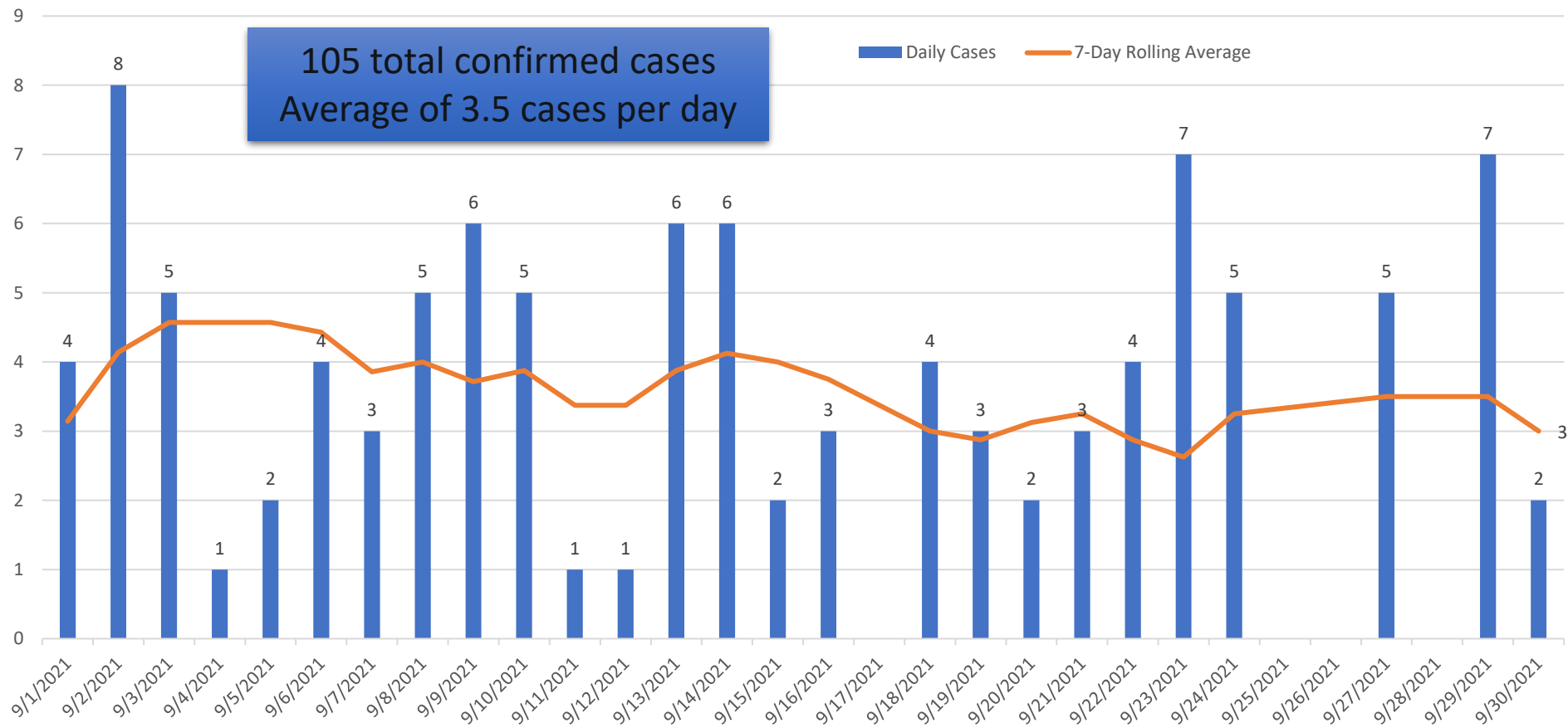
Data as of September 30

Incidence & Percent Positivity

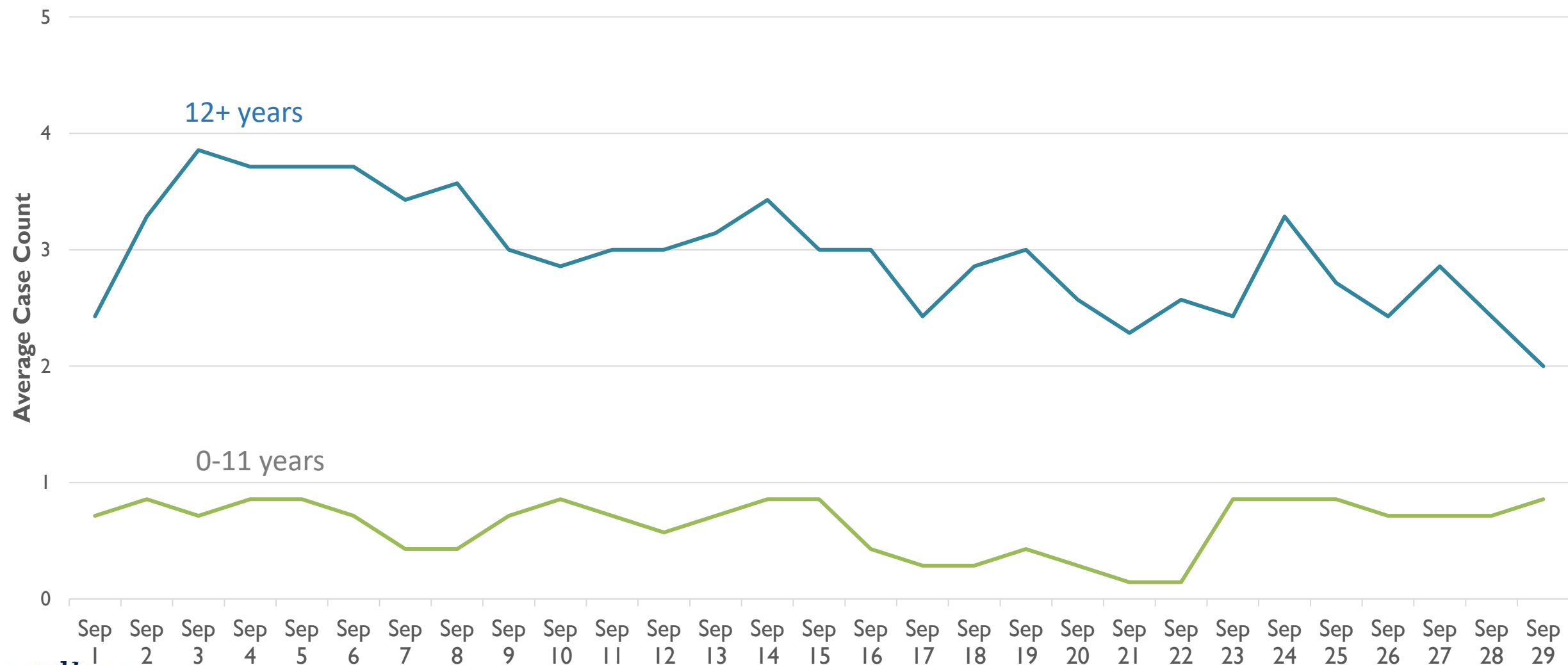
Area and Risk Level	Avg. Daily Incident Rate per 100K (last 14 days)	Percent Positive Tests (last 14 days)
Massachusetts	22.7 ↘	2.09% ↘
Needham	11.5 ↔	1.15% ↔
Middlesex County	16.7 ↘	1.33% ↔
Framingham	8.4 ↘	1.09% ↘
Newton	11.8 ↘	0.58% ↘
Norfolk County	14.0 ↘	1.70% ↘
Dedham	12.8 ↘	1.92% ↘
Norwood	13.0 ↘	2.01% ↘
Suffolk County	20.2 ↘	1.12% ↘
Boston	19.7 ↘	0.99% ↘



August Cases



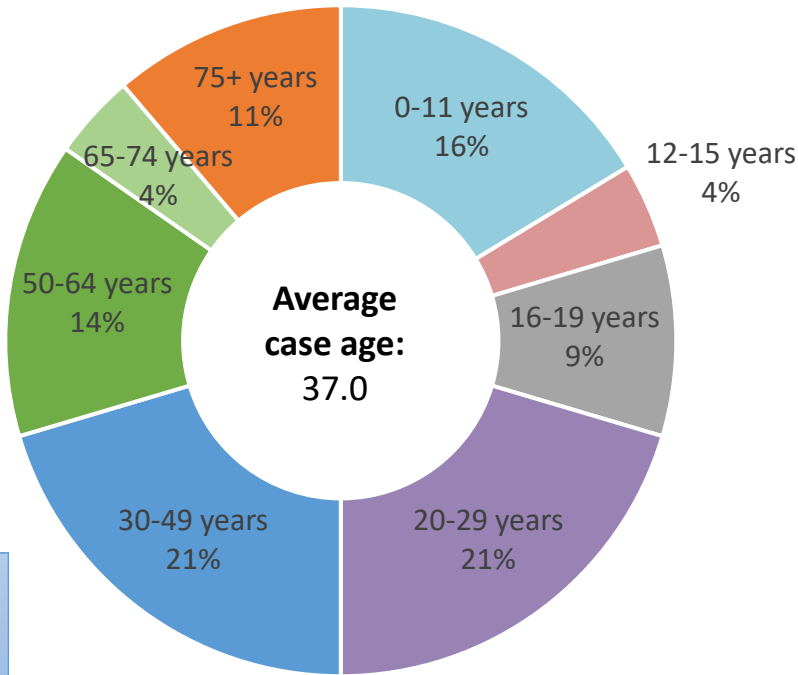
Rolling 7-day average case count



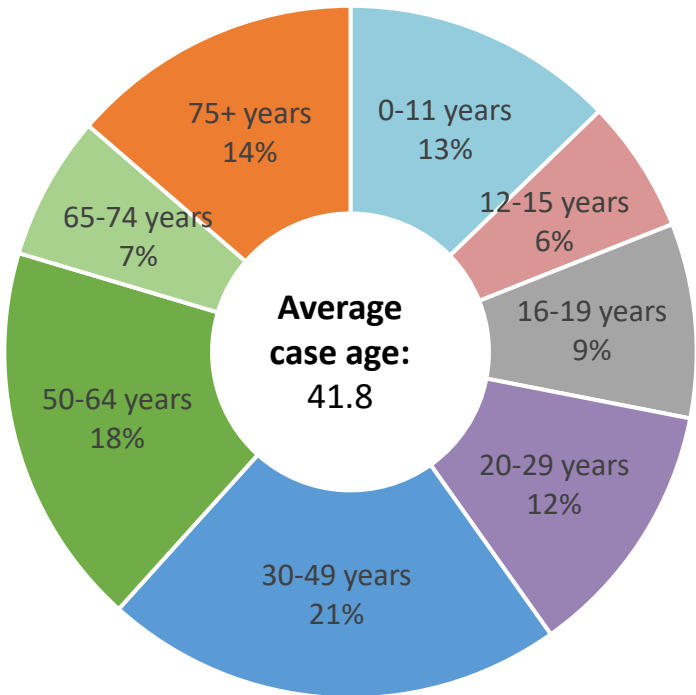
Data as of September 30

COVID-19 Confirmed Cases by Age

Age Breakdown: September

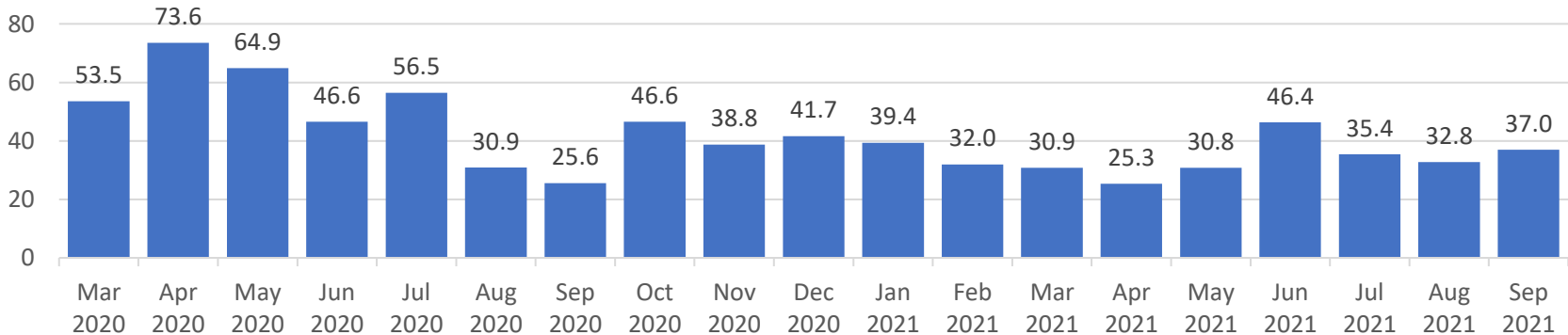


Age Breakdown: All time

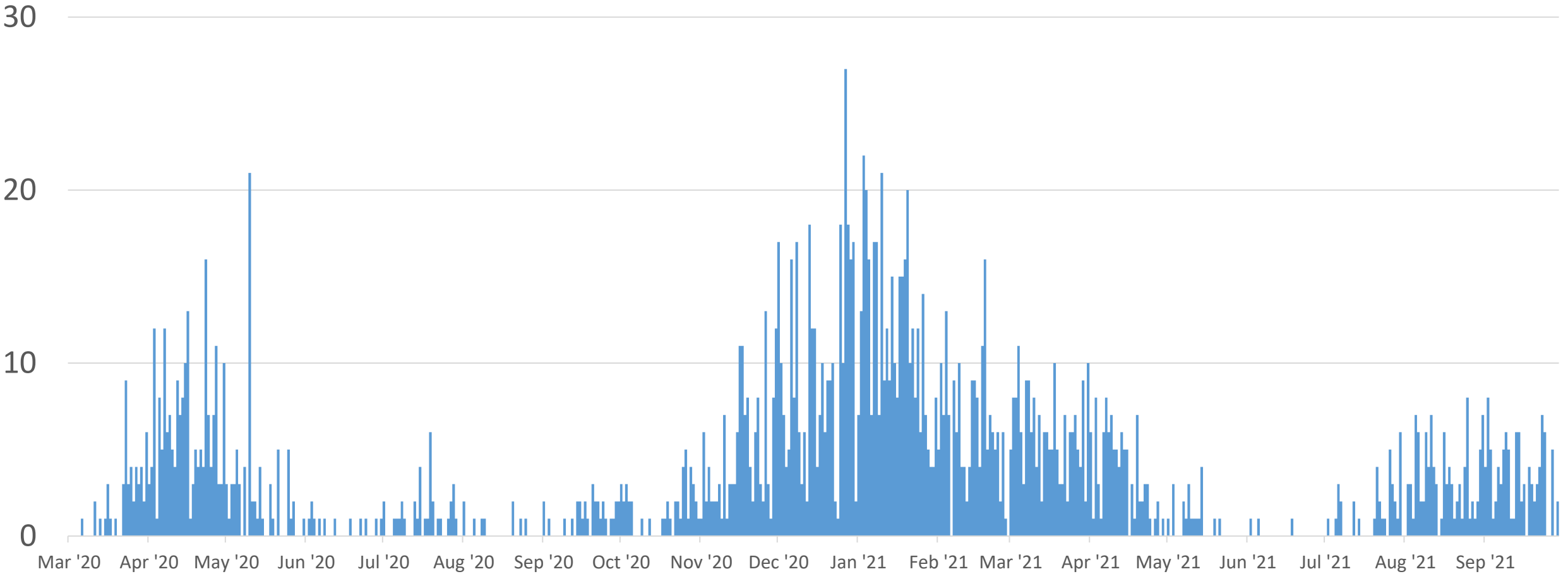


September 2021 cases:
28% are ≤18 years old
89% are <75 years old

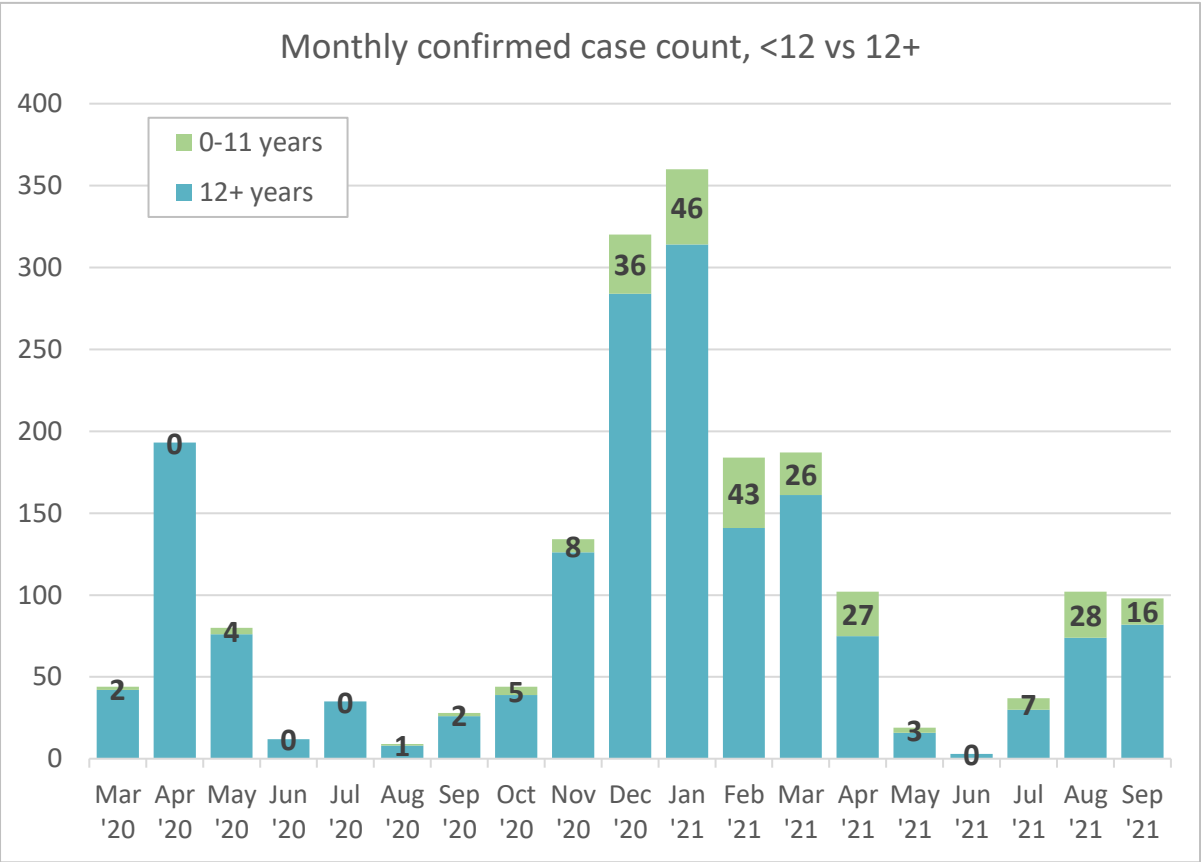
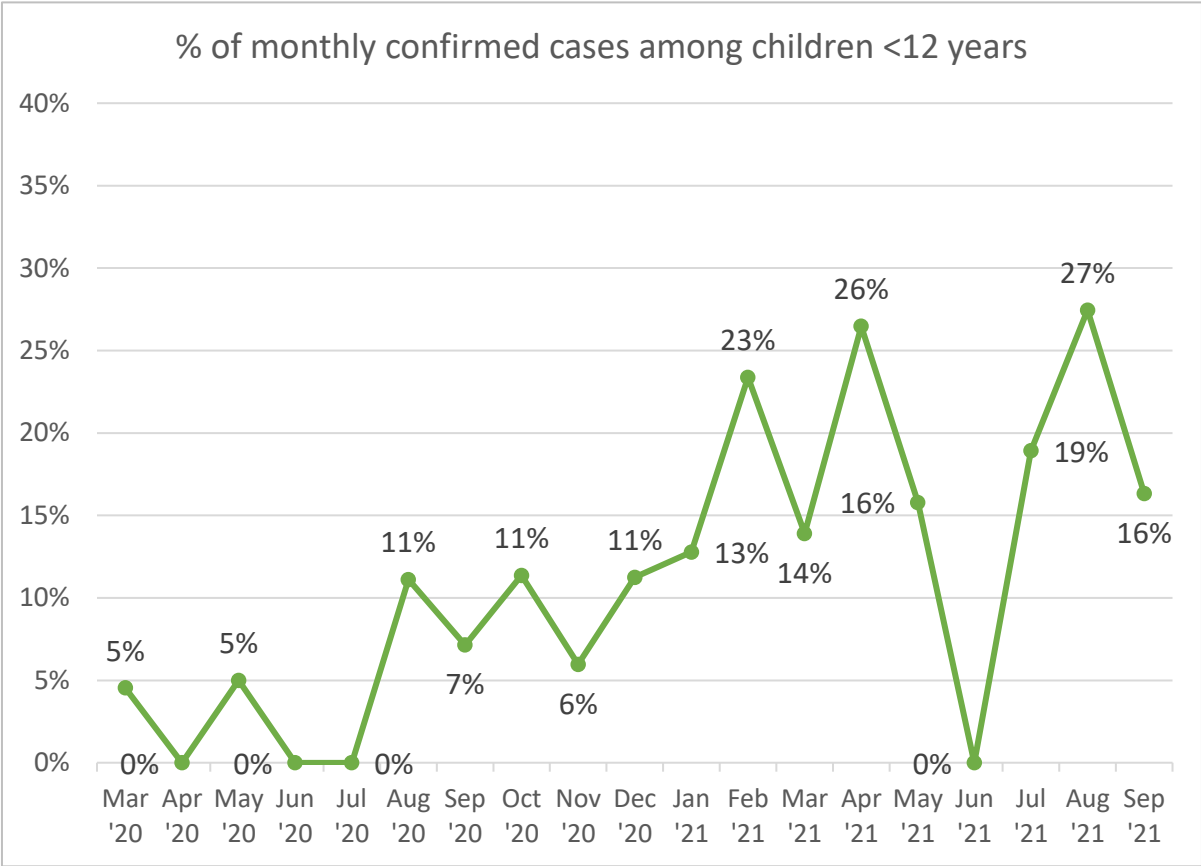
Average Case Age



Daily Confirmed Cases

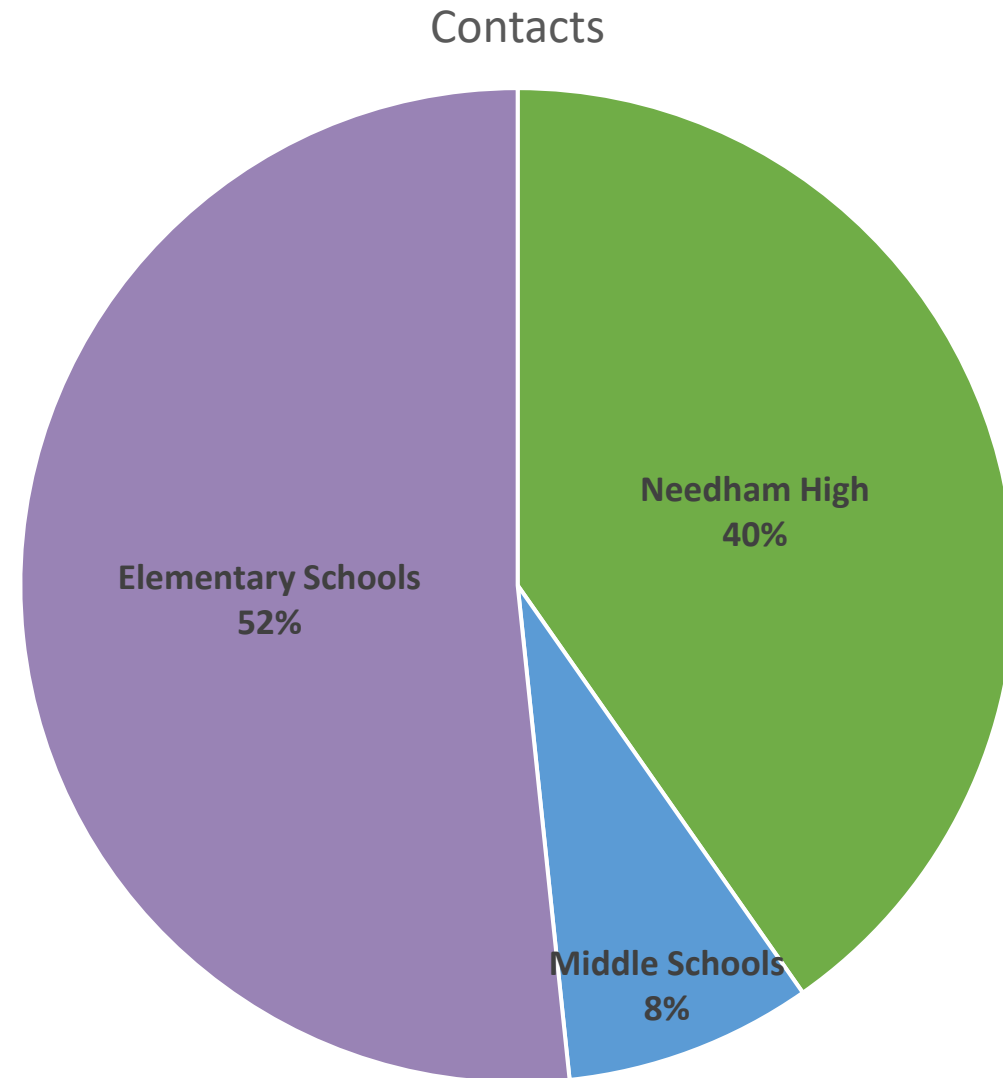


Cases in children under 12



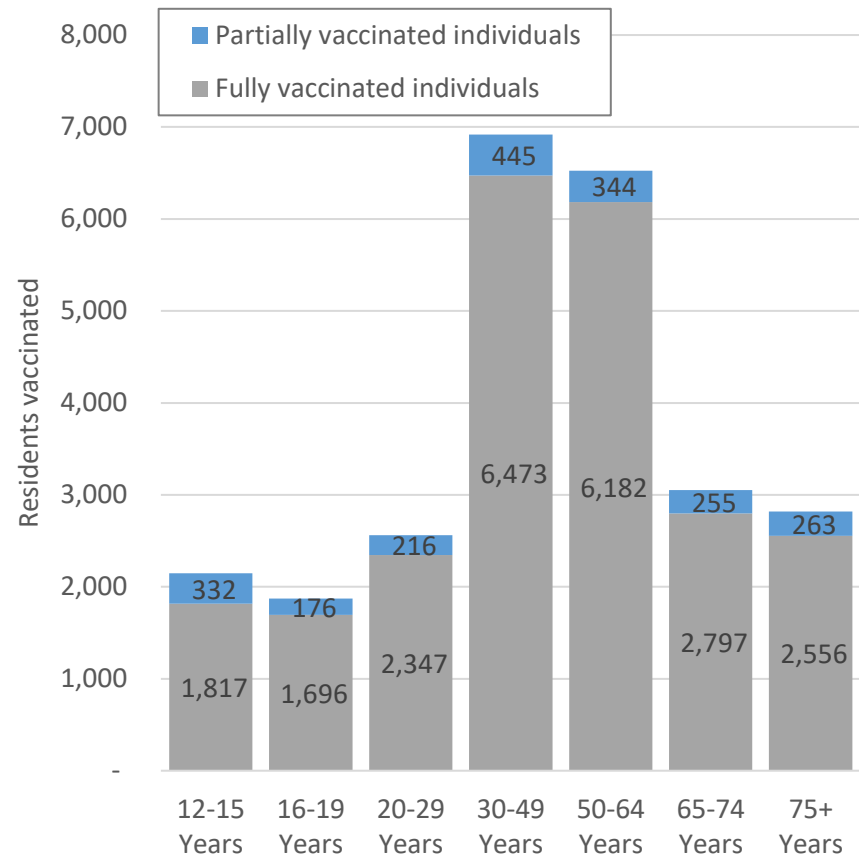
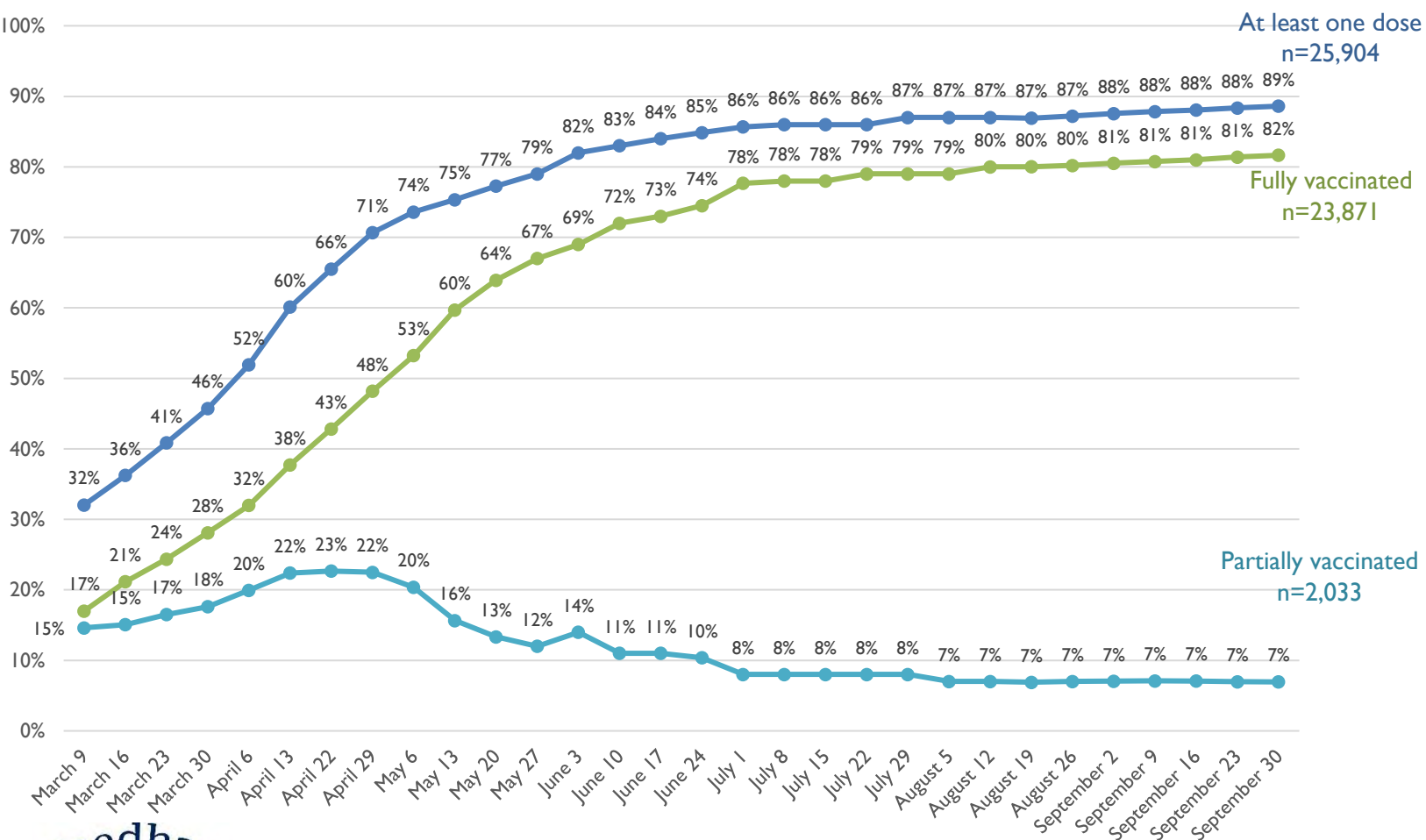
School Contacts

- In September, total of 360 in-school student contacts



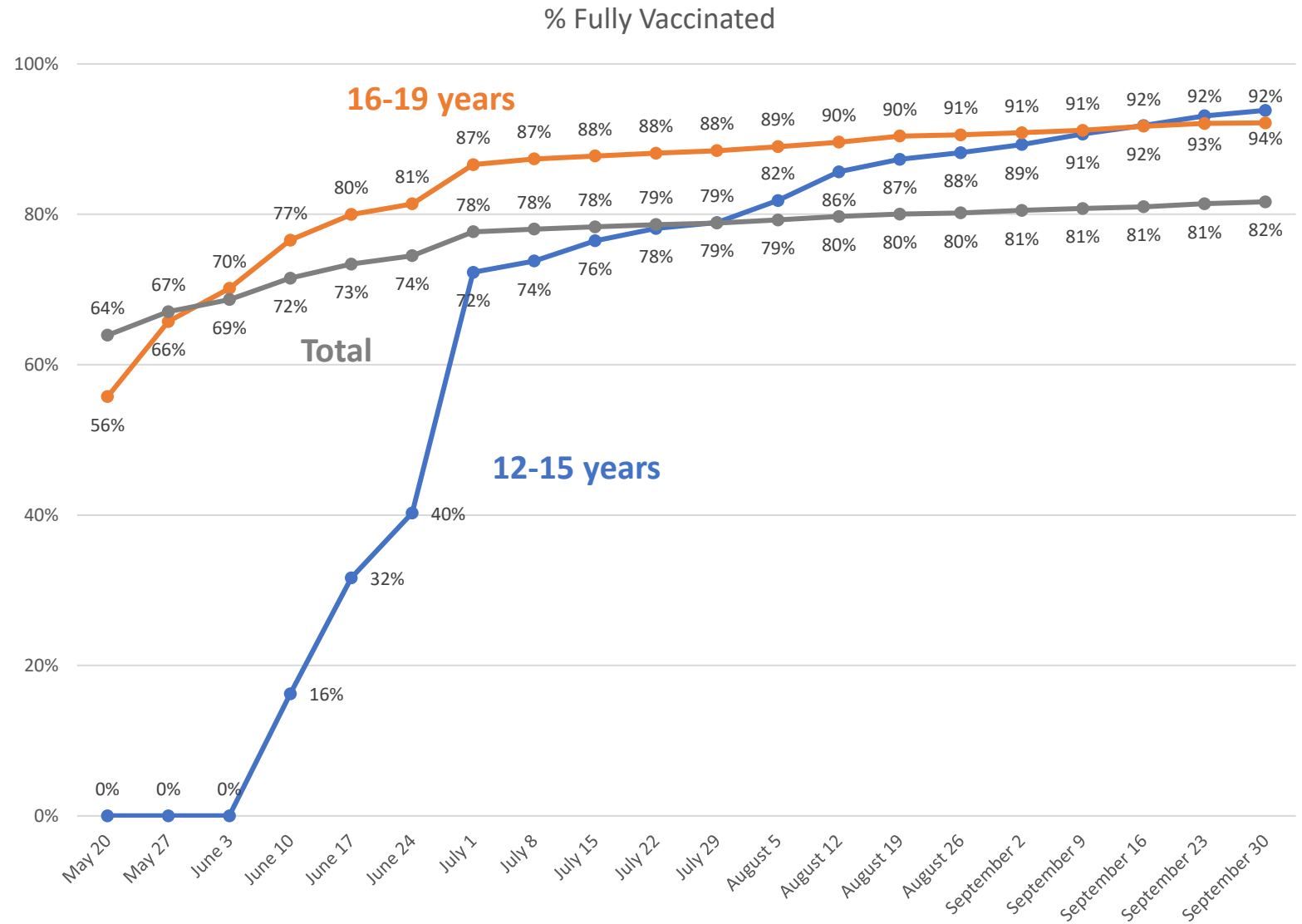
Vaccine Uptake

- MA reports >90% across all eligible age groups are fully vaccinated



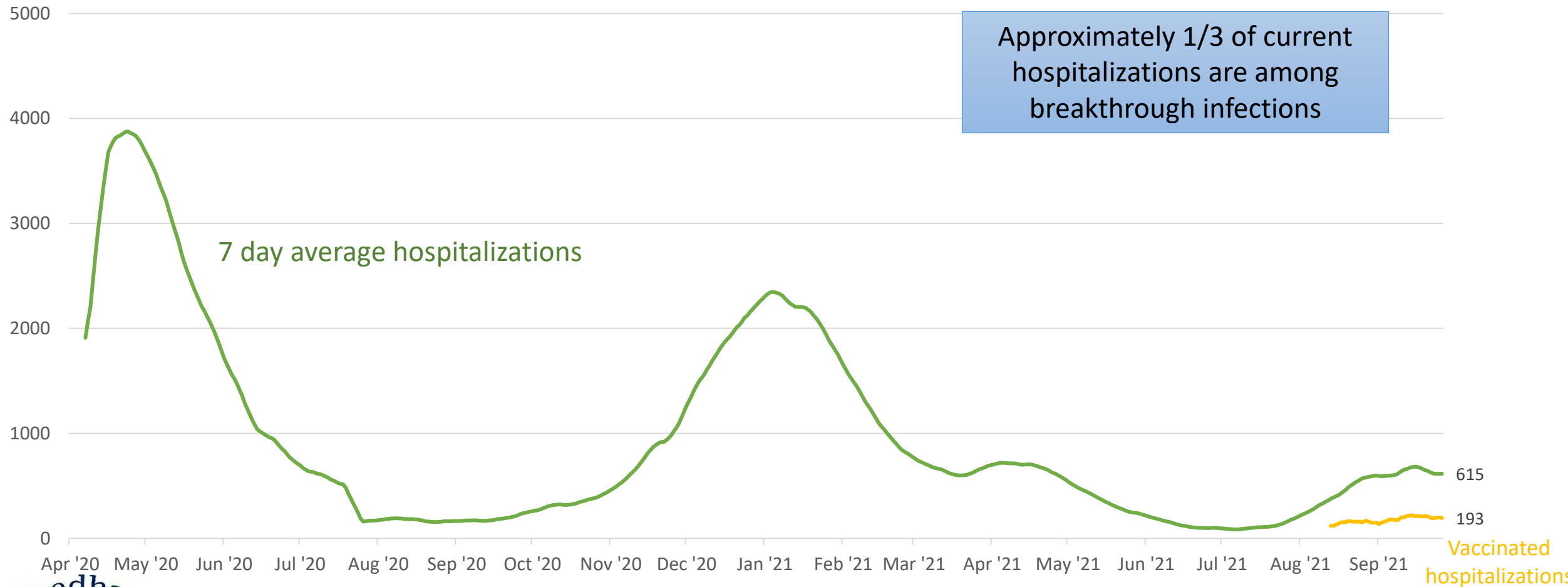
Vaccine Uptake Among Youth

- Children 12 years and older became eligible for Pfizer vaccine on May 12 (second doses starting June 2)
- Appx. 290 missed second doses among 12-15 year olds and 160 among 16-19 year olds (haven't gotten 2nd dose within 4 weeks of receiving 1st; data reporting lags possible)



Data as of September 30

Massachusetts Hospitalizations



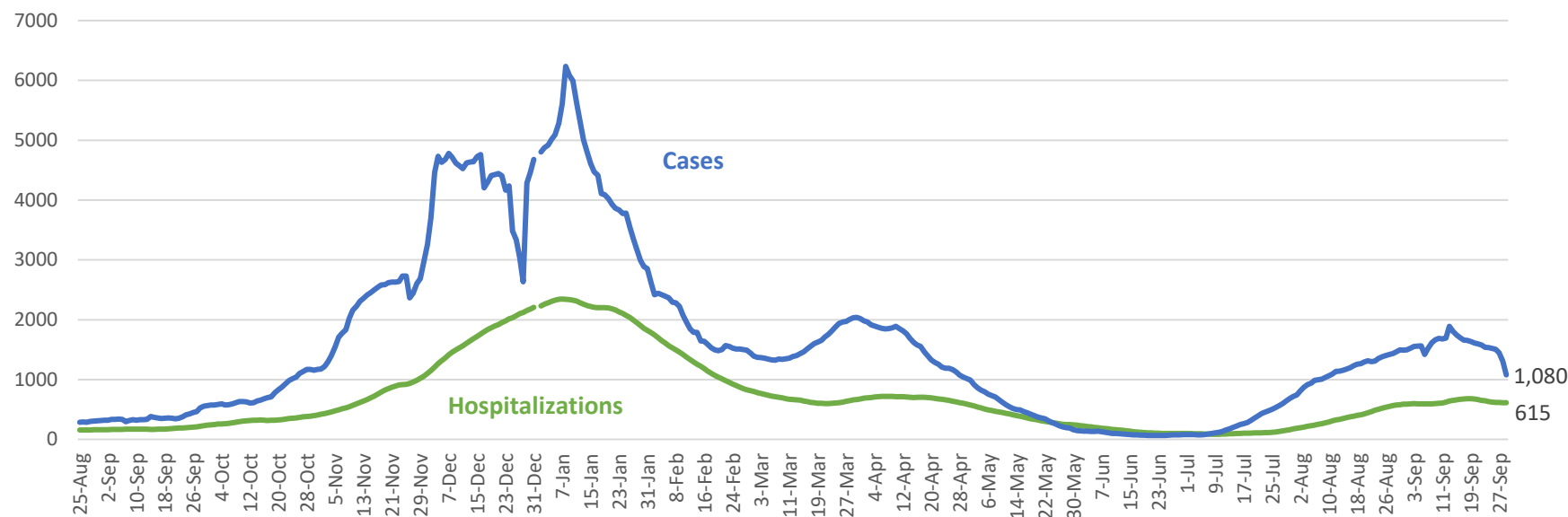
Prevent. Promote. Protect.

Data as of 9/30/21

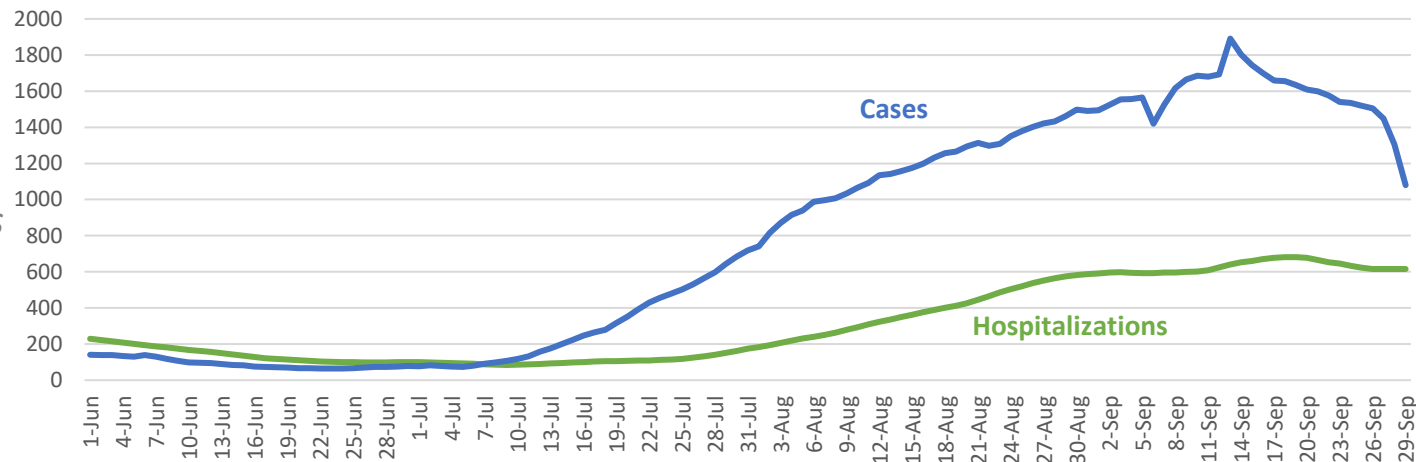
Source: <https://www.mass.gov/doc/covid-19-raw-data-september-30-2021/download>

State-level Trends in Cases & Hospitalizations

Massachusetts Confirmed Cases & Hospitalizations



June-September Trends



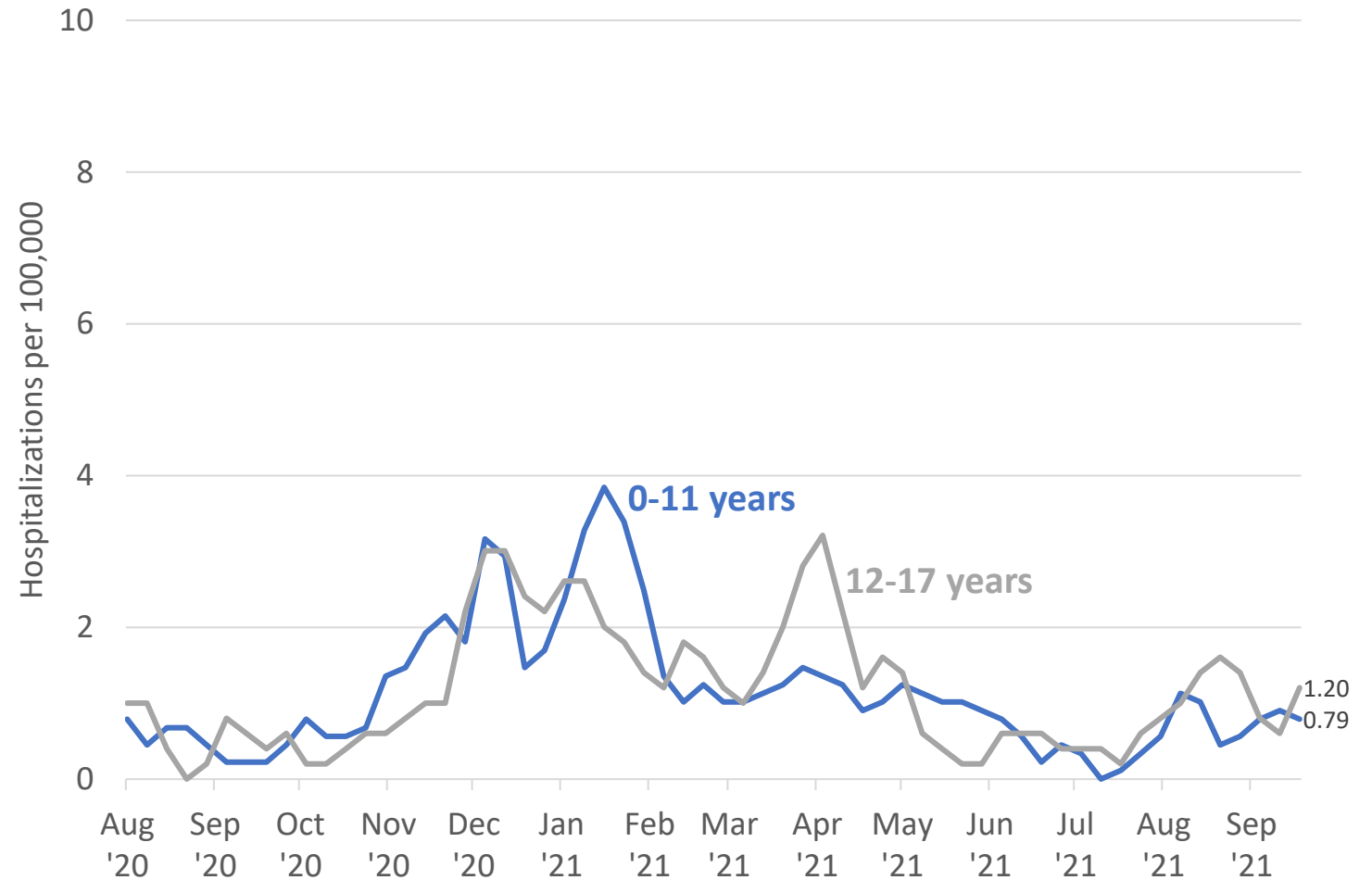
Cases & hospitalizations presented as 7-day rolling averages



Data as of 9/30/21

MA Hospitalizations among children & teenagers

- Age-specific hospitalization data newly released by state with breakdown of children under 12
- Hospitalization rate remains very low among children: 0.8 and 1.2 hospitalizations per 100,000 children 0-11 and 12-17 years respectively
- Together, children 0-17 comprise 1.3% of COVID hospitalizations state-wide

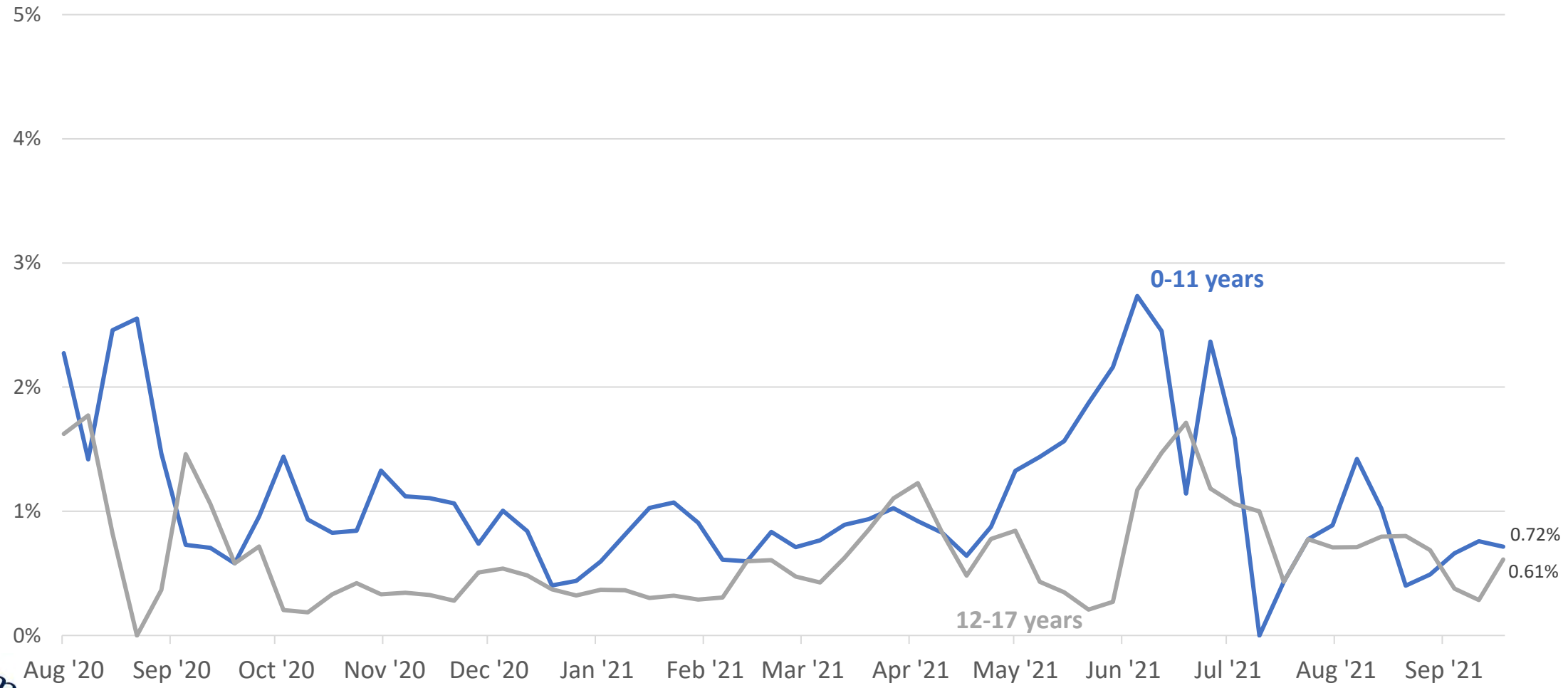


Prevent. Promote. Protect.

Data as of 9/30/21

% of hospitalizations among children & teenagers

% of Hospitalizations among children



Data as of 9/30/21



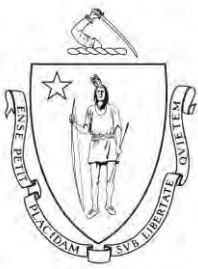
**Board of Health
TOWN OF NEEDHAM
AGENDA FACT SHEET**



MEETING DATE: 10/14/2021

Agenda Item	Discussion of Tobacco Free Generation Policy
Presenter(s)	Board of Health member Stephen Epstein, MD, MPP Timothy McDonald, Director of Health & Human Services

1.	BRIEF DESCRIPTION OF TOPIC TO BE DISCUSSED
Dr. Epstein and Mr. McDonald will present information to the Board of Health about the Town of Brookline's adoption of a revised ordinance impacting tobacco sales – this is the Tobacco Free Generation concept.	
2.	VOTE REQUIRED BY BOARD OF HEALTH
No vote is required, nor is one expected at this meeting.	
3.	BACK UP INFORMATION:
- Advisory Opinion from MA Attorney General to Town of Brookline re: Article #14 - Brookline Town Meeting November 2020 Warrant Article #14	



THE COMMONWEALTH OF MASSACHUSETTS OFFICE OF THE ATTORNEY GENERAL

CENTRAL MASSACHUSETTS DIVISION
10 MECHANIC STREET, SUITE 301
WORCESTER, MA 01608

MAURA HEALEY
ATTORNEY GENERAL

(508) 792-7600
(508) 795-1991 fax
www.mass.gov/ago

July 19, 2021

Benjamin Kaufman, Town Clerk
Town of Brookline
333 Washington Street
Brookline, MA 02445

Re: Brookline Special Town Meeting of November 17, 2020 -- Case # 10029
Warrant Articles # 7, 23, and 25 (Zoning)
Warrant Articles # 8, 14, 17, 20, 21, 22, 24, 28, 29, and 30 (General)

Dear Mr. Kaufman:

Article 14 - We approve Article 14 from the November 17, 2020 Brookline Special Town Meeting that prohibits the sale of tobacco products to anyone born after January 1, 2000.¹ This letter briefly describes the by-law; discusses the Attorney General's limited standard of review of town by-laws under G.L. c. 40, § 32; and then explains why, governed as we are by that standard, we are not persuaded by the arguments made to us that the by-law should be disapproved. Our analysis is substantially influenced by the Massachusetts Appeals Court decision in RYO Cigar Ass'n v. Boston Public Health Com'n, 79 Mass. App. Ct. 822, 832, review denied, 461 Mass. 1102 (2011), reaffirming the principle that "municipal regulation of tobacco sales in Massachusetts is a well-recognized and proper exercise of local power."

As with our review of all by-laws, we emphasize that our approval does not imply any agreement or disagreement with the policy views that led to the passage of the by-law. The Attorney General's limited standard of review requires her to approve or disapprove by-laws based solely on their consistency with state and federal law, not on any policy views she may have on the subject matter or wisdom of the by-law. Amherst v. Attorney General, 398 Mass. 793, 795-96, 798-99 (1986). The state constitution's Home Rule Amendment, as ratified by the voters themselves in 1966, confers broad powers on individual cities and towns to legislate in areas that previously were under the Legislature's exclusive control. Towns have used these home-rule powers to prohibit, within their borders, certain commercial activities that state statutes generally recognize as lawful and that are widely accepted in the remainder of the Commonwealth—for

¹ In a decision issued on April 26, 2021, we approved Articles 7, 8, 17, 20, 22, 23, 24, 25, 28, 29 and 30. Also on April 26, 2021, by agreement with Town Counsel pursuant to G.L. c. 40, § 32, as amended by Chapter 299 of the Acts of 2000, we extended our deadline for review of Articles 14 and 21 for 90-days until July 19, 2021. In a decision issued on July 14, 2021, we approved Article 21.

example, coin-operated amusement devices, or self-service gas stations. Amherst, 398 Mass. at 798 n.8. The Supreme Judicial Court has upheld such by-laws and has overturned the Attorney General’s disapproval of them where they did not create any specific conflict with state law. Amherst, id.; see also Milton v. Attorney General, 372 Mass. 694, 695-96 (1977). The Attorney General thus has no power to disapprove a by-law merely because a town, in comparison to the rest of the state, has chosen a novel, unusual, or experimental approach to a perceived problem.

I. Description of Article 14

In Article 14, the Town voted to make several changes to Article 8.23, “Tobacco Control,” that prohibit the sale of tobacco or e-cigarette products to anyone born after January 1, 2000. Article 14 also amends the signage requirements for establishments selling tobacco or e-cigarette products to include a requirement to post a sign stating that the sale of tobacco products is prohibited to anyone born after January 1, 2000.

Specifically, Article 14 amends Section 8.23.5, “Sale and Distribution of Tobacco Products,” in relevant part as follows (new text in **bold** and underline and deleted text in strike-through):

D. Prohibition of Sales ~~to Minors~~ - No person, firm, corporation, establishment, or agency shall sell tobacco or e-cigarette products to ~~a minor~~ **anyone born after 1/1/2000.**

* * *

H. Required Signage

* * *

(ii) The owner or other person in charge of an entity authorized to sell tobacco or e-cigarette products at retail shall conspicuously post a sign stating that “The sale of tobacco or e-cigarette products to someone ~~under the minimum legal sales age of 21 years of age~~ **born after 1/1/2000** is prohibited.” The notice shall be no smaller than 8.5 inches by 11 inches and shall be posted conspicuously in the retail establishment in such a manner so that they may be readily seen by a person standing at or approaching the cash register. The notice shall directly face the purchaser and shall not be obstructed from view or placed at a height of less than four (4) feet or greater than eight (8) feet from the floor.

According to the sponsors of Article 14, the intent of the amendments is to incrementally increase the number of people who are unable to purchase tobacco products in Brookline until, eventually, the prohibition applies to everyone.²

² “Tobacco Free Generation: Brookline Passes New Restriction Aiming to Phase out Tobacco Sales to Young Smokers,” *The Boston Globe*, November 24, 2020 (quoting Kate Silbaugh, co-petitioner). Although Brookline is the first Massachusetts municipality to amend its by-laws to achieve the goal of a “Tobacco Free Generation,” it is a world-wide movement. Id. See also “Tobacco Free Generations,” World Health

II. The Attorney General's Standard of Review

Pursuant to G.L. c. 40, § 32, the Attorney General has a “limited power of disapproval,” and “[i]t is fundamental that every presumption is to be made in favor of the validity of municipal by-laws.” Amherst, 398 Mass. at 795-96. The Attorney General does not review the policy arguments for or against the enactment. Id. at 798-99 (“Neither we nor the Attorney General may comment on the wisdom of the town’s by-law.”) Rather, in order to disapprove a by-law (or any portion thereof), the Attorney General must cite an inconsistency between the by-law and the Constitution or laws of the Commonwealth. Id. at 796. “As a general proposition the cases dealing with the repugnancy or inconsistency of local regulations with State statutes have given considerable latitude to municipalities, requiring a sharp conflict between the local and State provisions before the local regulation has been held invalid.” Bloom v. Worcester, 363 Mass. 136, 154 (1973) (emphasis added). “The legislative intent to preclude local action must be clear.” Id. at 155.

III. Challenge to the Validity of Article 14

We have received numerous letters from organizations raising various challenges to the validity of Article 14.³ Although, as discussed below, we are unable to agree that any of these arguments furnishes a basis for disapproval of the by-law, we greatly appreciate these submissions, which have substantially assisted us in our review. We also appreciate the numerous letters from organizations offering legal arguments in support of Article 14.⁴ These letters have helped inform our understanding of the issues raised by the by-law.

Towns may regulate tobacco sales as a proper exercise of local power. RYO Cigar Ass’n, 79 Mass. App. Ct. at 832. Moreover, we do not find that Article 14 conflicts with Chapter 157 of the Acts of 2018, “An Act Protecting Youth from the Health Risks of Tobacco and Nicotine Addiction.” (the Act). Thus, as explained in more detail below, and based on our standard of review, we conclude that Article 14’s ban on the sale of tobacco products to those born after January 1, 2000 is within the Town’s authority to safeguard public health.

During the course of our review, we have considered the argument raised by the opponents that the by-law is unlawful because it conflicts with the Act. We do not agree. The Act amends several state laws in order to reduce underage access to and use of tobacco products. Section 9 of

Organization-Europe, https://www.euro.who.int/__data/assets/pdf_file/0008/343376/20170428_WHO-TobaccoFreeGeneration-DRAFT09.pdf

³ We appreciate the letters we received opposing Article 14 from, among others, Jonathan Shaer on behalf of the New England Convenience Store and Energy Marketers Association and Elias Audy on behalf of the Business Retail Association of Brookline.

⁴ We also appreciate the letters we received in favor of Article 14 from Mark Gottlieb and Chris Banthin of Northeastern University School of Law’s Public Health Advocacy Institute and Chris Bostic on behalf of Action on Smoking and Health.

the Act amends G.L. c. 270, § 6 to increase the minimum age for purchase of tobacco products to twenty-one years old.⁵ Section 22 provides as follows:

This act shall preempt, supersede or nullify any inconsistent, contrary or conflicting state or local law relating to the minimum sales age to purchase tobacco products; provided, that this act shall neither preempt, supersede nor nullify any inconsistent, contrary or conflicting local law in effect on December 30, 2018 that prohibits the sale of tobacco products to persons under the age of 19, 20, or 21 as applied to persons who attained the age of 18 before December 31, 2018. This act shall not otherwise preempt the authority of any city or town to enact any ordinance, by-law or any fire, health or safety regulation that limits or prohibits the purchase of tobacco products.

While it is true that the statute expressly preempts “any *inconsistent, contrary or conflicting* state or local law relating to the *minimum sales age* to purchase tobacco products” (Section 22, emphasis supplied), the preemptive effect of the statute is limited to local laws that would *allow* tobacco sales to those under the age of twenty-one (except in the limited circumstances listed in Section 22). The by-law amendments adopted under Article 14 are not inconsistent with these statutory provisions. The statute and the by-law both aim for the same goal of barring the sale of tobacco products to those under the age of twenty-one. The by-law simply goes further than the statute and imposes an incremental increase in the age limit such that, eventually, no one will be able to purchase tobacco products in the Town. Section 22 of the Act expressly allows for such supplemental regulation: “This act shall not otherwise preempt the authority of any city or town to enact any ordinance, by-law or any fire, health or safety regulation that limits or prohibits the purchase of tobacco products.”⁶ We thus determine that the by-law amendments adopted under Article 14 are valid because they complement the goals of the Act and do not interfere with the accomplishment of those goals. See Lovequist v. Conservation Comm’n of Dennis, 379 Mass. 7, 14-15 (1979) (“Since the language of the by-law parallels that of the statute, it appears plain that [the by-law] furthers rather than derogates from the legislative purpose embodied in the [Act].”). See also Bloom v. Worcester, 363 Mass.136, 156 (1973) (“If the State legislative purpose can be achieved in the face of a local ordinance or by-law on the same subject, the local ordinance or by-law is not inconsistent with the State legislation, unless the Legislature has expressly forbidden the adoption of local ordinances and by-laws on that subject.”)

The court’s decision in Tri-Nel Mgt., Inc. v. Board of Health of Barnstable, 433 Mass. 217 (2001) illustrates this principle. In Tri-Nel the opponents challenged a board of health regulation prohibiting smoking in food service establishments, lounges, and bars in the Town. Among other arguments they asserted that the regulation conflicted with G. L. c. 270, s. 22, which prohibits smoking in certain restaurants and other public places. The court rejected the assertion that the BOH regulation’s broader scope presented a conflict with the statute: “[The statute] sets forth minimum statewide restrictions on smoking in restaurants to protect and accommodate the

⁵ Section 6 previously prohibited the sale of tobacco products to any person under eighteen years of age.

⁶ Further, Section 22 specifically provides that it does not preempt pre-existing laws in effect as of December 30, 2018 that ban the sale of tobacco products to people under the age of 21. Thus, it appears that the intent of the Act is to leave in place more restrictive bans and only preempt less restrictive bans.

nonsmoking public. The board's ban placing additional restrictions on smoking, furthers, rather than frustrates, this intent. Accordingly, the board's regulation does not conflict with [the statute].” Id. at 224-225.

Our determination is further informed by the broad public health power of municipalities to regulate tobacco products. Massachusetts courts have consistently recognized that the “municipal regulation of tobacco sales in Massachusetts is a well-recognized and proper exercise of local power.” RYO Cigar Ass’n, 79 Mass. App. Ct. at 832 (Public Health Commission regulation banning the sale of cigar wraps was a permissible exercise of the Commission’s authority to safeguard public health and was rationally related to the permissible purpose of protecting residents from the harmful effects of tobacco use). Preventing and deterring tobacco use is a legitimate municipal goal. Id. at 828. On several occasions, the Supreme Judicial Court has “recognized the ill effects of tobacco use, particularly when it involves minors, as a legitimate municipal health concern justifying additional municipal regulation of tobacco products.” Tri-Nel Mgmt., 433 Mass. at 220. The Act cited by the opponents specifically preserves this municipal regulatory power: “This act shall not otherwise preempt the authority of any city or town to enact any ordinance, by-law or any fire, health or safety regulation that limits or prohibits the purchase of tobacco products.” The Town’s by-law banning the sale of tobacco products to those born after January 1, 2000 is within the Town’s authority to safeguard public health.

IV. Conclusion

Because we find no conflict between Article 14 and the Constitution or laws of the Commonwealth, we approve Article 14.

Note: Pursuant to G.L. c. 40, § 32, neither general nor zoning by-laws take effect unless the Town has first satisfied the posting/publishing requirements of that statute. Once this statutory duty is fulfilled, (1) general by-laws and amendments take effect on the date these posting and publishing requirements are satisfied unless a later effective date is prescribed in the by-law, and (2) zoning by-laws and amendments are deemed to have taken effect from the date they were approved by the Town Meeting, unless a later effective date is prescribed in the by-law.

Very truly yours,

MAURA HEALEY
ATTORNEY GENERAL

Margaret J. Hurley

by: Margaret J. Hurley, Assistant Attorney General
Chief, Central Massachusetts Division
Director, Municipal Law Unit
Ten Mechanic Street, Suite 301
Worcester, MA 01608
(508) 792-7600 x 4402

cc: Joslin Murphy, Town Counsel
Linda Goldburgh, Assistant Town Clerk

ARTICLE 14

FOURTEENTH ARTICLE

Submitted by: Anthony Ishak, Kate Silbaugh TMM1, Maura Toomey TMM8, Nancy Daly TMM12

To see if the Town will amend Article 8.23 of the Town's General By-laws ("Tobacco Control") as follows (language to be omitted appearing in ~~strike through~~; language to be added appearing in **bold underline**):

**ARTICLE 8.23
TOBACCO CONTROL**

SECTION 8.23.1 - PURPOSE

In order to protect the health, safety and welfare of the inhabitants of the Town of Brookline, this by-law shall limit and restrict the sale of and public exposure to tobacco products within the Town of Brookline.

SECTION 8.23.2 - DEFINITIONS

a. Blunt Wrap - Any tobacco product manufactured or packaged as a wrap or as a hollow tube made wholly or in part from tobacco that is designed or intended to be filled by the consumer with loose tobacco or other fillers.

b. Characterizing flavor - A distinguishable taste or aroma, other than the taste or aroma of a tobacco product or component part thereof including, but not limited to, tastes or aromas relating to any fruit, chocolate, vanilla, honey, candy, cocoa, menthol, mint, wintergreen, dessert, alcoholic beverage, herb or spice; provided, however, that no tobacco product shall be determined to have a characterizing flavor solely because of the use of additives or flavorings that do not contribute to the distinguishable taste or aroma of the product.

c. Cigar- Any roll of tobacco that is wrapped in leaf tobacco or in any substance containing tobacco with or

without a tip or mouthpiece not otherwise defined as a cigarette under Massachusetts General Law, Chapter 64C, Section 1, Paragraph 1.

d. Component part - Any element of a tobacco product, including, but not limited to, the tobacco, filter and paper, but not including any constituent.

e. Constituent - Any ingredient, substance, chemical or compound, other than tobacco, water or reconstituted tobacco sheet, that is added by the manufacturer to a tobacco product during the processing, manufacturing or packaging of the tobacco product. Such term shall include a smoke constituent.

f. Distinguishable - Perceivable by either the sense of smell or taste.

g. E-Cigarette - Any electronic nicotine delivery product composed of a mouthpiece, heating element, battery, and/or electronic circuits that provides a vapor of liquid flavored or unflavored nicotine to the user, or relies on vaporization of solid nicotine or any liquid, with or without nicotine. This term shall include such devices whether they are manufactured as e-cigarettes, e-cigars, e-pipes, hookah pens, electronic hookah, e-hookah, hookah sticks, personal vaporizers, mechanical mods, vape pens, vaping devices, or under any other product name. "E-Cigarette" includes any component or part of an e-cigarette.

h. Educational Institution - any public or private college, normal school, professional school, scientific or technical institution, university or other institution furnishing a program of higher education.

i. Employee - An individual who performs services for an employer.

j. Employer - An individual, partnership, association, corporation, trust or other organized group of individuals that utilizes the services of one (1) or more employees.

k. Entity - any single individual, group of individuals, corporation, partnership, institution, employer, association, firm or any other legal entity whether public or private.

l. Flavored tobacco product - Any tobacco product or component part thereof that contains a constituent that has or produces a characterizing flavor (including but not limited to menthol, mint, and wintergreen). A public statement, claim or indicia made or disseminated by the manufacturer of a tobacco product, or by any person authorized or permitted by the manufacturer to make or disseminate public statements concerning such tobacco product, that such tobacco product has or produces a characterizing flavor shall constitute presumptive evidence that the tobacco product is a flavored tobacco product.

m. Food Service Establishment - An establishment having one or more seats at which food is served to the public.

n. Health Care Institution - An individual, partnership, association, corporation or trust or any person or group of persons that provides health care services and employs health care providers licensed, or subject to licensing, by the Massachusetts Department of Health under M.G.L. c. 112. Health care institution includes hospitals, clinics, health centers, pharmacies, drug stores and doctors' and dentists' offices.

o. Minor - A person under twenty-one years of age.

p. Retail Establishment - any store that sells goods or articles of personal services to the public.

q. Retail tobacco store- An establishment that is not required to possess a retail food permit whose primary purpose is to sell or offer for sale but not for resale, tobacco and/or e-cigarette products and tobacco paraphernalia, in which the sale of other products is merely incidental, and in which the entry of persons under the minimum legal sales age is prohibited at all times, and maintains a valid permit for the retail sale of tobacco products as required to be issued by the Brookline Board of Health.

r. Self-Service Display - Any display from which customers may select a tobacco or e-cigarette products without assistance from an employee or store personnel.

s. Smoke Constituent - Any chemical or chemical compound in mainstream or sidestream tobacco smoke that either transfers from any component of the tobacco product to the smoke or that is formed by the combustion or heating of tobacco, additives or other component of the tobacco product.

t. Smoking - Lighting of, or having in one's possession any lighted cigarette, cigar, pipe or other tobacco product or non-tobacco product designed to be combusted and inhaled. The activation of or inhalation of vapor from an e-cigarette shall be considered smoking under this by-law.

u. Tobacco - Any product containing, made, or derived from tobacco that is intended for human consumption, whether smoked, chewed, absorbed, dissolved, inhaled, snorted, sniffed, or ingested by any other means, including, but not limited to: cigarettes, cigars, little cigars, chewing tobacco, pipe tobacco or snuff. "Tobacco" does not include any product that has been approved by the United States Food and Drug Administration either as a tobacco use cessation product or for other medical purposes and which is being marketed and sold or prescribed solely for the approved purpose.

v. Tobacco Product- Any product containing, made, or derived from tobacco or nicotine that is intended for human consumption, whether smoked, chewed, absorbed, dissolved, inhaled, snorted, sniffed, or ingested by any other means, including, but not limited to: cigarettes, cigars, little cigars, chewing tobacco, pipe tobacco, snuff, or electronic cigarettes, electronic cigars, electronic pipes, electronic hookah, or other similar products, regardless of nicotine content, that rely on vaporization or aerosolization. "Tobacco product" includes any component or part of a tobacco product. "Tobacco product" does not include any product that has been approved by the United States Food and Drug Administration either as a tobacco use cessation product or for other medical purposes and which is being marketed and sold or prescribed solely for the approved purpose.

w. Tobacco Vending Machine - A mechanical or electrical device which dispenses tobacco or e-cigarette products by self-service, with or without assistance by a clerk or operator.

x. Workplace - An indoor area, structure or facility or a portion thereof, at which one or more employees perform a service for compensation for the employer, other enclosed spaces rented to or otherwise used by the public; where the employer has the right or authority to exercise control over the space.

SECTION 8.23.3 - REGULATED CONDUCT

a. Public Places

(1) To the extent that the following are not covered by applicable State laws or regulations, no person shall smoke in any rooms or interior areas in which the public is permitted. This includes, but is not limited to, any food service establishment, health care institution, classroom, lecture hall, museum, motion picture theater, school, day care facility, reception area, waiting room, restroom or lavatory, retail store, bank (including ATMs), hair salons or barber shops and meetings of government agencies open to the public.

(2) Taxi/Livery services licensed by the Town of Brookline shall be provided in smoke-free vehicles. The restriction of smoking in taxi/livery vehicles applies to drivers as well as passengers. Vehicles shall be posted in such a manner that their smoke-free status can be readily determined from the outside of the vehicle.

(3) Licensed Inns, Hotels, Motels and Lodging Houses in the Town of Brookline must provide smoke-free common areas. Licensed Inns, Hotels and Motels in the Town of Brookline must designate 100% of individual dwelling units or rooms as non-smoking.

(4) The use of tobacco or e-cigarette products by minors or school personnel is prohibited in or upon any public sidewalk or other public property located within four hundred (400) feet of Brookline High School grounds. The Commissioner of Public Works shall erect and maintain

signage identifying the locations where smoking is prohibited under this paragraph (4). Such signage shall be erected so as to notify the public of the smoking prohibition and the areas affected thereby.

b. Workplaces

(1) Smoking in workplaces is prohibited.

(2) Notwithstanding subsection (1), smoking may be permitted in private residences; except during such time when the residence is utilized as part of a business as a group childcare center, school age child care center, school age day or overnight camp, or a facility licensed by the department of early education and care or as a health care related office or facility.

(3) Every establishment in which smoking is permitted pursuant to this by-law shall designate all positions where the employee's presence in an area in which smoking is permitted to be "smoking positions." The establishment shall notify every applicant for employment in a smoking position, in writing, that the position may cause continuous exposure to secondhand smoke, which may be hazardous to the employee's health.

(4) No establishment in which smoking is permitted pursuant to this by-law may require any employee whose effective date of employment was on or before November 1, 1994 to accept a designated smoking position as a condition of continued employment by the employer.

(5) No establishment in which smoking is permitted pursuant to this by-law may discharge, refuse to hire, or otherwise discriminate against any employee or applicant for employment by reason of such person's unwillingness to be subjected to secondhand smoke exposure unless the employee has been hired for a designated smoking position and has been so notified in writing at the time of hiring.

(6) It is the intent of this by-law that a designated smoking position shall not be considered suitable for work for purposes of M.G.L. c. 151A, and that an employee who is required to work in a smoking position shall have good cause attributable to the employer for leaving work. c. E-cigarette Usage - Locations Prohibited (1) In addition to

the smoking prohibitions set forth in this bylaw, the use of e-cigarettes is further prohibited wherever smoking is prohibited under M.G.L. Chapter 270, Section 22 (the "Smoke-Free Workplace Law"), and in all locations listed in Section 8.23.3 of this by-law. The Director of Health and Human Services and/or his or her designee(s) shall enforce this section in accordance with Section 8.23.6.

SECTION 8.23.4 - POSTING REQUIREMENTS

Every person having control of a premises where smoking is prohibited by this by-law, shall conspicuously display on the premises, including the primary entrance doorways, signs reading "Smoking Prohibited By Law." Posting of the international symbol for "No Smoking" shall be deemed as compliance.

SECTION 8.23.5 - SALE AND DISTRIBUTION OF TOBACCO PRODUCTS

a. Permit - No Entity otherwise permitted to sell tobacco products shall sell or offer to sell such products within the Town of Brookline without a valid tobacco sales permit issued by the Director of Public Health. Permits must be posted in a manner conspicuous to the public. Tobacco sales permits shall be renewed annually by June 1st, at a fee set forth in the Department's Schedule of Fees and Charges. The Director of Public Health shall not issue any new tobacco sales permits to first-time permit applicants with businesses not licensed as of September 1, 2017. Holders of tobacco sales permits on the effective such date section may continue to use such permits. All such holders must apply for renewal of their permits according to the procedures of the Department. Those who fail to apply for renewal in a timely manner will ~~receive written notification from the Department and then those~~ have permits ~~may be~~ revoked ~~or fines imposed after such procedure as set forth in the procedures of the Department.~~ Any such action may be appealed to the Board of Selectmen within thirty (30) days. ~~However, applicants who acquire a business that is the holder of a tobacco sales permit may apply, within sixty (60) days of such acquisition, for a tobacco sales permit such as that held by the previous owner of the business, only if the buyer intends to sell tobacco products and will be operating a substantially similar business, and subject to rules and requirements of the Health Department.~~

b. Prohibition of Tobacco Vending Machines – The sale of tobacco or e-cigarette products by means of vending machines is prohibited.

c. Restrictions on the Distribution of Tobacco or e-cigarette Products - No person, firm, corporation, establishment or agency shall distribute tobacco or e-cigarette products free of charge or in connection with a commercial or promotional endeavor within the Town of Brookline. Such endeavors include, but are not limited to, product "giveaways", or distribution of a tobacco or e-cigarette product as an incentive, prize, award or bonus in a game, contest or tournament involving skill or chance.

d. Prohibition of Sales ~~to Minors~~ - No person, firm, corporation, establishment, or agency shall sell tobacco or e-cigarette products to ~~a minor~~ anyone born after 1/1/1976.

e. Self-Service Displays – All self-service displays as defined by 8.23.2 (e) are prohibited. All commercial humidors including, but not limited to walk-in humidors must be locked.

f. Prohibition of the Sale of Tobacco Products and e-cigarettes by Health Care Institutions - No health care institution located in the Town of Brookline shall sell or cause to be sold tobacco or e-cigarette products. Additionally, no retail establishment that operates or has a health care institution within it, such as a pharmacy or drug store, shall sell or cause to be sold tobacco or e-cigarette products.

g. Prohibition of the Sale of Tobacco and e-cigarette Products by Educational Institutions - No educational institution located in the Town of Brookline shall sell or cause to be sold tobacco or e-cigarette products. This includes all educational institutions as well as any retail establishments that operate on the property of an educational institution.

h. Required Signage

1. The owner or other person in charge of an entity authorized to sell tobacco or e-cigarette products at retail shall conspicuously post signage provided by

the Town of Brookline that discloses current referral information about smoking cessation.

2. The owner or other person in charge of an entity authorized to sell tobacco or e-cigarette products at retail shall conspicuously post a sign stating that "The sale of tobacco or e-cigarette products to someone ~~under the minimum legal sales age of 21 years of age~~ born after 1/1/1976 is prohibited." The notice shall be no smaller than 8.5 inches by 11 inches and shall be posted conspicuously in the retail establishment in such a manner so that they may be readily seen by a person standing at or approaching the cash register. The notice shall directly face the purchaser and shall not be obstructed from view or placed at a height of less than four (4) feet or greater than eight (8) feet from the floor.

i. Tobacco Sales

1. No Tobacco Product Sales Permit holder shall allow any employee to sell tobacco or e-cigarette products until such employee has received a copy of this By-law and federal and state laws regarding the sale of tobacco and e-cigarette and signs a statement, a copy of which will be placed on file in the office of the employer, that he/she has read the regulation and applicable state and federal laws.

2. Identification: Each person selling or distributing tobacco products, as defined herein, shall verify the age of the purchaser by means of a valid government-issued photographic identification containing the bearer's date of birth that the purchaser ~~is 21 years old or older~~ was born prior to 1/1/1976.

3. All retail sales of tobacco or e-cigarette products within the Town of Brookline must be face-to-face between the seller and the buyer and occur at the permitted location, which can be no greater than 2000 square feet.

4. Original Cigar Package Price - All single cigars shall be sold for no less than two dollars and fifty cents (\$2.50). No person shall sell or distribute or

cause to be sold or distributed any original factory-wrapped package of two or more cigars, unless such package is priced for retail sale at \$5.00 or more. This section shall not apply to a person or entity engaged in the business of selling or distributing cigars for commercial purposes to another person or entity engaged in the business of selling or distributing cigars for commercial purposes with the intent to sell or distribute outside the boundaries of Brookline.

5. No entity shall sell or distribute or cause to be sold or distributed any Flavored Tobacco Product.

6. No entity shall sell or distribute or cause to be sold or distributed blunt wraps.

SECTION 8.23.6 - VIOLATIONS AND PENALTIES

a. Any person who violates any provision of this by-law, or who smokes in any area in which a "Smoking Prohibited By Law" sign, or its equivalent, is conspicuously displayed, shall be punished by a fine of \$100 for each offense. For a first violation of this section, and for any subsequent violation, the violator may be afforded the option of enrolling in a smoking cessation/education program approved by the Director of Health and Human Services or his/her designee(s). Proof of completion of such approved program shall be in lieu of the fines set forth in this Section and in Section 10.3 of these By-laws.

b. Any person having control of any premises or place in which smoking is prohibited who allows a person to smoke or otherwise violate this bylaw, shall be punished by a fine of \$100 for a first offense, \$200 for a second offense, and \$300 for a third or subsequent offense.

c. Employees who violate any provision of Section 8.23.3(b) or 8.23.5 shall be punished by a fine of \$100 per day for each day of such violation.

d. Any entity violating any other section of this by-law shall receive a fine of \$300.00 for ~~each offense~~ the first two offenses then will have permit revoked on the third offense. They may appeal to the Department of Public Health

if they show that source of violation was corrected and would not occur again.

e. Violations of this by-law may be dealt with in a noncriminal manner as provided in PART X of the Town by-laws.

f. Each calendar day an entity operates in violation of any provision of this regulation shall be deemed a separate violation.

g. No provision, clause or sentence of this section of this regulation shall be interpreted as prohibiting the Brookline Health Department or a Town department or Board from suspending, or revoking any license or permit issued by and within the jurisdiction of such departments or Board for repeated violations of this by-law.

SECTION 8.23.7 - SEVERABILITY

Each provision of this by-law shall be construed as separate to the extent that if any section, sentence, clause or phrase is held to be invalid for any reason, the remainder of the by-law shall continue in full force and effect.

Or act on anything relative thereto.

PETITIONER'S ARTICLE DESCRIPTION

Due to the COVID-19 crisis, the Select Board voted to pursue a limited warrant for the Annual Town Meeting to meet the challenges of conducting an alternate form of town meeting and alleviate the number of public meetings and public hearings conducted during the state of emergency. This article is a duplicate of the article filed for the Annual Town Meeting.

Tobacco is the only product that, when used as intended, will kill you. In an effort to protect all inhabitants, this warrant article proposes to reduce the potential impact of tobacco on future generations and stay ahead of tobacco's attempts to addict new users. This warrant article helps to prevent the future targeting of not only underage users but the extended social circle that can possibly provide increased access (NYTS 2018 study).

As society incrementally increases tobacco restrictions, youth initiation has decreased. This is another step towards preventing underage users from starting and helping the most motivated demographics to quit (AM J Prev Med 2015 Dec; 49(6):939-44). Seventy percent of adult smokers want to quit (Morbidity and Mortality Weekly Report. 2017; 65

(52):1457-64) and this warrant article can increase their chances of success. Commonly known as Generation X, those born after 1976 have experienced the most education against the toxic effects of tobacco, but may have been exposed to it underage (90% of tobacco initiation occurs underage) at a time when they are most vulnerable to making bad decisions thus leading to addiction. Studies have frequently shown that brain development continues beyond the age of 21 (multiple studies, Neuropsychiatr Dis Treat 2013; 9:449-61) which is the current legal age to purchase tobacco. Under current law tobacco use may be initiated at a time when the brain has not fully developed to make the decisions that can impact us for the rest of our lives. However, smoking cessation before the age of 40 has been shown to reduce the risk of death to nearly the same level as non-smokers (N Engl J Med 2013; 368:341-50). The demographics that most frequently try to stop smoking are those under the age of 44 but they also have low success rates—this warrant article aims to help those groups that may have already experienced the full effect of education, want to stop this toxic habit, and allow them to regain years that might have been stolen due to a decision made when they were vulnerable. It also helps to close loopholes where frequent violators of current law can continue to profit without concern for possible loss of license. It helps strengthen the town Department of Public Health and allows those retailers that abide by the laws to have a level playing field. This warrant article is the next reasonable step to help our town defend itself against the tobacco industry's continued attempt to find new ways of addicting new, vulnerable users. It is with these reasons that the bylaw should be changed to prevent the sale of tobacco products to anyone born after January 1, 1976.

MOTION OFFERED BY THE PETITIONERS

VOTED: that the Town will amend Article 8.23 of the Town's General By-laws ("Tobacco Control") as follows (language to be omitted appearing in ~~strike through~~; language to be added appearing in **bold underline**):

SECTION 8.23.5 - SALE AND DISTRIBUTION OF TOBACCO PRODUCTS

d. Prohibition of Sales ~~to Minors~~— No person, firm, corporation, establishment, or agency shall sell tobacco or e-cigarette products to ~~a minor~~ **anyone born on or after 1/1/2000**.

h. Required Signage

1. The owner or other person in charge of an entity authorized to sell tobacco or e-cigarette products at retail shall conspicuously post signage provided by the Town of Brookline that discloses current referral information about smoking cessation.

2. The owner or other person in charge of an entity authorized to sell tobacco or e-cigarette products at retail shall conspicuously post a sign stating that "The sale of tobacco or e-cigarette products to someone ~~under the minimum legal sales age of 21 years of age~~ **born on or after 1/1/2000** is prohibited." The notice shall be no smaller than 8.5 inches by 11 inches and shall be posted conspicuously in the retail establishment in such a manner so that they may be readily seen by a

person standing at or approaching the cash register. The notice shall directly face the purchaser and shall not be obstructed from view or placed at a height of less than four (4) feet or greater than eight (8) feet from the floor.

ii. Tobacco Sales

2. Identification: Each person selling or distributing tobacco products, as defined herein, shall verify the age of the purchaser by means of a valid government-issued photographic identification containing the bearer's date of birth that the purchaser ~~is 21 years old or older~~ was born prior to 1/1/2000.

REVISED PETITIONER EXPLANATION

Tobacco is the only product that, when used as intended, will kill you. In an effort to protect all inhabitants, this warrant article proposes to reduce the potential impact of tobacco on residents of the town and stay ahead of tobacco's attempts to addict new users.

As society incrementally increases tobacco restrictions, initiation has decreased. This is another step towards preventing new users from starting and helping those that want to quit (AM J Prev Med 2015 Dec; 49(6):939-44). Seventy percent of adult smokers want to quit (Morbidity and Mortality Weekly Report. 2017; 65 (52):1457-64) and this warrant article can increase their chances of success. This warrant article aims to help those that may have experienced the full effect of education. This is an inexpensive, reasonable step to help our town defend itself against the tobacco industry's continued attempt to find new ways of addicting new, vulnerable users by incrementally phasing out the sale of tobacco over time. As written, it would not impact anyone with the present right to purchase tobacco and allows owners to adapt to a new business model incrementally. It serves as a standard for other communities and potential higher levels of government to build on. It changes the impression of the rite of passage for adulthood is the purchase of tobacco. An October article in the New England Journal of Medicine highlighted the 50th anniversary of the Surgeon General's Report stating, "Because the smoking rate among adults has fallen in recent years, and because smoking can be overshadowed by other emerging public health issues, it's possible to overlook the continuing toll of smoking on people in the United States." The conclusion of that article is, "It's time we recognize smoking for what it is — our country's longest-running and deadliest epidemic — and treat it with a commensurate sense of urgency."

Three numbers to know:

70% want to stop (CDC)

~75% in the Northeast want to quit

0 businesses closed due to flavored warrant article passed by the Town in 2019 (one closed in the summer of 2019 d/t Waldo-Durgin and 1 due to the Governor's order prior to the AG signing into law the town flavored restriction)

This is another step towards achieving a 0% tobacco use rate.

SELECT BOARD'S RECOMMENDATION

Article 14 is a petitioned article, which seeks to amend the Town's General By-Laws in order to provide additional restrictions to the Tobacco Control by-law. It would prohibit the sale of tobacco to anyone born prior January 1 2000. If some is allowed by law to purchase tobacco they can still do so, but going forward that age limitation would increase.

Dr. Swannie Jett, Director of Public Health spoke in opposition of the article because he felt it was not properly vetted. The Health Department has not had any opportunity to review associated data, and understand how this would affect Brookline. Brookline does not perform tobacco compliance checks. The information requested by the Advisory Council on Public Health was not provided in order for the Board of Health to support this article. He was also concerned whether this would withstand legal challenge and any cost implications needed to enforce these changes.

Members of the Board agreed that tobacco is a health problem that not only affects the consumer but the community. This article does not address the underlying causes of why people smoke in the first place. The Board also expressed concerns about banning something from an adult that is legal to purchase. The Board also heard concerns from the business owners and felt this is not the time to add an extra burden to small business owners

The Select Board voted NO ACTION on Article 14.

ROLL CALL VOTE

Aye:	No:
Greene	Heller
Hamilton	Fernandez
VanScoyoc	

ADVISORY COMMITTEE'S RECOMMENDATION

SUMMARY:

Article 14 is the latest in a series of efforts to reduce tobacco addiction. This article would make four amendments to Town By-Law sections 8.23.5 and 8.23.6.

By a vote of 6-20 with no abstentions, the Advisory Committee recommends NO ACTION on Article 14.

BACKGROUND:

Over the last several years, Brookline has increasingly restricted the sale of tobacco products by raising the minimum age for purchasing and by restricting the types of establishments that may sell the products. Sales outlets are now licensed, and the number of licenses is capped.

The four proposed changes in the petitioner's warrant article would **1)** prohibit the transfer of tobacco licenses to a new owner when the current business owner sells their business; **2)** restrict retail tobacco sales to properties of 2,000 square feet or less; **3)** establish a 3 strikes rule on retailers; and **4)** in the most controversial change, it would prohibit adults born after 1976 from purchasing tobacco, but would allow adults born before that date to continue to purchase tobacco unabated.

The Town of Brookline has been a leader in efforts to both reduce tobacco use and establish tobacco restrictions, most aimed at preventing youth from accessing and using tobacco. These successful efforts include-

- Prohibiting smoking inside restaurants (1995);
- Prohibiting sales in pharmacies (2011);
- Prohibiting sales to under 21 years of age (2012, 2014);
- Expanding regulation of e-cigarettes (2014);
- Creating a no smoking buffer zone around the High School;
- Restricting flavored tobacco products;
- Limiting tobacco sales permits (2017); and
- Banning flavored tobacco (2019).

The evidence is clear and well known that smoking is hazardous to one's health, and that nicotine is addictive. The petitioner stated that the smoking rate in Brookline is 6.8% (or approximately 3,200 smokers). The rate for high school students who smoke is lower still, at 5% (or approximately 100 youth smokers in town). Most smokers take up the habit and become addicted when in the teens, and according to the petitioner, it is rare for someone over the age of 25 to begin smoking.

The petitioner is concerned about stopping tobacco use in young people before they struggle with addiction. He also wants to help smokers 45 and under who want to quit,

studies have shown that smokers who quit below the age of 45 can eventually recover their health. And many in this age range want to quit anyway.

The petitioners' purpose is to remove products that in his opinion should not be on the market in the first place.

DISCUSSION:

The wording of some provisions in the petitioner's wording are arbitrary and vague, and the petitioners did not do basic research into how many businesses would be affected by the changes nor their economic impact. While the petitioners are well intentioned, the major change proposed in this article (focused on prohibiting adults born after 1976 from purchasing tobacco) is a radically different approach from prior efforts that no other community or state is known to have attempted and, according to Town Counsel's office, is likely to be struck down by the Attorney General.

The specific changes (and the issues with those changes the Advisory Committee found in the petitioner's warrant article) are below.

First proposed change in section 8.23.5:

This would strike language at the end of subsection a. That would have the effect of eliminating notice from the Town to businesses who sell tobacco that they need to renew their license, or failed to renew their license in a timely manner. Failure to "renew in a timely manner" would now result in having their license to sell tobacco revoked. Businesses would only have 30 days to appeal.

It would also eliminate the ability of a business owner to transfer the tobacco license to a new owner of the business, even to a relative. That license would therefore be eliminated, further reducing the number of tobacco licenses in Town.

Advisory Committee concerns:

- 1) Does not define "timely manner", although existing language in the By-Law section does not define it either.
- 2) Existing language in the By-Law does not automatically allow a new owner to sell tobacco. The existing language allows a new owner to apply to have a license. This chance to even apply would be eliminated.
- 3) It is unclear as to what the financial impact would be to small business owners who sell their business, knowing that one asset, the license, could not be included in the valuation price and agreement. One owner of a gas station estimated a 20/80% revenue split between tobacco and food sales. He noted that most people who buy tobacco also buy other items, such as milk and other food products, so the loss to a business would likely be more than just the cost of a tobacco product.

4) By adopting the change, when a business is sold or transferred to a relative, the permit ceases to exist, which would affect the value of the business. Given the hardships small businesses are having with the COVID-19 pandemic, this seemed unfair.

Second proposed change in section 8.23.5:

This would change add language at the end of subsection 1.2 that would restrict tobacco sales to locations no larger than 2,000 square feet.

Advisory Committee concerns:

- 1) The limit on the number of square feet proposed seemed to be completely arbitrary and unjustified.
- 2) The language does not define whether it is the building size, the lot size or the store size. For example, does the 2,000 square foot limitation (in regards to gas stations) include the area of the gas pumps and service bays? The petitioner stated his intent was for only the interior sales area of stores, but the language is vague and undefined.
- 3) The main petitioner did not check to see how many businesses are 2,000 square feet or less, and how they would be affected. The only business he could state that would be affected was Stop and Shop.
- 4) It was unclear whether the Town could be sued by Stop and Shop, if they claim an arbitrary square footage was used to single them and only them out.

The Advisory Committee heard from the petitioner that Town Counsel's opinion was that in order to adopt this change, it would have to be done through the Zoning By-Law, so the petitioner has dropped this proposed change.

Third proposed change in section 8.23.6:

This would change section 8.23.6 subsection **d** by creating a "three strikes" license revocation rule for license holders who are found to have violated the By-Law.

Advisory Committee concerns:

The petitioner's intention is that violations remain on the establishment's record in perpetuity. So, for example, if a store had two violations, and the owner sells his business to a new owner and the new owner stays free of violations for 10 years and then gets one violation, the new owner would their license.

According to the Town Administrator's office, there have only been 4 recent violations, and none since 2017, all for sales to a minor. Two of the four stores cited are now closed. The three-strikes rule will probably have no practical effect, as the remaining stores' overall compliance record is very good

Under current regulations, there can be a hearing by the Select Board at any time, and they can take action including suspension or revocation under current policy, even for one violation. The proposed provision seemed to be a solution looking for a problem.

Fourth proposed change in section 8.23.5:

This would change the language of subsections **d**, along with minor changes in **h.2** and **i.2**. It would prohibit anyone from selling tobacco to adults born after January 1 1976 – that is, to anyone under the age of 45 in 2020, or age 46 in 2021, etc.

Advisory Committee concerns:

1) From a practical viewpoint, this seemed to the Committee that this change would be gradually eliminate the legal sale of tobacco products in Brookline, but nowhere else. Adults looking to purchase tobacco could simply buy through the internet, have someone buy it for them, or walk into Boston and buy it there. Giving Boston businesses a financial windfall at the expense of Brookline small businesses seemed highly unlikely to help adults in Brookline stop using tobacco. As a further indication of the futility of eliminating a product in one just one jurisdiction, according to a representative from NECSEMA (New England Convenience Store & Energy Marketers Association, Inc.), when Massachusetts passed the flavored tobacco ban, sales in New Hampshire grew substantially.

3) Prohibiting adults from buying a product they wish to have has not been a successful social policy, as witnessed by the failure of Prohibition in the 1920s and the failure to eliminate marijuana sales by criminalizing its sale and use. Where there is a demand, there will be a supply. Crime syndicates make over a billion dollars smuggling cigarettes from Canada and selling them cheaply on the streets, without any tobacco taxes being paid to the government.

4) The Health Department, who would be tasked with more work to enforce a much broader age restriction, is already overburdened. They do not have the personnel to do this. Add the strain of dealing with the pandemic and due to lack of Town staff in the Health Department, enforcement of this part of the law would be unlikely to happen. As noted below, neither the Director of Public Health nor the Advisory Council on Public Health (ACPH) were contacted about these proposed amendments, and were not offered any chance to vet them.

5) The committee found that the most contentious part of this is the taking away the right of some adults – those born after January 1, 1976 - but not others to buy a legal product.

The Committee discussed an amendment introduced by a member of the Human Services subcommittee (which held the public hearing on Article 14) to change the date from 1976 to 1/1/2000. That would not disenfranchise anyone who currently can legally buy tobacco. For those who are currently too young to buy, they would simply never get the legal right to buy tobacco in Brookline. It would also ease the financial impact to the businesses.

The petitioner indicated that he would accept this proposed change. This amendment would not change the fact that Brookline would be dividing adults into groups of people, some of whom would have less rights than others.

Dr. Swannie Jett, Director of the Health and Human Services Department, told the Advisory Committee that the petitioners did not reach out to him to get feedback from him or his department. He argued that a regional approach is needed, and discussed the undue burden this would place on his department, noting that there is no funding for the staff needed to enforce this. He urged that the Town not go forward with this proposal.

Assistant Town Counsel Patty Correa wrote that *“the proposed “declassification” based on a birth date must pass “rational basis” muster under the Equal Protection Clause”*. It is doubtful as to whether the “1/1/2000” date of birth change recommended by the subcommittee would be any different from a constitutionality aspect than the “1976” proposal.

Jonathan Shaer, Executive Director from NECSEMA wrote to the Committee, viewing this part of the warrant article as illegal, stating *“Finally, the proposal is illegal under MLSA [minimum legal sales age] 21 legislation from 2018. Section 22 reads “This act shall preempt, supersede or nullify any inconsistent, contrary, or conflicting state or local law relating to the minimum sales age to purchase tobacco products” ”*.

In a subsequent memo, Assistant Town Counsel Correa, (in regards to the above reference to section 22), wrote-

“My expectation is that the Attorney General’s Office is likely to find the birthdate restriction in the proposed article to be in conflict with it.

SECTION 22. This act shall preempt, supersede or nullify any inconsistent, contrary or conflicting state or local law relating to the minimum sales age to purchase tobacco products; provided, that this act shall neither preempt, supersede nor nullify any inconsistent, contrary or conflicting local law in effect on December 30, 2018 that prohibits the sale of tobacco products to persons under the age of 19, 20, or 21 as applied to persons who attained the age of 18 before December 31, 2018. This act shall not otherwise preempt the authority of any city or town to enact any ordinance, by-law or any fire, health or safety regulation that limits or prohibits the purchase of tobacco products.”

RECOMMENDATION:

We all share the same goal of moving our society away from tobacco products. But the difficulty of achieving that goal through the action of a single jurisdiction, the economic impact on small businesses, and the questionable legality of restricting the sales of a legal product to adults all represented barriers to achieving the goal through implementation of Article 14.

By a 6-20 with no abstentions, the Advisory Committee recommends NO ACTION on Article 14.

XXX



**Board of Health
TOWN OF NEEDHAM
AGENDA FACT SHEET**



MEETING DATE: 10/14/2021

Agenda Item	Pesticide Reduction PSA and Brochure Drafts
Presenter(s)	Ally Littlefield, Food Program Intern Tara Gurge, Assist. Public Health Director

1.	BRIEF DESCRIPTION OF TOPIC TO BE DISCUSSED
Continued discussion and work on a revised draft of our pesticide reduction brochure, “Healthy Lawns and Landscapes.” Review initial brochure and other previous documents. Background - We have created a pesticide reduction campaign in response to health concerns from a resident, as well as the general widespread use of pesticides on residential lawns in Needham. We composed an informative PSA and a “Healthy Lawns & Landscapes” brochure that we hope to put in each residents’ water bill. The PSA warns residents that pesticides are harmful and should be eliminated if possible. The brochure provides resources on how residents can use organic lawn care methods as an alternative to pesticides.	
2.	VOTE REQUIRED BY BOARD OF HEALTH
A vote may be requested if necessary, and additional comments on the pesticide reduction materials are welcome.	
3.	BACK UP INFORMATION:
- Copy of original “Healthy Lawns and Landscapes” brochure (2002) - Copy of Pesticide Reduction Resource Guide with Needham Health/BOH Spring Alert Message (pg. 71) (2002) - Copy of Health Dept. Pesticide Risks letter (2002) - Copy of revised final BOH Pesticide Advisory - Copy of revised final “Healthy Lawns & Landscapes” brochure with last months suggested edits.	



NEEDHAM PUBLIC HEALTH DIVISION

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Pesticide Advisory

A Public Health Message From The Needham Board Of Health

The Needham Health Department recommends that homeowners learn about the dangers of pesticides and seek to eliminate pesticide use in their yards and homes.

According to the U.S Environmental Protection Agency (EPA), pesticides such as herbicides, insecticides, fungicides, and "Weed & Feed"-type products are all harmful to some degree. The widespread use of pesticides is a major environmental and public health concern because most pesticides - despite having an EPA registration - have not been adequately tested to determine all their effects on the health of people, pets, and the environment.

Children are the most vulnerable to the harmful effects of pesticides due to physiological and age-related factors. The American Public Health Association recognizes that even a small amount of toxin exposure during critical periods of development can have an irreversible effect lasting a lifetime. Scientific studies have revealed that exposure to common lawn care pesticides is linked with a possible increased risk of several types of cancer, neurological and respiratory diseases, hormone disruption, birth defects, and damage to the kidneys and liver. Pesticides also disrupt our ecosystems since they are toxic to birds, fish, beneficial insects, and non-target plants.

Recognizing the danger of widespread pesticide use, the Town of Needham follows integrated pest management (IPM) policies, relying heavily on organic land care management. Pesticides are used only as a last resort for emergencies and on recreational fields to reduce injury and other serious health risks. In Needham, areas such as the Town Common and the Needham Heights Common are 100% pesticide-free.

Still, the greatest environmental source of pesticide contamination and exposure to children in Needham is likely from residents' yards, lawns, and the runoff from excessive or inappropriate use. Unfortunately, pesticides also can kill microbial life and the pests' natural enemies necessary for a healthy lawn, creating a costly chemical dependency. It's time to quit the cycle. Help make Needham a safer place for your family and neighbors by eliminating your personal pesticide use and opting for safer alternatives.

To learn more about how you can practice organic land care, review our "Healthy Lawns & Landscapes" brochure, contact the Needham Health Department, and check out the following websites:



<https://www.beyondpesticides.org/resources>



<https://www.greenneedham.org/blog/zero-waste-main-page-2/s>

Introduction to Organic Lawns and Yards
https://cdn.canr.udel.edu/wp-content/uploads/sites/16/2018/04/12024352/Intro_to_Organic_Lawns_and_Yards.pdf

Pesticides in Lawn Care and Landscaping: An Unacceptable Risk to Human Health, Especially Children

The Needham Health Department is sending Needham residents this letter about a public health concern, the widespread use of pesticides which is both a major environmental problem and a public health risk, especially to children.



We recommend that homeowners learn the facts about pesticides and seek to eliminate or reduce pesticide use in their yards and homes. This includes lawn 'treatments', 'weed killers', 'grub control', 'weed 'n feed' and some 'tick and mosquito' services. Safe, organic and pesticide free alternatives exist and we strongly encourage their use.

In 2002, The Needham Board of Health/ Health Dept published our first brochure about the health risks of human exposures to lawn care and landscaping pesticides. Enclosed is an update. Recently, there has been a significant increase in the use of lawn care pesticides that pose a significant health risk to humans, especially children, our pets and our shared environment and water sources.

It is important to remember that pesticides are poisons. **Scientific studies link exposure to common lawn care pesticides with several types of cancer, neurological diseases like Parkinson's Disease, respiratory diseases like asthma, endocrine disruption, birth defects and other reproductive harms and immune system problems.**

Children may be the most vulnerable to the harmful effects of pesticides due to a variety of developmental factors and behavioral exposures like crawling and playing on grass treated with pesticides. The American Public Health Association warns that even a single exposure during a critical period of development could cause acute or long-term health problems.

"Pesticides are potent chemicals deliberately engineered to kill living organisms.... More than 600 unique pesticide chemicals and thousands of commercial formulations are currently on the market, and more than 450 million kilograms- this number is out of date and has increased are applied each year in the United States. *Acute, high-dose pesticide exposures have been known for decades to cause clinically obvious and sometimes fatal poisoning. The World Health Organization estimates that as many as 25 million persons worldwide experience unintentional pesticide poisonings each year. Lower dose exposures can cause injury to the brain and nervous system, cause damage the lungs and reduce fertility. Some pesticides can cause cancer. Infants in the womb and young children are especially sensitive to pesticides, and even low dose exposures in early life can result in lasting damage to children.* **As a pediatrician and parent, my advice to reduce all unnecessary use of pesticides and to eliminate cosmetic [lawn care and landscaping] pesticide use.** Philip J. Landrigan, MD, MSc, FAAP,

Director, Global Public Health Program and Global Pollution Observatory, Schiller Institute for Integrated Science and Society, Boston College. Former, Dean for Global Health, Professor of Preventive Medicine and Pediatrics, Arnold Institute for Global Health, Icahn School of Medicine at Mount Sinai (author of 11 books and 500 peer reviewed articles on children's health and environmental toxicants including pesticides and lead) **Raising Children Toxic Free: How to Keep Your Child Safe from Lead, Asbestos, Pesticides, and Other Environmental Hazards**, by Herbert L. Needleman, [Philip J. Landrigan](#), **Children and Environmental Toxins: What Everyone Needs to Know®** by Philip J. Landrigan, Mary M. Landrigan

Most pesticides - despite having an EPA registration - have not been adequately tested to determine all their effects on people or the environment. Pesticides are registered but not tested by the EPA; testing is completed by the pesticide manufacturers. In the last few years, the EPA has phased out the registration of certain pesticides because of their potential impact on children's' health and on the environment. In addition to reducing unnecessary exposures to children, reducing and eliminating pesticides has been shown to improve urban river and stream quality and reduce the risk to birds and aquatic life.

Though pesticides are registered by the EPA, their use is regulated by the Commonwealth of Massachusetts which means the state can prohibit or restrict their use. For example, this past spring, **the Pesticide Division of the Massachusetts Department of Agriculture decided to prohibit direct consumer sales of Neonicotinoid pesticides.** The reason: overwhelming evidence has shown neonicotinoids cause direct harm to pollinators resulting in a significant decline.

For 20 years, The Town of Needham operated under an Integrated Pest Management (IPM) policy which was an excellent transitional step to eliminating pesticide use. We have made a decision to model best and safest practices by adopting an **Organic Land Management Policy** within two years to model the safest- no pesticide approach on our Town managed parks, school paying fields, school properties and other town lands. We encourage homeowners to follow our example.

The greatest environmental source of pesticides contamination and exposure to children in Needham may be from residents' own yards and lawns and the runoff from excessive or inappropriate use. Instead of purchasing pesticides for use around your home ask about safer. organic products with a certification from the Organic Materials Review Institute (OMRI).

Questions to Ask lawn or landscapers land care professionals about pesticide use.

1. What is the EPA Registration # and Trade name of all products you will be using on our property? Ask them to include Material Safety Data Sheets MSDS or Safety Data Sheets SDS. If there is a pesticide registration number, the product contains pesticides and could be a risk to human health and often a risk to the environment. Many homeowners are surprised to find out how much or even that pesticide use is happening when they contract for lawn care.

2. Ask lawn care companies, landscapers if they have a organic only service. Caution: some companies use organic - fertilizer with pesticides. This still includes the use of pesticides.

Alternatives to Pesticide Products and Chemical Fertilizers

Shrink Your Lawn for Environmental and Climate Health: Try a native plant pollinator garden, meadow garden, perennial beds or ground cover or growing food instead of a heavy carbon and fossil fuels intensive lawn with chemically based fertilizers and pesticides It's healthier for your family and the environment!

Organic Land Care Certification: In organic agriculture there is a strict United States Department of Agriculture National Organic Program (USDA NOP) definition of practices and products that are certified organic. In landscaping, horticulture and land care there isn't a national standard for organic, however we are fortunate in New England that there is a certifying organization. The Northeast Organic Farming Association Organic Land Care. NOFA OLC. has been instructing land care professionals for 25 years in the principles and practices of organic land care. Many organic landscapers in New England were trained through their certification courses. They also have courses for the home gardener.

For Education on organic- pesticide free land care, we recommend, **"An Introduction to Organic Lawn and Yards Plus a Checklist for an Eco-Friendly Property"** by Wellesley resident, Sarah Little, PhD. http://www.organiclandcare.net/sites/default/files/2016iolyfinalsingle_page_opt.pdf

Organic Land Care Best Management Practices Manual- Rutgers University

<https://njaes.rutgers.edu/pubs/publication.php?pid=E357> *Organic land care is a holistic approach to land management that integrates cultural, biological, and mechanical practices by fostering cycling of resources, promoting ecological balance, and conserving biodiversity. Organic land care is not simply about substituting organic-approved products for synthetic materials. Rather, it is a series of practices that together create a holistic approach to land management where the soil, plants, and animals within the system are interdependent and should sustain each other. In an organic land care program, an integrated system of pest and disease management is utilized with products approved by the Organic Materials Review Institute (OMRI). The goal is to decrease or eliminate the use of synthetic pesticides, synthetic fertilizers, and synthetic soil amendments. This document is meant to be a field guide with basic information about background theory for many of the recommendations. Several organic principles form the basis of any organic land care program and are repeated throughout the manual (Heckman, 2013). They include:*

- Do no harm" by protecting the natural elements of a site
- Treating the landscape as an integrated system
 - Reducing energy, water, and material inputs
- Practicing the "law of return", such as returning grass clippings back to the landscape
- Promoting soil health which translates to healthy plants
- Fertilizing with naturally-occurring materials to supply essential nutrients based on a soil test
- Favoring cultural practices over chemical applications for managing pests and diseases
- Avoiding the use of prohibited materials
- Encouraging biodiversity and avoiding monocultures
- Running an organic business with honesty and integrity

Managing Your Lawn Service

Ask for their pesticide license. If your lawn care “specialist” is not licensed, do not allow them to treat your lawn.

Ask what pesticides they’re applying and why. You might be surprised how many companies will not provide this information. Never allow unidentified products to be used on your lawn.

Beware if a lawn service tells you a chemical application is safe. Federal EPA regulations prohibit manufacturers from making pesticide safety claims, even if used as directed. All pesticides must be treated with caution.

Ask if they offer an organic program. The most effective way to protect your household, neighbors, pets, and grass is to follow an organic program. Know that an organic lawn can take up to 3 years to fully establish.

For organic landscapers available in our area visit: www.sustainablewellesley.com/landscaping.html.

Yearly Schedule

Fall

- Spread 1/4" compost, or sprinkle organic fertilizer.
- Seed with a mix of hardy grasses.
- Aerate soil if compacted.
- Do a final mow of 2" for easier leaf raking in November.

Spring

- Mow high at 3"! Keep mower blades sharp.
- Test your soil at UMass Soil Testing Lab
 - www://ag.umass.edu/services/soil-plant-nutrient-testing-laboratory
 - Strive for soil pH around 6.8.
- Add soil aids based on the soil test.
- Over-seed bare spots to reduce weeds.
- Leave clippings on lawn to fertilize.

Summer

- Check for weeds; pull out by hand.
- Monitor for insect pests.
- Water only when soil is dry 6" down.
- If you have a history of grub damage, spot treat with beneficial nematodes every year. Make sure you apply them on a rainy day.

Healthy Lawns & Landscapes

Protect Needham Go Organic!

Needham Board of Health



178 Rosemary Street, Needham, MA 02494
781-455-7940x504
healthdepartment@needhamma.gov
www.needhamma.gov/health



A chemical-free yard

Your kids can play safely on grass where you never need a "keep off, pesticide application" warning sign.

Reduced water costs

Healthy soils with thriving micro-organisms lead to deep-rooted grass which require less watering, fertilizing, and overall cost.

Less mowing

Turn part of your lawn into a landscape with a diversity of native plants, hardy flowers, ground covers, trees, and shrubs.

Grub Control
Weed Killer
Fungus Treatment
Insect Spray
Crab Grass Preventer
Insecticides
Herbicides

Examples of
Pesticides

Keep You and Your Neighbors Safe

Pesticides are a major environmental and public health concern.

Most pesticides on the market have not been tested enough to determine all their effects on the health of people, pets, and the environment. Pesticides get carried indoors, linger for months, and can contaminate nearby drinking water supply.

Scientific studies potentially link exposure to common lawn care pesticides with an increased risk of:

- ***several types of cancer***
- ***neurological and respiratory diseases***
- ***endocrine disruption***
- ***birth defects***
- ***liver and kidney damage***

Children are particularly vulnerable to these harmful effects. Pesticides are also toxic to birds, fish, beneficial insects, and non-target plants which all play a critical role in our ecosystems.



Simple Steps to Organic Lawn Care

The easiest, most cost-effective way to a beautiful, healthy lawn and garden is to work with nature, not against it.

A healthy lawn needs nutrients and microbe-rich soil to develop deep rooted, dense turf that competes successfully with weeds. Dense turf is beautiful and low maintenance. It naturally resists drought, insects, and disease.



Pesticides are not necessary for a beautiful lawn.

In fact, they can do more harm than good. They kill the microbial life necessary for healthy soil and can kill the pest's natural enemies. This invites disease and insect infestation, which leads to more pesticide use and traps you in an unhealthy, costly chemical cycle.

Recently Banned Pesticides

Do not buy products containing Chlorpyrifos (Dursban™, Lorsban™) or Diazinon, as the EPA has concluded they pose unacceptable health risks.

New Massachusetts Pesticide Law

To protect children, all schools in the state must now restrict pesticide use. It's up to you to protect them at home.

Herbicides in Compost Warning

Do not compost grass clippings treated with the herbicides clopyralid (in Confront™) or picloram, or allow grass clippings from treated lawns to go to municipal compost facilities. The resulting compost can kill plants.



This program is funded in part by grants from the

Toxics Use Reduction Institute at the University of Massachusetts, Lowell, and the

Massachusetts Department of Environmental Protection.

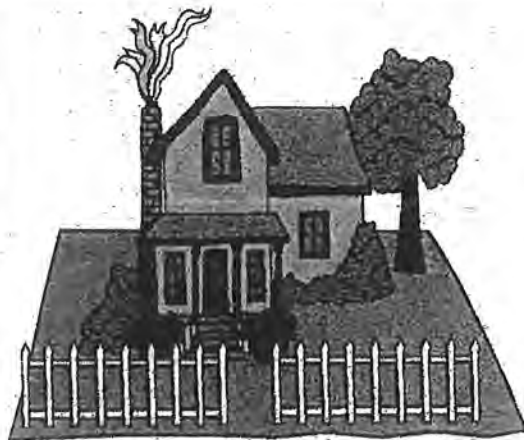
References for information presented in this brochure are available, along with more information, at:

www.ci.wellesley.ma.us/nrc/pesticide



Wellesley Natural Resources Commission
525 Washington Street
Wellesley, MA 02482
781 431-1019 x294
nrc@ci.wellesley.ma.us
www.ci.wellesley.ma.us/nrc/pesticide
May, 2002

HEALTHY LAWNS AND LANDSCAPES



**Massachusetts
Pesticide Awareness
Collaborative**



**Improving Public Health In
Massachusetts**

Imagine your kids playing on grass that isn't treated with pesticides.

Your kids can play on nice grass where you never need a "Keep off, Pesticide Application" warning sign.



Imagine watering costs cut in half!

Healthy soils with thriving micro-organisms lead to deep-rooted grass. Deep roots require less watering, less fertilizing, and save you money.



Imagine no mowing!

Turn part of your lawn into a landscape with a diversity of native plants, hardy flowers, ground covers, trees and shrubs. Low maintenance, native plants include blueberries, azaleas, bearberry, dogwood and redbud trees.



Now is the time to make the move to non-toxic lawn care. For yourself, your children, your pets and the environment.

PESTICIDES ARE: GRUB CONTROL, WEED KILLER, FUNGUS TREATMENT, INSECT SPRAY, CRAB GRASS PREVENTER, INSECTICIDES, HERBICIDES, ETC.

Pesticides are poisons. Pesticide exposure in humans has been associated with birth defects, numerous cancers, Parkinson's disease and other neurological disorders, male infertility and immune system problems.

An EPA registration number does not mean safety. The health effects of most pesticide ingredients, their break-down products, and their interactions are not well known.

Lawn pesticides get carried indoors by shoes, paws and air currents. Once inside, pesticides linger in carpets, dust, toys and air. Away from sunlight and water, pesticides can persist for many months.

Pesticides contaminate drinking water. Use of pesticides in urban and suburban communities contributes significantly to contamination of our water supplies.

Children are particularly vulnerable to the toxic effects of pesticides. Children are at risk for birth defects, childhood cancers and behavioral problems when household and lawn pesticides are used.

Children are more at risk because of their size and behaviors. In a recent study of preschoolers, 99% had one or more pesticides in their bodies.

SIMPLE STEPS TO ORGANIC LAWN CARE

The easiest, most cost effective way to a beautiful, healthy lawn is to work with nature, not against it. A healthy lawn needs nutrients and microbe-rich soil to develop deep rooted, dense turf that competes successfully with weeds. Dense turf is beautiful and low maintenance. It naturally resists drought, insects and diseases.



Pesticides are not necessary for a beautiful lawn. In fact, they can do more harm than good. They kill the microbial life necessary for healthy soil and can kill the pest's natural enemies. This invites disease and insect infestation, which leads to more pesticide use and traps you in an unhealthy, costly chemical cycle.

Basic lawn care tips:

- ♣ Spread 1/4" compost, or sprinkle organic fertilizer, each fall.
- ♣ Seed with a mix of hardy grasses.
- ♣ Mow high! Keep mower blades sharp.
- ♣ Leave grass clippings on lawn as fertilizer.
- ♣ Water only when soil is dry 6" down. 1" water per watering.
- ♣ Overseed in the spring and fall.
- ♣ Strive for a soil pH around 6.8.



YEARLY SCHEDULE

March & April

Sharpen mower blades.
Raise mower blade to 3 inches.
Test soil: UMass Soil Testing Lab, 413-545-2311, www.umass.edu/plsoils/soiltest.
Add soil amendments based on soil test.
Re-seed bare patches, or apply corn gluten to prevent weed germination.
Always leave clippings on lawn to fertilize.



May and June

Check for weeds; pull out by hand.
Re-seed bare spots.
Monitor for insect pests.
If you have grub damage, spot treat with milky spore (once every ten years) and/or with beneficial nematodes (once yearly for 2 or 3 years).

August

You may allow lawn to go dormant during drought. It will green up after rain.



September and October

Best time to seed (generously).
Fertilize if needed (sparingly) or top dress with 1/4 inch compost.
Aerate if soil is compacted.
Lime if an autumn soil test finds pH lower than about 6.8.

November

Final mowing at 2 inches for easier leaf raking.



MANAGING YOUR LAWN SERVICE



- ♦ Specify mowing high with sharp blades.
- ♦ Request corn gluten and organic fertilizer instead of "Weed and Feed" products.
- ♦ Refuse routine application of pesticides.
- ♦ Beware if a lawn service tells you a chemical application is safe. Federal EPA regulations prohibit manufacturers from making pesticide safety claims, even if used as directed. All pesticides must be treated with caution.
- ♦ Never allow unidentified products to be used on your lawn. Request safety information and read it before application. Look up toxicity at www.pesticide.org.
- ♦ Be aware that chemicals listed as inert ingredients can be highly toxic.
- ♦ Take note: many pesticides persist in lawns and soil long after the posted 24-72 hours.
- ♦ Ask for an organic program. Know that an organic lawn can take up to 3 years to fully establish.
- ♦ Organic lawn care has been defined by the Northeast Organic Farming Association in their Standards for Organic Land Care. Order a copy from www.massorganic.org.
- ♦ Organic lawn service is available in our area. Check for current listings at www.ci.wellesley.ma.us/nrc/pesticide.

FIND OUT MORE

Organic Gardening Supplies

Gardens Alive, 812-537-8650, www.gardensalive.com

Mahoney's Too Garden Center, Tewksbury 978-851-2712

Needham Garden Center, Needham, 781-444-2401

Osborne's Florist and Greenhouse, Marblehead, 781-631-2467

Russell's Garden Center, Wayland, 508-358-2283

Windy Lo Nursery, Natick, 508-655-0910



Local Organizations

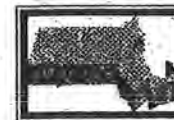
Poison Free Lawns, www.poisonfreelawns.com

Northeast Organic Farming Association, 978-355-2853, www.massorganic.org

Toxics Use Reduction Institute, 978-934-3275, www.turi.org

Greater Boston Physicians for Social Responsibility, 617-497-7440, www.igc.org/psr

Toxics Action Center, 617-292-4821, www.toxicsaction.org



Books

Common Sense Pest Control by W.

Olkowski, S. Daar, and H. Olkowski, 1991

Handbook of Successful Ecological Lawn Care by Paul Sachs, 1996

Tiny Game Hunting by Hilary Klein and Adrian Wenner, 2001



Pesticide Reduction Resource Guide

For Citizens and Municipalities of Massachusetts

May, 2002

Wellesley Natural Resources Commission
phone: 781-431-1019 x294
e-mail: nrc@ci.wellesley.ma.us
website: www.ci.wellesley.ma.us/nrc/pesticide

This project is funded in part by grants from the
**Toxics Use Reduction Institute at the University of
Massachusetts, Lowell,**
**The Massachusetts Executive Office of Environmental Affairs and
Department of Environmental Protection.**

*You are free to copy and distribute anything found in this Guide, including the inserts. Much
of this guide can also be found on the web at www.ci.wellesley.ma.us/nrc/pesticide.*

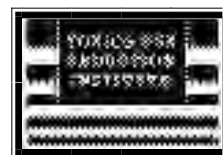


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Introduction

About This Guide

Concern over the adverse health and environmental effects of pesticide is motivating municipalities nationwide to act to reduce the amount of pesticides applied to their lands.

This guide is a step-by-step manual to help concerned citizens, cities, and towns begin local pesticide use reduction programs. There are many ways to achieve pesticide reduction, but this manual focuses on two straightforward, concrete goals, 1) educate the town's citizens, and 2) adopt a municipal pesticide reduction policy.

This guide is organized around a "12-step" program for municipal pesticide use reduction, and a quick-reference card is included which provides a simple outline of the steps.

This guide provides statements, policies, and research from professionals who have expertise on health, the environment, and pesticides. It also gives examples of advocacy literature which present this information to the public in the form of flyers, brochures, and articles. Web links are provided which lead to more information.

Consider this guide a starting point in your efforts to reduce pesticide use. Working together, we can begin reducing pesticides and improving public health in Massachusetts.

Massachusetts Pesticide Awareness Collaborative

The Massachusetts Pesticide Awareness Collaborative (MPAC) is a collection of citizens and health officers from Massachusetts who are interested in reducing pesticide use in their own communities and in our State. Participants share information and resources to expedite education of citizens and adoption of municipal pesticide reduction policies. Any town is welcome to join by sending an e-mail or phoning the Wellesley Natural Resources Commission (see title page for contact info). Currently participating towns are, as of April 2002: Andover, Ashland, Lexington, Lincoln, Pittsfield, Plymouth, Marblehead, Natick, Needham, Newton, Norwood, Sherborn, Southborough, Sudbury, Swampscott, Waltham, Weston, Watertown, Wayland, Wellesley, and Westwood.

What's Inside?

We first provide summary statements on pesticides from experts in the health field, and also a statement from this project outlining important issues surrounding pesticide use reduction.

Next is a brief summary of some of the laws and regulations you will need to be aware of. Following this we outline the step-by-step program for municipal pesticide use reduction.

Finally, we provide examples to use, copy, or follow which are organized around the step-by-step outline. These include statements on health effects of pesticides, sensible pest control methods which don't involve pesticides, advocacy literature, scientific references, and town policies for reducing and eliminating pesticide use.

Sample brochures for educating the public about pesticide use reduction and for alternatives to pesticides are provided in the pocket of this binder. These brochures may be reproduced or ordered in bulk. Contact the agencies that produced the brochures for ordering information.

Summary Statements on Pesticides

Health effects of contemporary-use pesticides

- “Exposure to contemporary-use pesticides is greater than most people realize. Many populations of wildlife and humans are exposed.
- Exposure often occurs without the exposed individual's knowledge.
- A general lack of understanding by the public about pesticides and pesticide approval procedures has led to a false sense of security or to fear about the use of pesticides, both of which preclude rational analysis of the problem.
- Many contemporary-use pesticides adversely affect the reproductive, nervous, immune, endocrine, and metabolic systems.”

This is a consensus statement by an expert group of 22 US and international scientists on the health effects of contemporary-use pesticides created at a Wingspread conference in 1996.

http://www.worldwildlife.org/toxics/progareas/ed/con_6.htm

Pesticides and Childhood Cancer

“Many of the cancers associated with pesticides among children, such as leukemia, brain cancer, non-Hodgkin's lymphoma, soft-tissue sarcoma, and Hodgkin's disease, are the same cancers that are repeatedly associated with pesticide exposure among adults, suggesting that a role among children is highly plausible. Furthermore, although the research has been limited by nonspecific pesticide exposure information, small numbers of exposed subjects, potential for recall bias, and a small number of studies for most cancers, the magnitude of the risks is often greater than among adults, indicating greater susceptibility...

...Although research is underway to characterize the risks of childhood cancer associated with pesticides and identify the specific pesticides responsible, it is prudent to reduce or, where possible, eliminate pesticide exposure to children, given their increased vulnerability and susceptibility. **In particular, efforts should be focused to reduce exposure to pesticides used in homes and gardens and on lawns and public lands, which are the major sources of pesticide exposure for most children.** “

From: Pesticides and Childhood Cancer By Shelia Hoar Zahm and Mary H. Ward
Occupational Epidemiology Branch, Division of Cancer Etiology, National Cancer Institute,
Rockville, Maryland Environmental Health Perspectives 106, Supplement 3, June 1998

<http://ehpnet1.niehs.nih.gov/child1998/full/Suppl-3/893-908zahm/zahm-full.html>

Wellesley 2002 Toxics Use Reduction Institute Project

Pesticides aren't just insecticides

Pesticides are defined by the Federal Insecticide, Fungicide & Rodenticide Act to include any chemical used against a pest. Some examples are insecticides, repellents, herbicides, pre-emergents, fungicides, rodenticides, algicides and antimicrobials.

Pesticide use poses a risk to human health

Pesticide exposure in humans has been associated with birth defects, learning disorders, respiratory illness, brain cancer, leukemia, non-Hodgkins lymphoma, neurological disorders including Parkinson's disease, brain damage, hyperactivity, attention deficit disorder symptoms, low sperm count, testicular cancer, male infertility, immune system problems, and hormonal activity.

Health organizations advocate pesticide use reduction

Many organizations recommend avoiding pesticide exposure. Some examples are the American Academy of Pediatrics, American Public Health Association, Lymphoma Foundation of America, American Brain Tumor Association, March of Dimes, National Academy of Sciences, Massachusetts Senate and House of Representative, General Accounting Office, and the Environmental Protection Agency.

Many people are not aware of the hazards

Newton's GreenDecade Committee for Alternatives to Pesticides learned through a survey that many people in our area are not aware that the chemicals they or their contractors use are pesticides, nor can they identify the chemicals or their hazards. However, they learned that most people would not use pesticides if they knew about safe, effective and economical alternatives for landscaping and pest control.

Pesticides can be avoided

The United States Environmental Protection Agency promotes alternatives to pesticides under their Integrated Pest Management and Bio-pesticide programs. These techniques have proven to be very successful and to save money. Many books and articles have been written by horticulturalist, scientists, landscapers, and agricultural experts on non-chemical control of a multitude of human pests.

It Takes a Village to Prevent Contamination from Pesticides

Reducing the use of pesticides at the community and neighborhood level depends on the enlightened cooperation of everyone - building managers and occupants, sports leagues and the Parks Department, family members and neighbors, landscaping and pest control professionals and consumers, and citizens and public agencies.

Stay informed

The field of pesticide alternatives and pesticide health effects is continually developing as more research is conducted. It is important for town officials to attend seminars in non-toxic pest control and on the health effects of toxic chemicals.

Laws and Regulations

Federal

Environmental Protection Agency

In the United States, the Office of Pesticide Programs (703-305-7695, www.epa.gov/pesticides) of the Environmental Protection Agency is chiefly responsible for regulating pesticides. The regulations are based on the Federal Insecticide, Fungicide & Rodenticide Act (FIFRA).

Labeling

Under FIFRA, no one may sell, distribute, or use a pesticide unless it is registered by the EPA. Registration includes approval by the EPA of the pesticide's label, which must give detailed instructions for its safe use. New chemicals are registered with only limited safety data and are initially used by certified applicators only. Certain biological and food-grade pest control materials, such as lady bugs or mint oil, are exempt from EPA registration.

Importantly, EPA registration does not mean EPA “approved.” The EPA categorizes the toxicity of the pesticide and assures that the statements on the label reflect this. It is a violation of federal law to use a pesticide in a way which is inconsistent with its labeling. It is also dangerous. However, so many people who use pesticides don’t read the label that the EPA has launched a read-the-label public education campaign.

It is a violation of Federal law to use a pesticide NOT in accordance with its label.

The “inert” ingredients listed on a label may comprise up to 99% of a pesticide product, but are considered trade secrets so are not disclosed. These inerts may be highly toxic. “Since neither the federal law nor the regulations define the term “inert” on the basis of toxicity, hazard or risk to humans, non-target species, or the environment, it should not be assumed that all inert ingredients are non-toxic,” -U.S. EPA.

Bans

Occasionally, after enough scientific studies are done, the EPA will adjust the toxicity category or ban a pesticide which has been proven to pose unacceptably high risks to health or the environment. Most pesticides in use today have not undergone such extensive studies, and the risks are largely unknown. However, two of the most widely used pesticides in the U.S. have recently been banned, diazinon and chlorpyrifos as posing unacceptable health risks to children.

IPM

Because it is widely recognized that pesticides are overused, the General Accounting Office has charged the EPA and the USDA with promoting pesticide use reduction through integrated pest management programs (IPM) which control pests without relying primarily on pesticides. Integrated pest management methods begins with non-chemical pest management practices such as improving the soil and protecting beneficial organisms. The National Academy of Sciences, the American Crop Protection Association and others have concluded that IPM leads to more effective long-term pest management than chemical controls alone.

State

Pesticide Bureau

In Massachusetts, the Pesticide Bureau, (617-626-1781, www.state.ma.us/dfa/pesticides) in the Division of Regulatory Services of the Department of Food and Agriculture carries out the day to day responsibilities of regulating pesticides. The Pesticide Bureau must enforce the Massachusetts Pesticide Control Act (MPCA) and the regulations 333 CMR. This includes the recently enacted Act Protecting Children and Their Families from Harmful Pesticides which restricts pesticide use on property used by school children and requires parental notification for school outdoor pesticide use. In addition the Department is designated by the US EPA as the state lead agency of the federal pesticide statute (FIFRA).

False and Misleading Statements

It is a violation of Massachusetts State Law to make false or fraudulent claims about pesticides, including verbally. “12) All persons shall: c) Make no false or fraudulent claims. The term **fraud includes misrepresentation personally** or through the media, falsified records, invoices or reports,” -333 CMR 13.03 Massachusetts Pesticide Regulations.

Pesticide violations

Inspectors respond to allegations of pesticide misuse and inspect dealer establishments, pest control businesses and pesticide producer establishments. To file a complaint with the Pesticide Bureau call 617-626-1781.

Federal law does NOT preempt State regulation of pesticides

FIFRA does not preempt the regulation of pesticides by state governments.
(<http://laws.lp.findlaw.com/getcase/US/501/597.html>)

State law DOES preempt Municipal regulation of pesticides

The Massachusetts Pesticide Control Act places the exclusive authority in regulating the labeling, distribution, sale, storage, transportation, use and application, and disposal of pesticides in the commonwealth with the Pesticide Board (Chapter 132B, Section 1).

Local Municipalities

Town Departments

Municipalities in Massachusetts can implement pesticide use reduction by 1) adopting town policies governing pesticide use on town-owned land, 2) implementing the State required school IPM plans and prohibiting the use of pesticides for purely aesthetic reasons on all public and private school properties, and 3) educating the public about alternatives to pesticides.

Municipalities, under the current Massachusetts law, cannot regulate pesticide use by private homeowners or by landscape professionals on private land.

School IPM Help

Mass DFA guidance on how to develop your indoor and outdoor school IPM plans
<http://www.state.ma.us/dfa/cpa/ipmplan.htm>

Mass DFA frequently asked questions about school IPM law – very useful.
<http://www.state.ma.us/dfa/cpa/guidance.pdf>

Step-by-Step Outline for Municipal Pesticide Use Reduction

1. **Read Introduction** to this Guide.-----Page 4
2. **Identify one key person** within the Town and one from the community who will advocate and work for pesticide use reduction; or cultivate those people.
3. **Meet to develop a pesticide use reduction strategy.** -----Page 12
 - Identify key departments who need to be brought on board; e.g. health department and those involved with maintenance of fields and buildings.
 - Identify secondary departments who need to be involved; typically town leader(s), recreation department, schools, natural resources.
 - Outline steps to take and time line for action.
4. **Get a list of chemicals** used on town land and buildings; or found in local hardware or garden supply stores. Find out how much your town spends on pesticides and/or contractors who are applying pesticides.
5. **Look up chemical health effects** for each chemical.-----Page 22
www.scorecard.org/chemical-profiles/; or <http://data.pesticideinfo.org/>; or <http://ace.orst.edu/info/extoxnet/pips/ghindex.html>
6. **Look up alternatives** <http://www.pesticide.org/factsheets.html> -----Page 38
7. **Develop presentation** packet to present to key departments, include:-----Page 46
 - Your goals (e.g. adopt an organic pest management policy for town-owned land; send yearly notices to residents; take diazinon off shelves).
 - Health hazards and financial cost of pesticides used in your town.
 - Describe alternatives.
 - Statements from individuals and organizations in support of your position.
8. **Meet with key departments**, present information packet, bring them onboard.
9. **Design flyer** from Health Department to send to all residents.-----Page 70
10. **Send flyer** to residents of your town from your Health Department.
11. **Draft town pest mgmt. policy** which restricts pesticide use on town property.--Page 92
12. **Adopt policy** and get it signed by key departments.
13. **Maintain information resource center** in Town department.
14. **Develop long-term strategy** for continued education of the public and training for town employees. Beyond sending a yearly flyer, this might include:
 - Hosting health awareness or organic lawn care talks.
 - Handing out organic landscaping brochures to residents.
 - Writing newspaper articles.
 - Involving the schools by putting pesticide awareness into the curriculum.
 - Getting local garden supply stores to sell non-toxic pest control products.
15. **Stay informed** about pesticide alternatives and adverse health effects.

Wellesley Strategic Plan

Draft

2001 Strategic Plan and Integrated Pest Management Policy for Pesticide Use Reduction in the Town of Wellesley, Massachusetts

Wellesley Health Department
Natural Resources Commission
Department of Public Works
School Department

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Section 1: Mission Statement

The Town of Wellesley agrees with the U.S. Environmental Protection Agency (EPA) that “all pesticides are toxic to some degree..., and the commonplace, widespread use of pesticides is both a major environmental problem and a public health issue.”

The Town of Wellesley also recognizes that all citizens, particularly children, have a right to protection from exposure to hazardous chemicals and pesticides in particular.

Furthermore, the Town of Wellesley recognizes that it is in the best interest of public health to eliminate the use of toxic pesticides in Wellesley and to introduce natural, organic cultural and management practices to prevent, and when necessary, address pest problems.

The Town of Wellesley supports the *Precautionary Principle (as defined by the Wingspread Statement of January 1998)* as the basis for its Organic Pest Management Policy. The Precautionary Principle states “*When an activity raises threats of harm to the environment or human health, precautionary measures should be taken, even if some cause and effect relationships are not yet fully established.*”

Section 2: Policy Summary

The Organic Pest Management (OPM) Policy for Turf and Landscape mandates the following:

- That the use and application of toxic chemical pesticides, either by Town of Wellesley employees or by private contractors, is prohibited on all Town owned lands, including school fields which shall comply with the School IPM plan.
- That natural, organic turf and landscape cultural practices and maintenance shall be the method of choice to understand, prevent, and control potential pest problems
- That all control products used under the terms of this policy shall be in keeping with, but not limited to, those products on the approved list of NOFA/Mass. (Northeast Organic Farmers’ Association/Mass.) as stated in their Standards for Organic Land Care, and/or the Organic Materials Review Institute of Eugene, OR;
- That an OPM Advisory Committee shall be formed including members of the school IPM Committee.
- That Town of Wellesley employees who work with turf grass and the landscape receive education and training in natural, organic turf and landscape management.
- That a listing of all Town owned lands affected by this policy be made available to the public.
- That a registry of all pesticides currently stored on Town owned premises be compiled, with a goal of proper disposal through a Hazardous Wastes Collection program.
- That Town compost shall be tested on a yearly basis for contaminants, including, but not limited to, heavy metals and pesticides, as decided by the Health Department.
- The Town water shall be tested for pesticides at least every three years based upon recommendations by the OPM Advisory Committee.

Section 3: Signatory Page

Section 4: Summary

This document presents a strategic plan for the Town of Wellesley to reduce the use of pesticides on both town-owned and private lands in Wellesley. The strategic plan is divided into two sections, one addressing town-owned land such as parks, sidewalks, roads, traffic islands, playing fields, and open space; and the second addressing private lands.

The strategy for town-owned land focuses on a series of steps to bring together town departments to agree on an organic pest management policy, assign responsibility for implementing the policy, and provide training in pesticide alternatives to assure a successful land-care program. The departments and respective Boards include the Health Department, the Natural Resources Commission, the Department of Public Works, the Recreation Department, and the School Department.

The strategy for privately owned lands focuses on a pesticide awareness campaign initiated this year but continuing with a cycle of yearly events and publicity. Partners in this campaign include non-town organizations such as the Wellesley Cancer Prevention Program, Charles River Watershed Association, the Northeast Organic Farming Association, and the Needham Garden Center. Additional partners will be solicited from local organizations and businesses.

Central to the campaign will be the consolidation of information on pesticide hazards and alternative products into the Town web site, a presentation booth at local events, a town-wide flyer sent from the Board of Health, and publicity in local media. In the fall of 2000 the Pesticide Awareness Campaign received an 8 month grant of \$7000 from the Toxics Use Reduction Institute of the University of Massachusetts at Lowell .

Section 5: Town-Owned Land

The town of Wellesley has been concerned about pesticide use since the early 1970's. The Natural Resources Commission was formed, in part, to help with pesticide use reduction. The Department of Public Works has been continually and successfully looking for ways to reduce their reliance on pesticides for maintaining town land.

In 1992, Town Meeting approved the formation of a Pesticide Applications Study Committee, which conducted a town-wide survey of pesticide use and began a public pesticide reduction educational campaign along with the Natural Resources Commission. Based on the Committee's findings (see Appendix I), it recommended that the Boards of Health, Public Works, and Natural Resources sign a policy (see attachment 1) for pesticide reduction and Integrated Pest Management (IPM). This policy was never signed.

Pest management policy

A cornerstone of this strategic plan is putting in place a least-toxic pest management policy which can be agreed upon by the NRC, the BOH, and the DPW. The signing of a policy is one of the most important steps to developing the town's strategic plan for pesticide use reduction.

In light of new evidence in the past several years on the hazards of pesticides, a more comprehensive policy is being proposed here, called an Organic Pest Management Policy. The term "organic" as it applies to agriculture is currently being defined at a federal level by the US Department of Agriculture. National organic standards are expected to be enacted by 2001. The term organic as it applies to land care is not defined on a National level, but for

purposes here it refers generally to non-synthetic materials which have less toxicity and lower ecological impact than many synthetic pesticides and fertilizers.

The reason we are proposing an organic pest management policy, rather than an integrated pest management policy, is that we would like pesticide use to be at or near zero, and for pesticide use to be a rare exception for unusual pest situations, rather than the usual treatment for chronic pest problems.

Pesticide Advisory Committee

In order to maintain this Strategic Plan, an Organic Pest Management Advisory Committee needs to be formed to ensure that efforts to keep pesticide use at near zero levels are maintained for years to come. The Advisory Committee can oversee and assist in the implementation of the pest management policy, and advise the Town of any problems encountered or amendments required to achieve the full and successful implementation of this Strategic Plan.

Membership on the Advisory Committee could consist of representatives of the Health Department, Natural Resources Commission, Department of Public Works, School Department, Recreation Department, and sport groups, and several citizens at-large.

Monitoring of town water supplies

The Pesticide Applications Study Committee also recommended the monitoring of town water supplies for the presence of pesticides. The town wells were tested in 1992 and again in 1997 for levels of certain types of pesticides include on an EPA list. The results exempted Wellesley from further testing. Clearly, because pesticides are still in use, further testing should be done on a regular basis. However, the list of chemicals used on lawns and regulated by the EPA is continually changing, and the knowledge of toxic levels of these chemicals is also changing, which makes using standard tests difficult. Therefore, as part of this Strategic Plan, we suggest that every three years, the Pesticide Advisory Committee actively research the current state of knowledge of pesticide contamination of drinking water supplies, and make recommendations to the DPW about whether testing is required, and what chemicals should be tested for.

Assessing pesticide use by the town

There are clear benefits of continually assessing pesticide use and seeking alternative management techniques. Therefore, the Strategy calls for the yearly assessment of DPW pesticide use, and for the Pesticide Advisory Committee and DPW to research and try non-pesticide alternatives in order to keep pesticide use at or near zero.

Ongoing education program in organic land care techniques

Recognizing that pest control is an evolving subject, the Strategy calls for support of yearly courses on organic land care techniques made available to town employees and open to the public.

Tracking and reporting

Recognizing that a record of pest problems and solutions can help reduce the need for pesticides, the Strategy calls for ongoing reporting and monitoring of pest problems, solutions, and the use of pesticides and pesticide alternatives

Section 6: Organic Pest Management Policy

The Strategic Plan offers the following policy as a working draft of a Pest Management Policy to be signed by the Town's Departments of Health, Public Works and Natural Resources.

The Organic Pest Management (OPM) Policy for Turf and Landscape mandates the following:

- That the use and application of toxic chemical pesticides, either by Town of Wellesley employees or by private contractors, is prohibited on all Town owned lands, including school fields which shall comply with the School IPM plan.
- That natural, organic turf and landscape cultural practices and maintenance shall be the method of choice to understand, prevent, and control potential pest problems
- That all control products used under the terms of this policy shall be in keeping with, but not limited to, those products on the approved list of NOFA/Mass. (Northeast Organic Farmers' Association/Mass.) as stated in their Standards for Organic Land Care, and/or the Organic Materials Review Institute of Eugene, OR;
- That an OPM Advisory Committee shall be formed including members of the school IPM Committee.
- That Town of Wellesley employees who work with turf grass and the landscape receive education and training in natural, organic turf and landscape management.
- That a listing of all Town owned lands affected by this policy be made available to the public.
- That a registry of all pesticides currently stored on Town owned premises be compiled, with a goal of proper disposal through a Hazardous Wastes Collection program.
- That Town compost shall be tested on a yearly basis for contaminants, including, but not limited to, heavy metals and pesticides, as decided by the Health Department.
- The Town water shall be tested for pesticides at least every three years based upon recommendations by the OPM Advisory Committee.

Pests And Pesticides Defined

For the purpose of this policy, pests and pesticides are defined as follows. Pests are and may be known as undesirable plants, insects, fungi, bacteria, and rodents. Common examples in turf grass and the landscape can be, but are not limited to, crabgrass, knotweed, poison ivy, chinch bugs, grubs, and a variety of plant pathogens.

Pesticides are defined by the Massachusetts Department of Food and Agriculture Pesticide Bureau as "substances or mixtures of substances that prevent, destroy, repel, or mitigate pests, or defoliate, desiccate, or regulate plants. Pesticides are poisonous substances that can have an adverse effect on the environment or impair human health..." Herbicides, fungicides, insecticides, miticides, and rodenticides are all considered pesticides.

Under this policy, pesticides classified as known, likely, or probable human carcinogens, or those pesticides that meet the criteria for Toxicity Category I or Toxicity Category II, as defined by the United States Environmental Protection Act (EPA) in section 156.10 of Part 156 of Title 40 of the Code of Federal Regulations can no longer be applied to any Town of Wellesley owned lands. A list of the pesticides in the EPA's Toxicity

Categories I and II will be periodically updated and maintained at the offices of the Town of Wellesley Board of Health.

Organic Pest Management (OPM) Defined

Organic Pest Management is a problem solving strategy that prioritizes a non-toxic, natural, organic approach to turf grass and landscape management without the use of toxic pesticides. It mandates the use of natural, organic cultural practices that promote healthy soil and plant life as a preventative measure against the onset of turf and landscape pest problems.

Essential OPM practices include, but are not limited to:

- regular soil testing
- addition of approved soil amendments
- selection of plantings using criteria of hardiness, suitability to native conditions, drought resistance, and ease of maintenance
- modification of outdoor management practices to comply with organic horticultural science, including scouting, monitoring, watering, mowing, pruning, and mulching
- the use of physical controls, including hand-weeding and over-seeding
- the use of biological controls, including the introduction of natural predators and enhancing the environment of a pest's natural enemies
- through observation, determining the most effective treatment time, based on pest biology and other variables, such as weather and local conditions
- eliminating pest habitats and conditions supportive of pest propagation

OPM dictates the use of chemical controls only in the event of a public emergency as determined by the Board of Health, in consult with the OPM Advisory Board.

Exemptions

All outdoor pest management activities taking place on Town of Wellesley land shall be subject to this OPM policy, except as follows:

1. Pesticides otherwise lawfully used for the purpose of maintaining a safe drinking water supply at drinking water treatment plants and at wastewater treatment plants and related collection, distribution, and treatment facilities.
2. Pesticides in contained baits or traps for the purpose of rodent control.
3. Pesticides classified by the United States Environmental Protection Agency as exempt materials under 40CRF 152.25, or those pesticides of a character not requiring FIFRA regulation.

OPM Advisory Committee

An OPM Advisory Committee shall act as a "Pest Management Board" to oversee and assist in the implementation of the OPM policy, to develop an OPM program consistent with this policy, and to advise the Town of Wellesley Board of Health of any problems encountered or amendments required to achieve the full and successful implementation of this policy.

The Advisory Committee will seek the participation, advice, and counsel of experts in the fields of organic turf and landscape management and IPM protocol. Broad community participation, including parents, schools, advocates, and local landscaping businesses will be encouraged on a non-voting basis. Membership on the OPM Advisory Committee shall be comprised of:

- Town of Wellesley, Board of Health
- Town of Wellesley, Natural Resources Commission

- Town of Wellesley, School Department
- Town of Wellesley, Recreation Department
- Town of Wellesley, Department of Public Works
- Up to 3 Citizen Representatives, knowledgeable about organic approaches to pest problems and organic horticulture.

Training And Education

All Town of Wellesley personnel involved in the evaluation, approval, or implementation of organic turf and landscape maintenance and/or outdoor pest control, should receive regular hands-on training and education in natural, organic cultural and technical methods.

Emergency Waivers

If an emergency situation warrants the use of pesticides which would otherwise not be permitted under this policy, the Town of Wellesley Board of Health shall have the authority to grant a temporary waiver for a period of thirty days. Notice of the waiver request shall be given to the OPM Advisory Committee for advice on resolving the problem without the use of pesticides. The waiver may be extended for an additional period not to exceed six months. Nothing in this waiver provision prohibits the Town of Wellesley from adopting additional waiver resolutions for as long as the condition exists, again not to exceed six months for any individual resolution.

Any waiver granting the use of pesticides on Town land shall require the use of Integrated Pest Management protocol as it pertains to the least toxic material chosen for any given application (see below for IPM definition).

The Board of Health shall determine if such a waiver is warranted based on the following criteria:

1. The pest situation poses an immediate threat to human health and/or environmental quality, not to exclude flora and fauna.
2. Viable alternatives consistent with this OPM policy do not exist.

Any Town department using a pesticide under such a waiver must comply with the laws of the Commonwealth of Massachusetts regarding notification to site users and abutters, the Act Protecting Children and their Families from Harmful Pesticides, as well as any additional notification requirements that may be established by the OPM Advisory Committee.

Integrated Pest Management (Defined)

Organic Pest Management strives first and foremost to prevent pest problems through the application of natural, organic horticultural and maintenance practices. OPM can incorporate some of the principles of Integrated Pest Management (IPM) in its program as is deemed suitable and necessary by the OPM Advisory Committee.

IPM is an ecologically-sound approach to suppressing and eliminating pest populations to keep them from causing health, economic, or aesthetic injury. IPM utilizes site-specific information about pest biology and behavior, environmental conditions, and the dynamics of human characteristics and activities in dealing with the prevention and control of pests that interfere with the purpose and use of a particular site.

The following steps outline the basic approach used in an IPM program.

- Monitoring and scouting the turf or landscape in question
- Accurate record-keeping documenting any potential pest problems

- Evaluation of the site with regard to any injury caused by a pest in question and a determination made on which actions to follow
- Chosen method to be the least damaging to the general environment and one that best preserves the natural ecosystem
- Chosen method to be the most likely to produce long-term reductions in pest control requirements.
- Chosen method must minimize negative impact to non-target organisms.
- Chosen method must be the least disruptive of natural controls available.
- Chosen method must be the least hazardous to human health.

Section 7: Privately Owned Lands

The Wellesley Pesticide Awareness Campaign (WPAC) refers primarily to the publicity campaign to educate landowners to eliminate pesticide use on privately owned lands. The long-range objective of this project is to reduce the exposure of children and adults to pesticides and pesticide breakdown products which are known or probable health hazards, to protect Wellesley's water supply, and to restore Wellesley's land use style to healthier and less toxic land care practices.

In November, 2000, the WPAC received a grant from the Toxics Use Reduction Institute (TURI) at the University of Massachusetts, Lowell, to fund the creation of a strategic plan for pesticide reduction, and literature and other media in support of the WPAC. The TURI project has a duration of eight months, and requires the completion of 5 deliverables, listed below under "TURI Requirements" by June of 2001. A series of additional steps are outlined in this Strategy, and these steps include activities to be done on a yearly basis as well as one-time efforts. Although the WPAC is designed to continue year after year, a number of the initiatives for the pesticide awareness campaign need only be done once during the start up. The efforts are listed in order of priority. [] denotes possible items.

TURI Requirements

The WPAC deliverables for the TURI grant: 1) a town pesticide use reduction strategy, 2) a website on pesticide hazards and alternatives, 3) a demonstration booth, 4) a town-wide mailing from the Board of Health, and 5) raised public awareness about pesticide hazards and alternatives.

One-time Efforts

- Web site design and layout.
- Demonstration booth design and manufacture.
 - Logo design for campaign.
 - T-shirt, refrigerator magnets, lollipops.
 - Brochure on organic lawn care design.
- Wellhead protection study
 - Mailing.
 - Notification.
 - Sign posting.
- Design of New Resident packet of information.
- Design of "Dear Neighbor" letter.

Create school pesticide awareness curriculum.
[League of Women Voters' pesticide study]

Annual Efforts

Revisit strategy and modify if necessary.
Conduct lawn and garden supply store survey of organic products, publish and disseminate results via partners' newsletters.
Update list of organic landscapers, publish and disseminate results via partners' newsletters.
Conduct school curriculum program in pesticide awareness.
Coordinate public information with Hazardous Waste Day (in May).
Arrange for library speaker.
Arrange for garden club speaker.
Provide library display of pesticide awareness materials.
March in Wellesley parade.
Mail Health Department flyer.
Attend annual Wellesley events with demonstration booth.
Cable TV show of environmental videos.
[Fundraiser – children's show?]
[Annual Organic Lawn Care fair]
[Senior outreach]
[Outsmarting West Nile Virus]
[Advertise in Junior Women's Club phone book]

Approximately Monthly Efforts

Web site update
Townsmen articles
E-mail newsletter
Brochure distribute to businesses and physicians' offices

Miscellaneous

TURN progress and final reports
Organic garden tours
Organic training
Enforcement of pesticide laws
Volunteer coordination
Golf courses
[Organic lawn demonstration plot]

Appendix I: Pesticide Study Committee Final Report

Town of Wellesley
Pesticide Applications Study Committee
Final Report March 1995

The Pesticide Applications Study Committee was established by Annual Town Meeting in 1992 under Article 44, at which time a town wide survey of pesticide use was undertaken and an educational program was conducted at the Recycling and Disposal Facility on Hazardous Waste Day.

The Committee's term was extended under ATM93 Article 15, and the sum of \$1500 was voted to the Committee to continue its efforts to develop a town pesticide use education program, provide insight into new pest management technologies, work toward annual testing of town wells for common lawncare chemicals, and evaluate pesticide usage by institutions and commercial property owners.

In 1994 under ATM Article 16, a new Article 51 was added to the Town Bylaws requiring commercial pesticide applicators to register with the town Board of Health and provide evidence of licensure by the state [this was later deemed unenforceable as state law does not allow towns to regulate pesticides]. In the first year of operation of Bylaw Article 51, following a delayed start, 29 pesticide applicators registered with the Board of Health. An education brochure was created and circulated to all town residents with the utility bills. Reference materials on pesticides and pesticide users were gathered and are available to the public in the Natural Resources office.

Now, as the Committee completes its charge, we wish to reiterate our continuing concern for the widespread use of pesticides in a town dependent on groundwater resources. We commend Joseph Duggan, Superintendent of the Public Works Water and Sewer Division, for his sensitivity to this issue and encourage him to continue his work toward testing the town's drinking water for common lawn care chemicals [this was done only once in about 1995].

We want to emphasize the fact that the federal government is woefully behind in its program of testing pesticides under federal law (FIFRA). We reiterate that neither federal nor state standards call for monitoring municipal water supplies for lawn care chemicals in common use. Now that the Commonwealth has severely limited municipal pesticide regulation under legislation passed during the last session, we can only hope that the state will be able to exercise due diligence in this regard. Lack of resources has limited statewide effort in the past.

In conclusion, the Pesticide Applications Study Committee finds that the current federal and state regulations are not sufficient to protect Wellesley residents from the cumulative impacts of lawn care chemical use. Until the town's water supply is periodically tested for lawn care chemicals in common use, the health of Wellesley residents may be at risk.

Therefore we recommend:

1. That the Board of Public Works establish a protocol for testing the water supply for lawn care chemicals in common use [this did not happen, since the single testing found no positive samples, and thus the state or(?) federal law exempted further testing]
2. That the Board of Public Works consider employing a consultant to evaluate the impact of pesticide use on town wells and/or susceptibility of town wells to contamination thereby; [as far as I know this did not happen]
3. That the Board of Public Works evaluate pesticide use by the Department of Public Works;
4. And that the NRC, Wetlands Protection Committee, Board of Public Works, and Board of Health mutually establish an on-going public education program for town residents that encourages the planting of buffer strips along all town ponds and streams; that encourages alternatives to lawns; that reduces the use of inorganic fertilizers; that outlines the hazards of continued pesticide use; and that identifies non-toxic or less toxic alternatives.

Appendix II: Materials and Methods, and Prohibited List

See Standards for Organic Land Care, NOFA, August 2001

Chemical Effects on Health

Contents:

Summary from Regional Pesticide Awareness Workshop

Statements from Philip J. Landrigan, M.D. Professor of Pediatrics, Chair of Community Medicine, and Director of Environmental and Occupational Medicine at the Mount Sinai School of Medicine in New York City.

Massachusetts Poison Control

Excerpts from *Basic Guide to Pesticides: Their Characteristics and Hazards*

Web Resources:

Exttoxnet, pesticide database for use with Children and Families Protection Act
<http://ace.orst.edu/info/extoxnet/pips/ghindex.html>

Environmental Defense pesticide profiles
www.scorecard.org/chemical-profiles

Pesticide Action Network pesticide database (chemicals or product names)
<http://data.pesticideinfo.org>

Journal of Pesticide Reform fact sheets on pesticide toxicology
www.pesticide.org/factsheets.html

Environmental Health Information Service of the National Institutes for Health
<http://ehis.niehs.nih.gov/>

Health effects of pesticides, presented by Rachel Massey

Presented at the Regional Pesticide Awareness Workshop, Wellesley, MA
February 7, 2002

Pesticides are made to kill living things, such as plants, fungi, insects, or rodents. Unfortunately, chemicals designed to kill plants or animals are often dangerous for humans too. Fetuses, babies, and children are especially vulnerable to the toxic effects of pesticides. This information sheet explains some of the health problems that can result from pesticide exposures.

Acute, chronic, and developmental effects

Pesticides can cause health problems that are either *acute* (short term) or *chronic* (long term). They can also disrupt fetal, infant, and child development.

Cancer

Pesticides can act as *carcinogens* (cause cancer) by causing mutations in cells' genetic material; by changing the activity of hormones; by interfering with the action of systems that normally prevent tumors from developing in our bodies; and in other ways, not all of which are understood. Examples include:

- Studies have linked pesticide exposure to increased likelihood of childhood brain cancer. One study found that using "pesticide bombs" and "no-pest" strips in the homes during pregnancy can increase the likelihood of childhood brain cancer five to six fold. [2, pp. 120-121]
- Pesticide exposure, including use of home or garden pesticides, is associated with increased likelihood of childhood leukemia.[2, pp. 120-121]

Neurotoxicity

Some pesticides are *neurotoxins*, which means that they are toxic to the brain and nervous system. *Developmental neurotoxins* interfere with brain and nervous system development in fetuses, infants, or children.

- The most commonly used category of insecticides are *organophosphates*. Organophosphates are toxic to the nervous system. They can produce acute poisoning symptoms including nausea, diarrhea, muscle spasms and weakness, excess salivation and tearing; and respiratory failure. Organophosphate poisoning can be fatal.[3]
- Some pesticide exposures can interfere with children's ability to learn and play normally. A study conducted in Mexico compared two groups of children with similar ethnic, economic, and cultural profiles but very different levels of pesticide exposures. The researchers found that the children with high pesticide exposures had lower stamina and coordination than children with low exposures. They also had more memory problems than the unexposed children and had trouble drawing a picture of a person. [1, pp. 82-83]

Birth defects

Some pesticides are *teratogens*, which means that they cause birth defects.

- One study found that birth defects were 1.4 times more likely in children of male pesticide applicators than in the general population. These children were also 1.7 times as likely as the general population to have circulatory or respiratory defects, and 1.7 times as likely to have urogenital defects. [2, p. 117]

Endocrine disruption

Some pesticides act as *endocrine disruptors*, which means that they interfere with the action of hormones in our bodies. Endocrine disruptors can promote development of hormone-responsive tumors, and can interfere with sexual development in fetuses, infants, and children. Examples include:

- The insecticide methoxychlor is used on some fruits and vegetables. Methoxychlor is converted within the bodies of birds and mammals to a compound that behaves like the female sex hormone, estrogen. [2, p. 183]
- The herbicide Roundup is often used in gardens and around homes. A laboratory study has found that Roundup disrupts the production of sex hormones in cells taken from testicular tumors in mice.[4]

Special vulnerability of fetuses, infants, and children

Small amounts of a pesticide, which might not affect an adult, can have devastating effects on a developing fetus, infant, or child. Fetuses, infants, and children are especially vulnerable to toxic exposures for several reasons[5]:

- Their organs are developing rapidly. A toxic exposure during a crucial day, month, or week of development can permanently alter brain development, for example.
- Babies and children take in more air, food, and water per unit of body weight than adults.
- Babies and children have less ability than adults to metabolize and excrete toxic substances.
- Babies and children play on the floor, chew or suck on toys, and put their hands in their mouths, so they are likely to take in pesticides found on household surfaces.

Sources:

[1] Ted Schettler and others, *In Harm's Way: Toxic Threats to Child Development* (Cambridge, MA: Greater Boston Physicians for Social Responsibility, 2000).

[2] Ted Schettler and others, *Generations at Risk: Reproductive Health and the Environment* (Cambridge, MA: MIT Press, 1999).

[3] U.S. Environmental Protection Agency (EPA) Office of Pesticide Programs, *Recognition and Management of Pesticide Poisonings*, 5th Edition. Available at <http://www.epa.gov/oppfead1/safety/healthcare/handbook/Chap04.pdf>, visited February 5, 200.

[4] L.P. Walsh and others, "Roundup inhibits steroidogenesis by disrupting steroidogenic acute regulatory (StAR) protein expression." *Environmental Health Perspectives* Vol. 108, pp. 769-776.

[5] National Research Council, *Pesticides in the Diets of Infants and Children* (Washington, DC: National Academy Press, 1993).

Philip J. Landrigan, M.D.

Professor of Pediatrics, Chair of Community Medicine, and Director of Environmental and Occupational Medicine at the Mount Sinai School of Medicine in New York City. He directed a major study at the National Academy of Sciences on pesticides in children's diets and he has testified before congress on childhood lead poisoning, air pollution and the health hazards of asbestos. Co-author of *Raising Children Toxic Free: How to Keep Your Child Safe from Lead, Asbestos, pesticides and Other Environmental Hazards*.

“As a pediatrician, I urge all parents to reduce pesticide use as much as possible – especially from lawn services. Children’s health is more important than a few weeds.”

“Children form a unique subgroup within the population who require special consideration in risk assessment. Children are not little adults. Their tissues and organs grow rapidly, developing and differentiating.”

“These development processes create windows of great vulnerability to environmental toxicants.”

Abstract from - The International Conference of the Institute for Health and the Environment Conference on Environmental Threats to the Health of Children, April 2000, Risk Assessment for Children and Other Sensitive Populations www.albany.edu/ihe/serv01.htm

“... (it is) “highly likely that environmental toxins have contributed to increasing rates of cancer. (He provided a list of statistics describing) “....the rising incidence of asthma and breast and pediatric cancer.”

“Today we are at risk of exposure to over 85,000 synthetic chemicals, most of which did not exist in 1950. Fewer than one-half have been tested.”

Abstract from -- Hearing Before the Senate Committee on Environment and Public Works -- June 11, 2001, Environmental Contamination and Chronic Diseases and Disease Clusters <http://olpa.od.nih.gov/OLPAReports/061101EnvironChronicDis.htm>

Massachusetts Poison Control: Pesticides

Pesticides can dangerous, especially harmful to young children

Harm to the body can occur within minutes of being poisoned by a chemical pesticide!

Symptoms that could be signs of poisoning include: headache, nausea, diarrhea, stomachache, & flu like symptoms.

Poisoning can occur through ingestion, inhalation, or skin contact.

Some simple precautions can help prevent children and adults from being poisoned by pesticides

Prevention tips:

- Follow the directions on the container!
- Keep children, toys and pets well away from chemically treated lawns and flower beds.
- When using pesticides at home; store chemicals in original containers. Lock away safely, out of sight; out of reach.
- When applying pesticides be sure your skin is covered: wear gloves, glasses, long sleeves, and pants.
- Only use pesticides in a well ventilated area.
- Before using pesticides, clear area of all furniture, toys, and food.
- After using pesticides, clean up the area and wipe down any household or garden tools that have been exposed, dispose of the remaining pesticide as directed and rinse out any containers that have been emptied.
- If you spill chemicals on skin, wash immediately with lots of clean water; be sure to keep chemicals out of children's reach while you are washing.

If you suspect a chemical pesticide poisoning has occurred, immediately call:

The Massachusetts Poison Control System

300 Longwood Ave.

Boston, MA 02115

(617) 232-2120

(800) 682-9211 Toll-free number

(888) 244-5313 Hearing Impaired number

Excerpts from Basic Guide to Pesticides: Their Characteristics and Hazards

by Shirley A. Briggs and Rachel Carson Council, Inc.

<http://members.aol.com/rccouncil/ourpage/samples.htm>

Selected Chemical Classes of Pesticides

This section provides more information on the effects of several chemical classes of pesticides on mammals (humans and warm-blooded animals) so poisoning can be recognized. They are the reactions that can occur, in varying degrees of severity. Not all would be likely to occur in any one case. Immediate effects can also include death in severe cases. For complete information on chemical classes and their effects please refer to the *Basic Guide to Pesticides*.

Amide	Dinitroaniline	Pyrethroid
Benzimidazole	Organochlorine	Thiocarbamate
Benzonitrile	Organophosphate	Triazine
Botanicals	Phenoxy	Triazole
Carbamate	Phthalate	

Organochlorine (Chlorinated hydrocarbons)

examples of pesticides in this class: aldrin, benzene hexachloride, carbon tetrachloride, chlordane, chloroform, [chloroneb](#), chloropicrin, 4-CPA, D-D, DBCP, DDD, DDE, DDT, [dicamba](#), dicofol, dieldrin, endosulfan, fenac, heptachlor, [hexachlorobenzene](#), hexachlorophene, [lindane](#), methoxychlor, mirex, paradichlorobenzene, PCB, [PCNB](#), [pentachlorophenol](#), tetrachloroethylene, toxaphene, [triclopyr](#)

mode of action: Interferes with transmissions of nerve impulses across axons disrupting primarily the central nervous system.

immediate effects: Convulsions (may occur for several days after exposure); uncoordination; induces rapid metabolism of drugs and naturally occurring steroid hormones; hypersensitivity of skin or face and extremities; headache; dizziness; nausea; vomiting; tremors; confusion; muscle weakness; involuntary eye movements; slurred speech; pain in chest and joints; skin rash; labored breathing; central nervous system stimulation followed by depression; diarrhea; brain wave disturbances; hyperthermia; hypertension; salivation; sweating.

long-term effects: Cumulative; transfers through placenta to fetus; found in mother's milk; carcinogens; suspect teratogens; suspect mutagens; fetotoxins; aplastic anemia; "reproductive effects"; testicular damage; eye damage; affects hormone levels; central nervous system damage; bladder, kidney, liver, lung and thyroid damage; blood and spleen damage; anemia; recurrent asthma; irregular heartbeat; atrophy of adrenal cortex; behavior changes in young of mother exposed at even low levels during pregnancy; embryotoxin; decreased fertility; immunotoxin; abnormal brain waves;

increased mortality in young; teratogens; porphyria cutanea tarda; sleep disturbance; hallucinations.

environmental effects: Bioaccumulate; persistent; many are volatile, traveling long distances in the atmosphere and settling in distant locations; decreased fertility in birds; egg-shell thinning in birds; groundwater contaminants.

Organophosphate

examples of pesticides in this class: [acephate](#), [acephate-met](#), azinphos-ethyl, azinphos-methyl, [bensulide](#), [chlorpyrifos](#), cythioate, [diazinon](#), [dichlorvos](#), dimethoate, [ethoprop](#), [fenamiphos](#), [fosetyl-al](#), [glyphosate](#), [isazophos](#), [isofenphos](#), [malathion](#), methyl parathion, monocrotophos, naled, omethoate, parathion, phosmet, ronnel, [sulfoTEPP](#), temephos, [TEPP](#), [trichlorfon](#), vamidothion

mode of action: Acetylcholinesterase inhibitor, damaging nerve function, except for glyphosate.

immediate effects: Behavioral disturbances; uncoordination; muscle twitching; headache; dizziness; nausea; anxiety; irritability; loss of memory; sleep pattern change; restlessness; weakness; tremor; abdominal cramps; diarrhea; sweating; salivation; tearing; excessive nasal discharge; blurred vision; constriction of pupil; slowed heartbeat; confusion; incontinence; hypertension.

long-term effects: Delayed neurotoxicity ["...tingling and burning sensations in the limb extremities followed by weakness in the lower limbs and ataxia. This progresses to paralysis, which in several cases, affect the upper limbs also...Recovery is seldom complete in adults; with the passage of time the clinical picture changes from flaccid to a spastic type paralysis" WHO (1986, p. 59)]; some are cumulative; persistent anorexia; weakness; malaise; nerve damage via destruction of myelin sheath around nerve fibers; carcinogens; mutagens; fetotoxins; hormonal inhibition; eye damage; suspect mutagens; suspect carcinogens; sterility and impotence; embryotoxins; suspect teratogens; immunotoxins; indication of bone marrow damage and aplastic anemia; kills white blood cells; sperm and other reproductive abnormalities; suspect viral enhancers; ulcers; abnormal brain waves; reduced protein synthesis in fetus; liver damage; kidney damage; suppressed antibody production; decreased auditory attention, visual memory, problem solving, balance, and dexterity.

environmental effects: Responsible for the deaths of large numbers of birds on turf and in agriculture; affect breeding success in birds; embryotoxins in birds; can change feeding habits in birds. Surface water contaminants.

Carbamate

examples of pesticides in this class: aldicarb, asulam, barban, [bendiocarb](#), [carbaryl](#), carbofuran, dioxacarb, diram, ethiofencarb, fosamine ammonium, methiocarb, methomyl, protham, [propoxur](#), thiophanate ethyl, [thiophanate methyl](#), trimethacarb

mode of action: Inhibits acetylcholinesterase and so damages nerve function.

immediate effects: Sensory and behavioral disturbances; uncoordination; depressed motor functions; malaise; muscle weakness; dizziness; sweating; headache; salivation; nausea; vomiting; abdominal pain; slurred speech; difficult breathing;

blurred vision; muscle twitching; spasms; convulsions; diarrhea; depression of cholinesterases even more prominently in fetus; skin sensitization.

long-term effects: Memory loss; behavioral defects; suspect mutagens; mutagens; carcinogens; cataracts; suspect carcinogens; teratogens; spleen, bone marrow, liver and testes damage; reduced sperm levels; fetotoxins; suspect viral enhancers; increased organ weights; decreased body weights; anemia; decreased hemoglobin; decreased fertility from ovary and testes damage; may convert to *N*-nitroso compounds in soil and in vivo with saliva.

environmental effects: Can disrupt schooling behavior of fish; teratogens in fish; toxic to earthworms (thiophanate methyl); reduction in earthworm and invertebrate populations (WHO 1986, pp. 56-57); groundwater contaminants.

Phenoxy

examples of pesticides in this class: [2,4-D](#), 2,4,5-T (Agent Orange), CNP, dichlorprop, [MCPA](#), [MCP](#), [mecoprop](#), silvex

mode of action: Act as synthetic growth hormones in plants; in animals it is poorly understood.

immediate effects: Skin and mucous membrane irritation; dizziness with prolonged inhalation; vomiting; chest pain; diarrhea; headache; confusion; muscular stiffness; unconsciousness; increased acidity of blood; hyperventilation; nerve damage; brain wave changes; eye irritation; swelling of extremities; incontinence; sweating; stupor; respiratory depression.

long-term effects: Carcinogens; heart, liver, and kidney damage; delayed fetal development; suspect mutagens; teratogens; fetotoxins; anorexia; ulceration of mouth and throat; immunotoxin; nerve damage. Several pesticides in this class are contaminated with dioxins.

environmental effects: Groundwater contaminants.

Triazine

examples of pesticides in this class: ametryn, [anilazine](#), [atrazine](#), chlorinated isocyanurates, cyanazine, prometon, prometryn, propazine, [simazine](#), terbutryn

mode of action: May disturb the metabolism of vitamins.

immediate effects: Skin and eye irritation; nausea; vomiting; diarrhea; muscular weakness; salivation.

long-term effects: Carcinogens; suspect mutagens; immunotoxin; adrenal damage; kidney and urinary tract stone formation; teratogens; lung damage; suspect fetotoxins; liver and kidney damage; disturbances in sperm production.

environmental effects: Groundwater contaminants.

Amide

examples of pesticides in this class: acetochlor, alachlor, benzadox, butachlor, butam, carboxim, CDAA, chlordimeform, cycloheximide, DEET, fomesafen, [iprodione](#), [isoxaben](#), metalachlor, [pronamide](#), propachlor, propanil, [vinclozolin](#)

mode of action: Not fully understood.

immediate effects: Skin irritant and sensitizer; irritating to eyes and respiratory tract; nausea; headache; uncoordination; stiffness of movement; salivation; tremors; muscle weakness, sensitivity to light.

long-term effects: Chloracne via dioxin contamination (propanil); carcinogens; mutagens; irreversible eye damage; kidney and liver damage; suspect teratogens; immunotoxins; cardiovascular effects; embryotoxins; sperm damage.

environmental effects: Groundwater contaminants, *N*-nitroso contaminants.

Benzimidazole

examples of pesticides in this class: [benomyl](#), [carbendazim](#), fenazaflor, thiabendazole

mode of action: Interferes with cellular respiration.

immediate effects: Dizziness; nausea; vomiting; tremors; convulsions; decreased respiratory rate; lethargy; pupil dilation; eye irritation.

long-term effects: Defective or incomplete development of bone marrow; suspect carcinogens; suspect mutagens; testicular damage; mutagens; anemia; teratogens; liver damage; reduced sperm; blood damage.

environmental effects: Groundwater contaminants.

Benzonitrile

examples of pesticides in this class: bromoxynil, [chlorothalonil](#), dichlobenil, ioxynil

mode of action: May be due to uncoupling of oxydative phosphorylation and inhibiting of electron transport, with inhibition of some enzymes.

immediate effects: Irritation of skin and mucous membranes; dermatitis;
Bromoxynil: dizziness; elevation of some enzymes; headache; hyperthermia; muscle pain; thirst; vomiting; weakness; weight loss; anorexia.
Chlorothalonil: hyperexcitability.

Ioxynil: excess blood in all organs; edema of lungs and brain.

long-term effects: Carcinogens; teratogen; skin, eye, and kidney damage;
Chlorothalonil: growth suppression; pre- and postnatal damage; kidney destruction.
Suspected - dichlobenil: anorexia; blood in urine; kidney damage; liver damage; reproductive changes with postnatal damage.

environmental effects: Groundwater contaminants.

Dinitroaniline

examples of pesticides in this class: [benefin](#), butralin, dinitramine, ethafluralin, isopropalin, [oryzalin](#), [pendimethalin](#), [trifluralin](#)

mode of action: Interfere with cell respiration.

immediate effects: Skin and eye irritation.

long-term effects: Cataracts; suspect mutagen; liver and kidney damage; carcinogens; teratogens; fetotoxins.

environmental effects: Groundwater contaminants.

Phthalate

examples of pesticides in this class: captafol, [captan](#), [DCPA](#), dibutyl phthalate, dimethyl phthalate, [endothall](#), folpet

mode of action: Interfere with cell respiration.

immediate effects: Skin, eye and respiratory tract irritants; hypothermia; irritability; listlessness; blood in urine; death due to heart or lung failure; convulsions; may depress central nervous system.

long-term effects: Skin sensitizers; anorexia; carcinogens; mutagens; teratogens; fetotoxins; immunotoxins; testicular atrophy.

environmental effects: unknown at this time

Pyrethroid

examples of pesticides in this class: allethrin, bioresmethrin, cismethrin, cyfluthrin, cypermethrin, fenvalerate, flucythrinate, fluvalinate, [permethrin](#), resmethrin, synthetic pyrethrum and/or pyrethrins

mode of action: Pyrethroids inhibit sodium and potassium conduction in nerve cells and block nerve impulse transmission. Many times pyrethroids are mixed with piperonyl butoxide in formulations.

immediate effects: Symptoms similar to DDT poisoning (see [organochlorine](#)).

T-syndrome: tremors; exaggerated startle response; hyperthermia.

CS-syndrome: excessive writhing and salivation; decreased startle response; increase in adrenalin and blood sugar.

Other possible effects: convulsions; diarrhea; headache; vomiting; labored breathing; excessive nasal mucous discharge; irritability; sweating; sudden swelling of face, eyelids, lips, mouth, and throat tissues; hay-fever like symptoms; elevated pulse.

long-term effects: Suspect mutagens; suspect teratogens; suspect carcinogens; immunotoxins; decreased hormone release from brain; some may be cumulative.

environmental effects: Highly toxic to fish, bees, and aquatic arthropods.

Thiocarbamate

examples of pesticides in this class: amobam, butylate, cartap, CDEC, diallate, disulfiram, EPTC, ethiolate, ferbam, [mancozeb](#), [maneb](#), metam sodium, metiram, nabam, [thiram](#), triallate, vernolate, zineb, ziram

mode of action: Inhibits acetaldehyde dehydrogenase, which is essential in conversion of acetaldehyde to acetic acid.

immediate effects: Skin, eye and respiratory tract irritants; skin sensitizers; hyperactivity; central nervous system depression; bloody diarrhea; general weakness.

Thiram is the methyl analog of disulfiram, used in drug therapy for alcoholics. In combination with alcohol, disulfiram quickly induces flushing, restlessness, anxiety, headache, nausea, vomiting, hyperventilation, constriction sensation in the neck, chest pain, sweating, thirst, weakness, vertigo, and possible circulatory collapse, coma, and death. These reactions may occur when **thiram and alcohol exposure** coincide.

long-term effects: Protein-deficient animals are more susceptible to toxicity of some thiocarbamates; carcinogens; mutagens; delayed neurotoxicity; testicular and ovarian effects; kidney damage; sperm damage; teratogen; fetotoxin; anemia. Ethylene thiourea (ETU), a transformation product of some thiocarbamates, is characterized as a carcinogen, mutagen, teratogen, and goiterogen (causes thyroid damage).

environmental effects: ETU is a groundwater contaminant.

Triazole

examples of pesticides in this class: amitrole, flusilazole, [triadimefon](#)

mode of action: Inhibition of liver enzymes.

immediate effects: unknown at this time

long-term effects: Carcinogens; suspect mutagens; may affect growth rate; goiter producing; fetotoxins; liver damage.

Botanicals -- Pyrethrum, Rotenone, Ryania, and Sabadilla

Pyrethrum

mode of action: Blocks nerve impulse transmission.

immediate effects: Skin irritation; asthmatic reactions (those with asthma problems should avoid pyrethrum use, high doses yield tremors, ataxia, labored breathing, and salivation); numbness of lips and tongue; vomiting; diarrhea; headache; uncoordination; stupor. Allergic reactions as from other *Compositae* such as ragweed and chrysanthemum.

long-term effects: Piperonyl butoxide, carbamates, and organophosphates may be combined with pyrethrum in various formulations. These added ingredients may result in symptoms listed under the appropriate class description.

environmental effects: Highly toxic to fish and bees.

Rotenone

mode of action: Inhibits cell respiration and blocks conduction of nerve impulses.

immediate effects: Numbness of mouth and tongue; nausea; vomiting; gastric pain; muscle tremors; uncoordination; irritation of skin and respiratory tract; respiratory stimulation followed by depression and death.

long-term effects: May be mixed with piperonyl butoxide in various formulations resulting in symptoms of that compound; suspect carcinogen; suspect teratogen; suspect fetotoxin; liver and kidney damage.

Ryania

immediate effects: Retraction of eyes into socket; vomiting; weakness; diarrhea; slow deep breathing; salivation; central nervous system depression; coma; death due to respiratory failure.

Sabadilla

mode of action: Similar to that of digitalis.

immediate effects: Irritating to upper respiratory tract and skin; vomiting; headache; giddiness; weakness; twitching; convulsions; hypothermia; death due to respiratory or cardiovascular failure.

Lawn Care Pesticide Clusters

18 Major Lawn Care Pesticides

atrazine **	DCPA	MCPA **
benefin	diazinon **	mecoprop (MCP) **
carbaryl **	dicamba **	MSMA
chlorothalonil **	glyphosate	oryzalin **
chlorpyrifos **	iprodione **	pendimethalin **
2,4-D **	isofenphos **	trichlorfon **

27 Minor Lawn Care Pesticides

acephate **	ethoprop **	metalaxyl	propoxur **
anilazine **	fenarimol **	oxadiazon	simazine **
bendiocarb **	fosetyl-al	PCNB	thiram **
benomyl **	isazophos	permethrin **	triadimefon **
bensulide	malathion **	pronamide **	triclopyr **
bentazon	mancozeb	propamocarb	trifluralin **
chloroneb	maneb **	propiconazole **	

Note: ** = pesticides listed on the EPA's [Toxics Release Inventory](#)

Some examples are given here.

The full list can be seen on the website:

<http://members.aol.com/rccouncil/ourpage/samples.htm>

chlorpyrifos CAS # 2921-88-2

chemical class: [organophosphate](#)

principal use: insecticide; virtually all homeowner uses of chlorpyrifos are banned in the U.S. as of December 31, 2001

detected in groundwater, and in surface water

listed on the EPA's [Toxics Release Inventory](#)

long-term effects on mammals: cumulative; fetotoxin; delayed neurotoxin; sterility and impotence in bulls

effects on non-target species:

immediate toxicity very high for: molluscs, fish, crustaceans, bees, aquatic insects;
high to very high for birds;
low to high for amphibians

long-term toxicity: birds - leg weakness, delayed neurotoxicity; fish - affects growth; crustaceans - affects reproduction and equilibrium; toxic to some plants

transformation product: pyridinol

common trade names: Dursban; Dowco 179; Lepister (with flucythrinate); Lorsban; Pyrinex; Salut (with dimethoate)

2,4-D CAS # 94-75-7

chemical class: [phenoxy](#)

principal use: herbicide

detected in groundwater, and in surface water

endocrine disrupting effect

listed on the EPA's [Toxics Release Inventory](#)

long-term effects on mammals: carcinogen; suspect mutagen; teratogen; suspect fetotoxin; immunotoxin; toxic injury to liver, kidney, and central nervous system

effects on non-target species:

immediate toxicity: low to very high for fish, crustaceans;
low to high for birds, non-target insects;
low to medium for amphibians, bees; medium for molluscs;
low for soil organisms

long-term toxicity: birds - can affect egg production;
fish - cumulative;
amphibians - inhibits frog egg development;
crustaceans - may significantly reduce population;
molluscs - reduction in population, cumulative;
plants - leaf malformation;
soil organisms - may inhibit growth;
can favor growth of insects and pathogens

transformation products: 2,7-dichlorodibenzo-p-dioxin; 1,3,7-trichlorodibenzo-p-dioxin; 1,3,6,8-tetrachlorodibenzo-p-dioxin; 1,3,7,9-tetrachlorodibenzo-dioxin; TCDD; 2,4-dichlorophenol

common trade names: Agricorn D; Agrotect; Amidox; Cloroxone; College Brand Weed Killer; Ded-Weed Aero Ester; Demise; Dicotox; Dinoxol; Dymec; Esteron 44; Fersone; Green Cross Amine 80; Hormotox; Lawn-Keep; Lithane; Miracle; Niagara Am Sol; Plantgard; Raid Weed Killer; Weedone; Weed-B-Gon; (many other names)

diazinon CAS # 333-41-5

chemical class: [organophosphate](#)

principal use: insecticide; banned from use on golf courses and turf farms in USA

detected in groundwater, and in surface water

listed on the EPA's [Toxics Release Inventory](#)

long-term effects on mammals: suspect mutagen; fetotoxin; suspect neurotoxin; allergic dermatitis; conjunctivitis; immunotoxin

effects on non-target species:

immediate toxicity: very high for birds, fish, amphibians, crustaceans, bees, aquatic insects;
toxic to some plants

long-term toxicity: birds - teratogen

transformation products: [sulfoTEPP](#); [TEPP](#)

common trade names: Bug-B-Gon; Spectracide; AG 500; Alfa-Tox; Basudin; Dazzel; Diazajet; Diazatol; Diazide; Diazinon; Diazitol; Diazol; dimpylate; Dipofene; G 24480; GardenTox; Knox Out 2FM; Neocidol; Nipsan; Sarolex

isopropylamine salt of glyphosate CAS # 38641-94-0

chemical class: [organophosphate](#) (non-acetocholinesterase inhibitor)

principal use: herbicide

long-term effects on mammals: suspect carcinogen (*RCC carcinogenicity rating*); suspect mutagen

transformation product (formaldehyde): carcinogen; suspect mutagen; liver damage; eye damage from transformation to formic acid

transformation product (*N*-nitrosoglyphosate): suspect carcinogen; suspect mutagen
contaminant of surfactant: carcinogen

effects on non-target species:

immediate toxicity: low for bees and birds; low to medium for fish and crustaceans

surfactant: medium to high for fish

long-term toxicity: plants - mutagen

transformation products: formaldehyde; *N*-nitrosoglyphosate (in contact with nitric acid)

surfactant: polyoxyethyleneamine

contaminant of surfactant: 1,4-dioxane

common trade names - isopropylamine salt of glyphosate: Pondmaster; Rattler; Rodeo; Roundup; Roundup L&G; Shackle; Shacklet C; Spasor; Sting; Vision

common trade names - glyphosate (CAS # 1071-83-6): CP67573; Fallow Master (with dicamba); Landmaster (with 2,4-D); Mon 0573

common trade names - sodium salt of glyphosate (CAS # 70393-85-0): Palado

common trade names - glyphosate trimesium (CAS # 81591-81-3): Touchdown

Iprodione CAS # 36734-19-7

chemical class: [amide](#)

principal use: fungicide

listed on the EPA's [Toxics Release Inventory](#)

long-term effects on mammals: unknown at this time

effects on non-target species:

immediate toxicity: low to medium for birds; medium for fish; low to high for crustaceans

common trade names: Chipko-26019; glycophene; Kidan; Rovral

malathion CAS # 121-75-5

chemical class: [organophosphate](#)

principal use: insecticide

detected in groundwater

endocrine disrupting effect

listed on the EPA's [Toxics Release Inventory](#)

long-term effects on mammals: suspect mutagen; suspect teratogen; delayed neurotoxin; allergic reactions; behavior effects; ulcers, gastrointestinal inflammation; damage to eyesight; abnormal brain waves; immunosuppression

effects on non-target species:

immediate toxicity: very high for bees (nectar of treated plants toxic), amphibians, aquatic insects; medium to very high for crustaceans; medium to high for birds, fish; high for earthworms; medium for aquatic worms

transformation products: malaoxon; O,O,S-trimethyl phosphorothioate

common trade names: AC 4049; Carbofos; Cythion; Cyuthion; EmmatosAC 4049; For-Mal; Fyfanon; Kop-Thion; Kypfos; Malagram; Malakill; Malamar; Malaphos; Malatal; Malathion; Malathiozoo; Malaude; Malmed; mercaptothion (South Africa); MLT; Zithiol

permethrin CAS # 52645-53-1

chemical class: [pyrethroid](#)

principal use: insecticide, acaricide

detected in surface water

endocrine disrupting effect

listed on the EPA's [Toxics Release Inventory](#)

long-term effects on mammals: blood damage

effects on non-target species:

immediate toxicity: very high for fish and marine invertebrates; toxic to bees; practically non-toxic to birds

common trade names: Ambush; Atroban; Bio Flydown; Corsair; Dragon; Ectiban; Expar; Gard-Star; Hard-Hitter; Insectiban; Jureong; Kafil; Nix; Over-Time; Permethrin; Pounce; Quamlin; Rondo; Stockade; Tornade; Torpedo

trifluralin CAS # 1582-09-8

chemical class: [dinitroaniline](#)

principal use: herbicide, cancelled most uses USA, 1982 (but still being used)

detected in groundwater, and in surface water

endocrine disrupting effect

listed on the EPA's [Toxics Release Inventory](#)

long-term effects on mammals: suspect carcinogen; suspect mutagen; suspect teratogen; fetotoxin

contaminant: carcinogen; mutagen

effects on non-target species:

immediate toxicity: very high for amphibians; high to very high for fish and crustaceans;

medium for aquatic insects; low to medium for bees; low for birds

contaminant: *N*-nitroso-di-*n*-propylamine

common trade names: All American Crabgrass Preventer Plus Lawn Food (with benefin); Buckle (with triallate); Cannon (with alachlor); Carpidor; Commence (with clomazone); Fertilome Crabgrass Preventer Plus Lawn Food (with benefin); Green Light First Down Crabgrass Control (with benefin); Greenskote (with benefin); Hi-Yield Crabgrass Preventer (with benefin); Ipersan; Janus; Laurel; Lextra (with linuron); Mudekan; Preen; Salute (with metribuzin); Setre XL 2G (with benefin); Su Seguro Cardidor; Team (with benefin); Trefanocide; Treficon; Treflan; trifluraline (France)

Alternatives to Pesticides: Organic Land Care and Non-Toxic Pest Control

Contents:

What is Organic Land Care?

Compost Provides an Alternative to Pesticides and Fertilizers

Northeast Organic Farming Association articles

Books

In Binder Pocket:

Northeast Organic Farming Association (www.massorganic.org)

Home Composting (www.state.ma.us/dep/dephome.htm)

Don't Trash Grass (www.state.ma.us/dep/dephome.htm)

Beautiful Lawns Naturally booklet (www.ci.wellesley.ma.us/nrc/pesticide)

Healthy Lawns and Landscapes (www.ci.wellesley.ma.us/nrc/pesticide)

Web Resources:

Northeast Organic Farming Association (NOFA)

www.massorganic.org

Solving Ant Problems Non-chemically, Journal of Pesticide Reform,

<http://www.pesticide.org/ants.pdf>

Wellesley Pesticide Awareness Campaign/NOFA "Beautiful Lawns Naturally."

www.ci.wellesley.ma.us/nrc/pesticide Click on Organic Lawn Care Guide.

Journal of Pesticide Reform fact sheets on safer alternatives to pesticides.

www.pesticide.org/factsheets.html

Wisconsin's School Integrated Pest Management Manual

<http://ipcm.wisc.edu/programs/school>

How To Implement An IPM Plan In Your Building(s) www.massdfa.org/publications.htm

Ecological roadside vegetation management (Federal Highway Administration)

www.fhwa.dot.gov/environment/veg_mgt.htm

Least Toxic Pest Control from BIRC (subscription service)

www.birc.org

Non-toxic or less toxic pest management services:

Northeast Organic Farming Association, list of accredited organic landscapers

www.massorganic.org

Ecological Landscaping Association, list of ecologically minded landscapers

www.ela-ecolandscapingassn.org

Resources on Composting and Organic Gardening

Massachusetts Department of Environmental Protection, One Winter St., Boston, MA 02108; www.mass.gov/dep/recycle, or call Ann McGovern (617) 292-5834;

Biocycle, pub. JG Press. Trade journal for composting and other organic recycling methods. Excellent source for the latest developments in the field. www.biocycle.net.

Organic Gardening, pub. Rodale, Inc., Emmaus PA. A good, practical magazine, full of information about organic gardening techniques. J. I. Rodale, founder of *Organic Gardening*, was one of the most ardent promoters of using compost to improve soil. The magazine regularly includes articles on composting.

Rodale Guide to Composting, Rodale Press. A composting “bible;” good source of information about the role of compost in soil health.

www.soilfoodweb.com - Informative web site by soil microbiologist Elaine Ingham of Oregon State University.

www.mastercomposter.com - Informative web site about home composting managed by Mary Tynes, Master Composter from Plano, TX.

What is Organic Land Care?

In chemistry, any molecule that contains a carbon atom is organic. NOFA, the Northeast Organic Farming Association, refers to a different meaning of organic, used to refer to food, farming, and now land care. By organic, we mean that no synthetic pesticides or synthetic fertilizers are used and that the land care practices used on a property will benefit the whole ecosystem.

In the past, organic land care was a term that had no specific definition or standards. To parallel the stringent standards farmers must meet to be certified as “organic,” the NOFA Organic Land Care Committee has developed standards for organic land care. These standards have adapted the principles used in organic agriculture to the special challenges of designing and maintaining landscapes.

The guiding principle of organic land care is to protect and enhance the natural ecosystem and to DO NO HARM. Another guiding principle is that plant health depends on growing the plant in the right place and in healthy soil appropriate to the habitat and needs of the plant. Important goals of organic land care include:

- Working with natural systems to enhance biological cycles rather than seeking to dominate them.
- Maintaining and improving the long-term health of soils.
- Avoiding pollution when creating or caring for landscapes.

Land care or landscaping consists of many different elements. Lawns, gardens, specimen trees and shrubs and natural areas are all landscaping. Land care also includes different activities such as installing new plants, maintaining existing ones, and removing diseased, dying or undesirable plants.

Organic Land Care Standards

Members of the Connecticut and Massachusetts Chapters of NOFA have created Standards for Organic Land Care: Practices for Design and Maintenance of Ecological Landscapes. This NOFA Organic Land Care Committee worked for two years to write the standards, which are the first of their kind in this country.

The NOFA Organic Land Care standards cover all aspects of land care, including: site analysis, soil health, fertilizers and soil amendments, planting and plant care, lawn and lawn alternatives, invasive plants, weeds, mulches, pest management, wildlife management, and disease control.

According to Kim Stoner, Ph.D., the chair of the committee, "These standards are just as rigorous as those set for organic agriculture by Connecticut and Massachusetts NOFA chapters, but they have also been adapted to address the special issues and challenges of designing and maintaining landscapes."

The 60-page standards spell out recommended, allowed, and prohibited practices and materials according to what the committee, consisting of land care professionals, scientists, educators, and activists, finds to be ecologically appropriate. Printed copies of the standards are now available for \$20 each from NOFA/Mass, 411 Sheldon Road, Barre, MA 01005; 978-355-2853.

The Organic Land Care Standards Committee has adopted the following mission statement:

Education of land care professionals and concerned citizens in the methods, benefits and limitations of organic and sustainable land care, with the goal of eliminating pesticide and synthetic chemical use, improving the soil, increasing landscape diversity, and improving the health of people and all living organisms that make up the web of life on the earth.

We intend to accomplish this mission by creating a professional accreditation program beginning in spring 2002 and a public information workshop on the basics of organic land care. A brochure for concerned citizens is now available. To request a copy contact the Mass. Organic Land Care Administrator, Marilyn Castriotta, at castriotta@aol.com

Compost Provides an Alternative to Pesticides and Fertilizers

Massachusetts Department of Environmental Protection May 2002

How Does Compost Provide an Alternative to Pesticides and Fertilizers?

Good quality compost is the cornerstone of organic gardening and landscaping. The simple truth is that healthy, vigorous plants resist pests and diseases. The best way to raise healthy plants is to have healthy soil, and the best way to have healthy soil is to use compost.

Benefits of Using Compost:

- Adds organic matter, which improves soil structure (increases water and nutrient-holding capacity of sandy soils and helps lighten heavy, clayey soils);
- Provides nutrients, moisture retention and porosity needed to support plant and soil life;
- Provides continuous release of the types and amounts of macro and micronutrients plants need in a form they can absorb for about one year;
- Increases biodiversity by adding microbes to the soil, as well as earthworms, nematodes, fungi and a host of other soil dwelling organisms;
- Helps plants resist disease;
- Buffers the soil (helps soil maintain a neutral pH, neither too acidic nor too alkaline).

Biodiversity in the Soil

Biodiversity is one of the foundations of organic gardening and yard care because organic gardening relies on natural systems to manage pests and enhance growth. Biodiversity makes it possible to control pests without chemicals. Every organism has a natural enemy. If we encourage an environment that is conducive to all species, the pests' natural enemies will keep potential pest populations in check, and none will be able to dominate. Organic practices require tolerance for all creatures and recognition that all have a role to play. As long as biodiversity is maintained, it is unlikely that any species will threaten the overall health of the garden or landscape.

Synergistic Effect of Compost Results in Healthy Plants

Compost's powerful effect on plant health and vigor comes from the combination of benefits it provides, which cannot be artificially replicated as successfully, cost-effectively or sustainably. There are no synthetic products that provide all the beneficial and synergistic effects that compost imparts to the soil and the plants growing in it. Not only does compost

supply a whole ecosystem of beneficial soil organisms, it also provides all the things they need to thrive and multiply – food, moisture-holding humic substances, buffering qualities and enough diversity so none can take over. That is why using high quality compost eliminates the need for synthetic fertilizers and pesticides in our lawns, gardens and landscapes.

On top of all these horticultural benefits, composting enables us to organically recycle as much as 50% of our household waste.

Municipal Composting Strategies

Municipal composting is a cost-effective and environmentally sound way to recycle your community's leaves and yard waste. It provides a way for the municipality and its residents to comply with the statewide ban on disposal of yard waste and converts organic debris into a beneficial soil amendment that may be used to improve growing conditions on municipal and residential property. Adding good quality compost to the soil results in healthy plants, essentially eliminating the need for pesticides and fertilizers.

Develop a municipal composting program and register it with the Massachusetts Department of Environmental Protection (DEP)

DEP provides technical assistance to help develop or improve municipal composting programs. See contact information below.

Develop a strategy for keeping municipal compost pesticide-free

This may entail educating the public about persistent herbicides and discouraging users of the municipal compost site from bringing grass clippings that have been treated with persistent herbicides to the site. Promote on-site management of grass clippings (see below).

Provide education on home composting and leaving clippings on lawns

Home made compost can be kept free of contaminants by the resident. Home composting also provides residents with a way to recycle additional organic waste, such as fruit and vegetable scraps and soiled paper. Lawn clippings that may contain herbicides are better left on residents' lawns.

- Provide composting information. DEP provides home composting brochures through the Municipal Recycling Grant program to all municipalities that request them.
- Provide information describing how and why to leave grass clippings on the lawn. DEP provides a "Don't Trash Grass" brochure through the Municipal Recycling Grant program to all municipalities that request them. Encouraging residents to leave clippings on their lawns is a key alternative to accepting grass clippings at municipal compost sites. The more outreach you provide, the more successful you will be at reducing this portion of the waste stream without managing it on the municipal level.

Provide physical resources for composting

- Provide compost bins through DEP's Municipal Recycling Grants and publicize your program effectively and regularly.
- Provide municipal compost to residents to encourage sustainable, pesticide-free yard care practices.

Northeast Organic Farming Association Articles

The New Job Where Organic Isn't about Food

by Jonathan von Ranson, Editor
NOFA/Mass News

The new position of NOFA/Mass Land Care Coordinator is now filled, and the person who occupies it, Marilyn Castriotta, says a few years ago she dedicated the rest of her life to protecting the environment.

"I literally actually woke up one day realizing this was it," she said. "Like a light went off." She has her masters in anatomy and physiology and had been doing diagnostic medical work in hospitals for ten years. Now, since moving out more into the environment, she wonders why she didn't "realize this earlier... "I'm more of a preventative person!"

Marilyn, who lives in Cambridge but grew up in Barre, said another flash of insight came when she learned that there's more non-farm land than farmland under active management in the Northeast. "I always thought I'd work with organic food," she said. But she realized all the organic agriculture in the world wouldn't improve the treatment that land got from non-farmer owners and professional landscape maintainers and forestry people. This summer she joined the land care crew of Priscilla Williams' Pumpkin Brook Organic Gardening. Priscilla is the NOFA/Mass member who, along with Don Bishop of Gardens Are... played a key role in the development of the new NOFA-administered program. That's where Marilyn heard about the position, funded for its startup year by Massachusetts Environmental Trust and New England Grassroots Environment Fund.

She started two months ago overseeing the training program for land care professionals to become accredited organic. That allows them to offer land care labeled organic in Massachusetts and Connecticut. She is also responsible to educate wider and wider circles of landowners about the benefits of non-toxic, indigenous-oriented, low-energy approaches to landscaping and land care. She says it's "very exciting to be meeting people who really want to do it. It seems like the audience is gathering itself."

At the same time, there's much need for information. "People will earnestly go to a garden center wanting to do things less toxically and sometimes get the wrong information because the people giving the information haven't been taught the answers."

Organic land care isn't just about the fertilizer and pesticide issue; it's an effort to lighten the energy impact of land care by lighter use of power equipment, more nearby sources of fertilizer (compost), etc. In general, it's about increasing the consciousness of property owners about the life of the land entrusted to their care and the ways they can let it do its ecological job better, themselves and through enlightened land care professionals.

"The awareness of the great need for protecting the Earth is starting to take hold," Marilyn said. Already in her job, she sees "the great number of non-related activities, all of the people from different parts of the picture, their interests converging. That's where I hope the spirit of change will make a difference," she said, "in our interconnectedness."

Impressions of the First Organic Garden Tour – [Excerpts]

Cheryl Hill, Watertown, NOFA Board of Directors

The First Organic Garden Tour couldn't have been more perfect for me. On a hot July day [2002], while my husband and son were out of town, just me and the dog cruising around the towns of Newton, Needham and Wellesley. Dropping in on some very knowledgeable and passionately organic gardeners who are reaping the rewards of their thorough research into sustainable gardening methods. Low cost. Low impact. Superb results.

At the first stop, despite the close suburban quarters, I saw a large butterfly garden, shaded perennials, and useful medicinal herbs. Now I know I'm not the only one with an old-fashioned push-type mower and rain-collection system.

At the fourth site, I learned that roses love coffee grounds and garlic. Daffodils planted with any member of the allium family (onions) will not be bothered by squirrels. Covering bulbs with chicken wire and a little more mulch or compost will also keep the squirrels at bay. And cinderblocks make a strong border for raised beds that won't fall apart like wood.

Site 5 bordered the Charles River Reservation. Their solution for poison ivy was a wide black plastic path covered with mulch, which allowed the owners to put their kayak and canoes in the water without the itch. Corn gluten keeps the pH of the lawn just right for fescue (drought-tolerant grass) and deters crabgrass, mold, etc. Astilbe makes a nice ground cover for a shady area. A woman from the Waltham Garden Club said one rule for dividing perennials is "Roots Not Fruit in the Fall."

Site 7 was truly amazing (read engineering and horticultural marvels). A passive solar heating system provides 60% of the home heat and hot water. Although most of the back wall of the house is glass, with tile floors, because of the sun's seasonal angles, direct light penetrates only 1 foot during the summer but all the way to the front wall in winter. Green leaf mold (www.greenleafcompost.com) and household compost keeps the asparagus, kiwi, Asian Pears, high bush cranberry, strawberry, josteberry, raspberry, blueberry, oriental chestnut tree, peach trees, apple tree, and many other delightful and edible species happy. Tomatoes like red plastic for ground cover—something about the light-wave spectrum. Copper sulfate keeps fungus off the peach trees. This was a wonderful example of how to blend solar heating with low-growing shade/fruit trees and full-sun crops on a suburban plot. President Bush and the oil lobby must be scared to death. Alternative energy is here. You can have it all!

Site 9 was an inspirational lesson in what is possible in an average-size yard owned by someone with allergies and a house that needs regular repainting. I had seen some incredible Japanese gardens during my twelve years in Japan, but this English theme with many Japanese species was true stunner. One hundred forty different Rhododendrons, 48 Conifers, 9 types of Japanese maples, spring bulbs, and 13 "other trees of note" are crammed into a yard overlooking the Newton train stop.

Books

Tiny Game Hunting: Environmentally Healthy Ways To Trap And Kill The Pests In Your House And Garden New Edition

by Hilary Dole Klein, Adrian M. Wenner, Courtlandt Johnson. This book, appealing to the hunter in us all, shows how to triumph in combat with pests without losing the war to toxic chemicals. Tiny Game Hunting, written in a lively and entertaining style and illustrated with detailed drawings, gives more than two hundred tried-and-true ways to control or kill common household and garden pests without using toxic pesticides. Softcover, 275 pages, \$14.95

Common-Sense Pest Control by William Olkowski, Sheila Daar, Helga Olkowski. If you have a home, an apartment, a garden, or a pet, you've probably got pests. And if you want to control pests, there's no need to poison yourself. While the Green Revolution and DDT and other pesticides dominated the world of agribusiness, thoughtful scientists world-wide were simultaneously and silently working on "Integrated Pest Management", which is often as effective as pesticides at reducing or eliminating pests. From ridding your apartment of cockroaches to dealing with the regional deforestation threats of Gypsy Moths, this is the authoritative book on how to control pests by using the natural mechanisms of control that have kept our planet from being savaged, prior to our human disruptions. Hardcover, 712 pages, \$39.95

Edaphos: Dynamics Of A Natural Soil System 2nd Edition by Paul D. Sachs. If you have ever wondered why the soil and plants respond the way they do to the many different treatments we apply, then EDAPHOS is the book for you. Author Paul Sachs spent sixteen years studying soil system dynamics and translated it all into a non-technical, non-boring book for anyone interested in knowing the finer details of how the soil system works. This book covers and connects the often difficult to understand subjects of soil chemistry, soil biology and soil physics (to name only a few) into an interesting and very clear story of how the soil machine runs. Softcover, 206 pgs, \$14.95.

Handbook Of Successful Ecological Lawn Care by Paul D. Sachs. Although written for professionals, this handbook offers vital information to any serious lawn steward interested in reducing or eliminating chemicals without sacrificing turf quality. It is guaranteed to make lawn care professionals think about the way in which they do business, both at the site and in the office. This book contains some very new information on lawn care alternatives. See the enclosed brochure for more information on this title. Softcover, 284 pages, \$18.95.

Ecological Golf Course Management by Paul D. Sachs and Richard T. Luff is the most comprehensive work ever done on ecological turf management. It's a must-have for any superintendent interested in reducing or eliminating chemical pesticide use. *Ecological Golf Course Management* addresses the concerns of both the superintendent and the environmentalist. This book approaches quality turf management through an understanding of turf ecosystem dynamics conveyed in easy-to-read text. The turf manager will gain critical knowledge of natural soil system dynamics that has never been discussed in turf books before. It points out ways to exploit natural plant defense systems that have been largely ignored and to engage many of the powerful allies that live above and below ground. Hardcover, 200 pages, \$59.95.

Presentation Packet

**Here is an *Example* of an informational packet
to present to a Board of Health or other Town Department**

Contents

Memo stating goals
General statement on pesticides
Statements from:
American Public Health Association
American Academy of Pediatrics
National Parent Teachers Association
The League of Women Voters
United States General Accounting Office
Massachusetts House and Senate – unanimously
Senator Edward Kennedy (MA)
Senator Patrick Leahy (VT)
Diazinon and Dursban notices
Newton mayor's statement
Marblehead's Board of Health statement
Pesticides used on Our Town land and their health effects and costs
Alternatives to these pesticides
[YOU MIGHT ADD: Statements from your local groups who support pesticide use reduction]
Photo of Marblehead's organic lawn demonstration site

Memo:

To: Town Department (e.g. Board of Health, Selectmen)
From: Concerned citizens/organizations of your town
Date: February 7, 2002
Re: Pesticide Use Reduction

Goals:

Whereas pesticides, in addition to their intended effect on pests, can harm humans, pets, beneficial insects, plants, fish, birds, and other wildlife, we wish to reduce pesticide use in our town.

Today we are specifically asking the Board of Health to orchestrate an official alliance with the Selectmen, DPW, Park and Recreation to accomplish the following actions:

1. Alert the residents of our town that pesticides are dangerous and there are alternative actions and products available as substitutes. Send this message out with town bills at least once per year.
2. Alert the residents of our town that Diazinon and Dursban have been banned by the EPA, and they should be avoided.
3. Adopt a pesticide reduction policy on Town owned land and buildings in the form of an IPM [or organic] pest management policy which reduces [or eliminates] pesticides on town property.

We are certain that:



- **“Exposure to contemporary-use pesticides is greater than most people realize. Many populations of wildlife and humans are exposed.**
- **Exposure often occurs without the exposed individual's knowledge.**
- **A general lack of understanding by the public about pesticides and pesticide approval procedures has led to a false sense of security or to fear about the use of pesticides, both of which preclude rational analysis of the problem.**
- **Many contemporary-use pesticides adversely affect the reproductive, nervous, immune, endocrine, and metabolic systems.”**

Dr. Theo Colborn, Director, Wildlife and Contaminants Program, WWF US, coauthor "Our Stolen Future," from opening paragraph of a Consensus Statement released in 1999 by an expert group of scientists who met to discuss the health effects of contemporary-use pesticides at the Wingspread Conference, 1991.

Chapter 85 of the Acts of 2000

<http://www.state.ma.us/legis/laws/seslaw00/sl000085.htm>

AN ACT PROTECTING CHILDREN AND FAMILIES FROM HARMFUL PESTICIDES.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

SECTION 1. (a) The general court finds that:

- (1) the people of the commonwealth have a fundamental right to know about the use of pesticides;
- (2) pesticides contain toxic substances, many of which may have a detrimental effect on human health and the environment and, in particular, have developmental effects on children;
- (3) citizens of the commonwealth are being denied their right to know and their ability to make informed decisions about the level of pesticide exposure to them and their children; and
- (4) information compiled regarding pesticide use in the commonwealth is not maintained in a manner which is useful to the public, thereby making it difficult to assess and address the potential health and environmental impact of pesticide use in the commonwealth;

(b) The policy goals of this act are to:

- (1) prevent unnecessary exposure of children to chemical pesticides;
- (2) promote safer alternatives to pesticides;
- (3) ensure that clear and accurate notification concerning the use of pesticides in schools, day care centers and school age child care programs be made available so that measures may be taken to prevent and address pest problems effectively without endangering children or adults;
- (4) promote the use of integrated pest management techniques to reduce the need for reliance on chemical pesticides; and
- (5) develop a comprehensive, reliable and cost-effective system for collecting and organizing information on all categories of pesticide use in the commonwealth for review by government agencies, researchers, policy makers and the public to ensure the public health and safety and to protect the environment of the commonwealth.

League of Women Voters

Promoting Democracy in America

http://www.lwv.org/where/promoting/agricultural_read_pg4.html

Read About Agricultural Policy (cont.)

In fall 1989, the League opposed a bill in Congress that would have preempted stricter state laws on the regulation of pesticides. Following the 1990 League convention, as Congress was considering the periodic reauthorization of the major farm bill, **the League urged all members of the House to pass a bill that would protect land and water resources, reduce the use of toxic chemicals,** and target research and technical assistance to developing environmentally sound agriculture practices.

The League called for measures to strengthen conservation provisions, continue the conservation reserve, and permit retention of base payments and deficiency payments when farmers file and implement an approved plan for farming with environmentally beneficial practices. The League also called for national standards of organic production and against the export of pesticides that are illegal in the United States.

In 1988-1991, the League of Women Voters Education Fund (LWVEF), in cooperation with Public Voice for Food and Health Policy and state and local Leagues conducted a citizen education project on agricultural issues, including pesticide residues in food and water, sustainable agriculture, and research and technology.

American Public Health Association

FOR IMMEDIATE RELEASE

Contact: David Fouse, 202-777-2435

Carole Zimmerman, 202-777-2434

<http://www.apha.org/news/press/1998/pesticid.htm>

Seeks to Protect Children of Farm Workers from Pesticides

Washington, DC, October 22, 1998 - The American Public Health Association today joined in petitioning the U.S. Environmental Protection Agency to create stronger safeguards under the Food Quality Protection Act to protect the health of children of farm workers and of children who live on or near farms from pesticides.

"More than a million children of farm workers in the United States are exposed to agricultural pesticides from their parents and many more children are exposed from living on or near farms," said Mohammad N. Akhter, MD, MPH, executive director of the American Public Health Association. "Pesticides pose a much greater risk to children than adults, and farm children are exposed to much higher concentrations of these toxins from parents who bring pesticide residues home with them on their clothing and skin, from contaminated well water and even from breastmilk."

Infants and children, whose immune systems and organs are still developing, are much more vulnerable to pesticide toxicity than adults. Children frequently have higher exposure to pesticides as well. They breathe more air, eat more food and drink more water per body mass compared with adults; they play on the ground and often place their unwashed hands in their mouths.

"Several studies have suggested a link between pesticides and leukemia, sarcomas and brain tumors," said Akhter. "The public health community needs reliable data and proven research to protect the nation's health against pesticides and other harmful substances. We urge federal funding for studies to better measure the long-term impact of these pesticides on our environment and health, particularly for vulnerable populations such as children. **Just a small amount of toxin exposure during critical periods of development can have an irreversible effect lasting a lifetime.**"

The American Public Health Association, the oldest and largest organization of public health professionals, represents more than 50,000 members from over 50 public health occupations.

American Academy of Pediatrics

Hazards of Common Toxic Chemicals

http://www.medicines.com/MedLB/article_detailb.cfm?article_ID=ZZZSZ3ZVQ7C&sub_cat=29

Children are particularly susceptible to pesticides in their environment. They can be exposed to pesticides in the food they eat and the water they drink. Pesticides are used on farms as well as in home lawn and garden care. Although they are designed to kill insects, weeds and fungi, many pesticides are toxic to the environment and to people, especially children. Too much exposure to pesticides can cause a wide range of health problems. Washing all fruits and vegetables with water is one way to reduce pesticide exposure for your entire family. Also, using in-season produce can help as they are less likely to be heavily sprayed. Try buying foods that are grown without the use of chemical pesticides, too. In your own garden, use non-chemical pest control methods and if you must spray, keep children and pets away from the sprayed area until it has been watered several times. The most important thing you can do to protect your children is to keep all pesticides out of their reach, preferably in a locked cabinet.

National Parent Teacher Association

1998 Reducing Pesticide Use at Home

<http://www.pta.org/programs/ourworld/9801/feature.htm>

Most people feel that getting rid of household pests such as cockroaches, mice, or rats is as simple as buying pesticide and using it in the house. However, the improper use of pesticides can result in serious health problems, especially for the developing bodies of children. In 1995, the American Association of Poison Control Centers reported that approximately 79,000 children were involved in common household pesticide poisonings or exposures.

Pesticides are chemicals designed to control or eliminate "pests" and are sold as sprays, liquids, sticks, powders, crystals, balls, and foggers. These pesticides can end up where no one really wants or expects them—in indoor air, on carpets, desks, tables, and toys, and in areas where children play. **To prevent unnecessary exposure to pesticides, the National PTA encourages the use of integrated pest management (IPM) at homes and schools.**

The best way to reduce pesticide use is by preventing the pests from making your house their home. Here are a few "pest prevention" suggestions:

- **Eliminate Food Sources.** Store foods in tightly sealed containers. Keep your kitchen clean. Regularly vacuum places where food may have been dropped, including chairs and sofas. Empty your garbage can frequently.
- **Eliminate Shelter.** Block off or get rid of pest hiding places. Many pests live inside cardboard and paper bags and cockroaches may even eat the glue that binds them together. Do not store boxes, cardboard, paper, clothes, or containers on the floor. Eliminate clutter, especially on the floor or in cabinets under sinks.
- **Prevent Access.** Block passageways through the floor and caulk and seal openings in walls and cabinets. Install screens on windows and doors.
- **Reduce Moisture.** Fix leaky plumbing and make sure there is no standing water in trays under your house plants, under your refrigerator, or in buckets. Do not leave wet rags and other damp materials lying around your house.

If your home has been invaded by pests, try to use non-chemical methods such as mouse traps and sticky insect traps, or more controlled pesticides such as a bait trap before using pesticide sprays or foggers. If you must use chemical pesticides, make sure to read the label and follow the directions carefully. Be sure to store any pesticides out of reach of children and make sure children are not allowed in the rooms where pesticides were recently used. Also, increase ventilation in the rooms during and after use of pesticides. If you have unused or partially used pesticide containers you want to get rid of, dispose of them according to the directions on the label or on special household hazardous waste collection days.

United States General Accounting Office: Reduce Pesticide Use

<http://www.gao.gov/docdb/lite/summary.php?recflag=&accno=A01403&rptno=GAO-01-815>

Agricultural Pesticides: Management Improvements Needed to Further Promote Integrated Pest Management GAO-01-815 August 17, 2001

Chemical pesticides play an important role in providing Americans with an abundant and inexpensive food supply. **However, these chemicals can have adverse effects on human health and the environment, and pests continue to develop resistance to them.**

Sustainable and effective agricultural pest management will require continued development and increased use of alternative pest management strategies, such as integrated pest management (IPM). Some IPM practices yield significant environmental and economic benefits in certain crops, and IPM can lead to better long-term pest management than chemical control alone. However, the federal commitment to IPM has waned over the years. The IPM initiative is missing several key management elements identified in the Government Performance and Results Act. Specifically, no one is effectively in charge of federal IPM efforts; coordination of IPM efforts is lacking among federal agencies and with the private sector; the intended results of these efforts have not been clearly articulated or prioritized; and methods for measuring IPM's environmental and economic results have not been developed. Until these shortcomings are addressed, the full range of potential benefits that IPM can yield for producers, the public, and the environment is unlikely to be realized.

Subject Terms

Pesticides

Interagency relations

Environmental monitoring

Agricultural pests

Agricultural chemicals

USDA Integrated Pest Management Program

United States General Accounting Office: Lawn Care Pesticides

See <http://www.getipm.com/government/fifra-laws/gao-rpt.htm> for full report.

Risks Remain Uncertain While Prohibited Safety Claims Continue

Report to the Chairman, Subcommittee on Toxic Substances, Environmental Oversight, Research and Development, Committee on Environment and Public Works, U.S. Senate
GAO/RCED-90-134 **March 1990**

Executive Summary

Purpose:

The professional lawn care business has developed into a billion dollar industry over the last decade as more and more people have turned to such companies for lawn maintenance. To create beautiful lawns free of weeds and pests, professional lawn care companies rely on chemical pesticides. Many homeowners purchase this service, while others purchase and apply these pesticides themselves. As with most pesticides, these chemicals have the potential to create serious problems affecting human health and the environment. The range of concerns about the risks of pesticides has expanded to include potential chronic health effects, such as cancer and birth defects, and adverse ecological effects. **Currently these pesticides are being applied in large amounts without complete knowledge of their safety.**

Concerns have been raised about protecting the public from exposure to the risk of lawn care pesticides. As a result, the Chairman, Subcommittee on Toxic Substances, Environmental Oversight, Research and Development, Senate Committee on Environment and Public Works, requested that GAO review the information that the lawn care pesticides industry-manufacturers, distributors, and professional applicators-provides to the public about the safety of its products, federal enforcement actions taken against lawn care pesticide safety advertising claims, and the reregistration status of 34 lawn care pesticides.

Background: Under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), the Environmental Protection Agency (EPA) is required to evaluate the risks and benefits of a proposed pesticide before it is registered for use. More recently, the FIFRA Amendments of 1988 (known as FIFRA '88) imposed mandatory time frames and provided resources to help accelerate the reregistration of older pesticides, including those used in lawn care products. Reregistration is the process of bringing approximately 24,000 registered pesticide products into compliance with current data requirements and scientific standards and taking appropriate regulatory action on the basis of this new knowledge. Last May GAO testified before this Subcommittee on the status of EPA's reregistration program and concluded that EPA had not made substantial progress in reassessing the risks of these pesticides.

FIFRA also authorizes EPA to take enforcement action against advertising claims made by pesticide manufacturers and distributors. This authority, however, does not extend to claims made by professional applicators such as lawn care companies. The Federal Trade

Commission (FTC), under its own legislative authority to protect consumers against false and deceptive advertising, can, however, take enforcement action against professional pesticide applicators as well as manufacturers and distributors.

GAO reported in 1986 that the pesticides industry sometimes makes safety claims for its products that EPA considers to be false and misleading and that EPA had taken few formal enforcement actions against safety claim. GAO concluded that EPA had made limited use of its authority over unacceptable advertising safety claims and recommended that EPA take steps to strengthen and improve its program for regulating such claims.

Results in Brief: GAO found that the lawn pesticides industry continues to make prohibited claims that its products are safe or nontoxic. Such claims are prohibited by because they differ substantially from claims allowed to be made as part of the approved registration. EPA considers these claims to be false and misleading. GAO also found that EPA has yet to establish an effective program to determine whether pesticide manufacturers and distributors are, in fact, complying with requirements. In addition, EPA does not have authority over safety claims made by professional applicators.

The FTC can act against false and misleading pesticide safety advertising by manufacturers and distributors, but it has taken no enforcement action in this area since 1986. FTC officials told GAO that it prefers to defer to EPA in such matters because of EPA's expertise and legislative authority. Fm has not acted against professional applicator claims because it believes EPA has been handling such claims on an informal basis.

Finally, EPA is still at a preliminary stage in reassessing the risks of lawn care pesticides under its reregistration program, which '88 requires to be completed within 9 years. Of the 34 most widely used lawn care pesticides, 32 are older pesticides and subject to reregistration. Not one of these, however, has been completely reassessed.

Health Risks of Lawn Care Pesticides Have Not Been Fully Reassessed

GAO's review of the reregistration status of 34 major lawn care pesticides determined that EPA is still at a preliminary stage in reassessing the risks of lawn pesticides and has not completely reassessed the health risks of any of the major lawn care pesticides subject to reregistration. While EPA has made some progress in identifying the data needs and conditions of reregistration for many of these pesticides, uncertainties about their health risks still exist. For the two most frequently used lawn pesticides-diazinon and 2,4-D-EPA identified concerns about possible health effects associated with their use. No final determination has been made as to whether these concerns warrant any further regulatory action.

Until EPA completes its reassessments and takes appropriate regulatory action, the public's health may be at risk from exposure to these pesticides. GAO believes that while the 1988 Amendments can help accelerate the reregistration process, reregistering pesticide products and reassessing their risks remain formidable tasks.

STATEMENT OF SENATOR EDWARD M. KENNEDY ON THE SCHOOL ENVIRONMENT PROTECTION ACT AMENDMENT TO ESEA

November 27, 2001

<http://www.senate.gov/~kennedy/statements/01/11/2001B28B46.html>

For Immediate Release

Contact: Jim Manley

(202) 224-2633

It's an honor to be here today with my colleagues Senator Torricelli, Senator Harkin, Senator Reid, and Senator Boxer, and I commend them for their leadership in protecting students from pesticides at their schools. I also commend Congressman Rob Andrews for his leadership on the School Environment Protection Act.

In recent weeks, the nation has been gripped by the fear of biological and chemical attack. But every day in schools across the nation, children are exposed to dangerous pesticides that can make them sick.

We know that in too many school districts across the country, untrained people are making critical decisions day in and day out about the use of pesticides in school buildings and on school grounds.

We know that children may be especially sensitive to even low levels of dangerous substances. We need to take special precautions to protect the development of their immune systems and their nervous systems. EPA has evidence that a large number of pesticides are carcinogenic in animal studies. Federal law now permits protections for farmers from re-entering their fields too soon after pesticide use, but no such protections are available in the case of schools.

We know from sad and harsh experience the dangerous consequences for children from exposure to lead in paint. We shouldn't have to learn these lessons again for the exposure of children to dangerous pesticides.

We cannot allow schools to be chemical death traps for our children. If their schools make them sick, no measure of education reform will improve their learning.

Our proposal is a needed step to protect students from the harmful effects of pesticides in and around their school buildings. Children attend school at least 180 days a year. Effective precautions are essential in order to reduce their exposure to environmental chemicals and disease.

Dealing with the harmful impact of pesticides on students and schools should be part of overall education reform. This important measure will provide needed protection by limiting the use of toxic pesticides in and around schools.

Parents support the amendment because they want to know their children are safe. Teachers support it because they want to work under safe conditions, and they know that students learn more effectively when they are safe and healthy.

It is long past time for Congress to take this important step to protect schools and classrooms from the dangerous use of pesticides.

Statement from Senator Patrick Leahy of Vermont

GAO Finds That USDA and EPA Have Neglected Pledge to Cut Pesticide Use

<http://leahy.senate.gov/press/200109/010927.html> September 27, 2001

WASHINGTON (Sept. 27) – Federal agencies can and should be doing more to encourage farmers to reduce use of toxic pesticides on U.S. crops and farmland, according to the General Accounting Office (GAO), Congress's "watchdog" agency.

In a report requested and released by Sen. Patrick Leahy (D-Vt.), a senior member of the Senate Agriculture Committee, GAO concludes that the U.S. Department of Agriculture (USDA) and the Environmental Protection Agency (EPA) have done little to act on their 1993 pledge to reduce pesticide use through promotion of integrated pest management (IPM) programs. GAO found that the amount of pesticides used since then has actually increased and that while use of the riskiest pesticides has declined, they still account for more than 40 percent of all pesticides used today.

Leahy asked for the GAO study last year after learning that national pesticide use had risen by almost 40 million pounds since 1992, despite the IPM policy launched in 1993. Integrated pest management methods combine the use of chemical pesticides with nonchemical pest management practices such as planting pest-resistant crop varieties and protecting beneficial organisms. IPM has long been a high priority for farmers, communities, and environmental advocates interested in reducing chemical pesticide applications while producing high-quality crops. Pesticide producers are also interested in the technology because of the rising resistance of several species of pests to standard pesticide applications.

"Our food supply remains the safest and highest quality on earth, but we continue to overdose our farmland with powerful and toxic pesticides and to under use the safe and effective alternatives," said Leahy. "This report makes it clear that pesticide-reducing programs work, and that they need to be a higher priority to help farmers save money, protect the environment and continue producing the highest quality foods for our citizens and children."

USDA research scientists, grower associations and major food processors have shown that IPM practices can produce major environmental benefits in particular crops and locations without sacrificing yield quality or quantity or adding costs. For example, apple and pear growers in Washington, Oregon and California used IPM techniques to cut use of chemical pesticides by 80 percent. The IPM strategy reduced farmers' pest management costs and produced a higher-quality harvest. The National Academy of Sciences, the American Crop Protection Association and others have concluded that IPM leads to more effective long-term pest management than chemical controls alone.

A longtime advocate of reducing chemical pesticide use in the United States and abroad, Leahy welcomed Agriculture Secretary Anne Veneman's positive response to the GAO findings. USDA's comment letter published in the report notes that the agency will use GAO's recommendations to better implement and coordinate national IPM programs. Senator Leahy will work to include provisions from the reports' recommendations in upcoming farm policy legislation. The GAO report, "Management Improvements Needed to Further Promote Integrated Pest Management," is available online at GAO's website (and copies are available from Leahy's office by contacting Blythe McCormack, 202-224-2398.

Dursban

<http://yosemite1.epa.gov/opa/admpress.nsf/016bcfb1deb9fec85256aca005d74df/880b35adc877c301852568f8005399ed?OpenDocument>

For Release: Thursday, June 8, 2000

Clinton-Gore Administration Acts To Eliminate Major Uses Of The Pesticide Dursban To Protect Children And Public Health

To protect the health and environment of all Americans, especially children, the Clinton-Gore Administration today announced that the U.S. Environmental Protection Agency and the manufacturer of Dursban have agreed to eliminate the widely used pesticide for nearly all household purposes. Dursban, also known as chlorpyrifos, is the most widely used household pesticide product in the United States. Today's action will also significantly reduce residues of chlorpyrifos on several foods regularly eaten by children.

"Today's action is a major step in the Clinton-Gore Administration's on-going efforts to better protect public health, especially the health of children," said EPA Administrator Carol M. Browner. "Chlorpyrifos is part of a class of older, riskier pesticides, some going back 50 years. Exposure to these kinds of pesticides can cause neurological effects. Now that we have completed the most extensive scientific evaluation ever conducted on the potential health hazards from a pesticide, it is clear the time has come to take action to protect our children from exposure to this chemical."

Chlorpyrifos is an ingredient used for a broad range of lawn and home insecticide products, for agricultural purposes and for termite treatment.

The agreement announced today will:

Stop production of and phase-out all home, lawn, and garden uses;

Stop production of and phase-out the vast majority of termite-control uses;

Significantly lower allowable pesticide residues on several foods regularly eaten by children.

EPA is taking this action under the Food Quality Protection Act (FQPA), which was passed unanimously by Congress under the leadership of the Clinton Administration and signed by the President in 1996. The FQPA requires a systematic review of all pesticides to ensure they meet the tough new safety standards that, for the first time, must be protective of children, who are among the most vulnerable to adverse health effects from pesticide residues.

Last August, the Clinton-Gore Administration announced action against methyl parathion and azinphos methyl to protect children from pesticide residues in food. Today's action is the next step in realizing the protections for families and communities under the Food Quality Protection Act.

Specifically, today's agreement will halt manufacture of chlorpyrifos by December 2000 for nearly all residential uses. It will require that virtually all of those residential uses be deleted from existing product labels prior to that time, including uses for home and garden sprays, uses to control termites in completed houses and uses on lawns.

This agreement also mandates that all uses will be phased out this year in areas where children could be exposed, including schools, daycare centers, parks, recreation areas, hospitals, nursing homes, stores and malls.

By the end of 2001, uses to control termites in buildings other than homes or areas where children could be exposed will be phased-out as well. By the end of 2004, the termiticide use on new construction will also be phased-out unless new information becomes available which show that this use could safely continue.

Today's action also calls for canceling or significantly lowering allowable residues for several foods regularly eaten by children, such as tomatoes, apples and grapes. These actions will be taken by the beginning of the next growing season.

Chlorpyrifos belongs to a family of pesticides called organophosphates which can affect the nervous system. The effects from chlorpyrifos exposure vary depending on the dose, but symptoms of over-exposure can include nausea, headaches, vomiting, diarrhea and general weakness. Because of their smaller body weights, children are more susceptible to these effects. Children can be exposed to chlorpyrifos through food residues, by playing in areas where chlorpyrifos has been used as a home-and-garden insecticide, or from inhalation of vapors when chlorpyrifos is used to control termites

Chlorpyrifos, also known as Dursban, Lorsban and other trade names, is one of the most widely used organophosphate insecticides in the United States, with more than 20 million pounds applied annually. Approximately 50 percent is used around homes, gardens, and lawns to control a variety of insects, including termites. The remaining 50 percent is used on 40 different agricultural crops. DowAgroSciences of Indianapolis is the primary registrant. There are approximately 825 registered products.

EPA advises consumers that short-term use of these products according to label instructions does not pose an imminent risk. If consumers choose to discontinue use immediately, they should contact their state or local hazardous material disposal program for information on proper disposal. Additional information about chlorpyrifos and today's action can be found on the EPA web site at: www.epa.gov/pesticides.

Diazinon

For Release: Tuesday, Dec. 5, 2000

EPA Announces Elimination Of All Indoor Uses Of Widely-Used pesticide Diazinon; Begins Phase-Out Of Lawn And Garden Uses

<http://yosemite1.epa.gov/opa/admpress.nsf/016bcfb1deb9fec85256aca005d74df/c8cdc9ea7d5ff585852569ac0077bd31?OpenDocument>

Today, EPA announced an agreement to phase-out diazinon, one of the most widely used pesticides in the United States, for indoor uses, beginning in March 2001, and for all lawn, garden and turf uses by December 2003.

"The Clinton-Gore Administration continues to aggressively target for elimination those pesticides that pose the greatest risk to human health and the environment, and especially those posing the greatest risk to children," said Carol M. Browner, EPA Administrator. "The action we are taking today is another major step toward ensuring that all Americans can enjoy greater safety from exposure to harmful pesticides."

"Today's action will significantly eliminate the vast majority of organophosphate insecticide products in and around the home, and by implementing this phase-out, it will help encourage consumers to move to safer pest control practice," said Browner.

Diazinon is the most widely used pesticide by homeowners on lawns, and is one of the most widely used pesticide ingredients for application around the home and in gardens. It is used to control insects and grub worms. The agreement reached today with the manufacturers, Syngenta and Makhteshim Agan, will eliminate 75 percent of the use which amounts to more than 11 million pounds of the pesticide used annually.

EPA is taking this action under the Food Quality Protection Act, which President Clinton signed into law in 1996 after the Administration helped lead the way for the new, tougher national pesticide law. Since then, EPA has targeted a large group of older, riskier pesticides called organophosphates for review because they pose the greatest potential risk to children. In August of 1999, for example, EPA announced action against methyl parathion and azinphos methyl to protect children from pesticide residues in food. The Agency reached an agreement to halt by December 2000 the manufacture of chlorpyrifos, or Dursban, for nearly all residential uses. Diazinon – used in homes, and on lawns and gardens – is the latest organophosphate to be phased out. Specifically, the terms of the agreement implement the following phase-out schedules:

- For the indoor household use, the registration will be canceled on March 2001, and all retail sales will stop by December 2002.
- For all lawn, garden and turf uses, manufacturing stops in June 2003; all sales and distribution to retailers ends in August 2003. Further, the company will implement a product recovery program in 2004 to complete the phase out of the product.

- Additionally, as part of the phase out, for all lawn, garden, and turf uses, the agreement ratchets down the manufacturing amounts. Specifically, for 2002, there will be a 25 percent decrease in production; and for 2003, there will be a 50 percent decrease in production.
- Also, the agreement begins the process to cancel around 20 different uses on food crops.

Organophosphates can affect the nervous system. The effects from diazinon vary depending on the dose, but symptoms from over-exposure can include nausea, headaches, vomiting, diarrhea, and general weakness. Today's action also represents an important step for the environment. Diazinon's use on turf poses a risk to birds, and it is one of the most commonly found pesticides in air, rain, and drinking and surface water.

It is legal to purchase and use diazinon products according to label directions and precautions. Consumers should take special care to always read and follow the label directions and precautions. If consumers choose to discontinue use, they should contact their state or local hazardous waste disposal program or the local solid waste collection service for information on proper disposal.

Additional information can be found at: www.epa.gov/pesticides.

Sales Flyer Encourages use of Highly Toxic "Banned" Pesticides

http://www.beyondpesticides.org/Dursban_sales_flyer.htm

One of the inevitable results stemming from the Environmental Protection Agency (EPA) decision to allow the continued sale of existing stocks of Chlorpyrifos (Dursban™) and Diazinon is that retailers are scrambling to rid themselves of their current stocks. EPA entered into agreements with the manufacturers of both of these highly toxic chemicals in 2000. The agreements allow the continued sale of Chlorpyrifos through 2001 and the continued sale of Diazinon through 2002. Nothing short of a ban on products containing these pesticides can protect the public from the chemicals adverse health effects. Since less toxic and non-toxic alternatives are available for all Dursban uses, it is wrong and unnecessary to allow its use to continue during the phase out period. [Click here](#) for more information about alternatives to Dursban.

Is your local hardware store holding a sale on Dursban or Diazinon? We encourage you to join with the Attorneys General of Massachusetts, New York, Connecticut, Rhode Island, Maryland, Alaska, and Guam; contact the retailers in your area and ask them to voluntarily remove these toxic chemicals from their shelves. [Click here](#) to read a press release from the Office of Massachusetts Attorney General Tom Reilly.

This sales flyer is taken from a Scotty's Hardware Store in Florida.

10 Lb. Dursban®
Lawn & Garden Insect Control

Controls Surface & Foliage Pests, Soil Insects,
Helps Control Home Invading Pests
& Vegetable Garden Insects

Controls: Fleas, ticks, white grubs,
mole crickets, ants, sod webworms,
bunnies, armyworms,
grasshoppers, crickets, earwigs,
sowbugs, silverfish, spiders,
wireworms,
cutworms,
root maggots,
billbugs, chiggers

**• The Law Is Changing!
Last Day To Buy Dursban®
Will Be Here Soon!**

7.99
10 Lb.

20 Lb. Dursban®
Lawn & Garden Insect Control

15.99
20 Lb.

NOTICE
If Dursban® is sold out when you receive this ad, Scotty's will sell you the replacement, Diazinon...415765, for the same sale price.

THESE HOT BUYS WILL END FRIDAY, MAY 11TH

Town of Marblehead Board of Health

May 14, 1998

7 Widger Road, Marblehead 01945 (781-631-0212)

CARL D. GOODMAN, Esq., Chairman

DAVID B. BECKER, D.M.D., M.P.H.

HELAINÉ R. HAZLETT

WAYNE O. ATTRIDGE, Director

The Board of Health of the Town of Marblehead Statement on Pesticides

Whereas pesticides are by nature poisons and exposure, even at low levels, may cause serious adverse health effects; and

Whereas, due to a variety of physiologic and age-related factors, children are at increased risk of cancer, neuro-behavioral impairment and other health problems as a result of their exposure to pesticides; and

Whereas, many of the ingredients in pesticide products, alone and in combination, are not tested for their long-term toxic effects on the brain and nervous systems, the endocrine system, or the immune system; nor have they been tested with the unique vulnerability of children in mind; and

Whereas, pesticides and other toxins can cross the placenta and directly affect the developing child, even at low doses that might not harm adults; and

Whereas, in addition to their intended effects, pesticides can also harm non-target organisms (such as humans, pets, beneficial insects, aquatic and other wildlife) and the environment; and

Whereas according to the U.S. Environmental Protection Agency (EPA) all pesticides are toxic to some degree..., and the commonplace, widespread use of pesticides is both a major environmental problem and a public health issue; ⁽¹⁾ and

Whereas, the U.S. Environmental Protection Agency (EPA) believes that most pesticides--despite having an EPA registration--have not been adequately tested to determine their effects on people or the environment; ⁽²⁾ and

Whereas, it is in the best interest of community health for all residents to learn about the hazards of pesticides, and to adopt organic gardening and landscaping techniques as well as an integrated pest management (IPM) approach to all pest-related problems:

NOW THEREFORE, The Board of Health of the Town of Marblehead hereby commits itself to the goal of reduction and eventual phase-out of pesticide use in the Town of Marblehead, both on public and private property.

Newton's proclamation

Commonwealth of Massachusetts
City of Newton Proclamation 2002

Whereas, pesticides are toxic by design; and

Whereas, in addition to their intended effect on pests, pesticides also harm non-target organisms such as humans, pets, beneficial insects, plants, fish, birds and other wildlife; and

Whereas, the ingredients in pesticide products, alone and in combination, have long term toxic effects on the brain and nervous system, the endocrine system, and the immune system; and

Whereas, exposure to pesticides is particularly harmful to children and their development; and

Whereas, there are safer, more cost-effective, and ecologically-sound ways to control pests in our landscapes and buildings; and

Whereas, it is in the best interest of the City and its residents to protect the quality of our buildings and landscapes while reducing threats to our health and the contamination of the environment; and

Whereas, the City recognizes that public agencies should be a model of environmentally safe practices and that an Integrated Pest Management (IPM) policy for our public buildings and grounds enables the City to accrue the financial benefits of planning, prevention and responsible management; and

Now, therefore, be it resolved that His Honor the Mayor and Members of the Honorable Board of Aldermen of the City of Newton, do hereby endorse March 2002 as Alternative to Pesticides Month

And furthermore be it resolved that we renew our commitment to implementing Newton's Citywide Integrated Pest Management Policy and we urge citizens to follow the city's leadership, to learn about and adopt site management strategies designed to eliminate pests and pesticides in their homes, gardens, lawns, businesses, workplaces, places of worship and schools throughout our community.

Signed David B. Cohen, Mayor, Brooke K. Lipsitt, President

Pesticides used on Our Town land:

Their health effects and financial costs

Grub control (Merit™) 2xyear at \$400each = \$800

Imidacloprid: Data lacking. It is a systemic, chloro-nicotinyl insecticide. It causes a blockage in a type of neuronal pathway (nicotinerbic). It is moderately toxic.

Herbicide (Quadmea "Trimex" Plus™) 3xyear at \$500each = \$1500

2,4-D Suspected carcinogen, blood toxicant, developmental toxicant, endocrine toxicant, gastrointestinal or liver toxicant, neurotoxicant, reproductive toxicant, respiratory toxicant, and skin or sense organ toxicant.

Mecoprop Data lacking. It is acutely toxic and a possible carcinogen.

Dicamba Data lacking. Suspected developmental toxicant. Possible carcinogen. Aquatic toxicant.

MSMA. Suspected gastrointestinal or liver toxicant; suspected kidney toxicant; carcinogen.

DMA: Suspected gastrointestinal or liver toxicant; suspected skin or sense organ toxicant; acutely toxic; possible carcinogen.

Herbicide (Manage™) 1xyear at \$300 = \$300

Halosulfuron-methyl: Data lacking.

Herbicide (Acclaim™) 1xyear at \$400each = \$ 400

Fenoxaprop-ethyl: Recognized developmental toxicant; suspected gastrointestinal or liver toxicant; suspected kidney toxicant.

Total cost to town per year: \$3000

Alternatives to these pesticides:

Grubs

Diversify ground cover to include clover, fescues, and other hardy grasses. Top-dress with compost to increase soil microbial activity and reduce grub population. Water deeply and less often to increase root depth and resist grub damage. Use Milky spore and beneficial nematodes for spot treatment of grubs if necessary.

Weeds

Overseed bare spots in fall. Correct pH to between 6.5 and 6.8. Loosen compacted areas. Mow grass 3" long to outcompete weeds. Use corn gluten in spring as a pre-emergent if necessary.

Year 1 and 2 costs each: \$4000

Subsequent years costs: \$1000

Marblehead Living Lawn Demonstration Site, 2001

<http://www.turi.org/community/Lawnsnaps.html>



Web links for presentation packet:

<http://www.state.ma.us/legis/laws/seslaw00/sl000085.htm>

http://www.lwv.org/where/promoting/agricultural_read_pg3.html

http://www.lwv.org/where/promoting/agricultural_read_pg4.html

<http://www.apha.org/news/press/1998/pesticid.htm>

http://www.medem.com/MedLB/article_detailb.cfm?article_ID=ZZZSZ3ZVQ7C&sub_cat=29

<http://www.pta.org/programs/ourworld/9801/feature.htm>

<http://www.gao.gov/docdblite/summary.php?recflag=&accno=A01403&rptno=GAO-01-815>

<http://www.senate.gov/~kennedy/statements/01/11/2001B28B46.html>

<http://leahy.senate.gov/press/200109/010927.html>

<http://yosemite1.epa.gov/opa/admpress.nsf/016bcfb1deb9fec85256aca005d74df/880b35adc877c301852568f8005399ed?OpenDocument> [Dursban]

<http://yosemite1.epa.gov/opa/admpress.nsf/016bcfb1deb9fec85256aca005d74df/c8cdc9ea7d5ff585852569ac0077bd31?OpenDocument> [Diazinon]

http://www.beyondpesticides.org/Dursban_sales_flyer.htm

<http://www.turi.org/community/PDF/proclaim.pdf> [Newton]

http://www.turi.org/community/PDF/town_pest.pdf [Marblehead]

<http://www.turi.org/community/Lawnsnaps.html> [Marblehead]

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Needham Board of Health

Lexington Board of Health

Wellesley Board of Health

Marblehead Board of Health

Newton Green Decade

Web resources:

Wellesley Pesticide Awareness Campaign

www.ci.wellesley.ma.us/nrc/pesticide

Marblehead BOH flyer to schools

http://www.turi.org/community/PDF/spr_alert.pdf

Natick BOH flyer

http://natickma.virtualtownhall.net/Public_Documents/NatickMA_HealthDept/%23363294.0/Lawns%20w/out%20Pesticides.pdf

Newton Green Decade advocacy literature.

www.greendecade.org

Articles:

“Read about WPAC in the news”

www.ci.wellesley.ma.us/nrc/pesticide

Statements:

Newton Mayer proclamation.

<http://www.turi.org/community/PDF/proclaim.pdf>

Marblehead BOH statement on pesticides.

http://www.turi.org/community/PDF/town_pest.pdf

Brochures:

Marblehead Pesticides and Your Health.

<http://www.turi.org/community/PDF/PESTS.pdf>

Marblehead Simple Steps Towards a Healthy Lawn.

<http://www.turi.org/community/PDF/Lawn.pdf>



Needham Health Department

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e-mail: BOH@town.needham.ma.us
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Board of Health
Edward Cosgrove, PhD., Chairman
Alan Stern, M.D., Vice Chairman
Peter Connolly, M.D., Member

SPRING ALERT **A Public Health Message From** **The Needham Board Of Health**

The Needham Health Department recommends that homeowners learn the facts about pesticides and seek to reduce or eliminate pesticide use in their yards and homes.

According to the U.S. Environmental Protection Agency (EPA), all pesticides are harmful to some degree. The commonplace, widespread use of pesticides is both a major environmental problem and a public health issue. And most pesticides - despite having an EPA registration - have not been adequately tested to determine all their effects on people or the environment.

Overall, children may be the most vulnerable to the harmful effects of pesticides due to a variety of physiologic and age-related factors. The American Public Health Association warns that even a single exposure during a critical period of development could cause acute or long-term health problems. In the last few years, the EPA has phased out the registration of certain pesticides because of their potential impact on children's health and on the environment. Herbicides, insecticides, fungicides, and "Weed and Feed"-type products are all examples of pesticides. Scientific studies potentially link exposure to common lawn care pesticides with an increased risk of several types of cancer, neurological and respiratory diseases, endocrine disruption and birth defects.

As of December 31, 2001 the EPA cancelled the sale of chlopyrifos (Lorsban, Dursban) for home lawn, indoor crack and crevice treatments and some termiticide uses. Other uses of this pesticide will be phased out over the next few years. Diazinon will no longer be sold for indoor use as of December 31, 2002. Its use for residential lawn and turf applications will be phased out by December 31, 2004. In addition to reducing unnecessary exposures to children, these efforts should improve urban river and stream quality and reduce the risk to birds and aquatic life.

The Town of Needham has developed an integrated pest management (IPM) policy to assure that all town departments, boards and commissions with oversight of buildings, parks and fields adhere to IPM principals and use, only if necessary, the smallest amount of the least toxic chemical to control pests and weeds.

Still, the greatest environmental source of pesticides contamination and exposure to children in Needham may be from residents' own yards and lawns and the runoff from excessive or inappropriate use. When purchasing pesticides for use around your home ask about alternative safer products. This year, ask your lawn specialist about the products they are currently using and whether safer alternatives are available.

To learn more about how you can reduce your reliance on pesticides and introduce organic turf control policies into your home, contact the Needham Health Department or check out the following web sites:

MA Dept of Food and Agriculture Pesticide Bureau-

<http://www.state.ma.us/dfa/>

The US Environmental Protection Agency-

<http://www.epa.gov/pesticides/>

The IPM Institute of North America-

<http://www.ipminstitute.org/>



Lexington Board of Health

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To All Homeowners: Lawn Maintenance, Health, and the Environment

Many homeowners and businesses treat their lawns with pesticides and herbicides to reduce weeds, grubs and other pests. Before you or your lawn service work on the grass around your home this year, the Lexington Board of Health asks you to consider the following issues about pesticide and herbicide usage:

Lawn Pesticides and Herbicides Affect Water Supplies. Since Lexington lies upstream of other communities, the chemicals we use here can enter the water supplies of other towns nearby.

Lawn Pesticides May Affect Human Health. Many pesticides or their breakdown products often persist in the environment. Chemicals on your lawns may cause negative health effects through low level, frequent exposures.

Pesticides Affect Children More Than Adults. Children tend to have higher exposures to pesticides when they play on lawns, on carpets onto which pesticides are tracked, and through normal hand-to-mouth behaviors. Children are also more sensitive to the effects of pesticides than adults.

No Pesticide Is Completely Safe. Pesticides and herbicides are toxic to insects, animals or plants. Just last year, the EPA took two commonly used household pesticides, chlorpyrifos (DursbanTM or LorsbanTM), and diazinon, off the market.

If you use a lawn service, ask your contractor about safer alternatives to pesticides. Learn about conditions and methods that minimize weed growth and create a better environment for your lawn. Pesticides are not necessary for the health of your lawn. In fact, long-term use of pesticides may actually destroy the natural environment in which healthy grass grows best.

The Lexington Board of Health asks you to investigate and support efforts that reduce toxics in your environment. For more information, call (781) 862-0500, Ext. 237.



SPRING ALERT

A PUBLIC HEALTH MESSAGE FROM THE WELLESLEY BOARD OF HEALTH

**Do you know what this
sign *really* means?**



**The Wellesley Board of Health
recommends that homeowners
reduce or eliminate pesticide
use in their yards and homes.**

If you would like additional information about organic lawn care classes or ecological landscape services, **contact the NRC at 781-431-1019 x294 or visit www.ci.wellesley.ma.us/nrc/pesticide**. Other resources for more information are: www.pesticide.org; www.massorganic.org; and **Greater Boston Physicians for Social Responsibility** at www.igc.org/psr. For information on pesticides and schools and the *Children and Families Protection Act*, contact the **Pesticide Bureau** www.state.ma.us/dfa/cpa/ipmplan.htm or the **Toxics Use Reduction Institute** www.turi.org.

Many people do not know the meaning of these pesticide warning flags. They indicate that poisonous chemicals have been applied to the turf and that everyone, especially children, should **STAY OFF THE GRASS**. Be aware that a 24-hour waiting period will not prevent exposure, as many pesticides can persist on turf and in the soil for months, not days, after an application.

Know the facts about pesticides. According to the U.S. Environmental Protection Agency, all pesticides are toxic to some degree. The commonplace, widespread use of pesticides is both a major environmental problem and a public health issue. And most pesticides – despite having an EPA registration – have not been adequately tested to determine their effects on people or the environment.

Overall, children are the most vulnerable to the harmful effects of pesticides due to a variety of physiologic and age-related factors. The American Public Health Association states that *even a single exposure during a critical period of development can cause a subtle or long-term health problems*.

Herbicides, insecticides, fungicides, and “Weed and Feed” type products are all examples of pesticides. Scientific studies link exposure to common lawn care pesticides with an increased risk of several types of cancer, neurological and respiratory diseases, endocrine disruption and birth defects.

The preceding facts about pesticides are cited references from the U.S. Environmental Protection Agency Office of Prevention, Pesticides and Toxic Substances; Journal of the National Cancer Institute; National Academy of Science; American Journal of Public Health; U.S. General Accounting Office; U.S. Federal Code; and others.



*A public service message sponsored by the Wellesley Board of Health and the Wellesley Pesticide Awareness Campaign, funded in part by a grant from the Toxics Use Reduction Institute of the University of Massachusetts, Lowell.
Spring, 2002*



Marblehead Board of Health

1/28/02

Spring Alert A public health message from The Marblehead Board of Health [Yellow flyer with pesticide flag on left]

(On top left over yellow sign:) Do you know what this sign *really* means?

Many people do not know the meaning of these pesticide warning flags. They indicate that poisonous chemicals have been applied to the turf and that everyone, especially children, should STAY OFF THE GRASS. A 24-hour waiting period has been shown to be *inadequate*, as many pesticides can persist on turf and in the soil for months, not days, after an application.

Be aware of the facts about pesticides. According to the U.S. Environmental Protection Agency, "All pesticides are toxic to some degree. The commonplace, widespread use of pesticides is both a major environmental problem and a public health issue. And most pesticides – despite having an EPA registration – have not been adequately tested to determine their effects on people or the environment."

Overall, children are the most vulnerable to the harmful effects of pesticides due to a variety of physiologic and age-related factors. *Even a single exposure during a critical period of development can cause acute or long-term health problems.*

Herbicides, insecticides, fungicides, and "Weed and Feed"-type products are all examples of pesticides. Scientific studies link exposure to common lawn care pesticides with an increased risk of several types of cancer, neurological and respiratory diseases, endocrine disruption and birth defects. (IN BLACK BOX) -

A PUBLIC SERVICE MESSAGE SPONSORED BY THE MARBLEHEAD BOARD OF HEALTH AND THE MARBLEHEAD PESTICIDE AWARENESS COMMITTEE (MPAC)

The preceding facts about pesticides are cited references from the U.S. Environmental Protection Agency Office of Prevention, Pesticides and Toxic Substances; Journal of the National Cancer Institute; National Academy of Science;; American Journal of Public Health; U.S. General Accounting Office; U.S. Federal Code; and others.

Printed on recycled paper.

(ON LEFT HAND SIDE UNDERNEATH SIGN) –

The Marblehead Board of Health recommends that homeowners adopt organic lawn and landscape techniques and an integrated pest management (IPM) approach to all pest-related problems. As of May 2001, the Board of Health adopted an Organic Pest Management Policy (OPM) for the maintenance of all town-owned land.

If you would like additional information about organic lawn and garden care classes, contact MPAC at 631-7214. For information on the OPM policy, contact the Board of Health at 631-0212. Other resources for more information are:

www.beyondpesticides.org; www.massorganic.org; and Greater Boston Physicians for Social Responsibility at www.igc.org/psr. For information on pesticides and schools and the *Children and Families Protection Act*, contact the Pesticide Bureau www.massdfa.org/pestreg.htm. or Toxic Use Reduction Institute www.turi.org

Made possible by a grant from the Toxics Use Reduction Institute (TURI) at U Mass Lowell.

GreenCAP Green Decade Coalition/Newton

474 Centre Street Newton, MA 02458 617-965-1995 www.greendecade.org

WHAT IS IN A PESTICIDE PRODUCT?

ACTIVE INGREDIENTS are biologically and chemically chosen to kill the target pest - the unwanted insect, weed or fungus. Active ingredients typically make up 1 - 3 % of the product.

INERT INGREDIENTS. So-called "inerts" are NOT biologically inactive. These secret ingredients are the dust, the solution, or the granule that "carries" the active ingredient. These solvents, propellants, preservatives, emulsifiers and surfactants are typically 97% or more of the product. They are used to make the active ingredient more toxic or more long-acting. Some are more toxic than the active ingredient. They may be petrochemicals such as benzene, toluene, or xylene. Manufacturers argue that these ingredients are protected by trade secret laws. Therefore they hide the identity of these ingredients from the public and, in many cases, from the EPA.

CONTAMINANTS AND IMPURITIES such as dioxin and DDT are not purposefully added but are a result of the chemical production process.

METABOLITES are chemical breakdown products which form when the pesticide mixes with air, water, soil or living organisms. The break down products can be more hazardous than the parent pesticide.

WHAT'S THE DIFFERENCE BETWEEN CHEMICAL PEST CONTROL AND INTELLIGENT PEST CONTROL?

CHEMICAL PEST CONTROL

1. Relies on Products (Poisons)
2. Is a Quick Fix
3. Ignores the source of the pest problem
4. Kills off beneficial weeds and insects and endangers people, pets and wildlife
5. Contaminates drinking, water, food, soil and air.
6. Wastes \$
7. Avoids communication among site users, managers and maintenance personnel.

INTELLIGENT PEST MANAGEMENT

1. Relies on Process (Planning, Documentation, Problem Solving)
2. Focuses on Long Term Solutions
3. Prevents or corrects source of pest problems
4. Enhances sustainability of ecosystem and protects bio-diversity
5. Protects drinking water, food, soil and air.
6. Saves \$
7. Promotes good communication among site users, managers and maintenance personnel.

Scientific References

Contents

Compiled by Toxics Use Reduction Institute

Compiled by Wayne Sinclair, M.D. (Board Certified Immunology) Allergy, Asthma,
Immunology, Vero Beach, Florida, and Richard Pressinger, M.Ed. Tampa, Florida

Compiled by Beyond Pesticides <http://www.beyondpesticides.org/>

1. Biological Monitoring Survey of Organophosphorus Pesticide Exposure among Pre-school Children in the Seattle Metropolitan Area

SOURCE: Chensheng Lu, Dianne E. Knutson, Jennifer Fisker-Andersen, and Richard A. Fenske Department of Environmental Health, University of Washington, Seattle, Washington, USA, *Environ Health Perspect* 109:299-303 (2001).

In this study we assessed organophosphorus (OP) pesticide exposure among children living in two Seattle metropolitan area communities by measuring urinary metabolites, and identified possible exposure risk factors through a parental interview. We recruited children in clinic and outpatient waiting rooms. We obtained spot urine samples in the spring and fall of 1998 from 110 children ages 2-5 years, from 96 households. We analyzed urine samples for six dialkylphosphate (DAP) compounds, the common metabolites of the OP pesticides. Through parental interviews we gathered demographic and residential pesticide use data. At least one of the DAP metabolites was measured in 99% of the children, and the two predominant metabolites (DMTP and DETP) were measured in 70-75% of the children. We found no significant differences in DAP concentrations related to season, community, sex, age, family income, or housing type. Median concentrations of dimethyl and diethyl DAPs were 0.11 and 0.04 $\mu\text{mol/L}$, respectively (all children). Concentrations were significantly higher in children whose parents reported pesticide use in the garden (0.19 vs. 0.09 $\mu\text{mol/L}$ for dimethyl metabolites, $p = 0.05$; 0.04 vs. 0.03 $\mu\text{mol/L}$ for diethyl metabolites, $p = 0.02$), but were not different based on reported pet treatment or indoor residential use. Nearly all children in this study had measurable levels of OP pesticide metabolites. Some of this exposure was likely due to diet. Garden pesticide use was associated with elevated metabolite levels. It is unlikely that these exposure levels would cause acute intoxication, but the long-term health effects of such exposures are unknown. We recommend that OP pesticide use be avoided in areas where children are likely to play. pesticides, urine.

2. A New Crop of Concerns: Congress Investigates Pesticide Safety

SOURCE: David A. Taylor, *Environmental Health Perspectives* Volume 108, Number 9 September 2000

A March 2000 report by the General Accounting Office, *Pesticides: Improvements Needed to Ensure the Safety of Farmworkers and Their Children*, states that much remains unknown about the risks faced by children in agriculture, and that enforcement of pesticide protection standards for farmworkers is patchy and unsystematic. Many cases of farmworkers' pesticide-related illnesses go unreported, leaving health workers with an inadequate basis for tracking patterns and fine-tuning pesticide standards, says the report. In addition, children are known to be more vulnerable to the effects of pesticides, but there is a lack of data regarding children's exposures and the precise effects of pesticides on children's health.

3. Exposures of Children to Organophosphate Pesticides and Their Potential Adverse Health Effects

SOURCE: Brenda Eskenazi, Asa Bradman, and Rosemary Castorina, Center for Children's Environmental Health Research, School of Public Health, University of California, Berkeley, California USA, *Environ Health Perspect* 107(suppl 3):409-419 (1999).

Abstract

Recent studies show that young children can be exposed to pesticides during normal oral exploration of their environment and their level of dermal contact with floors and other surfaces. Children living in agricultural areas may be exposed to higher pesticide levels than other children because of pesticides tracked into their homes by household members, by pesticide drift, by breast milk from their farmworker mother, or by playing in nearby fields. Nevertheless, few studies have assessed the extent of children's pesticide exposure, and no studies have examined whether there are adverse health effects of chronic exposure. There is substantial toxicologic evidence that repeated low-level exposure to organophosphate (OP) pesticides may affect neurodevelopment and growth in developing animals. For example, animal studies have reported neurobehavioral effects such as impairment on maze performance, locomotion, and balance in neonates exposed in utero and during early postnatal life. Possible mechanisms for these effects include inhibition of brain acetylcholinesterase, downregulation of muscarinic receptors, decreased brain DNA synthesis, and reduced brain weight in offspring. Research findings also suggest that it is biologically plausible that OP exposure may be related to respiratory disease in children through dysregulation of the autonomic nervous system. The University of California Berkeley Center for Children's Environmental Health Research is working to build a community-university partnership to study the environmental health of rural children. This Center for the Health Assessment of Mothers and Children of Salinas, or CHAMACOS in Monterey County, California, will assess in utero and postnatal OP pesticide exposure and the relationship of exposure to neurodevelopment, growth, and symptoms of respiratory illness in children. The ultimate goal of the center is to translate research findings into a reduction of children's exposure to pesticides and other environmental agents, and thereby reduce the incidence of environmentally related disease.

4. Pesticides and Inner-City Children: Exposures, Risks, and Prevention

SOURCE: Philip J. Landrigan,^{1,2} Luz Claudio,^{1,2}; Steven B. Markowitz,⁷; Gertrud S. Berkowitz,^{1,2}; Barbara L. Brenner,¹; Harry Romero,⁵; James G. Wetmur,³; Thomas D. Matte,⁶; Andrea C. Gore,⁴; James H. Godbold,¹; and Mary S. Wolff ^{1,2}. *Environ Health Perspect* 107(suppl 3):431-437 (1999).

[¹Department of Community and Preventive Medicine, ²Center for Children's Health and the Environment, ⁵Department of Microbiology, ⁷Fishberg Center for Neurobiology, Mount Sinai School of Medicine, New York, New York USA; ⁴Borikuen Neighborhood Health Center, New York, New York USA; ⁶Center for Urban Epidemiologic Studies of the New York Academy of Medicine, New York, New York USA; ³Center for Biology of Natural Systems, Queens College, City University of New York, New York, New York USA].

Six million children live in poverty in America's inner cities. These children are at high risk of exposure to pesticides that are used extensively in urban schools, homes, and day-care centers for control of roaches, rats, and other vermin. The organophosphate insecticide chlorpyrifos and certain pyrethroids are the registered pesticides most heavily applied in cities. Illegal street pesticides are also in use, including tres pasitos (a carbamate), tiza china, and methyl parathion. In New York State in 1997, the heaviest use of pesticides in all counties statewide was in the urban boroughs of Manhattan and Brooklyn. Children are highly vulnerable to pesticides. Because of their play close to the ground, their hand-to-mouth behavior, and their unique dietary patterns, children absorb more pesticides from their environment than adults. The long persistence of semivolatile pesticides such as chlorpyrifos on rugs, furniture, stuffed toys, and other absorbent surfaces within closed apartments further

enhances urban children's exposures. Compounding these risks of heavy exposures are children's decreased ability to detoxify and excrete pesticides and the rapid growth, development, and differentiation of their vital organ systems. These developmental immaturities create early windows of great vulnerability.

Recent experimental data suggest, for example, that chlorpyrifos may be a developmental neurotoxicant and that exposure in utero may cause biochemical and functional aberrations in fetal neurons as well as deficits in the number of neurons. Certain pyrethroids exert hormonal activity that may alter early neurologic and reproductive development. Assays currently used for assessment of the toxicity of pesticides are insensitive and cannot accurately predict effects to children exposed in utero or in early postnatal life. Protection of American children, and particularly of inner-city children, against the developmental hazards of pesticides requires a comprehensive strategy that monitors patterns of pesticide use on a continuing basis, assesses children's actual exposures to pesticides, uses state-of-the-art developmental toxicity testing, and establishes societal targets for reduction of pesticide use.

5. Pesticides and Childhood Cancer

SOURCE: Shelia Hoar Zahm and Mary H. Ward, Occupational Epidemiology Branch, Division of Cancer Etiology, National Cancer Institute, Rockville, Maryland, *Environ Health Perspect* 106(Suppl 3):893-908 (1998).

Children are exposed to potentially carcinogenic pesticides from use in homes, schools, other buildings, lawns and gardens, through food and contaminated drinking water, from agricultural application drift, overspray, or off-gassing, and from carry-home exposures of parents occupationally exposed to pesticides. Parental exposure during the child's gestation or even preconception may also be important. Malignancies linked to pesticides in case reports or case-control studies include leukemia, neuroblastoma, Wilms' tumor, soft-tissue sarcoma, Ewing's sarcoma, non-Hodgkin's lymphoma, and cancers of the brain, colorectum, and testes. Although these studies have been limited by nonspecific pesticide exposure information, small numbers of exposed subjects, and the potential for case-response bias, it is noteworthy that many of the reported increased risks are of greater magnitude than those observed in studies of pesticide-exposed adults, suggesting that children may be particularly sensitive to the carcinogenic effects of pesticides. Future research should include improved exposure assessment, evaluation of risk by age at exposure, and investigation of possible genetic-environment interactions. There is potential to prevent at least some childhood cancer by reducing or eliminating pesticide exposure.

The summaries below are provided by Ellie Goldberg, GreenDecade Coalition, Newton (compiled by Wayne Sinclair, M.D. (Board Certified Immunology) Allergy, Asthma, Immunology, Vero Beach, Florida, and Richard Pressinger, M.Ed. Tampa, Florida).

6. Living Near Agriculture Increases Risk of Brain Cancer

SOURCE: Drs. A. Aschengrau, D. Ozonoff, P.Coogan, R. Vezina, T. Heeren, Department of Epidemiology and Biostatistics, Boston University School of Public Health, *American Journal of Public Health*, 86(9): 1289-96, 1996

Living closer than 2600 feet to an agriculture area has been found to increase the risk for developing brain cancer. This 1996 research project studied cancer rates among over 600 people. Brain cancer overall showed a twofold increase risk for people living within the 2600 foot distance. An astounding 6.7 fold increased risk was found for the brain cancer

type known as astrocytoma for people living within 2600 feet from an agriculture area. For more information on brain cancer and neuroblastoma see: www.chem-tox.com/cancerchildren.- brain cancer research summaries and www.chem-tox.com/neuroblastoma - neuroblastoma research summaries

7. Golf Course Superintendents Face Higher Cancer Rates

SOURCE: Drs. Kross, B.C., Burneister, L.F., Ogilvie, L.K., Fuortes, L.J., Department of Preventive Medicine Health, University of Iowa, American Journal of Industrial Medicine, 29(5):501-506, 1996

Working as a Golf Course Superintendent has been found to significantly increase the risk of dying of four cancer types including - brain cancer, lymphoma (non-Hodgkin's lymphoma, NHL), prostate and large intestine cancer. A study was conducted of 686 deceased members of the Golf Course Superintendents Association of America from all U.S. states who died between 1970 and 1992. Brain cancer rates for the Superintendents was found to occur at over twice the national average, while non-Hodgkin's lymphoma also occurred at over twice the national average. Prostate cancer occurred at nearly 3 times the national average and large intestinal cancer occurred at 1.75 times the national average. The researchers stated that a similar pattern of elevated NHL, brain and prostate cancer mortality along with excess deaths from diseases of the nervous system has been noted previously among other occupational groups exposed to pesticides.

8. Common Birth Defects Increase After Pesticide Exposure - Hydrocephaly & Cleft Palate

SOURCE: Dr. K. Machera, Laboratory of Pesticide Toxicology, Benaki Phytopathological Institute, Athens, Greece, Bulletin of Environmental Contamination Toxicology, 54:363-369, 1995

Of the many different types of pesticides (which include insecticides, herbicides and fungicides), it was found that the common fungicide "cyproconazole" caused serious defects when administered to test animals. This chemical is reported to be widely used in agriculture and is a member of the family of fungicides known as triazole fungicides. It's closely related family members include the fungicides triadimefon, triadimenol, bitertanol, flusilazole, 1,2,4-triazole, and propiconazole. Each of these pesticides were reported in this article as being capable of causing birth defects in test animals when administered at doses as low as 30 mg/kg. These chemicals are far more toxic than even standard insecticides. The "No Observable Effect Level" (which means the maximum amount of the chemical that test animals can be exposed to without seeing any adverse effects) is reported to be only 2 mg/kg for flusilazole.

The study on the effects of cyproconazole (lets call it CPZ for simplicity) was headed by Dr. K. Machera, at the Laboratory of Pesticide Toxicology in Athens, Greece. Dr. Machera exposed 10 pregnant animals to different levels of CPZ ranging from 20-75 mg/kg from the 6th to the 16th day of pregnancy. On the 21st day of pregnancy the animals were sacrificed and the number of implantations, resorption sites and live and dead fetuses were recorded. The fetuses were weighed and examined for abnormalities.

Results showed the number of resorptions (similar to an early miscarriage) was over 8 times greater for the animals exposed to the 50 and 75 mg/kg doses. The fetal length was significantly smaller in doses from 50 mg/kg up. The fetal body weight was significantly less even at the lowest dose of 20 mg/kg.

Cleft Palate did not occur in any of the 100 offspring not exposed to CPZ. However, cleft palate did occur in 2% of animals exposed to 20 mg/kg of CPZ, 20% of animals exposed to 50 mg/kg of CPZ and 91% of animals exposed to the highest 100 mg/kg dose. The same trend was also seen with hydrocephalus - 0% for the animals not exposed to CPZ, 6% for animals exposed to 20 mg/kg, 19% for animals exposed to 50 mg/kg, 32% for animals exposed to 75 mg/kg and 100% for the 12 animals exposed to the 100 mg/kg level. These studies demonstrate the definite potential for pesticides in the triazole family to increase the risk of lower birthweight, lower body length, as well as strongly increasing the risk of cleft palate and hydrocephalus. With results such as this in test animals, it would certainly be worthwhile to investigate the incidence of these conditions among people living in close proximity to agricultural areas. Dr. Machera did not state if these chemicals were used on residential lawns as an anti-fungal agent. Keep in mind that these studies were looking for physical defects and were not looking for neurological defects in offspring (which typically occur at much lower dosages).

9. Chlordane Causes Neurological Disorders and A.D.D. Symptoms

SOURCE: Dr. Kaye H. Kilburn and John C. Thornton, Environmental Sciences Laboratory, University of Southern California School of Medicine, Los Angeles Environmental Health Perspectives, 103:690-694, 1995

In 1987, over 250 adults and children were exposed to the pesticide chlordane when the wooden building surfaces and soil around their apartment complex was sprayed. Their exposure came from the vapors that entered into their home for the years after the chemical's application. Levels inside the homes were reported above 0.5 mg/m³.

In June-September 1994, 216 adult occupants or former residents of the apartment complex were examined by researchers at the University of Southern California School of Medicine in Los Angeles. The 109 women and 97 men were given a battery of neurological tests to determine if the low levels of chlordane in their apartments was causing any harmful effects. The tests given are considered sensitive indicators of neurotoxicity. To determine if chlordane was in fact causing neurological problems, the test scores of the chlordane exposed adults were compared to the test scores of 94 women and 68 men from Houston, known not to have been exposed to chlordane.

Results of the testing showed many negative effects upon mental function from the low levels of air chlordane. Not only were test scores lower for reaction time, balance, and memory, but also worse scores were observed in the test checking for attention deficits (digit symbol) and all tests of mood scores including tension, depression, anger, vigor and fatigue. Going beyond the neurological testing, both groups were also investigated for many common symptoms and illnesses. Those which were significantly more common in the chlordane exposed group included asthma, allergies, production of phlegm, chronic bronchitis by Medical Research Council criteria, and wheezing with and without shortness of breath. Headaches and indigestion were also more common among the chlordane exposed individuals.

In summary Dr. Kilburn and Thornton summarized their findings by stating, "The exposure of our study group appears to be from indoor air, due to the outgassing of chlordane from the wooden surfaces of the apartment complex. Examination of subjects exposed in their homes to chlordane as compared to referent subjects showed significant, and we suggest important, impairment of both the neurophysiological and psychological functions including mood states. Accompanying these changes were significant differences in symptom frequency and

in respiratory rheumatic and cardiovascular disease symptoms. The most notable changes were slowing of reaction time, balance dysfunction as revealed by increased sway speed, reduction in cognitive function, perceptual motor speed, and immediate and delayed verbal recall. The neurobehavioral impairments measured in this environmental epidemiological study were similar to those noted in patients exposed to chlordane at home. These impairments include probably irreversible dysfunction of the brain. Possible effects on trigeminal nerve-pons-facial nerve function were suggested for the first time. Confirmatory studies, including follow-up after removal from exposure, are urgently needed. Meanwhile, chlordane use should be prohibited worldwide." This study should generate heightened concern because of the large number of neurological and health effects seen at chlordane air levels of above 0.5m g/m³ (typical levels for most U.S. homes) and statements by researchers that developing children are harmed more by chemicals than adults.

10. Immune System Problems Appear After Indoor Dursban Exposure

SOURCE: Jack D. Thrasher Ph.D., Roberta Madison, Alan Broughton, Department of Health Science, California State University, Archives of Environmental Health, 48(2):89-93, March/April 1993

The pesticide Dursban (also called chlorpyrifos), commonly used in indoor and lawn pest control, is now showing evidence of causing immune system disorders in people. In a study by the Department of Health Science at California State University, 12 individuals, which included a teacher, six housewives, a retail owner, a musician and an engineer, were studied for 1 to 4.5 years after they became ill when their home or place of employment was treated with the pesticide. The researchers were investigating for any abnormalities in immune system function. Immediately following each patient's exposure to the pesticide, common complaints included an initial flu-like illness followed by chronic complaints of fatigue, headaches, dizziness, loss of memory, upper and lower respiratory symptoms, joint and muscle pain and gastrointestinal disturbances. The subjects were found to have an elevated number of CD26 cells and a higher rate of autoimmune problems, compared with two other control groups. (Autoimmune disorders occur when the person's own immune system mistakenly makes antibodies which attack their own body.) Autoantibodies were found toward smooth muscle, parietal cell, brush border, thyroid gland, myelin, and ANA. 83% of the pesticide exposed people were found to have autoantibodies in their blood, in comparison to only 15% for non-exposed control group. 50% of the pesticide exposed people were also found to have two or more autoantibodies in comparison to only 4% for the non-exposed group.

In conclusion the researchers stated, "the presence of several different types of autoantibodies, e.g., antimyelin, antismooth muscle, anti brush boarder, and antimicrosomal, indicates that generalized tissue injury has occurred. Moreover, these identical observations have been made in additional chlorpyrifos patients (research in progress). Thus, chlorpyrifos (Dursban), as used in pesticide spray, should be examined more closely as a probable immunotoxin."

11. Flea Home Treatments Cause High Air Pesticide Levels

SOURCE: Richard A. Fenske, Ph.D., MPH, Kathleen G. Black, MPH, Ken P. Elkner, MS Department of Environmental Sciences and Graduate Program in Public Health, Rutgers University, American Journal of Public Health, 80(6):689-693, 1990

Applying common flea pesticide treatments to carpets results in illegally high air pesticide levels in homes which lasts for over 24 hours after application. This was the conclusion of research conducted by Dr. Richard A. Fenske, Assistant Professor at Rutgers University. Tests were conducted by applying the common pesticide Chlorpyrifos (Dursban) for flea treatment by a licensed Pest Control Applicator to three rooms of an unoccupied apartment in New Jersey in June, 1987. Air sampling equipment was installed above the floor at the levels expected for an adult sitting in a chair and that of an infant. After application, samples were taken at 30 minutes, 1 hour, 1.5 hours, 3 hours, 5 hours, 7 hours and 24 hours. Results showed that at 5 hours post application, indoor air levels of the pesticide was nearly twice above the legal limit in homes with ventilation (an open window) and over 6 times above the legal limit at 7 hours where windows were closed. Levels at the infant breathing zone were nearly 10 times above the legal limit at 7 hours and over 3 times the legal limit even after 24 hours. These results show it is incorrect when Pesticide Applicators state it is safe to return home several hours after application. In fact, levels at 7 hours were 3-5 times higher than the 1.5 hour level. In conclusion the researchers stated, "Despite uncertainties in exposure/absorption estimates and toxicological interpretation, the dose values derived in this study raise a public health concern. Broadcast applications and possibly total release aerosol/fogging applications of acutely toxic insecticides may result in dermal and respiratory exposures sufficient to cause measurable toxicological responses in infants.

12. Common Pesticides Cause Hyperactivity in Test Animals After Single Dose

SOURCE: Dr. J. A. Mitchell, S. F. Long, Dept. of Pharmacology, University of Mississippi, The Behavioral Effects of Pesticides in Male Mice, Neurotoxicology and Teratology, Vol. 11:45-50, 1989

Groups of test animals exposed to different pesticides used in agriculture and lawn care showed over 50% more activity following a single exposure to the chemical. One of the main goals of this experiment, conducted by Dr. J. A. Mitchell and colleagues at the University of Michigan, was to investigate activity behavioral changes in test animals (male Swiss mice) following a single exposure to one of 4 different dosages of weed killers and fungicides. The chemicals used included Lasso (containing alachlor), Basalin (containing fluchloralin), Premiere (containing dinoseb) and the fungicide Maneb-80 (80% Maneb).. Test dosages ranged from a very low .4 mg/kg to 4 mg/kg to 40 mg/kg. Even the largest dose was still below the LD-50 for the animals (the amount needed to kill 50% of the test animals). According to the researchers, the herbicides and fungicides have received few reports investigating their toxicity while their yearly growth and production have grown far more than the insecticides.

The detection of hyperactivity was measured by placing the test animals in steel cages that were equipped with electronic motion detectors which used infrared beams to count specific movements by the animals. After the single chemical exposure, activity was measured for a 4 hour period. Results showed the weed killer "Lasso" did not show any effects at the very low .4 mg/kg level but did show over a 65% increase in activity at the low 4 mg/kg and a 75% increase at the higher 40 mg/kg level. The weed killer Dinoseb also showed no activity increases at the lowest .4 mg/kg dose but did show a 15% increase at the 4 mg/kg level and a 54% increase at the larger 40 mg/kg level. Other researchers have reported that activity provides a sensitive measure for evaluating the behavioral effects of the pyrethroid pesticide, deltamethrin, at doses that did not cause the characteristic neurotoxicological syndrome (6).

In conclusion the researchers stated, "The results of this study suggest that at least some herbicides, in addition to pyrethrins, organophosphate, and carbamate pesticides, can produce behavioral manifestations following accidental exposure...The effects of the pesticides on activity also support the hypothesis that these agents may affect the central nervous system."

13. Common Lawn Pesticide Linked to Cancer

SOURCE: Newsweek, May 16, pg.77, 1988; Science News, September 13, 1986

The lawn pesticides, mancozeb and chlorothalonil (used by commercial lawn spray companies as fungicides), have been classified by EPA as "probable" cancer causing chemicals in humans as they have been found to cause cancer in animals (1). Mancozeb has also been found to react with sunlight to form a new compound EPA categorizes as a "known" human carcinogen (1). The common lawn pesticide 2,4-D has been shown to increase the risk of lymphatic cancer in farmers six times the normal rate according to a National Cancer Institute report (2).

14. Male Infertility After Pesticide Chlordane Exposure

SOURCE: Dr. K. J. Balash, M. A. Al-Omar, et al., Biological Research Center, Scientific Research Council, Baghdad, Iraq., Bulletin of Environmental Contamination Toxicology, 39:434-442, 1987

In the following study, researchers divided mice into three groups of ten mice each. Two groups were subjected to either a low or higher level of chlordane and the third group was used as a control group not exposed to any chlordane. After 30 days of daily exposure, the animals were sacrificed and the testicles were examined. The researchers stated that the chlordane exposed groups showed obvious changes to the part of the testicles where sperm development occurs (called the seminiferous tubules). Damaged tubules were present in 19% of the lower chlordane exposed animals - 31% of the higher chlordane exposed animals and only 3% in the animals not exposed to chlordane. There was also a reduction in the seminiferous tubule diameter in the higher chlordane exposed group. More details of this research can be seen at the infertility web site

15. Pesticide Vapors Present - Weeks - Months & Years after Application

SOURCE: Pest Control Technology Magazine, pg. 44, August 1987

In research to determine the amount of indoor air contamination following routine indoor application of pesticides, it was found the levels of the pesticide Dursban drop to only one-sixth of its original 1 hour level four days after application. The research was conducted by Dow Chemical (1). The no-odor pesticide Ficam was reported to have an air half-life of approximately 10 days (2). Of significant concern is the discovery that the pesticide soil drench procedure (a procedure in which approximately 200 gallons of pesticides are saturated into the soil just prior to the pouring of the concrete foundation in new home construction) is finding its way into the indoor air for literally years and years after application. It was originally thought that the concrete foundation provided a solid barrier to the poison. However, air testing technology has shown this is not the case (3). Just as radon finds its way into a home, entering from the soil, the pesticide vapors do also moving from the high pressure underneath the home and into the lower pressure inside the home. It enters through cracks in foundation, around plumbing fixtures, etc. This provides strong evidence that this procedure should be eliminated immediately and alternative methods be used. Alternative methods include using only concrete and metal framing - using non-volatile Sodium Borate treatment on the wood framing before installing drywall - using pesticide spikes embedded in

the soil around the perimeter of the home (this is still a chemical pesticide and therefore is not a first option but may satisfy the Lenders). Other research at University of Florida has shown that larger "sand" granules do not allow termites to build their nests. Unfortunately, the pesticide industry has worked its way solidly into new home construction practices and therefore takes a little effort on the homeowner's part to stop the pesticide soil drench procedure - (It can be done however, as it is not a law, but rather a recommended procedure in the Southern Building Code and one the lenders like to see done. Go talk to your lender personally and tell them about the alternatives and threaten to take your business somewhere else.). The bottom line is these chemicals do enter the home and they do accelerate the onset of health problems (as seen in the research on this page) including aging of the immune and nervous system and therefore should not be applied underneath the home.

16. The Pesticide Chlordane Contaminates Most U.S. Homes

SOURCE: Samuel S. Epstein and David Ozonoff, Chief Environmental Health Section Boston University School of Public Health, Boston Massachusetts, Teratogenesis, Carcinogenesis, and Mutagenesis 7:527-540, 1987

There is approximately a 75% chance you are breathing the pesticide chlordane every minute you are inside your home if your home was built before March of 1988. Other studies have shown there is a 6-7% chance you are breathing dangerously high levels of the pesticide which are above the guidelines set by the National Academy of Sciences. This problem is occurring because over 30 million homes were treated with the chemical prior to its being banned by the EPA in March of 1988. The air chlordane studies were conducted by the U.S. Air Force and the New Jersey Department of Environmental Regulation. Over 1000 homes and apartments were tested in different parts of the nation. The researchers stated they expect the figures to remain the same throughout the country because of standardized application practices by the pest control companies. If you would like more detailed information on the chlordane problem and the health effects suspected for the millions of Americans living in chlordane treated homes - visit the chlordane web site by clicking on this link.

17. Home Pesticides Increase Risk of Leukemia in Children

SOURCE: Dr. John Peters, University of Southern California, Journal of the National Cancer Institute, July 1987

Children who live in homes where indoor or outdoor pesticides are used face a far greater chance of developing leukemia (leukemia is a cancer of the blood). The study, published in July's 1987 issue of the Journal of the National Cancer Institute, studied 123 Los Angeles children with leukemia and 123 children without the malignancy. The results showed the children living in the pesticide treated homes had nearly a 4 times greater risk of developing the disease. If the children lived in homes where pesticides were used in the garden as well, the risk of developing leukemia was 6.5 times greater. All of the children in the study were 10 years of age or younger.

18. Brain Damage Linked to Lawn Pesticides

SOURCE: 1. Toxicology and Applied Pharmacology, 65:23, 1982; 2. British Journal of Psychiatry, 141:273, 1982; 3. Annual Reviews in Public Health, 7:461, 1986

The pesticide MCPA, used as an ingredient in some lawn pesticides, has been found to damage a part of the brain known as the blood brain barrier (1). The blood brain barrier is the brain's primary defense system which works to keep toxic substances out of the brain cells and is literally protecting all of us from developing immediate neurological illness. The blood

brain barrier has been found to be defective more often in patients with Alzheimers and some psychiatric disorders (2). In fact, the lack of functioning of the blood brain barrier in the human infant has been reported on many occasions as being the reason why an infant is being found to develop brain damage after exposure to common chemicals while an adult with a mature blood brain barrier does not. Unfortunately, EPA neurotoxicologist Dr. Bill Sette stated EPA does not yet require chemical companies to test any of their pesticides for causing blood brain barrier damage. Another study of 56 men exposed to organophosphate pesticides detected memory problems and difficulty in maintaining alertness and focusing attention (3). Each of these studies will be listed here in greater detail shortly as our web site completes development. As the understanding of blood brain barrier function is of critical importance to understanding why one individual can receive more damage to his/her nervous system than someone else, we will also include a blood brain barrier site with the address www.chem-tox.com/bbb.

19. Pesticide Inhalation Associated with Brain and Lung Cancer

SOURCE: Journal of the National Cancer Institute, 71(1), July 1983

A study of 3,827 Florida pesticide applicators employed for 20 or more years found they had nearly 3 times the risk for developing lung cancer. The same study also showed the pesticide applicators had twice the risk for brain cancer. There was not any increased cancer risk when applicators were studied for only 5 years implying it takes over 5 years to accumulate enough damage to the genetic structure to develop the cancers.

Compiled by Beyond Pesticides
<http://www.beyondpesticides.org/>

Children are Especially Vulnerable to Toxics

The National Academy of Sciences finds that children are more susceptible to chemicals. *National Research Council, National Academy of Sciences, Pesticides in the Diets of Infants and Children, National Academy Press, Washington, DC, 1993: 184-185.*

Children take in more pesticides relative to body weight than adults and have developing organ systems that are more vulnerable and less able to detoxify toxic chemicals. *US EPA, Office of the Administrator, Environmental Health Threats to Children, EPA 175-F-96-001, September 1996*

Pesticides can increase susceptibility to certain cancers by breaking down the immune system's surveillance against cancer cells. Infants and children, the aged and the chronically ill are at greatest risk from chemically induced immune-suppression. *Repetto, R., et al., Pesticides and Immune System: The Public Health Risk, World Resources Institute, Washington, DC, March 1996.*

Children and Cancer

The probability of an effect such as cancer, which requires a period of time to develop after exposure, is enhanced if exposure occurs early in life.

Vasselinovitch, S., et al., "Neoplastic Response of Mouse Tissues During Perinatal Age Periods and Its Significance in Chemical Carcinogenesis," *Perinatal Carcinogenesis, National Cancer Institute Monograph 51*, 1979.

The rate of childhood cancer is increasing approximately 1% on average per year, and cancer is the leading cause of death by disease among non-infant children under the age of 15.

Cushman, J., "U.S. Reshaping Cancer Strategy as Incidence in Children Rises," *New York Times*, September 29, 1997. American Cancer Society, *Cancer Facts and Figures*, Oakland, CA, 1996.

Between 1973 and 1991, the overall incidence of childhood cancer increased 10%. Soft tissue sarcoma and brain cancer incidence increased more than 25%.

Ries, L., edited by Harras, A., *Cancer Rates and Risks*, National Institutes of Health Publication No.96-691, May 1996.

Children with brain cancer are more likely than normal controls to have been exposed to insecticides in the home.

Gold, E. et al., "Risk Factors for Brain Tumors in Children," *American Journal of Epidemiology* 109(3): 309-319, 1979.

A study sponsored by the National Cancer Institute indicates that household and garden pesticide use can increase the risk of childhood leukemia as much as seven-fold.

Lowengart, R. et al., "Childhood Leukemia and Parent's Occupational and Home Exposures," *Journal of the National Cancer Institute* 79:39, 1987.

Studies show that children living in households where pesticides are used suffer elevated rates of leukemia, brain cancer and soft tissue sarcoma.

Gold, E. et al., "Risk Factors for Brain Tumors in Children," *American Journal of Epidemiology* 109(3): 309-319, 1979;

Lowengart, P., et al., "Childhood Leukemia and Parents' Occupational and Home Exposures," *Journal of the National Cancer Institute*, Vol. 79, No. 1, pp.39-45, 1995;

Reeves, J., "Household Insecticide-Associated Blood Dyscrasias in Children," (letter) *American Journal of Pediatric Hematology/Oncology* 4:438-439, 1982;

Davis, J., et al., "Family Pesticide Use and Childhood Brain Cancer," *Archives of Environmental Contamination and Toxicology* 24:87-92, 1993;

Leiss, J., et al., "Home Pesticide Use and Childhood Cancer: A Case-Control Study," *American Journal of Public Health* 85:249-252, 1995;

Buckley, J., et al., "Epidemiological characteristics of Childhood Acute Lymphocytic Leukemia," *Leukemia* 8(5):856-864, 1994.

Whitmore, R., et al., "National Home and Garden Pesticide Use Survey Final Report," Research Triangle Park, NC: Research Triangle Institute, March 1992.

The most commonly used non-agriculture herbicide, 2,4-D,11 has been linked to non-Hodgkin's lymphoma in scientific studies.

Hoar, S., et al., "Agricultural Herbicide Use and a Risk of Lymphoma and Soft-Tissue Sarcoma," *Journal of the American Medical Association*, 259(9): 1141-1147, 1986;
 Wigle, D., et al., "Mortality Study of Canadian Farm Operators: Non-Hodgkin's Lymphoma Mortality and Agricultural Practices in Saskatchewan," *Journal of the National Cancer Institute* 82(7):575-582, 1990;
 Woods, J., "Non-Hodgkin's Lymphoma Among Phenoxy Herbicide-Exposed Farm Workers in Western Washington State," *Chemosphere* 18(1-6):401-406, 1989;
 Zahm, S., et al., "A Case Control Study of Non-Hodgkin's Lymphoma on the Herbicide 2,4-dichlorophenoxyacetic acid (2,4-D) in Eastern Nebraska" *Epidemiology* 1(5):349-356, 1990.

Other Health Hazards Associated with Pesticides

Health effects of 48 commonly used pesticides in schools: 22 are probable or possible carcinogens, 26 have been shown to cause reproductive effects, 31 damage the nervous system, 31 injure the liver or kidney, 41 are sensitizers or irritants, and 16 can cause birth defects.

See Health Effects of 48 Commonly Used Pesticides in Schools, Beyond Pesticides/NCAMP Factsheet, August 2000.

Symptoms of exposure to commonly used pesticides: nausea, dizziness, headaches, aching joints, disorientation, inability to concentrate, vomiting, convulsions, skin irritations, flu-like symptoms and asthma-like problems.

Bushnell, P., et al., "Behavioral and Neurochemical Effects of Acute Chlorpyrifos in Rats: Tolerance to Prolonged Inhibition of Cholinesterase," Journal of Pharmacology Exper. Thera.. 266(2): 1007-1017, 1993;

Volberg, D. et al., Pesticides in Schools: Reducing the Risks, Robert Abrams, Attorney General of the New York State Department of Law, Environmental Protection Bureau, New York, March 1993.

In a comparative study in Mexico, children exposed to pesticides demonstrated decreases in stamina, coordination, memory, and the ability to draw familiar subjects.

Guillette, E., et al., "An Anthropological Approach to the Evaluation of Preschool Children Exposed to Pesticides in Mexico," Environmental Health Perspectives, 106(6):347-353, 1998.

Animal studies link pesticides in the organochlorine, organophosphate (OP), and pyrethroid families to hyperactivity. OPs are also linked to developmental delays, behavioral disorders and motor dysfunction in animal studies.

Shettler, T., et al., "Known and suspected developmental neurotoxicants," In Harms Way: Toxic Threats to Child Development, Greater Boston Physicians for Social Responsibility: Cambridge, MA, 2000.

An internal Office of Pesticide Program, US EPA, memo states that further studies need be conducted, because of "evidence that odor and petroleum-related carriers" in OP pesticide products may be contributing to neurobehavioral effects in people exposed to OPs.

Darcy, S., "Chlorpyrifos, Diazinon Rank High in Residential Child Poisoning Incidents, EPA Internal Memo Says," *Pesticide Report*, vol. 3, no. 3, July 9, 1999, citing an Blondell, J., "Review of Poison Control Center Data for Residential Exposures to Organophosphate Pesticides, 1993-1996," U.S EPA Memorandum, February 11, 1999.

US EPA and Dow AgroSciences recently agreed to phase-out chlorpyrifos (Dursban™), one of the most commonly used insecticides in schools, because of its high risks to children, after allowing it to be used in schools and homes for the past 30 years. Although it can be purchased until 12/31/01, chlorpyrifos products can continue to be used in schools until existing stocks are used.

U.S. EPA, *Chlorpyrifos Revised Risk Assessment and Agreement with Registrants*, Washington, DC June 2000. *Accumulation of Residues after Pesticide Applications*

A 1998 study found that chlorpyrifos accumulated on furniture, toys and other sorbent surfaces up to two weeks after application.

Gurunathan, S., et al., "Accumulation of Chlorpyrifos on Residential Surfaces and Toys Accessible to Children," *Environmental Health Perspectives*, Vol. 106, No. 1, January 1998.

A separate study involving chlorpyrifos found substantially higher chlorpyrifos concentrations in the infant breathing zone.

Fenske, R. et al., "Potential Exposure and Health Risks of Infants following Indoor Residential Pesticide Applications," *American Journal of Public Health* 80(6): 689-693, 1990.

Airborne concentrations of 7 insecticides were tested 3 days following their application in separate rooms. Six of the seven pesticides left residues behind through the third day.

Wright, C., et al., "Insecticides in the Ambient Air of Rooms Following Their Application for Control of Pests," *Bulletin of Environmental Contamination & Toxicology*, 26, 548-553, 1981.

A 1996 study found that 2,4-D can be tracked from lawns into homes, leaving residues of the herbicide in carpets.

Nishioka, M., et al., "Measuring Transport of Lawn-Applied Herbicide Acids from Turf to Home: Correlation of Dislodgeable 2,4-D Turf Residues with Carpet Dust and Carpet Surface Residues," *Environmental Science Technology*, 30:3313-3320, 1996.

EPA's Non-Occupational Pesticide Exposure Study (NOPES) found that tested households had at least 5 pesticides in indoor air, at levels often 10X greater than levels measured in outdoor air.

U.S. EPA, "Nonoccupational Pesticide Exposure Study" (NOPES), Atmospheric Research and Exposure Assessment Laboratory, Research Triangle Park, North Carolina, EPA/600/3-90/003, January 1990.

Another EPA study found 23 pesticides in indoor household dust and air that was recently applied or used in the home. The study also found residues of pesticides in and around the home even when there had been no known use of them on the premises.

Lewis, R., et al., "Determination of Routes of Exposure of Infants and Toddlers to Household Pesticides: A Pilot Study," *Methods of Research Branch, U.S. EPA, Research Triangle Park, NC, 1991.*

Integrated Pest Management (IPM)

The National PTA issued a position statement in 1992 stating that "The National PTA is particularly concerned about the use of pesticides in and around schools and child care centers because children are there for much of their young lives. The National PTA ... supports efforts at the federal, state, and local levels, to eliminate the environmental health hazards caused by pesticide use in and around schools and childcare centers [and] encourage the integrated pest management approach to managing pests and the environment in schools and child care centers.

"National PTA, The Use of Pesticides in Schools and Child Care Centers, Position Statement adopted by the Board of Directors, 1992.

The American Medical Association's Council on Scientific Affairs states that "Particular uncertainty exists regarding the long-term health effects of low-dose pesticide exposure. ... Considering these data gaps, it is prudent ... to limit pesticides exposures ... and to use the least toxic chemical pesticide or non chemical alternative."

Cox, C., "Jimmy and Jane's Day: A Precautionary Tale," J. of Pesticide Reform (18)2, 1998, citing American Medical Association, Council of Scientific Affairs, "Education and informational strategies to reduce pesticide risk," Prevention Medicine 26:191-200, 1997.

Maryland schools reported 100% of 17 school districts surveyed had adopted integrated pest management (IPM) policies that discourage the routine use of pesticides.

Albert Greene, National IPM Coordinator for the U.S. General Services Administration (GSA), has implemented IPM in 30 million square feet, approximately 7,000 federal buildings, in the capital area without spraying toxic insecticides. Greene has stated, "that it can be pragmatic, economical, and effective on a massive scale.

"Greene, A., "Integrated Pest Management for Buildings," Pesticides and You, 1993, article adapted from transcript of an address to Canada's Department of National Defense Pest Management Advisory Committee, Montreal, Quebec, November 19, 1992.

According to the US EPA, "preliminary indications from IPM programs in school systems suggest that long term costs of IPM may be less than a conventional pest control program." *U.S. EPA, Pest Control in the School Environment: Adopting Integrated pest Management, 735-F-93-012, +....August 1993.*

Policies

Contents

Town of Marblehead

Town of Newton

Web resources:

Marblehead Organic Pest Management Policy

<http://www.turi.org/community/PDF/Organic.pdf>

Newton Integrated Pest Management Policy

<http://www.turi.org/community/PDF/IPMPOL.pdf>

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ORGANIC
PEST MANAGEMENT POLICY
for
Turf and Landscape

May 3, 2001

**Town of Marblehead
Board of Health**

Marblehead Organic Pest Management Policy

Phase 1 – Turf & Landscape

Prepared in accordance with the

Town of Marblehead, Board of Health
“Statement on Pesticides” of June 1998

SECTION 1: STATEMENT OF INTENT

The Town of Marblehead agrees with the U.S. Environmental Protection Agency (EPA) that “all pesticides are toxic to some degree..., and the commonplace, widespread use of pesticides is both a major environmental problem and a public health issue.”

The Town of Marblehead Board of Health recognizes that all citizens, (particularly children), as well as other inhabitants of our natural environment, have a right to protection from exposure to hazardous chemicals and pesticides in particular.

The Town of Marblehead Board of Health recognizes that a balanced and healthy ecosystem is vital to the health of the town and its citizens; and as such is also in need of protection from exposure to hazardous chemicals and pesticides, in particular.

Furthermore, the Town of Marblehead Board of Health recognizes that it is in the best interest of public health to eliminate the use of toxic pesticides on Town-owned land;

to encourage the reduction and elimination of the use of toxic pesticides on private property; and to introduce and promote natural, organic cultural and management practices to prevent and, when necessary, control pest problems on Town-owned land.

SECTION 2: PHILOSOPHY/PRINCIPLES

The Town of Marblehead Board of Health hereby adopts the *Precautionary Principle (as defined by the Wingspread Statement)* as the basis for its Organic Pest Management Policy. The Precautionary Principle states “*When an activity raises threats of harm to the environment or human health, precautionary measures should be taken, even if some cause and effect relationships are not yet fully established.*”

SECTION 3: STATEMENT OF ACTION

Be it known that the Town of Marblehead Board of Health hereby adopts an Organic Pest Management (OPM) Policy which mandates the following:

- That the use and application of toxic chemical pesticides, either by Town of Marblehead employees or by private contractors, is prohibited on all Town-owned lands;
- That natural, organic turf and landscape cultural practices and maintenance shall be the method of choice to understand, prevent, and control potential pest problems;
- That all control products used under the terms of this policy shall be in keeping with, but not limited to, those products on the approved list of NOFA/Mass. (Northeast Organic Farmers' Association/Mass.) and/or the Organic Materials Review Institute of Eugene, OR;
- That an OPM Advisory Committee shall be formed;
- That Town of Marblehead employees who work with turf grass and the landscape receive education and training in natural, organic turf and landscape management;
- That a listing of all Town-owned lands affected by this policy be made available to the public;
- That a registry of all pesticides currently stored on Town-owned premises be compiled, with a goal of proper disposal through a Hazardous Wastes Collection program.
- That Town compost shall be tested on a yearly basis for contaminants, including, but not limited to, heavy metals and pesticides, as decided by the Public Health Director.

SECTION 4: PESTS AND PESTICIDES DEFINED

For the purpose of this policy, pests and pesticides are defined as follows. Pests are and may be known as *undesirable* plants, insects, fungi, bacteria, and rodents, birds and other animals. Common examples in turf grass and the landscape can be, but are not limited to, crabgrass, knotweed, poison ivy, chinch bugs, grubs, and a variety of plant pathogens.

Pesticides are defined by the Massachusetts Department of Food and Agriculture Pesticide Bureau as “substances or mixtures of substances that prevent, destroy, repel, or mitigate pests, or defoliate, desiccate, or regulate plants. Pesticides are poisonous substances that can have an adverse effect on the environment or impair human health...” Herbicides, fungicides, insecticides, miticides, avicides and rodenticides are all considered pesticides.

Under this policy, pesticides classified as known, likely, or probable human carcinogens or probable endocrine disruptors, or those pesticides that meet the criteria for Toxicity Category I or Toxicity Category II, as defined by the United States Environmental Protection Act (EPA) in section 156.10 of Part 156 of Title 40 of the Code of Federal Regulations can no longer be applied to any Town of Marblehead-owned lands. A list of the pesticides in the EPA's Toxicity Categories I and II will be periodically updated and maintained at the offices of the Town of Marblehead Board of Health.

SECTION 5: ORGANIC PEST MANAGEMENT (OPM) DEFINED

Organic Pest Management is a problem-solving strategy that prioritizes a natural, organic approach to turf grass and landscape management without the use of toxic pesticides. It mandates the use of natural, organic cultural practices that promote healthy soil and plant life as a preventative measure against the onset of turf and landscape pest problems.

Essential OPM practices include, but are not limited to:

- regular soil testing;
- addition of approved soil amendments as necessitated by soil test results, following, but not limited to, the recommendations of NOFA/Mass (Northeast Organic Farmers' Association/Mass) and/or the Organic Material Review Institute of Eugene, OR;
- selection of plantings using criteria of hardiness; suitability to native conditions; drought, disease and pest-resistance; and ease of maintenance;
- modification of outdoor management practices to comply with organic horticultural science, including scouting, monitoring, watering, mowing, pruning, proper spacing, and mulching;
- the use of physical controls, including hand-weeding and over-seeding;
- the use of biological controls, including the introduction of natural predators, and enhancement of the environment of a pest's natural enemies;
- through observation, determining the most effective treatment time, based on pest biology and other variables, such as weather and local conditions; and
- eliminating pest habitats and conditions supportive of pest population increases.

OPM dictates the use of chemical controls, in consult with the OPM Advisory Board (See Section 9), only in the event of a public emergency as determined by the Board of Health.

SECTION 6: EXEMPTIONS

All outdoor pest management activities taking place on Town of Marblehead-owned land shall be subject to this OPM policy, except as follows:

- Pesticides otherwise lawfully used for the purpose of maintaining a safe drinking water supply at drinking water treatment plants and at wastewater treatment plants and related collection, distribution, and treatment facilities.
- Pesticides in contained baits or traps for the purpose of rodent control.
- Pesticides classified by the United States Environmental Protection Agency as exempt materials under 40CRF 152.25, or those pesticides of a character not requiring FIFRA regulation.

SECTION 7: OPM ADVISORY COMMITTEE

In accordance with Section 4 of this policy, an OPM Advisory Committee shall act as a “Pest Management Board” to oversee and assist in the implementation of the OPM policy, to develop an OPM program consistent with Section 5 of this policy, and to advise the Town of Marblehead Board of Health of any problems encountered or amendments required to achieve the full and successful implementation of this policy. The Advisory Committee shall meet four times per year, unless otherwise called to meeting by the Board of Health.

The Advisory Committee will seek the participation, advice, and counsel of experts in the fields of organic turf and landscape management and IPM protocol. Broad community participation, including parents, schools, advocates, and local landscaping businesses will be encouraged on a non-voting basis. Voting membership on the OPM Advisory Committee shall be comprised of:

- Town of Marblehead, Board of Health (1 Representative)
- Recreation Parks and Forestry Department Board (1 Representative)
- Town of Marblehead, Cemetery Commission (1 Representative)
- Town of Marblehead, School Committee (1 Representative)
- Town of Marblehead Conservation Commission (1 Representative)
- 3 Citizen Representatives, knowledgeable about organic approaches to pest problems and organic horticulture, as appointed by the Board of Health.

SECTION 8: TRAINING AND EDUCATION

All Town of Marblehead personnel involved in the evaluation, approval, or implementation of organic turf and landscape maintenance and/or outdoor pest control, should receive hands-on training and education in natural, organic cultural and technical methods.

SECTION 9: EMERGENCY WAIVERS

If an emergency situation warrants the use of pesticides which would otherwise not be permitted under this policy, the Town of Marblehead Director of Public Health and/or the Board of Health shall have the authority to grant a temporary waiver for a period of thirty days. Notice of the waiver request shall be given to the OPM Advisory Committee for advice on resolving the problem without the use of pesticides. The waiver may be extended for an additional period not to exceed six months. Nothing in this waiver provision prohibits the Town of Marblehead from adopting additional waiver resolutions for as long as the condition exists, again not to exceed six months for any individual resolution.

Any waiver granting the use of pesticides on Town land shall require the use of Integrated Pest Management protocol as it pertains to the least toxic material chosen for any given application (see Addendum 1 for IPM definition).

The Board of Health shall determine if such a waiver is warranted based on the following criteria:

1. the pest situation poses a threat to human health and/or environmental quality;
2. viable alternatives consistent with this OPM policy do not exist.

Any Town department using a pesticide under such a waiver must comply with the laws of the Commonwealth of Massachusetts regarding notification to site users and abutters.

ADDENDUM 1:

INTEGRATED PEST MANAGEMENT (DEFINED)

Organic Pest Management strives first and foremost to prevent pest problems through the application of natural, organic horticultural and maintenance practices. OPM can incorporate some of the principles of Integrated Pest Management (IPM) in its program as is deemed suitable and necessary by the OPM Advisory Committee.

IPM is an ecologically-sound approach to suppressing and eliminating pest populations to keep them from causing health, economic, or aesthetic injury. IPM utilizes site-specific information about pest biology and behavior, environmental conditions, and the dynamics of human characteristics and activities in dealing with the prevention and control of pests that interfere with the purpose and use of a particular site.

The following steps outline the basic approach used in an IPM program.

- Monitoring and scouting the turf or landscape in question;
- Accurate record-keeping documenting any potential pest problems;
- Evaluation of the site with regard to any injury caused by a pest in question and a determination made on which course of treatment to follow;
- Chosen treatment to be the least damaging to the general environment and one that best preserves the natural ecosystem;
- Chosen treatment to be the most likely to produce long-term reductions in pest control requirements. The effective implementation must be operationally feasible, and must be cost effective in the short and long term.
- Chosen treatment must minimize negative impact to non-target organisms;
- Chosen treatment must be the least disruptive of natural controls available.
- Chosen treatment must be the least hazardous to human health.

U. S. Environmental Protection Agency Office of Prevention, Pesticides and Toxic Substances, "Healthy Lawn, Healthy Environment, June 1992.

Wingspread Conference, S. Johnson Foundation, Racine, WI, February 1998

Massachusetts Department of Food and Agriculture, Pesticide Bureau Regulations, 333CMR:203, Sec. 4, 1996

Massachusetts Department of Food and Agriculture, Pesticide Bureau, Regulation Home Page, www.massdfa.org/pestreg.htm, March 2000

City of Newton Integrated Pest Management Policy

(September 1997)

Preface

Newton IPM Policy

PM Defined

Pests Defined

IPM Goals

PM Practices

IPM Guidelines

Record Keeping

Notification

IPM Advisory Committee

Preface

The city of Newton recognizes that citizens, particularly children, deserve to be protected from exposure to hazardous chemicals and pesticides. The City also recognizes that public agencies should be a model of environmentally responsible practices. Employing an Integrated Pest Management (IPM) policy allows the City to accrue the financial benefits of planning, prevention and responsible management, while reducing the use of pesticides that pose a health risk to people directly through breathing, drinking, ingesting or skin absorption of toxic products or via delayed exposures from contaminated soil, food, air, water, utensils, and toys.

Newton IPM Policy

The City of Newton will commit to Integrated Pest Management (IPM) principles and practices and incorporate them into all landscape maintenance and building maintenance and construction work. This policy will apply to work by contractors hired by the City as well as to work done by city employees.

IPM Defined

Integrated Pest Management (IPM) is a problem-solving approach to landscape and building management designed to prevent and control undesirable weeds, insects, fungi, and rodents. IPM relies on the use of site-specific information about environmental conditions and the dynamics of human characteristics and activities, and pest biology and behavior to prevent, resist and control pests that interfere with the purpose and use of a particular site. When a pest has exceeded a predetermined threshold at a particular site, all appropriate pest control strategies are employed including modifying the habitat, modifying maintenance practices, modifying user behavior, and, if all else fails, using pesticides as a last resort, and only within specific guidelines for least-toxic selection and use.

Pests Defined

Pests are undesirable plants, insects, fungi and rodents. Common examples in the landscape are grubs, chinch bug, crabgrass, knotwood, and a variety of plant diseases. Insects, weeds, and fungi are a significant problem on our athletic fields and other public grounds. They can

destroy or overtake large areas of turf resulting in lack of playability, large renovation costs, and poor conditions for players. Common pests in buildings are ants, lice, cockroaches, termites, mice and other rodents that thrive when food and other conditions are available. They can create hygiene and safety problems, cause damage to building structures and, if nothing else, cause a nuisance.

IPM Goals

The goal of Newton's Integrated Pest Management Policy is to promote the health, safety, quality and sustainability of public buildings and landscapes and maximize the enjoyment and use of public buildings and grounds for functional, recreational (both active and passive) and ornamental purposes. This policy will

1. Reduce use of pesticides through common sense principles of IPM to the point of no pesticide use, whenever possible and practical.
2. Provide healthy, high-quality and sustainable buildings, parks and public open spaces.
3. Prevent the contamination of buildings, soil, air, and water and protect people (especially children and other vulnerable populations), animals and beneficial plants and insects from toxic exposures.
4. Provide a model of responsible stewardship of environmental and community resources.

IPM Practices

Planning: The City of Newton will develop site-specific building and landscape maintenance plans for all sites, which will incorporate pest prevention and control measures. These plans will specify site-assessment, testing and the timing and/or type of maintenance practices; monitor conditions and pest populations; establish pest thresholds; recommend educating users or modifying user behavior (including modifying public access, traffic or use patterns), define record keeping requirements and evaluation criteria, solve problems using expert assistance and resources; and, if determined to be necessary, identify the conditions for use of pesticides. Plans will be reviewed and approved by the IPM Advisory Committee.

IPM Guidelines:

The IPM Advisory Committee will develop guidelines for considering all appropriate intervention options, including changes in cultural, mechanical, physical, biological and chemical measures, or no action. Criteria for selecting pest control interventions within these guidelines shall be:

- a. Least hazardous to people, beneficial insects and plants, and the environment
- b. Most species-specific
- c. Lowest cost
- d. Highest level of anticipated effectiveness
- e. Greatest need for ongoing use and maintenance of field or facility

Record Keeping:

The landscape and building maintenance contractors and City workers will maintain a record of site characteristics and conditions, interventions, practices, pest populations, and other pertinent IPM data and make periodic reports as determined by the IPM Advisory Committee.

Notification:

All site users and abutters will be notified regarding any use of pesticides according to state law and any additional requirements established by the IPM Advisory Committee.

IPM Advisory Committee

The City of Newton will establish an IPM Advisory Committee advisory to the Commissioners of Health, Public Buildings, Parks and Recreation, and Support Services of the Newton Public Schools and the Mayor.

The Advisory Committee will recommend action in the following areas, or will assume authority to act in these areas to the extent that power to so is delegated by those indicated above.

- Develop IPM guidelines and oversee their implementation.
- Develop IPM specifications for RFPs and contracts.
- Provide necessary community education about IPM.
- Ensure that all staff have appropriate training and experience in IPM practices and access to expert assistance and resources.
- Ensure that best practices and all non-toxic pest control methods are fully exploited.
- Ensure that any pesticide considered for use is fully evaluated (active and inert ingredients) for the least-adverse impact on people and the environment.
- Determine policy for notification of pesticide use to all site users and abutters and enforce the full extent of that policy and applicable state law.
- Specify collection of IPM data and evaluate pesticide use records and reports for all city departments and make regular reports to the Landscape Maintenance Task Force, the Mayor and the community.
- Membership on the IPM Advisory Committee shall be:
- Newton Health Department
- Green Decade Coalition/Newton/GreenCAP
- Newton Parks and Recreation Department
- Representative of Newton sports leagues
- Newton Public Buildings Department

- Health and Safety Committee, Newton Change Management Group
- Newton School Department, Support Services
- Health and Safety Committee, Newton PTO Council
- Neutral chair, to be selected by other members.

The committee will seek the participation of technical experts to provide advice and counsel. Broad community participation, including parents, schools, advocates, and other landscape users and managers, (including the Newton Commonwealth Golf Course) will be encouraged on a non-voting basis.



Pesticides and Their Impact on Children: Key Facts and Talking Points

While pesticides have benefits for society and can be powerful tools for controlling pests, they are also inherently toxic and can severely harm children's health if stored or used improperly.

The following data-driven talking points can be useful when talking with Head Start staff, families and others about the risks associated with pesticides and the importance of pesticide poisoning prevention.

Why are we talking about pesticides?

- 50 percent of the 2 million poisoning incidents each year involve children younger than six years old, and 90 percent of these incidents occur in the home.
- The American Association of Poison Control Centers data reports more than 70,000 calls made to poison centers with concerns about potential exposure to common household pesticides.
- Among households with children under the age of five, close to half stored at least one pesticide product within reach of a child.
- Nearly 75 percent of households with no children under the age of five stored pesticides in an unlocked cabinet within a child's reach — a significant figure since 13 percent of all pesticide poisonings occur in homes other than that of a child.

Why are children especially vulnerable?

Due to key differences in physiology and behavior, children are more susceptible to environmental hazards than adults.

Differences in Physiology

- Children's nervous, immune, digestive and other systems are still developing. Developing systems are less able to detoxify and excrete these pollutants compared to adults.
- Children's systems provide less natural protection than adults.
- Children breathe in more air than adults, inhaling almost 2 times as many pollutants.

Differences in Behavior

- Children spend more time outdoors on grass, playing fields, and play equipment where pesticides may be present.
- Children crawl on the floor and therefore have full body contact with carpets.
- Children's hand-to-mouth contact is more frequent, exposing them to toxins through ingestion.

Did you know?

Decaying cockroaches and mouse dander are among the top triggers in asthmatic children. People with roaches in their homes are 1.5 times more likely to have asthma. People with rodents in their homes are 2 times more likely to have asthma.

Play It Safe

How can pesticide poisoning affect a child's health?

Pesticide poisoning is especially harmful to children since their brain and nervous systems are at early critical stages of development. Because their bodies are still growing, children have fewer natural defenses and can develop serious health effects if overexposed to pesticides. There are two categories of health effects of pesticide exposure. **Acute exposure** refers to an intense exposure over a short period of time; for instance, a child sitting in the room during a spraying. Low-dose and **long-term exposure** is exposure that occurs over a period of time.

Acute exposure to pesticides may cause short-term effects such as:

- Headaches;
- Dizziness;
- Muscle twitching;
- Weakness;
- Tingling Sensations; and
- Nausea.

Long-term exposure to pesticides may cause serious health effects such as:

- Birth defects;
- Learning disabilities;
- Behavioral changes;
- Organ damage;
- Forms of cancer, including leukemia, breast cancer, and brain tumors; or
- Asthma symptoms.

What can we do?

One of the most effective ways you can help prevent pesticide poisonings is by adopting Integrated Pest Management (IPM) practices to reduce children's exposure to pesticides. IPM is a safer method of pest management that makes use of a variety of control techniques and focuses on eliminating the causes of pest infestations instead of merely treating the symptoms. Since children spend so much of their day at home and in school, IPM provides an opportunity to create a safer learning environment—to reduce children's exposure to pesticides as well as eliminate pests. IPM involves the following six steps.

- **Keep Pests Out** — If pests can't get inside, then you won't need to use any pesticides to kill them.
- **Starve and Dry Pests Out** — Every creature needs food and water to survive. Eliminate your pests' access to these things and they won't hang around for long.
- **Eliminate Safe Havens for Pests** — Roaches can live in any nook and cranny. Anywhere you see a small crack leading to a spot that people can't access, make sure to seal it up.
- **Monitor for Pests** — Monitoring is key to successful IPM. It lets us know when there is a problem so we can address it early.
- **Create an IPM Plan and Keep Proper Records** — An IPM plan is a document that indicates how you plan to monitor for pests and what you will do if pests suddenly arrive. Having this tool will help you avoid the urge to use dangerous pesticides.
- **Treat Existing Pest Problems** —To get rid of existing pests, use traps, vacuums, gels and baits. If pesticides are necessary, use spot treatments rather than area-wide applications.



Health Effects of 30 Commonly Used Pesticides

	Health Effects						
	Cancer	Endocrine Disruption	Reproductive Effects	Neurotoxicity	Kidney/Liver Damage	Sensitizer/Irritant	Birth Defects
Herbicides							
2,4-D*	X ⁴	X ¹⁰	X ⁷	X ⁸	X ⁸	X ¹	X ¹¹
Benfluralin					X ¹	X ¹	
Bensulide				X ²	X ¹	X ²	
Clopyralid			X ⁷			X ²	X ⁷
Dicamba*			X ¹	X ²	X ²	X ¹	X ¹
Diquat Dibromide			X ¹²		X ¹¹	X ¹	
Dithiopyr					X ¹	X ¹	
Fluazipop-p-butyl			X ¹		X ¹		X ¹
Glyphosate*	X ¹²	X ⁸	X ¹		X ⁸	X ¹	
Imazapyr					X ⁷	X ²	
Isoxaben	X ³				X ²		
MCPA		X ⁶	X ²	X ²	X ¹¹	X ¹	
Mecroprop (MCP)P*	Possible ³	X ⁶	X ²	X ¹	X ⁹	X ¹	X ¹
Pelargonic Acid*						X ¹	
Pendimethalin*	Possible ³	X ⁶	X ¹			X ²	
Triclopyr			X ⁷		X ⁹	X ¹	X ⁷
Trifluralin*	Possible ³	X ⁶	X ¹		X ²	X ¹	
Insecticides							
Acephate	Possible ³	X ⁶	X ¹¹	X ⁹		X ²	
Bifenthrin*†	Possible ³	Suspected ^{6,10}		X ⁸		X ¹	X ⁹
Carbaryl	X ³	X ¹⁰	X ⁸	X ¹	X ¹¹	X ¹¹	X ⁷
Fipronil	Possible ³	X ⁶	X ⁸	X ⁸	X ⁸	X ⁸	
Imidacloprid ‡			X ⁷		X ²		X ⁷
Malathion*	Possible ³	X ¹⁰	X ¹¹	X ⁹	X ²	X ²	X ²
Permethrin*†	X ³	Suspected ^{6,10}	X ^{1,7}	X ^{9,7}	X ⁹	X ¹	
Trichlorfon	X ³	X ⁶	X ¹¹	X ²	X ²		X ²
Fungicides							
Azoxystrobin					X ²	X ²	
Myclobutanil		Probable ⁶	X ²		X ²		
Propiconazole	Possible ³	X ⁶	X ²		X ¹	X ¹	
Sulfur						X ¹	
Thiophanate methyl	X ³	X ¹	X ¹	Suspected ¹	X ¹	X ²	X ¹
Ziram	Suggestive ³	Suspected ⁶		X ²	X ²	X ²	
Totals:	16	17	21	14	25	26	12

*These pesticides are among the top 10 most heavily used pesticides in the home and garden sector from 2006-2007, according to the latest sales and usage data available from EPA (2011), available at http://www.epa.gov/opp00001/pestsales/07pestsales/market_estimates2007.pdf.

† EPA lists all synthetic pyrethroids under the same category. While all synthetic pyrethroids have similar toxicological profiles, some may be more or less toxic in certain categories than others. See Beyond Pesticides' synthetic pyrethroid fact sheet at bit.ly/TLBuP8 for additional information.

‡ Imidacloprid is a systemic insecticide in the neonicotinoid chemical class, which is linked to bee decline.

Description

Most toxicity determinations based on interpretations and conclusions of studies by university, government, or organization databases. Empty cells may refer to either insufficient data or if the chemical is considered relatively non-toxic based on currently available data.

The list of 30 commonly used lawn chemicals is based on information provided by the General Accounting Office 1990 Report, "Lawn Care Pesticides: Risks Remain Uncertain While Prohibited Safety Claims Continue," U.S. Environmental Protection Agency (EPA) National Pesticide Survey (1990), Farm Chemicals Handbook (1989), The National Home and Garden Pesticide Use Survey by Research Triangle Institute, NC (1992), multiple state reports, current EPA Environmental Impact Statements, and Risk Assessments, EPA national sales and usage data, best-selling products at Lowe's and Home Depot, and Beyond Pesticides' information requests.

For more information on hazards associated with pesticides, please see Beyond Pesticides' *Gateway on Pesticide Hazards and Safe Pest Management* at www.beyondpesticides.org/gateway. For questions and other inquiries, please contact our office at 202-543-5450, email info@beyondpesticides.org or visit us on the web at www.beyondpesticides.org.

Citations

1. U.S. EPA. Office of Pesticide Program *Reregistration Eligibility Decisions (REDs), Interim REDs (iREDs), and RED factsheets*. <http://www.epa.gov/pesticides/reregistration/>.
2. National Library of Medicine, TOXNET, *Hazardous Substances Database*, <http://toxnet.nlm.nih.gov/>.
3. U.S. EPA. 2012. Office of Pesticide Programs, *Chemicals Evaluated for Carcinogenic Potential*. http://npic.orst.edu/chemicals_evaluated.pdf.
4. California Environmental Protection Agency. *Proposition 65: Chemicals Known to the State to Cause Cancer or Reproductive Toxicity*. Office of Environmental Health Hazard Assessment. http://www.oehha.org/prop65/prop65_list/files/P65single052413.pdf.
5. The Pesticide Management Education Program at Cornell University. *Pesticide Active Ingredient Information*. <http://pmep.cce.cornell.edu/profiles/index.html>.
6. The Endocrine Disruption Exchange. 2011. *List of Potential Endocrine Disruptors*. <http://www.endocrinedisruption.com/endocrine.TEDXList.overview.php>.
7. Northwest Coalition for Alternatives to Pesticides (NCAP), *Pesticide Factsheets*. <http://www.pesticide.org/get-the-facts/pesticide-factsheets>.
8. Beyond Pesticides *ChemWatch Factsheets*, <http://www.beyondpesticides.org/pesticides/factsheets/index.htm>.
9. U.S. EPA. *Chronic (Non-Cancer) Toxicity Data for Chemicals Listed Under EPCRA Section 313*. Toxic Release Inventory Program. http://www.epa.gov/tri/trichemicals/hazardinfo/hazard_chronic_non-cancer95.pdf.
10. European Union Commission on the Environment. *List of 146 substances with endocrine disruption classifications, Annex 13*. http://ec.europa.eu/environment/endocrine/strategy/substances_en.htm#report2.
11. Extension Toxicology Network (EXTOXNET) *Pesticide Information Profiles*. <http://extoxnet.orst.edu/ghindex.html>.
12. International Agency for Research on Cancer, World Health Organization (IARC) category 2A, the agent (mixture) is probably carcinogenic to humans based on sufficient evidence of carcinogenicity in laboratory animal studies. <http://monographs.iarc.fr/ENG/Classification/index.php>.



**Board of Health
TOWN OF NEEDHAM
AGENDA FACT SHEET**



MEETING DATE: 10/14/2021

Agenda Item	Continued Discussion re Sira Naturals Request
Presenter(s)	Timothy McDonald, Director of Health & Human Services Tara Gurge, Assist. Public Health Director

1.	BRIEF DESCRIPTION OF TOPIC TO BE DISCUSSED
Mr. McDonald and Ms. Gurge will be available to answer questions and participate as the Board of Health discusses the presentation at September's BOH meeting from Sira Naturals, and some of the requests that they made.	
2.	VOTE REQUIRED BY BOARD OF HEALTH
No vote is required, nor is one expected at this meeting.	
3.	BACK UP INFORMATION:
- Sira Naturals Letter to Public Health Division re: request to appear before BOH and requests for modification to regulations impacting Sira Naturals operations - Article 20: Regulation to Ensure the Sanitary and Safe Operations of Registered Marijuana Dispensaries and the Sale of Marijuana to Persons with Documented Medical Needs - Sira Naturals Overview Presentation	



**Board of Health
TOWN OF NEEDHAM
AGENDA FACT SHEET**



MEETING DATE: 10/14/2021

Agenda Item	Continued Discussion of Sira Naturals Requests
Presenter(s)	Timothy McDonald, Director of Health & Human Services

1.	BRIEF DESCRIPTION OF TOPIC TO BE DISCUSSED
	Ms. Dwan Packnett, Vice President for Government Relations & Community Investments, will present to the Board of Health about Sira Naturals operations and its request for modifications to its operating permit and the underlying regulations which govern that permit.
2.	VOTE REQUIRED BY BOARD OF HEALTH
	No vote is required, nor is one expected at this meeting.
3.	BACK UP INFORMATION:
	- Sira Naturals Letter to Public Health Division re: request to appear before BOH and requests for modification to regulations impacting Sira Naturals operations - Article 20: Regulation to Ensure the Sanitary and Safe Operations of Registered Marijuana Dispensaries and the Sale of Marijuana to Persons with Documented Medical Needs



September 17, 2021

Mr. Timothy Muir McDonald
Director of Public Health
Needham Board of Health
178 Rosemary Street
Needham, MA 02494

RE: Sira Naturals, Inc. Request to Appear before the Needham Board of Health

Founded and operated by Massachusetts natives and residents since 2013, Sira Naturals weathered the unpredictable cannabis market to become one of the state's largest employers and vertically integrated cultivator, product manufacturer, and retailer of cannabis products for both the medical and adult-use markets in Massachusetts. Through a Community Benefits Agreement (CBA) signed by the Needham Board of Selectmen on June 14, 2016; the Special Permit granted by the Needham Planning and Community Development Department on June 13, 2017; and subject to the provisions of Article 20 of the Board of Health (BOH) Regulations effective March 31, 2016; Sira Naturals opened a retail medical facility at 27-29 Franklin in the Town of Needham in June 2017.

Sira Naturals seeks the Board of Health's reconsideration of Article 20 BOH Regulations governing discounted products and labeling, signage and other materials more particularly described below. The medical cannabis industry has had no detrimental impacts in the Commonwealth of Massachusetts since its introduction in 2013. And the medical marijuana industry has undergone significant technological improvements such as state monitored seed to sale Metric Tracking systems allowing data visibility to retailers across the state allowing a safe and reliable distribution to and accessibility for medical marijuana patients.

Such accessibility, however, is not available for cost-conscious consumers or those living on a fixed income who enjoy discounts similar to those provided every day at local pharmacies like Walgreens, CVS, or Walmart. The failure to provide discounts can become a barrier to use that reinforces the "illegal" stigma of cannabis. We believe promotional discounts will help to relieve this stigma by providing a more welcoming environment - similar to any pharmacy - for those marginalized by the war on drugs.



Thus, we request the BOH remove or amend regulations 20.6.5 (B) and (C) set forth below so Sira may provide discounts and loyalty programs to Needham residents.

1. 20.6.5 Registered Sales by Registered Marijuana Dispensary

B. No person shall Accept or redeem, offer to accept, or redeem, or cause or hire any person to accept or redeem, or offer to accept or redeem, through any coupon or other method, any marijuana or marijuana-infused product for less than the listed or non-discounted price; or

C. Sell marijuana or a marijuana-infused product through any discounts (e.g., “buy-two-get-one-free”) or otherwise provide any marijuana or marijuana-infused product for less than the listed or non-discounted price in exchange for the purchase of any other product.

Sira Naturals also requests the BOH allow us to discount products for sale including promotional gifts and materials with references to marijuana or MIPs, including the logo of Sira Naturals, Inc. d/b/a Ayr. Thus, we request the BOH amend regulation 20.6.10 (A) to allow the logo of Sira Naturals, Inc. d/b/a Ayr and brand.

2. 20.6.10 Marketing and Advertising Requirements

A. A RMD may develop and use a logo for labeling, signage, and other materials, but that logo may not contain medical symbols, images of marijuana and marijuana-related paraphernalia, or colloquial references to cannabis and marijuana. Likewise, a RMD may not offer for sale or as a promotional gift any items which contain symbol of or references to marijuana or MIPs, including the logo of the RMD.

Finally, while not specifically listed in Article 20, Sira Naturals is currently required to send all edible packaging to the Needham Board of Health for pre-approval before being offered for sale to patients. Since packaging and labelling is currently regulated by the Cannabis Control Commission, we would like to request amending this municipal specific requirement.

Sira is prepared to highlight specific data that shows the potential anticipated benefits of easing these restrictions and would very much like to review additional requirements such as background checks and CORIs reviewed by the Needham BOH that may have worked theoretically and before the CCC was established. But now after four years of practice with excellent outcomes, we are confident this heightened level of scrutiny has become burdensome to both Sira Naturals and the Needham BOH and is no longer needed in every instance.



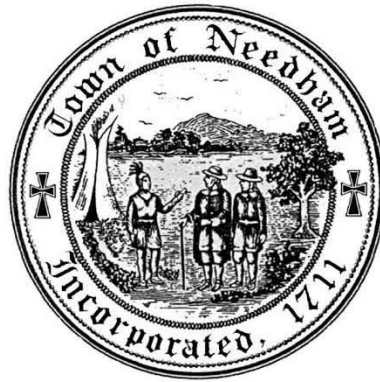
Thank you for your consideration. If you have any questions, or if additional information is needed, please do not hesitate to contact me.

Sincerely,

A handwritten signature in blue ink, reading "Dwan Packnett".

Dwan Packnett
VP Gov't Relations & Community Investment

cc: Kate Fitzpatrick, Needham Town Manager
David Davis, Needham Director of Finance
Matthew Radebach
Louis Karger
Michelle Foley
Andrea Odian



Board of Health

Edward Cosgrove, PhD
Vice Chair, Board of Health

Stephen Epstein, MD, MPP
Chair, Board of Health

Jane Fogg, MD, MPH
Member, Board of Health

ARTICLE 20 REGULATION TO ENSURE THE SANITARY AND SAFE OPERATIONS OF REGISTERED MARIJUANA DISPENSARIES AND THE SALE OF MARIJUANA TO PERSONS WITH DOCUMENTED MEDICAL NEEDS

SECTION 20.1 AUTHORITY

This regulation is promulgated under the authority granted to the Needham Board of Health under Massachusetts General Laws Chapter 111, Section 31 which states that "boards of health may make reasonable health regulations," and pursuant to Chapter 369 of the Acts of 2012 An Act for the Humanitarian Medical Use of Marijuana ("The Act") and Massachusetts Department of Public Health Regulations 105 CMR 725.000.

SECTION 20.2 PURPOSE

The primary purpose of this regulation is to provide for local oversight and inspection of Registered Marijuana Dispensaries (RMDs) and hardship cultivation sites within the town; oversight and inspections will be provided by Needham's Board of Health and its agents to ensure the safe and sanitary operation of any such RMD or hardship cultivation site consistent with public health and safety.

The regulation is intended to ensure that only people with a documented medical need will acquire medical marijuana or marijuana-infused products pursuant to the Act, and that marijuana will not be diverted to individuals without a documented medical need. Since the existence of an RMD or hardship cultivation site present a risk of improper diversion and other collateral consequences within the community, it is necessary to regulate this activity at the local level.

SECTION 20.3 DEFINITIONS

Unless otherwise indicated, terms used throughout this regulation shall be defined as they are in [105 CMR 725.004](#).

Board of Health: Town of Needham Board of Health and its designated agents.

Board of Health Agent: The Director of Public Health and any town employee designated by the Director, which may include Public Health Department staff, law enforcement officers, fire officials, and code enforcement officials

Business Agent: A Dispensary Agent, as also defined in [105 CMR 725.004](#), who has been designated by the RMD Permit Holder to be a manager in charge of the RMD facility and its operations.

Card Holder: A registered qualifying patient, a personal caregiver, or a dispensary agent of a RMD who has been issued and possess a valid registration card.

Director: The Director of Public Health.

Dispensary Agent: A Dispensary Agent, as also defined in [105 CMR 725.004](#), is a board member, director, employee, executive, manager, or volunteer of a RMD, who is at least 21 years of age. Employee includes a consultant or contractor who provides on-site services to a RMD related to the cultivation, harvesting, preparation, packaging, storage, testing, or dispensing of marijuana.

Home Permit: Issued by the Board of Health, to be renewed annually, to the holder of a hardship cultivation registration issued by the Massachusetts Department of Public Health (DPH) in 105 CMR 725.000, which registration is for a specific location within the town.

Non-Residential Roll-Your-Own (RYO) Machine: A mechanical device made available for use (including to an individual who produces rolled marijuana products solely for the individual's own personal consumption or use) that is capable of making rolled marijuana products. RYO machines located in private homes used for solely personal consumption are not Non-Residential RYO machines.

Period of Performance: The time period for which violations of a RMD or Home Permit are counted. For example, a violation that occurs in July 2016 will no longer weigh on the RMD or Home Permit holder's record with the Board of Health after the passage of 36 months from the date of the discipline imposed for that violation. If the Board of Health hearing on the violation occurred on July 31, 2016, then the violation will be outside the period of performance and no longer counted on August 1, 2019.

Registered Marijuana Dispensary (RMD): A Registered Marijuana Dispensary (also known as a Medical Marijuana Treatment Center) is a not-for-profit entity registered under 105 CMR 725.100, that acquires, cultivates, possesses, processes (including development of related products such as edible MIPs, tinctures, aerosols, oils, or ointments), transfers, transports, sells, distributes, dispenses, or administers marijuana, products containing marijuana, related supplies, or educational materials to registered qualifying patients or their personal caregivers. The term RMD may also refer, in context, to the site(s) of dispensing, cultivation, and preparation of marijuana by an RMD entity.

RMD Permit: A Registered Marijuana Dispensary Permit, to be renewed annually, which may be issued by the Board of Health to a non-profit corporation holding a Certificate of Registration issued by the Massachusetts Department of Public Health (DPH) pursuant to 105 CMR 725.000, which permits a RMD to operate within the town.

Self-Service Display: Any display from which customers may select marijuana or a marijuana-infused product without assistance from a Dispensary.

Town: The Town of Needham, Massachusetts.

Vending Machine: Any automated or mechanical self-service device, which upon insertion of money, tokens or any other form of payment, dispenses or makes marijuana products.

Verified Financial Hardship: Is an individual's status as a recipient of MassHealth or Supplemental Security Income, or else a determination that an individual's income does not exceed 300% of the federal poverty level when adjusted for family size.

Violation: A failure to comply with an operational requirement outlined in this regulation. For this regulation, a MINOR violation is a failure to comply with specific regulatory requirements which, while important, do not jeopardize the primary purposes of this regulation. A MAJOR violation is one that has the potential to jeopardize the primary purposes of this regulation, meaning that non-compliance in this area may divert marijuana to individuals without a documented medical need and/or which may produce significant collateral consequences to community health and safety.

SECTION 20.4 PERMIT TO OPERATE A REGISTERED MARIJUANA DISPENSARY

20.4.1 – Permits for a Registered Marijuana Dispensaries

- A. No person or organization shall sell or otherwise distribute marijuana or marijuana-infused products within the Town of Needham without first obtaining a RMD Permit. A RMD Permit may only be issued to a nonprofit corporation which:
 - (i) has a current Certificate of Registration issued by the Massachusetts Department

- of Public Health (DPH) pursuant to 105 CMR 725.000; and
- (ii) has a permanent, non-mobile location in Needham approved by the DPH for use as an RMD; and
- (iii) is in compliance with all applicable zoning requirements.

And which provides satisfactory documentation of compliance with those requirements to the Board of Health.

- B. The applicant shall also submit to the Board of Health a copy of the operating policies and procedures for the RMD which was submitted to DPH pursuant to 105 CMR 725.000 and any other relevant DPH directives, memorandums or notifications.
- C. The applicant shall sign a statement declaring that the applicant understands that, under this local regulation:
 - (i) all Dispensary Agents are responsible for complying with all local and state regulations pertaining to the operation of the RMD. Specifically, a violation of any provision of 105 CMR 725.000 or other applicable state regulations constitutes a violation of this regulation, which may be enforced by the Board of Health; and
 - (ii) the applicant is responsible for providing instruction and training for dispensary agents in all applicable local and state regulations; and
 - (iii) the fact that a Dispensary Agent, vendor, or other person associated with the RMD is unaware of a regulation or lacks understanding of its content, shall not be a defense to any violation; and
 - (iv) the Board of Health and its designated agents may conduct periodic, unannounced inspections of the RMD premises.
- D. The fee for a RMD Permit shall be at the level determined in the Needham Board of Health's Fee Schedule. All RMD Permits expire on June 30 annually, regardless of the year or day and month on which they were issued.
- E. The initial plan review for marijuana-infused product (MIP) production facilities (see section 20.5.1) shall result in a fee at the level determined in the Needham Board of Health's Fee Schedule. The initial plan review for the safe and sanitary storage of marijuana-infused products in a RMD (see section 20.5.2) shall result in a fee at the level determined in the Needham Board of Health's Fee Schedule. The initial plan review for trash collection and the safe and sanitary disposal of waste (see section 20.5.3) shall result in a fee at the level determined in the Needham Board of Health's Fee Schedule. The plan reviews for emergencies and continuity of operations (see section 20.5.4) and for safety and security (see section 20.5.5) shall result in a fee at the level determined in the Needham Board of Health's Fee Schedule.
- F. RMD Permits in good standing may be renewed annually by the Board of Health, at the Board's discretion, based on a completed and satisfactory application, in a form required by the Board, filed by the RMD and payment by the RMD of the annual fee

according to the fee schedule.

- (i) Any material changes from the most recent approved operating policies and procedures, or from the plans described in Section E above shall be disclosed in the renewal application, and RMD shall pay the applicable fees for any reviews which the Board deems necessary as a condition of renewal.
 - (ii) If a permit has been modified by the Board, the RMD shall demonstrate compliance with any requirements of that modification, to the satisfaction of the Board, as a condition of renewal and shall pay the applicable fees for any reviews which the Board deems necessary as a condition of renewal.
 - (iii) If a permit has been suspended by the Board, prior to reinstatement of the permit, the RMD shall provide evidence satisfactory to the Board that it will comply with all requirements of the Board and these regulations, and shall pay the applicable fees for any reviews which the Board deems necessary as a condition of renewal
 - (iv) If a permit has been revoked by the Board, the RMD permit may be reissued based on a new application, all necessary fees, and a public hearing.
- G. A separate RMD Permit is required for each RMD retail establishment selling marijuana or marijuana-infused products within the Town. A violation of this provision constitutes a MINOR violation of these regulations.
- H. Each RMD Permit shall be displayed at the RMD retail establishment in a conspicuous place. A violation of this provision constitutes a MINOR violation of these regulations.
- I. A RMD Permit is non-transferable. A violation of this provision constitutes a MINOR violation of these regulations.
- J. A RMD Permit will not be renewed if the RMD Permit Holder has failed to pay any outstanding fines or fees or failed to satisfy any other penalties or conditions lawfully imposed by the Town.
- K. A RMD may not open for business before 8:00 A.M. and shall close no later than 8:00 P.M., on each day the RMD is open. Deliveries from, or on behalf of, the RMD that are made to patients must adhere to the same hours. The hours and days of RMD operation must be posted conspicuously on the front entrance door. A violation of this provision constitutes a MINOR violation of these regulations.
- L. Acceptance of a RMD Permit constitutes an agreement by the RMD that it will adhere to the practices, policies, and procedures described or submitted with its application, as well as the relevant laws, state and local regulations, and conditions imposed by the Board of Health as part of the permit process.

20.4.2 – Inspections and Compliance of Registered Marijuana Dispensaries

- A. Dispensary Agents must present their Registration Card on request by any Board of Health agent. A violation of this provision constitutes a MINOR violation of these regulations.
- B. Issuance and maintaining a RMD Permit shall be conditioned on the RMD Permit Holder's ongoing consent to periodic, unannounced inspections of the RMD premises by the Board of Health and its designated agents. The applicant also consents to abide by the provisions relating to inspections found in 105 CMR 725.300 and related sections including, but not limited to, "deficiency statements" and "plans of correction." A violation of this provision constitutes a MINOR violation of these regulations.
- C. There must be a designated Business Agent on the premises at all times that the RMD is open for business. A violation of this provision constitutes a MINOR violation of these regulations.
- D. The Board of Health and its designated agents, as well as the Needham Police Department, shall be provided with an updated phone list through which a Business Agent may be reached on a 24 hour basis. A violation of this provision constitutes a MINOR violation of these regulations.
- E. Issuance and maintaining a RMD Permit shall be conditioned on the RMD Permit Holder's ongoing consent to provide the Board of Health with copies of the Registration Cards for all Dispensary Agents working at the RMD, and the names of all Business Agents of the RMD, and to submit any changes in staffing and registration information within five (5) business days. The notification and information about changes in staffing and registration shall be submitted in either paper copy via courier or certified mail or else electronically in a verified/e-signed PDF format. A violation of this provision constitutes a MINOR violation of these regulations.
- F. The RMD Permit Holder shall Criminal Offender Record Information (CORI) inquiry and a Sex Offender Registry Information (SORI) inquiry on all applicants for the positions of Dispensary Agent and for Business Agents. Such checks shall be conducted in all states in which the applicant has worked or resided within the last ten (10) years. The results of those inquiries shall be reported to the Needham Public Health Department. A violation of this provision constitutes a MINOR violation of these regulations.
- G. Issuance and maintaining a RMD Permit shall be conditioned on the RMD Permit Holder's ongoing consent to provide the Board of Health with updated copies of all RMD documents including copies of staffing plans, training protocols, audit results, security assessments (subject to appropriate redaction), and all other documents. Updated submissions shall be sent to the Board of Health monthly electronically in a

verified/e-signed PDF format. A violation of this provision constitutes a MINOR violation of these regulations.

- H. No RMD Permit Holder shall permit any disorder, disturbance, or illegality of any kind to take place in or on the licensed premises. The term “illegality” includes, but is not limited to, any violation of 105 CMR 725.000 and related directives, memoranda or notifications; and any violation of these regulations promulgated by the Board of Health. The Permit Holder shall be responsible for any disorder, disturbance or illegality of any kind whether present or not. A violation of this provision shall be considered may be considered either a MINOR or a MAJOR violation depending upon the severity of the illegality identified.
- I. Failure or refusal of an RMD or Home Permit holder to cooperate with the Board of Health or its agent shall be considered a MAJOR violation of these regulations.

20.4.3 – Records Retention of Registered Marijuana Dispensaries

- A. A RMD Permit Holder shall notify the Needham Public Health Department and the Board of Health verbally and in writing within 24 hours of a visit to the premises or request for information by any representative of DPH acting in an official capacity. The RMD Permit Holder shall provide the Board with any reports, correspondence, emails or other information from DPH on demand or, in any case, within five (5) business days after receipt by the RMD. A violation of this provision constitutes a MINOR violation of these regulations.
- B. Video surveillance shall conform to the requirements of 105 CMR 725.110(D) and any other related regulations, directives, memorandums or notifications from DPH. In addition, as conditions of issuing or maintaining its RMD Permit, the Board of Health may require other, reasonable surveillance operations and security (e.g., an off-site backup system). Furthermore, the RMD must allow for immediate viewing of video surveillance by the Board of Health or its designated agents, upon request. A copy of a requested recording shall be provided as soon as practicable to these officials. All video recordings shall be retained for a minimum of 90 days. Furthermore, as soon as the RMD is aware of any recording that might relate to a criminal, civil or administrative investigation or legal proceeding of any kind, the RMD shall not alter or destroy the recording without the written permission of both the Director and the Chief of Police for the Town of Needham. A violation of this provision constitutes a MAJOR violation of these regulations.
- C. Issuance and maintaining a RMD Permit is conditioned on maintaining all records outlined in 105 CMR 725.105(I) and other DPH regulations, directives, memorandum and notifications, along with any other documents reasonably required by the Board of Health in writing. Following closure of an RMD, all records

must be kept for at least two (2) years at the expense of the RMD and in a form and location acceptable to the Board of Health. Moreover, as a condition of issuing and maintaining a RMD Permit, the Board of Health may reasonably require that the new owner of a RMD retain records generated by the previous RMD at the expense of the new RMD. A violation of this provision constitutes a MINOR violation of these regulations.

20.4.4 – Other Restrictions for Registered Marijuana Dispensaries

- A. For RMDs that cultivate marijuana, the cultivation and processing facility shall not adversely affect the health or safety of the nearby residents or businesses by creating dust, glare, heat, noise, nuisance odors, noxious gases, materials, processes, products or wastes. Growing areas shall be within a self-contained, locked structure, with a 1-hour firewall assembly made of green board or other construction specifically approved by the Town's building inspector, well ventilated with odor control, and shall not create humidity or mold issues within the establishment. A violation of this provision constitutes a MAJOR violation of these regulations.
- B. No RMD is permitted to sell or distribute alcoholic beverages or tobacco products and may not hold either a tobacco sales permit or a liquor license. A violation of this provision constitutes a MAJOR violation of these regulations.
- C. No RMD is permitted to hold a Common Victualler license for on-premises food consumption. A violation of this provision constitutes a MAJOR violation of these regulations.
- D. No RMD is permitted to be a Massachusetts lottery dealer or to engage in any gaming activities. A violation of this provision constitutes a MAJOR violation of these regulations.

SECTION 20.5 PLAN REVIEWS OF REGISTERED MARIJUANA DISPENSARIES

20.5.1 – Off-Site Cultivation/MIP Preparation Plan Review

An applicant who wishes to sell edible marijuana-infused products (MIPs) at a RMD must, prior to beginning operations, undergo a plan review of any MIP processing and preparation facilities, regardless of their location, for any MIP that will, at some point, be delivered, distributed, produced, sold, or stored within the Town. The Board of Health and its designated agents will conduct the plan review, which may include a facilities inspection, to ensure sanitary handling and processing conditions and practices.

20.5.2 – Plan Review for MIP Storage and Handling at RMD Retail Location

An applicant who wishes to sell edible marijuana-infused products (MIPs) at a RMD must, prior to beginning operations, undergo a plan review of all MIP storage, handling, and sale

locations within the RMD. The Board of Health and its designated agents will conduct the plan review, which may include a facilities inspection, to ensure sanitary handling and storage conditions and practices in line with the requirements outlined in the [105 CMR 590](#), the State Sanitary Code.

The requirements of 105 CMR 590.000 include specific actions to prevent the growth of bacteria. *Clostridium botulinum* is a bacterium whose spores are present on plant material and in soil. Spores are present in many plant material extractions and can survive cooking/pasteurization temperatures. These spores can spontaneously germinate (grow into bacteria) given the right conditions/substrate. The bacteria can produce a powerful toxin which can cause severe illness or death. Specific actions required of a RMD selling MIP are:

- A. Except during preparation, cooking, or cooling, time/temperature control for safety (TCS) items shall be maintained at 5°C (41°F) or less to prevent the growth of bacteria. This shall apply, unless specifically permitted by the Board of Health or its agents, to all:
 - (i) marijuana extractions and concentrates intended for non-smoking oral consumption (i.e. eating, drinking);
 - (ii) infusions made from those extractions, such as infused oils, butters, honey, etc; and
 - (iii) foods that have such infusions/extractions as an ingredient.
- B. If a marijuana extraction, concentrate, or infusion has been continuously refrigerated and is then added as an ingredient into baked goods that have a low water activity, such as most cookies and brownies, these baked products may be considered shelf-stable if explicitly reviewed and permitted by the Board of Health or its agents.
- C. If the extracted marijuana concentrate is immediately infused into a 190/200 proof alcohol with no additional ingredients (including flavorings or other additives) and the tincture is homogenous, then the growth of *C. botulinum* spores may have been prevented. Homogenous 190/200 proof alcohol tinctures may be safe to store outside of refrigerated temperatures if explicitly reviewed and permitted by the Board of Health or its agents.
- D. Approvals for any variance from the safe and sanitary storage requirements outlined above will be based upon:
 - (i) a review of written procedures that are followed to make the product;
 - (ii) the use of control measures described above; and
 - (iii) any other scientific evidence submitted by the manufacturer from a certified laboratory or process authority that demonstrates the safety of the product in question. For example:
 - a) pH and/or water activity testing must be conducted by an accredited laboratory;
 - b) three samples from separate batches must be tested; and
 - c) all samples must meet the criteria for a non-potentially hazardous food as

described in Tables A and B of the 2013 *FDA Food Code*.

- E. At any time, the Board of Health or its agents may require a Hazard Analysis and Critical Control Points (HACCP) plan before approving the distribution of MIPs.
- F. Photos or images of food are not allowed on MIP product labels.
- G. All MIP must be contained in an opaque package.
- H. If the MIP is identified on the label using a common food name (i.e. Brownie, Honey, Chocolate, Chocolate Chip Cookie, or Green Tea), the phrase “MEDICAL MARIJUANA” must be written before the common food name. This phrase must be as easy to read as the common food name (i.e. same font size).
- I. Only generic food names may be used to describe the MIP. As an example, using “Snickerdoodle” to describe a cinnamon cookie is prohibited.
- J. All MIP must state the following:
 - (i) A batch number, sequential serial number, and bar code when used, to identify the batch associated with manufacturing and processing;
 - (ii) A statement that the product has been tested for contaminants, that there were no adverse findings, and the date of testing in accordance with 105 CMR 725.105(C)(2);
 - (iii) The manufacture date as well as a “Best by” or “Use by” or expiration date;
 - (iv) Net weight of Medical Marijuana and the THC level in the MIP, and the net weight of Medical Marijuana and the THC level contained **per dose/serving** (if the MIP is not a single serving/dose);
 - (v) A list of ingredients as well as the cannabinoid profile of the marijuana contained within the MIP;
 - (vi) A warning if nuts or other known allergens are contained in the product;
 - (vii) Directions for use of the product if relevant;
 - (viii) The statement “For Medical Use Only”; and
 - (ix) The statement, including capitalization: “This product has not been analyzed or approved by the FDA. There is limited information on the side effects of using this product, and there may be associated health risks. Do not drive or operate machinery when under the influence of this product. KEEP THIS PRODUCT AWAY FROM CHILDREN.”

A violation of any of the provisions of 20.5.2 (A) through (J) shall constitute a MINOR violation of these regulations.

20.5.3 – Plan Review for Safe and Secure Disposal of Waste, Refuse, or Damaged Product

An applicant for a RMD Permit shall develop a plan for the safe and secure storage and disposal of any waste, refuse, or damaged marijuana, MIPs, and related products. Such a plan will be

based on the requirements outlined in 105 CMR 725.105(J) and will be subject to review and approval by the Board of Health and its designated agents prior to the RMD beginning operations.

20.5.4 – Plan Review for Emergencies and Continuity of Operations

In accordance with emergency planning requirements specified in 105 CMR 725.105(A)(9) and similar to the responsibilities outlined in the Risk Management and Continuous Quality Improvement section of the *Guidelines for the Accreditation of Opioid Treatment Programs* which are authorized in [42 CFR 8.12\(c\)](#), an applicant for a RMD Permit shall develop an emergency management program to ensure the safety of its staff and customers and a mechanism by which to ensure the continuity of its operations (COOP) in response to inclement weather, man-made emergencies, supply chain disruptions, or discipline (including permit suspension) which result in the RMD being unable to provide medical marijuana and MIPs to patients with a documented medical need. Such a program shall include:

- A. A detailed emergency operations plan (EOP) and a process by which staff will be trained on that plan and their knowledge of it tested via drills and exercises. The emergency operations plan will:
 - (i) Include a set of contact procedures for staff, customers, and community partners in the event of an emergency;
 - (ii) Specify a process for contacting Dispensary Agents on a 24-hour, 7-day-a-week basis through a telephone answering service or a similar service provider; and
 - (iii) Include protocols for the maintenance of life safety equipment (fire extinguishers and AEDs, for example) and the training of staff on the proper use of the same;
- B. A detailed continuity of operations (COOP) plan for the emergency administration of medication in response to inclement weather, man-made emergencies, supply chain disruptions, or discipline (including permit suspension under these regulations) which result in the RMD being unable to provide medical marijuana and MIPs to patients with a documented medical need. This continuity of operations plan will:
 - (i) Include provisions for the notification of patients in the event that inclement weather, man-made emergencies, supply chain disruptions, or discipline under these regulations might result in a temporary disruption to medication supply; and
 - (ii) Include formal contractual arrangements to fulfill patient orders for medical marijuana and MIPs in the face of service disruption; these plans will specify order fulfillment and delivery arrangements with at least two (2) RMDs that are not otherwise affiliated with the applicant for a Needham RMD Permit.

Such a plan will be subject to review and approval by the Board of Health or its designated agents prior to the RMD beginning operations, and at least annually thereafter.

20.5.5 – Safety and Security Plan Review

In accordance with the criteria specified in 105 CMR 725.110—the Security Requirements for Registered Marijuana Dispensaries—an applicant for a RMD Permit shall develop a comprehensive security plan. Such a plan will be subject to review and approval by the Director, the Chief of Police, and the Fire Chief prior to the RMD beginning operations, and at least semi-annually thereafter.

SECTION 20.6 MARIJUANA SALES BY REGISTERED MARIJUANA DISPENSARY

20.6.1 – No person or organization shall sell marijuana or marijuana-infused products from any location other than at a RMD that possesses a valid RMD Permit. A violation of this provision constitutes a MAJOR violation.

20.6.2 – A sign shall be conspicuously posted on the exterior of the establishment at each entrance to the RMD, indicating that the entry to persons who do not possess either a valid Registration Card or a Personal Caregiver Registration Card is prohibited. The sign shall remain unobstructed, secured to the building at a height of no less than four (4) feet or greater than seven (7) feet from the ground, and maintained in good condition. A violation of this provision shall be considered a MAJOR violation.

20.6.3 – Dispensary Agents or organizations shall verify the Registration Card or Personal Caregiver Registration Card of the Card Holder in accordance with the procedures outlined in 105 CMR 725.000 and any other directives, memorandums or notifications from DPH. In addition, the Registration Card shall be verified for each and every Card Holder or Personal Caregiver, on each and every occasion that he/she enters the RMD, without exception. The failure to verify, regardless of the prior history of the Card Holder at the RMD, constitutes a MAJOR violation of this regulation.

20.6.4 – All retail sales of marijuana and marijuana-infused products must be face-to-face between the Dispensary Agent and the Card Holder or Personal Caregiver on the premises of the RMD, unless the Card Holder or Personal Caregiver is the proper recipient of home delivery in accordance with all applicable DPH regulations. A violation of this provision constitutes a MAJOR violation of these regulations.

20.6.5 – No person shall:

- A. Distribute, or cause to be distributed, any free samples of marijuana or marijuana-infused products; or
- B. Accept or redeem, offer to accept or redeem, or cause or hire any person to accept or redeem, or offer to accept or redeem, through any coupon or other method, any marijuana or marijuana-infused product for less than the listed or non-discounted price; or

- C. Sell marijuana or a marijuana-infused product through any discounts (e.g., “buy-two-get-one-free”) or otherwise provide any marijuana or marijuana-infused product for less than the listed or non-discounted price in exchange for the purchase of any other product.
- D. The provisions of 20.6.5 shall not prohibit dispensing of free or discounted marijuana or marijuana-infused products to card holders whose ability to pay for a product deemed medically necessary is limited by demonstrable financial hardship.
- E. A violation of any of the provisions of 20.6.5(A) through 20.6.5(D) shall constitute a MAJOR violation of these regulations.

20.6.6 – RMDs are prohibited from using self-service displays. A violation of this provision shall be considered a MINOR violation.

20.6.7 – RMDs are prohibited from using vending machines. A violation of this provision shall be considered a MINOR violation.

20.6.8 – RMDs are prohibited from using Non-Residential Roll-Your-Own machines. A violation of this provision shall be considered a MINOR violation.

20.6.9 – A RMD and its Dispensary agents are prohibited, in accordance with restrictions outlined in 105 CMR 725.105(K) and (L), from providing:

- A. Any statement, design, representation, picture, or illustration that encourages or represents the use of marijuana for any purpose other than to treat debilitating medical condition or related symptoms;
- B. Any statement, design, representation, picture, or illustration that encourages or represents the recreational use of marijuana;
- C. Any statement, design, representation, picture, or illustration related to the safety or efficacy of marijuana unless supported by substantial evidence or substantial clinical data with reasonable scientific rigor as determined by the Board of Health or its agents;
or
- D. Any statement, design, representation, picture, or illustration portraying anyone under 18 years of age.
- E. A violation of any of the provisions of 20.6.9(A) through 20.6.9(D) shall constitute a MINOR violation of these regulations.

20.6.10 – A RMD, in accordance with restrictions outlined in 105 CMR 725.105(K) and (L), must

adhere to the following Marketing and Advertising Requirements:

- A. A RMD may develop and use a logo for labeling, signage, and other materials, but that logo may not contain medical symbols, images of marijuana and marijuana-related paraphernalia, or colloquial references to cannabis and marijuana. Likewise, a RMD may not offer for sale or as a promotional gift any items which contain symbol of or references to marijuana or MIPs, including the logo of the RMD.
- B. A RMD may only identify the building/RMD location by the registered name, and shall not display advertisements for marijuana or any brand name nor utilize graphics related to marijuana or paraphernalia on the building.
- C. RMD external signage shall not be illuminated except for a period of 30 minutes before sundown until closing, and shall comply with Article 5 of the Town of Needham By-Laws which regulates signage advertising. Neon signage is prohibited at all times.
- D. No marijuana, MIPs, and other related products shall be visible or displayed in such a way as to be seen from the exterior of a RMD. Within the RMD, one sample of each marijuana strain and each MIP may be displayed in a transparent and locked case.
- E. Inside the RMD, all marijuana which is not displayed in accordance with state and local restrictions (as outlined in 105 CMR 725.105(L)(10) and in Section 20.6.10(D) above) shall be stored in a locked, access-controlled space in a limited access area during non-business hours. This access-controlled space shall be inaccessible to any persons other than dispensary agents.
- F. A RMD shall provide a catalogue or a printed list of the prices and strains of marijuana available at the RMD to registered qualifying patients and personal caregivers upon request, but shall not advertise the price of marijuana.
- G. A violation of any of the provisions of 20.6.10(A) through 20.6.10(F) shall constitute a MINOR violation.
- H. If, during the course of an inspection or compliance check at the RMD Cultivation/Production Site, mold, infestation, or other diseases affecting marijuana plants is observed, then the Board of Health or its Agents may order the segregation and/or destruction of all such plants (as well as surrounding plants) to prevent a threat to the public's health.

SECTION 20.7 HOME CULTIVATION

20.7.1 – Marijuana cultivation or processing of any kind is prohibited within the town of Needham without a RMD Permit or Home Permit issued by the Needham Board of Health.

20.7.2 – Prior to any home cultivation taking place within the town, even by a qualifying patient or caregiver under 105 CMR 725.000, the respective individual must obtain a Home Permit. Cultivation that takes place without a permit is outside the coverage of the medical marijuana program and is subject to prosecution as a crime under Massachusetts General Laws, Chapter 94C.

20.7.3 – A Home Permit shall be granted if the Board of Health determines that:

- A. The applicant does not have access to an RMD by any of:
 - (i) public or private transportation, or
 - (ii) a caregiver with transportation, or
 - (iii) a RMD that will deliver to the applicant or the applicant's caregiver's primary address.

Or that:

- B. The applicant has a verified financial hardship (as defined in 105 CMR 725.004 as enrollment in either MassHealth or Supplemental Security Income, or else that an individual's income does not exceed 300% of the federal poverty level, adjusted for family size) and does not have access to an RMD willing to provide the applicant marijuana at no or an affordable cost.

Applicants who fail to meet the above described hardship standard will not receive a Home Permit and will be informed, in a written statement, that marijuana cultivation is prohibited in Needham without a RMD Permit or Home Permit, and that any such cultivation is outside the coverage of the medical marijuana program and is subject to prosecution as a crime under Massachusetts General Laws, Chapter 94C.

20.7.4 – Subject to the provisions of Section 20.7.3, the Board of Health may issue a Home Permit authorizing cultivation activities at a specified address within the town, provided that the applicant:

- A. Submits to a pre-approval inspection by the Board of Health or its designated agents, which may include law enforcement officers and fire officials and building inspectors, to ensure that the location specified in the application meets all of the requirements of this regulation; and
- B. Meets all the requirements for home cultivation contained in 105 CMR 725.000 and any related directives, memorandums or notifications. These include, but are not limited to, an enclosed, locked space, not viewable from a public location, in which cultivation and storage takes place in accordance with public health and safety requirements as determined by the Board; and

- C. Meets all applicable local regulations within the town including, but not limited, fire safety and building code provisions; and
- D. If not the property owner, the applicant has notified the public or private property owner of the specified address, and obtained from that owner consent to any alteration the property's fixtures or structure, including agreement concerning any increased utility costs likely to result from cultivation activities; and
- E. Grows only enough marijuana to maintain a sixty (60) day supply, which has been determined to be ten (10) ounces by DPH. The Board of Health or the Director may specifically designate the number and type of plants that may be possessed at any time by the applicant in order to meet this standard; and
- F. Submits to reasonable inspections by the Board of Health or its designated agents, which may include law enforcement officers, to ensure compliance with all of the requirements in this regulation; and
- G. Agrees that a Home Permit only allows for the cultivation and processing of marijuana without the use of any fire, heat source, or gas, except for cooking on a conventional stove originally supplied with the dwelling; and
- H. Agrees that a Home Permit does not allow any method for processing marijuana that presents a risk of explosion or other property damage by any means; and
- I. All Home Permits expire on June 30 annually, regardless of the year or day and month on which there were issued.
- J. If the Board of Health determines that the conditions to achieve the hardship standard permitting a Home Permit for marijuana cultivation no longer exist, the Board of Health may, after notice and opportunity to be heard, revoke the Home Permit and disallow cultivation of marijuana in the home setting of the affected person or persons.
- K. A violation of provision 20.7.4 (B), (C), or (D) shall constitute a MINOR violation of these regulations. A violation of provision 20.7.4 (A), (E), (F), (G), or (H) shall constitute a MAJOR violation of these regulations.
- L. If, during the course of an inspection or compliance check at the Home Permit Site, mold, infestation, or other diseases affecting marijuana plants is observed, then the Board of Health or its Agents may order the segregation and/or destruction of all such plants (as well as surrounding plants) to prevent a threat to the public's health.

SECTION 20.8

VIOLATIONS

20.8.1 – The period of performance for violations of these regulations is three (3) years. MINOR violations shall be rectified within 72 hours of the violation, and shall be subject to re-inspection following that period. MAJOR violations shall be rectified within 24 hours, and shall be subject to re-inspection following that period.

20.8.2 – In addition to any penalty that may be imposed under the non-criminal method of disposition as provided in General Laws, Chapter 40, Section 21D and Town of Needham By Laws, the Board of Health may, after a duly noticed hearing at which the RMD or Home Permit holder has had an opportunity to be heard, suspend, modify, or revoke the RMD Permit or Home Permit. The minimum suspension schedule shall be as follows:

- A. In the case of either five (5) or more MINOR violations or in the case of a MAJOR violation the RMD Permit or Home Permit shall be suspended for seven (7) consecutive business days.
- B. In the case of a second MAJOR violation or in the case of ten (10) or more MINOR violations, the RMD Permit or Home Permit shall be suspended for one (1) month.
- C. In the case of a third MAJOR violation or in the case of fifteen (15) or more MINOR violations, the RMD Permit or Home Permit shall be suspended for six (6) months.
- D. In the case of a fourth MAJOR violation or in the case of twenty (20) or more MINOR violations, the RMD Permit or Home Permit shall be suspended for twelve (12) months and may, at the Board of Health's discretion, be permanently revoked.
- E. Refusal to cooperate with the Board of Health or its designated agents is considered a separate violation of these regulations and shall result in the suspension of the RMD Permit or Home Permit for a minimum of ninety (90) consecutive business days. This shall be in addition to any other penalty imposed for other violations observed.
- F. Any RMD Permit Holder or Home Permit Holder who engages in or allows the sale, distribution or cultivation of marijuana or marijuana-infused products while his or her permit is suspended shall be subject to permanent revocation.

20.8.3 – The penalties mentioned in 20.8.2 represent the guidelines for action to be taken by the Board of Health for violations, and do not preclude the licensing authority from taking additional action after a duly noticed hearing at which the RMD Permit or Home Permit holder has an opportunity to be heard.

20.8.4 – If during an inspection or a compliance check, a Board of Health Agent determines a MAJOR violation of these regulations exists or has occurred, the Director may temporarily suspend the RMD Permit or Home Permit for a period not to exceed 96 hours while public notice of a scheduled Board of Health hearing is posted in accordance with the provisions of the Massachusetts Open Meeting Law (M.G.L. c. 30A, §§ 18-25).

20.8.5 – If an RMD permit is suspended, the permit holder shall cease sale and distribution of marijuana or marijuana-infused products, and close and secure the RMD premises to the satisfaction of the Director or his/her agents for the period of the suspension. Additionally, notice of the suspension must be publicly posted on the RMD to the satisfaction of the Director or his/her agents.

20.8.6 – If an RMD permit is revoked, the permit holder shall cease all sale, distribution or cultivation of marijuana or marijuana-infused products, and shall close and secure the RMD premises to the satisfaction of the Director or his/her agents, and the RMD shall submit subject to the approval of the Board or its designated agents, or the Board may order, implementation of a plan for the removal of marijuana and marijuana-infused products and related implements and equipment from the RMD retail establishment. Additionally, notice of the revocation must be publicly posted on the RMD to the satisfaction of the Director or his/her agents.

20.8.7 – In the case of a suspension or revocation of a Home permit, the Board may order that marijuana or marijuana-infused products and related implements and equipment be removed from the specified Home permit location. The method for removal and storage, and the deadline for compliance, may be specified in the Board's order. In the case of a Home permit, the Board may authorize immediate confiscation of all the items previously mentioned prior to, or after, the hearing, provided that any removed items are not damaged prior to the conclusion of all administrative actions and appeals. Removal and storage of live marijuana plants does not obligate the Board to assure the maintenance of the plants during the period of suspension or confiscation.

20.8.8 – In the event that a RMD permit or Home permit is suspended or modified, the Permit holder may be ordered to submit a remediation plan addressing all causes for the suspension or modification and all appropriate changes to business practices and operations. That remediation plan is subject to review and approval by the Board of Health prior to reinstating the permit.

SECTION 20.9 ENFORCEMENT

20.9.1 – Enforcement of this Regulation shall be by the Board of Health and its designated agents.

20.9.2 – Whoever violates any provision of this regulation may be penalized by the non-criminal method of disposition as provided in General Laws, Chapter 40, Section 21D and Town of Needham By Laws, or by filing a criminal complaint.

20.9.3 – Each day any violation exists shall be deemed to be a separate offense.

20.9.4 – Any resident who desires to register a complaint pursuant to this Regulation may

do so by contacting the Board of Health, the Public Health Department, or the Needham Police Department.

SECTION 20.10 SEVERABILITY

If any provision of these regulations is declared invalid or unenforceable, the other provisions shall not be affected thereby but shall continue in full force and effect.

SECTION 20.11 EFFECTIVE DATE

This regulation shall take effect upon March 31, 2016. Public hearings and open meetings regarding this regulation were conducted on November 20, 2015, December 16, 2015, January 8, 2016, and February 12, 2016. This regulation was approved by a unanimous vote of the Board of Health on February 12, 2016.

Sira Naturals

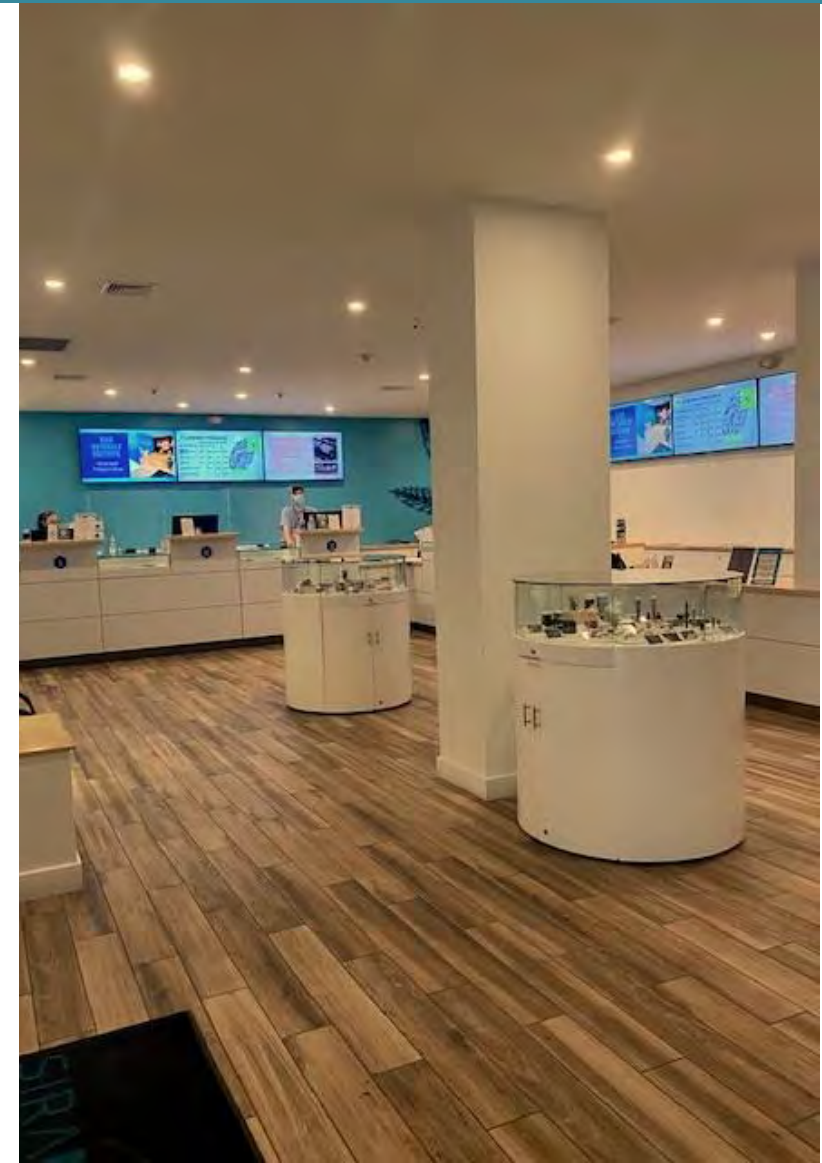
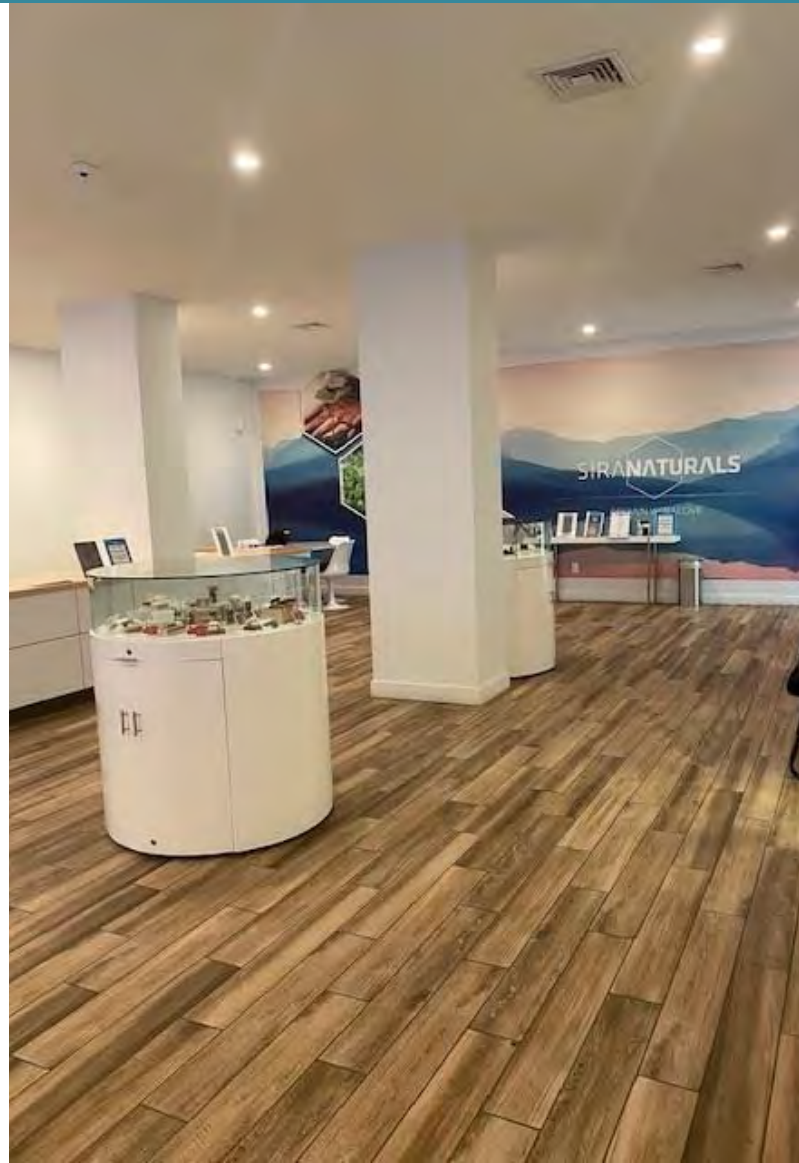
29 Franklin Street
Needham, MA

September 23, 2021



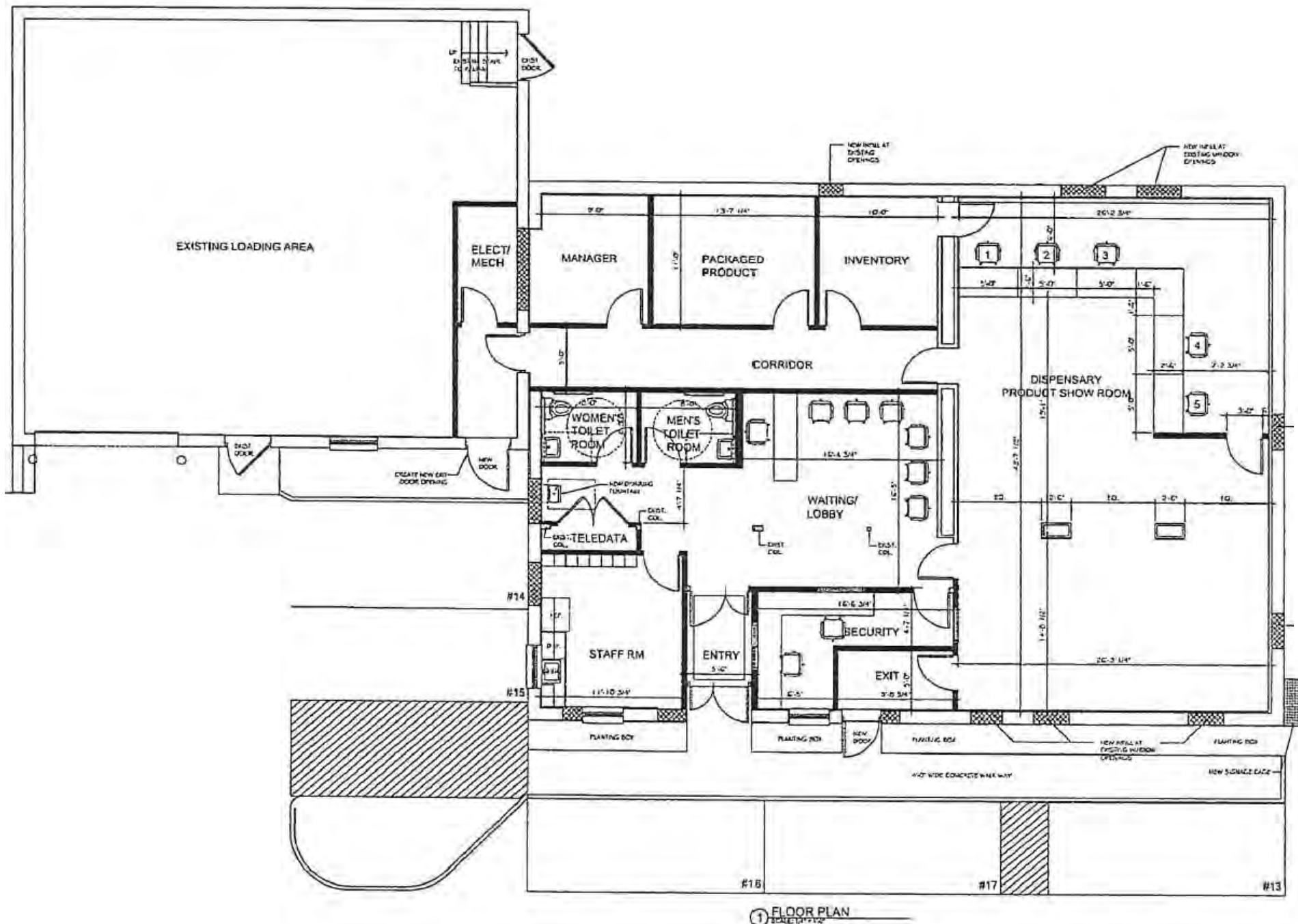
29 Franklin Street

SIRANATURALS



Store Layout

SIRANATURALS



Massachusetts Cannabis Industry



2018

February 2018 Sira
Naturals Needham
Opens

Less than 15
Dispensaries in
Massachusetts

2019

Cannabis Control
Commission Created

Seed-to-Sale Tracking
Software
Implemented

2020

CCC No Longer
Requires Vertical
Integration

CCC Allows MTC to
MTC Sales

2021

177 Operating
Dispensaries in
Massachusetts

Suggested Revisions



Review Section 20.5.2 for Amendment

- Redundant with current regulations and review process at the CCC

Review Discounting for Patients -- 20.6.5 (B) and (C)

- Align Sira with other medical dispensaries in Massachusetts
- Permit our medically vulnerable patients to take advantage of discounted pricing they get elsewhere

Thank You!

Dwan Packnett

VP Government Relations & Community Investment
Dpacknett@siranaturals.org
617.631.6838

Michelle Foley

Director of Retail
Mfoley@siranaturals.org
617.818.4022

[Learn More about Sira.Community](https://www.siranaturals.org/cannabis-social-equity)
www.siranaturals.org/cannabis-social-equity





**Board of Health
TOWN OF NEEDHAM
AGENDA FACT SHEET**



MEETING DATE: 10/14/2021

Agenda Item	Update on Priorities for American Rescue Plan Act Spending
Presenter(s)	Timothy McDonald, Director of Health & Human Services

1.	BRIEF DESCRIPTION OF TOPIC TO BE DISCUSSED
Mr. McDonald will provide the Board of Health with an update on the Town's response to HHS-identified priorities for ARPA funding.	
2.	VOTE REQUIRED BY BOARD OF HEALTH
No vote is required, nor is one expected at this meeting.	
3.	BACK UP INFORMATION:
- Select Board Fact Sheet 8.17.2021 with positive vote on PH Spending Items - HHS ARPA Spending Recommendation Memo 8.11.2021	



**Select Board
TOWN OF NEEDHAM
AGENDA FACT SHEET**

MEETING DATE: 08/17/2021

Agenda Item	American Rescue Plan Act COVID-19 Funding Request
Presenter(s)	Kate Fitzpatrick, Town Manager

1.	BRIEF DESCRIPTION OF TOPIC TO BE DISCUSSED
The Town Manager will make a recommendation to the Board for the use of American Rescue Plan Act (ARPA) funds to support the Town's ongoing public health response to the COVID-19 pandemic, including the annual salary costs for: • 1 FT Public Health Nurse: \$80,000 • 1 FT Epidemiologist: \$70,000 • 2 PT Contact Tracers: \$60,000 • Total = \$210,000 This recommendation is for an immediate need – additional conversations will be held with stakeholders, boards and committees about future recommended uses.	
2.	VOTE REQUIRED BY SELECT BOARD
<i>Suggested Motion:</i> That the Board vote to appropriate \$210,000 in ARPA funds to support a full-time public health nurse, a full-time epidemiologist, and two part-time contact tracers for 12 months, to address the Town's ongoing response to the COVID-19 pandemic.	
3.	BACK UP INFORMATION ATTACHED
a. HHS ARPA Spending Recommendation Memo	

Approved



NEEDHAM BOARD OF HEALTH



Memorandum

To: Katie King, Assistant Town Manager/Director of Operations
From: Timothy McDonald, Director of Health & Human Services and Assistant
Emergency Management Director
Date: August 9, 2021
Re: American Rescue Plan Act COVID-19 Spending Recommendation Memo

The COVID-19 Pandemic, which in Massachusetts reached its nadir in terms of cases and positive testing rate during the month of June, has regained momentum since the middle of July. Driven by the Delta Variant of COVID, cases counts in Needham and the town's positive testing rate have risen in the last three weeks. Whether the Delta Variant of COVID-19 produces a new months-long wave of COVID cases or whether the increase in cases is more short-lived is not clear at the present time.

In this memorandum, I outline American Rescue Plan Act (ARPA) spending priorities for the Needham Health & Human Services Department. The priorities, which are outlined briefly and which include a rough cost estimate, are intended to address one of three areas – ongoing operational needs to meet the direct challenges of COVID-19, increased investments to respond to the mental health impacts (both previously incurred and ongoing) of COVID-19 in the community, and resources to respond to the pandemic's ongoing disruption of the social, educational, nutritional, and physical activity needs of Needham's seniors.

These spending priorities are based upon my assessment of the department's needs and the needs of its constituent divisions. That assessment was informed by discussions with the professional staff of the Health & Human Services Department and those staff members' subsequent conversations with their own team members and the board members overseeing their divisions, along with my own discussions and the public deliberations of the Needham Board of Health.

Operational Needs to Meet the Ongoing Challenges of COVID-19

As late July's announcement of new mask guidance from the CDC has reinforced, the COVID-19 pandemic is not over and Needham should take steps now to plan and reserve resources to respond to the continued resurgence of the pandemic. Resource needs for continued COVID-19 response are largely confined to staffing in the public health nursing, contact tracing, and epidemiology areas.



NEEDHAM BOARD OF HEALTH



To address the needs of the COVID-19 pandemic, in July 2020 Needham posted a job opening for a full-time public health nurse to supplement the Town's existing staff members. Funded largely from salary savings in an effort to take advantage of CARES Act reimbursements, this role oversaw a team of three part-time contact tracers (who were partially grant-funded). The public health nurse was the primary liaison with the Needham Public Schools on COVID cases in children, as well as cases which arose in private schools, daycares, and after-school programs.

Although there is tremendous uncertainty about the course of the pandemic in Fall 2021 and over the winter, the staffing pattern noted above – a full-time nurse solely focused on contract tracing who oversees a small team of contact tracers – served Needham well and should be extended for an additional 18-24 months. **The annual cost for the full-time nurse is approximately \$80K in salary costs.** The contact tracing team of three will be reduced to two, although the two contact tracers together will work the same number of hours as the team of three did this past year. **The total annual cost for two 19.5 hr/week contact tracers is approximately \$60K.**

The Public Health Division has reserved funding from its Immunization Revolving Account to support the costs of further COVID-19 immunizations during the remainder of 2021 and into 2022. The working assumption is that in the fall, the FDA's Emergency Use Authorization for Pfizer (and possibly Moderna) will be extended down to either the 5-11 year age bracket or possibly even the 2-11 year age bracket. A secondary assumption is that at some point in the fall or the winter, a third "booster" shot of either Pfizer or Moderna vaccine will be required for immune-compromised individuals (and possibly for all seniors over 60 years of age). Funds have been reserved, and planning has begun, to support both of those immunization campaigns when they are authorized (and when vaccine is available). **No funding is requested to support the costs of additional COVID-19 vaccinations at this time.**

During the COVID-19 pandemic, the Town of Needham has undertaken tremendous efforts to provide information to the public. This process has been led, naturally, by the Town's Public Information Officer (PIO), yet the Public Health Division has played an important role in these efforts especially the Division's grant-funded part-time epidemiologist. She has worked closely with the PIO, and led the way in developing streamlined, comprehensive, and visually attractive information on the Town's COVID Dashboard. She has also developed the vast majority of all presentations, both internal and external, about COVID that my team and I have delivered over the last 12 months. The Public Health Division's grant expires in a few short weeks, but the need to collect, analyze, and display information to help educate and inform the public will remain. **Funding to support a full-time**

178 Rosemary Street, Needham, MA 02494
E-mail: healthdepartment@needhamma.gov

781-455-7940 (tel); 781-455-7922 (fax)
Web: www.needhamma.gov/health



NEEDHAM BOARD OF HEALTH



epidemiologist with a special focus in data visualization will cost approximately \$70K per year in salary.

Investments to Respond to Mental Health Impacts of COVID

Youth mental health problems have spiked during the pandemic, with family stress and financial shortfalls directly impacting youth. Those challenges have been exacerbated by the disruptions to learning and socialization over the past 18 months. During “normal” times, the Youth & Family Services (YFS) Division of HHS has a short list of children and families waiting to begin seeing a clinician for a course of mental health treatment. The length of that wait list has increased markedly – there is a growing volume of new clients clamoring for services, and current clients who might normally have finished a multi-month treatment plan and left YFS have instead developed new challenges and are not able or willing to end treatment.

To address this growing need for mental health services, YFS requests a full-time clinician for a period of 24 to 30 months. This would help the surge in mental health cases and ensure that youth receive services quickly. This full-time position would also help to support additional programming, parent support groups and needs assessments. **The total annual salary cost for this request is approximately \$70K.**

Additional needs, should funding be available, might support any of the following mental health priorities:

- Outside contracts with mental health experts to which YFS might refer particularly acute cases, for example a youth with complex eating disorder and self-harm behavior. The total cost for this request is approximately \$50K, comprised of five contracts with mental health experts at an annual value of \$10K each.
- The development and equipping/outfitting of a space at either Needham Town Hall or the Center at the Heights for the purposes of providing a multi-sensory environmental space in which to conduct therapeutic interventions. Commonly referred to as a Snoezelen® Room, the space makes it possible for the therapist to create an immersive environment for the patient with things like soothing sounds, low-level/reduced lighting, etc. The approximate cost to equip such a space is \$50K.
- Funding to support enhanced community education and awareness on mental health topics (community conversations on mental health, as well as additional trainings and community forums. The total costs for event planning, A/V needs, and refreshments would be approximately \$15K.



NEEDHAM BOARD OF HEALTH



Response to the Pandemic's Disruption of the Lives of Seniors

Senior isolation and depression during COVID-19 has been a major challenge that the Aging Services Division and the Council on Aging have worked hard to address. Challenges remain though, and the resurgence of the Delta Variant of COVID-19 has underscored the need for the Aging Services Division to simultaneously offer both virtual programs (for those seniors who are not yet comfortable interacting in large groups indoors) and in-person programs (for those seniors that want/need in-person activities and socialization). Available funding might support:

- Additional part-time staff to provide outreach and education services at an approximate annual cost of \$25K; and
- Supplemental funding for programs (largely costs of instructors and some supplies) to make up shortfalls in the Division's program revenue accounts. Virtually all programs offered at CATH are currently operating at a loss due to limited attendance (attendance is 25-30% of pre-pandemic levels currently), and the Division has not yet figured out a viable way to charge seniors for online programming. The estimated shortfall for FY 2022 is approximately \$30K, although this is a very rough estimate based on a series of large assumptions which may not turn out to be accurate as the year develops.

Thank you for your consideration of this memorandum. Please let me know if you have questions or concerns, or if I may provide additional information.

Sincerely,

Timothy Muir McDonald
Director of Health & Human Services
Assistant Emergency Management Director
Town of Needham



**Board of Health
TOWN OF NEEDHAM
AGENDA FACT SHEET**



MEETING DATE: 10/14/2021

Agenda Item	Update on FY 2023 Town Budget Process
Presenter(s)	Timothy McDonald, Director of Health & Human Services

1.	BRIEF DESCRIPTION OF TOPIC TO BE DISCUSSED
Mr. McDonald will provide the Board of Health with an update on the FY 2023 budget process for the Health & Human Services Department.	
2.	VOTE REQUIRED BY BOARD OF HEALTH
No vote is required, nor is one expected at this meeting.	
3.	BACK UP INFORMATION:



**Board of Health
TOWN OF NEEDHAM
AGENDA FACT SHEET**



MEETING DATE: 10/14/2021

Agenda Item	Accessory Dwelling Units and Affordable Housing
Presenter(s)	Timothy Muir McDonald, Director of Health & Human Services

1.	BRIEF DESCRIPTION OF TOPIC TO BE DISCUSSED
Mr. McDonald will briefly present the draft Citizens Petition about Accessory Dwelling Units and Affordable Housing proposed for October 2021 Town Meeting, as well as a request from the Housing work group of Equal Justice Needham for the Board of Health to review the petition. Mr. McDonald will then briefly summarize the Needham Public Health Division's previous work encouraging the adoption of an Accessory Dwelling Unit zoning by-law as one means of increasing affordable housing and allowing older residents to remain in the community.	
2.	VOTE REQUIRED BY BOARD OF HEALTH
No vote is required, nor is one expected.	
3.	BACK UP INFORMATION:
- Citizens Petition for October 2021 Town Meeting re: ADUs - Accessory Dwelling Unit Packet - o Accessory Dwelling Units: A Report for Needham Public Health Division - o Accessory Dwelling Units: A Report for Needham Public Health Division Executive Summary - o Accessory Dwelling Units: A Report for Needham Public Health Division Talking Points - o Creating a Livable Community for All Ages: Accessory Dwelling Units graphics - Board of Health Policy Position on Accessory Dwelling Units 11/16/2018 - Please see also: Assessment of Housing and Transit Options for Needham Seniors (not included)	

Citizens' Petition
Needham Fall 2021 Special Town Meeting

*Re: A non-binding resolution concerning the amendment of the current
Accessory Dwelling Units (ADUs) by-law*

Whereas Needham Town Meeting recognizes that the town is experiencing increasing challenges in providing potential or existing residents a range of affordable options to purchase or rent a home in Needham;

And Whereas, one of the biggest challenges to home-buying and renting in Needham is an increasingly narrow range of housing choices due to the trend to replace older, smaller homes with ever-growing new homes, the average size of which has doubled between 1980 to 2020 from 2,200 SF to 4,400 SF;

And Whereas, this economic trend continues to make Needham increasingly less affordable, creating economic challenges for potential new residents and residents who wish to stay;

And Whereas, the increasing lack of affordability and housing choice creates more challenges for a more diverse Needham community;

And Whereas, as a result of recent trends in Needham and across the region, there is not enough of a range in housing choices at the affordable end that offer smaller unit sizes with more affordable purchase or rental costs for young adults or families or existing, mostly senior, residents;

And Whereas, in 2019, Needham introduced ADUs to the town by-laws but instituted them with residency restrictions that allow use only for a "caregiver", "family," or "owner" which has resulted in approximately eight approved ADUs in the past 18 months;

And Whereas, a 2018 white paper written by Amy Dain for the Pioneer Institute, presenting a survey of all of the towns offering ADUs, (approximately half with residency restrictions and the rest without), indicated that the total annual number of ADUs built was uniformly very modest (mostly single-digit), and that towns without restrictions saw only about a 50% increase in the number of ADUs built annually, which means Needham would have about three (3) more ADU applications a year.

Be It Resolved, that this day, in recognition of the urgent need to create more affordable housing choices, Needham's Town Meeting goes on record as recommending that the Town of Needham, acting through the Select Board, declare making more Affordable Housing Choices a Priority. Once declared, Town Meeting recommends that the Select Board consider taking further action including:

- Communicating to all town departments, businesses, and residents the critical need to address the lack of affordable housing choices currently in our town.
- Recommend that the Planning Board address possible remedies to the housing challenges through both the newly formed Affordable Housing Study Committee and revisions to the zoning by-laws to allow more affordable housing choices including multi-family and other smaller-sized options, like ADUs, that would expand the opportunities for potential and existing residents.
- Prioritize that the Planning Board, for Annual Town Meeting 2022, address an amendment to the current by-law (Section 3.15 – Accessory Dwelling Units [ADUs])
- Acknowledge that the Needham Health Department and the Council on Aging were critical endorsers of the concept of an ADU by-law that would provide to seniors the opportunity to have live-in assistance at their homes or, alternatively, the economic benefit of potential rental income. The current by-law, established in 2019, accomplished only half of that goal; it restricts use of ADUs to live-in assistance, and does not allow use of an ADU as a rental property.
- Encourage the Planning Board to remove the residency restriction in the above by-law, for just “caregiver”, “family” and “owner”, and allow the ADUs to be available to anyone as a more affordable housing choice in the marketplace, given that they would provide a very modest, but important, smaller housing option (850 SF maximum) across our predominantly single-family zoned town.
- Acknowledge that the economic benefit provided by ADUs expands the housing opportunities for seniors and other residents to remain in their homes, and for potential newcomers to join the Needham community.

REFERENCES:

Link to Needham Zoning By-law section on ADUs:

<http://www.needhamma.gov/DocumentCenter/View/16644/Zoning-By-Law-2020---FINAL-By-Law-Printed-November-2020?bidId=>

Link to 2018 Amy Dain ADU report for the Pioneer Institute:

<https://ma-smartgrowth.org/wp-content/uploads/2019/01/ADU-MSGA-Pioneer-paper-2018.pdf>

submission date: September 08, 2021

Oscar Mertz

67 Rybury Hillway



Board of Health

Kathleen Ward Brown, ScD
Member

Edward Cosgrove, PhD
Vice Chair

Stephen Epstein, MD, MPP
Chair

Policy Position: Accessory Dwelling Units

The Needham Board of Health believes changing the Town's bylaws to allow accessory dwelling units is aligned with the Board's mandate from the Massachusetts General Court to protect the public health and wellness of the Town of Needham and all its residents.^{1,2}

Needham lacks affordable, available, accessible, age-friendly housing. Over 50% of Needham seniors state that they would consider moving out of Needham due to the high cost of housing, while over 90% state it is somewhat, very, or extremely important for them to remain in Needham as they age.³

Affordable, high-quality housing is linked to improved health. For example, when living in an affordable home, individuals can put more money towards nutritious food and health care, rather than housing. Additionally, stable, affordable housing reduces stress and improves mental health.⁴

One approach to mitigate this issue is allowing accessory dwelling units. Accessory dwelling units – also known as “in-law” apartments – are defined as “a self-contained apartment in an owner-occupied single family home that is either attached to the principal dwelling or in a separate structure on the same property”.⁵

Accessory dwelling units can be beneficial because they:

- Increase housing options while maintaining the physical character of the town
- Provide moderately-priced homes
- Help young and older adults and people with disabilities stay in town as their needs change
- Increase revenue: for homeowners through rental income; for the Town through greater tax revenue generated by added value to existing homes
- Decrease isolation and depression as older adults remain in the town where they have connections and live close to others⁶

The Needham Board of Health recognizes the 68 cities and towns around Boston that have allowed ADUs in some capacity and stands with the Center for Housing Policy, AARP, and the Metropolitan Area Planning Council, among others, in support of accessory dwelling units.⁶ The Needham Board of Health agrees with a report for Needham's Public Health Division which states accessory dwelling units "are a low-impact, high-value way to address the problem of diminishing housing options".⁷

This Policy Position was discussed at a public meeting on October 18, 2018 and was formally adopted following a unanimous vote during a noticed public meeting, November 16, 2018.



Edward Cosgrove, PhD
Vice Chair



Stephen Epstein, MD, MPP
Chair



Kathleen Ward Brown, Sc.D.
Member

¹ M.G.L. ch. 111, s.31, available at: <https://malegislature.gov/Laws/GeneralLaws/PartI/TitleXVI/Chapter111/Section31>

² M.G.L. ch. 111, s.122, available at: <https://malegislature.gov/Laws/GeneralLaws/PartI/TitleXVI/Chapter111/Section122>

³ Needham Council on Aging and Needham Public Health Department. Assessment of Housing and Transit Options for Needham Seniors. 2016.

⁴ Maqbool N, Viveiros J, Ault M. The Impacts of Affordable Housing on Health: A Research Summary. Center for Housing Policy. 2015. Available: <https://www.rupco.org/wp-content/uploads/pdfs/The-Impacts-of-Affordable-Housing-on-Health-CenterforHousingPolicy-Maqbool.etal.pdf>

⁵ Massachusetts Executive Office of Energy and Environmental Affairs. Smart Growth/ Smart Energy Toolkit: Model Bylaw for Accessory Dwelling Units. (n.d.) Available: http://www.mass.gov/envir/smart_growth_toolkit/bylaws/ADU-Bylaw.pdf

⁶ Dain A. The State of Zoning for Accessory Dwelling Units. Pioneer Opportunity. 2018. White Paper No. 184. Available: https://pioneerinstitute.org/economic_opportunity/study-boston-area-communities-should-loosen-restrictions-for-accessory-dwelling-units/

⁷ Miara C. Accessory Dwelling Units: A Report for Needham Public Health Division. 2017.

**Accessory Dwelling Units:
A Report for Needham Public Health Division
10-11-17**

Acknowledgements

This report was funded by the Needham Public Health Division. The project was directed by Timothy M. McDonald, Director of Health and Human Services and Lynn Schoeff, Project Manager, Public Health Division. It was researched and written by Chris Miara, Advisor to the Public Health Division.

Thanks to the following for their input into the scope of the project and the interview questions: Moe Handel, Board of Selectmen; Karen Sunnarborg, Community Housing Specialist, Planning and Community Development Department; David Roche, Building Commissioner; Colleen Schaller, Chair of the Council on Aging; Jeanne McKnight, Planning Board; Elin Soderholm, League of Women Voters; Dorothea von Herder, Needham resident with an interest in affordable housing.

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Executive Summary

Background

This report on accessory dwelling units (ADUs) was commissioned as follow up to the report, *Assessment of Housing and Transit Options for Needham Seniors*, released in the fall of 2016. According to a survey conducted for that assessment, seniors want to remain in town as they age but many feel this won't be possible due to: "the high cost of housing (purchase price or rent, and upkeep); costliness of modifying existing homes to increase accessibility; and zoning regulations that prohibit accessory dwelling units." One of the recommendations in the assessment report was to pass a zoning bylaw to allow accessory dwelling units (ADUs). An ADU-- also known as accessory or "in-law" apartments-- is defined as "a self-contained apartment in an owner-occupied single family home that is either attached to the principal dwelling or in a separate structure on the same property." (Massachusetts EEA). ADUs are a low-impact, high-value way to address the problem of diminishing housing options. ADUs are of particular benefit to older residents, young adults, people with disabilities, and people with moderate incomes.

The report, *Accessory Dwelling Units: A Report for the Needham Public Health Division*, examines in some depth the experience of nine communities similar to Needham that have passed ADU bylaws. Their experiences, combined with recommendations from the Massachusetts Office on Energy and Environmental Affairs, can serve as an authoritative guide for local debate. The purpose of this study was to learn about the impact of these bylaws on issues of importance to Needham, including cost, density, traffic, appearance, and meeting the changing needs of our residents.

Data Collection Method

Nine cities and towns were selected because, like Needham, they are suburban communities within the I-495 beltway, but unlike Needham, they have had ADU bylaws in place for a number of years. Planning and community development staff in each community were interviewed by phone or in person about: 1) the specific regulations in their bylaws; 2) the impact of the bylaws on various aspects of community life; 3) experiences modifying bylaws; and 4) lessons learned from the process. In addition to interviews, information was collected by reviewing the text of each community's actual bylaw as well as supporting documents and reports from the town.

Results of interviews

Content of the bylaws

The text of the bylaws of all nine towns described similar goals: increase housing options while maintaining the character of the town; help young and older adults and people with disabilities stay in town as their needs change; and provide moderately-priced units in communities with ever-escalating home prices and reduced number of small homes. Two communities explicitly added the goal of helping workers live near their places of employment.

Interviewees noted that their bylaws were drafted to address key concerns residents expressed about ADUs, namely that they might: change the appearance of a neighborhood from one of single family homes to one that looks crowded; allow two-family homes in areas zoned for

single-family homes; and increase density, stress on public services, the number of children, traffic, and cars parked outside a house.

The regulations in the nine towns are similar in their intent to meet the goals and address the concerns listed above. They ensure that the unit is clearly part of, and smaller than, the main dwelling, and that the ADU doesn't change the overall character of the neighborhood. Most of the regulations are consistent with the recommendations in the Massachusetts Model Bylaw.

Impact of the bylaws

The impact of ADU bylaws on the communities surveyed has been minimal. Only a small number of ADUs have been created over the course of many years.

For residents who have been able to take advantage of this option, ADUs have served their intended purpose. Older adults and their children are able to share a property, or older adults are able to afford to stay in their home by renting out a unit. Other effects of passing an ADU bylaw have been bringing illegal, and possibly unsafe, units into compliance, and creating appropriate housing for people with disabilities.

None of the interviewees reported an increase in the number of school children, traffic, or a change in the character of the town due to the ADU bylaw.

Planning boards and housing advocates in seven of the nine communities decided to liberalize the regulations in the past few years to encourage more people to take advantage of this option. Six of the towns approved changes, indicating overall satisfaction with the general concept of accessory apartments.

Recommendations from interviewees re: advocating for an ADU bylaw

The interviewees in these towns offered several recommendations to Needham should it decide to enact an ADU bylaw, namely:

- Engage key partners with related interests
- Engage older adults
- Tie the proposed bylaw to demonstrated needs
- Educate the public about what the bylaw is, and what it isn't

Conclusion: Recommendations for Needham

The experiences of the nine communities described in this report provide compelling evidence that ADUs could contribute to the overall goal of increasing housing options for older adults, young adults, people with disabilities, and people with moderate incomes without negatively impacting the quality of life. Using the Mass Model Bylaw and the experiences of the nine communities as guides, Needham can create a bylaw that ensures units will be integrated into existing single family neighborhoods with little or no negative impact on the character of the neighborhood or on town services, provide new options for current Needham homeowners, and minimize the regulatory burden on town officials. The report recommends specific bylaw regulations—related to permitting, size, occupants, appearance and parking--to achieve the desired outcome.

Background on the Report

Needham has long been valued as a family-friendly suburban town with a mix of housing types and a population that is committed to setting down roots in the community. However, rapidly escalating housing prices combined with the growing number of tear-downs of small homes threatens to change the character of the town by raising the income level required to live here. One modest, but important, way to address the problem of diminished housing options is passage of a zoning bylaw to allow accessory dwelling units (ADUs). An ADU-- also known as accessory or “in-law” apartments-- is defined as “a self-contained apartment in an owner-occupied single family home that is either attached to the principal dwelling or in a separate structure on the same property.” (Massachusetts EEA, n.d.) This bylaw is of particular benefit to older residents, young adults, people with disabilities and people with moderate incomes. The Massachusetts Executive Office of Energy and Environmental Affairs encourages the adoption of ADU bylaws and has published a model ADU bylaw to guide communities interested in pursuing this option. (Massachusetts EEA, n.d.) A number of surrounding communities have passed ADU bylaws, and their experiences are instructive as Needham considers whether to go this route. This report summarizes both the Massachusetts model bylaw and the accessory apartment bylaws in nine cities and towns within the I-495 beltway.

This report on ADUs was commissioned as follow-up to the report, *Assessment of Housing and Transit Options for Needham Seniors*, released by the Needham Council on Aging and the Needham Public Health Division in August 2016. According to a survey conducted for that assessment, seniors want to remain in town as they age, but many feel this won’t be possible, due to “the high cost of housing (purchase price or rent, and upkeep); costliness of modifying existing homes to increase accessibility; and zoning regulations that prohibit accessory dwelling units.” (Needham Council on Aging and Needham Public Health Division, 2016)

While many Needham residents support ADUs, some residents express concerns about the potential impact which may result from that type of policy change. The Public Health Division commissioned a study of the experiences of a sample of towns similar to Needham that have had these zoning bylaws in place for a number of years in order to learn about the impact of these bylaws. Interview questions about zoning bylaws which permit accessory dwelling units were chosen based on issues of importance to Needham, including cost, density, traffic, appearance, and acceptance by residents.

Data Collection Method

Communities: The following cities and towns were selected because they have had ADU bylaws in place for a number of years, and are suburban communities within the I-495 beltway, and share characteristics with Needham:

- Acton
- Bedford

- Carlisle
- Lexington
- Milton
- Newton
- Scituate
- Sudbury
- Westwood

Appendix A summarizes the demographics of these communities and Needham, including population, median household income, land size, and number of housing units.

Interview questions: The interview form used the Massachusetts model bylaw as a framework. It also contained questions on 1) the specific requirements outlined in each town's bylaws, 2) the impact of the bylaws on various aspects of community life, 3) experiences modifying bylaws and 4) lessons learned from the process. Representatives of several elected and appointed boards in Needham helped develop the questions to ensure they addressed issues of local concern. A copy of the interview tool is in Appendix B.

Data sources: Information was collected by reviewing the text of each community's actual bylaw as well as supporting documents and reports from the town. In addition, planning and community development staff members in each community were interviewed, either by phone or in person. Names and contact information and bylaws and supplemental resources are in Appendix C.

Results of Interviews

Background of bylaws

Goals: All nine towns expressed similar goals in the text of their ADU bylaws: increase housing options while maintaining the character of the town; help young and older adults and people with disabilities stay in town as their needs change; and provide moderately-priced units in communities with ever-escalating home prices and reduced number of small homes. Newton and Scituate explicitly added the goal of helping workers live near their places of employment.

Concerns: Interviewees noted that their bylaws were drafted with an awareness of key concerns residents expressed about ADUs, namely that they might:

- Change the appearance of a neighborhood from one of single family homes to one that looks crowded
- Allow two-family homes in areas zoned for single-family homes
- Increase density, stress on public services, increased public school enrollment, traffic and cars parked outside a house.

Key requirements in ADU bylaws in the nine communities

The bylaws in the nine towns are similar in their intent to meet the goals and address the concerns listed above. They ensure that the unit is clearly part of, and smaller than, the main

dwelling, and that the ADU doesn't change the overall character of the neighborhood. The bylaws are generally consistent with the Massachusetts model bylaw. The following indicates in italics the recommendations of the Massachusetts model bylaw and summarizes the corresponding key requirements in the nine communities studied. Details of these requirements can be found in Appendix D.

Type of unit: *Mass model bylaw: Only one unit per single family house or house lot.* All the communities interviewed limit ADUs to one per main dwelling. All but one (Bedford) allows ADUs as both an internal unit within the main dwelling and as a detached unit on the property.

Type of permit: *Mass model bylaw: As-of-right for units within existing dwellings with limited or no impact from the street; Special Permit for additions to existing dwelling or detached units.* (Special permits are those given by the zoning board after determining the plan meets the regulations in the bylaw. As-of-right permits do not require special review; the building inspector determines the property meets the requirements of the bylaw.) In four communities, all ADUs are permitted by special permit only. In the other five, ADUs are approved as a combination of special permit and as-of-right.

Size: *Mass model bylaw: Gross area of ADU no more than 900 square feet; no more than three occupants; no more than two bedrooms.* All communities restrict the size of the ADU to ensure it is subsidiary to the main dwelling. The allowable size ranges from 750 square feet for an internal unit in Scituate to 2000 square feet for a detached unit in Acton.

Ownership and tenancy: *Mass model bylaw: Owner must occupy one of the units.* All communities interviewed require the owner to live in either the main dwelling or the ADU, and the other unit cannot be sold. In other words, the owner cannot turn the ADU into a condominium. Only one town (Milton) requires the tenant to be a relative or employee.

Parking: *Mass model bylaw: Off-street parking should be available to owner and tenants.* All communities except Newton require that ADUs have one to two dedicated parking spaces. Most communities also require that screening be built or planted between the additional cars and neighboring property.

Appearance: All bylaws have requirements—most extensively detailed-- that the appearance of the original dwelling be substantially maintained. Most describe the need to retain the look of a one-family house, with no external stairways visible, only one main entrance, etc. Similarly, a detached ADU is required to maintain the look of the original building.

Timing and updates: The majority of communities passed the bylaws in the 1980s and early 1990s. Seven have attempted to liberalize the bylaws in the last two years, six successfully.

Impact of the bylaws

Summary: According to the interviewees and other studies of the effect of ADUs, the impact of ADU bylaws on the communities surveyed is minimal. Only a small number of ADUs have been created. The majority of local government staff members interviewed suggested that the reason for the low number of units added was the expense and the time-consuming nature of the

process, which most homeowners are unable or unwilling to undertake. As a result of the low production, seven of the nine communities interviewed have attempted to liberalize their bylaws in the last few years, reducing obstacles to greater participation.

Interviewees report that the ADU bylaws appear to have served their intended purpose. Older adults and their children are able to share a property, or older adults are able to afford to stay in their home by renting out a unit, or an older adult may bring a live-in health aide into the home.

- *When they come for a permit, it's for family members. Seniors can stay in town and their kids get to stay in town. We're losing 65 plus and recent college grads. ADUs are a way to encourage both to stay here. (Lexington)*
- *I see it as something that helps out families, where you couldn't afford to buy a separate house, prices are out of control/ people can't stay in town. It's a service for those already in town. (Scituate)*
- *We don't offer a lot of services for our seniors. This is one way we've been able to help them. (Sudbury)*

Other effects of passing an ADU bylaw are bringing illegal, and possibly unsafe, units into compliance and creating appropriate housing for people with disabilities.

None of the interviewees reported a significant increase in public school enrollment, traffic, or a change in the character of the town due to the ADU bylaw.

The following describes the responses to specific questions about the impact of the ADU bylaw.

Total number: Some of the towns do not track the number of ADU permits. Of the towns that do, the numbers range from an average of two to seven ADUs per year over the time the bylaw has been in place.

The following information represents reports from each community:

- Carlisle: 18 since 1989.
- Lexington: 200 since 1983. Most of these were grandfathered in, as opposed to newly constructed ADUs.
- Newton: 73 over 20 years.
- Scituate: 88 since 1989. Steady number of applicants; no big increase since they allowed detached units and in ADUs new construction.
- Westwood: 45 since 1992, approximately half are internal and half detached. 13 people are on the waiting list (Westwood caps the total number of ADUs).
- Bedford: Combines ADUs and two-family homes in its tracking system. There are a total of 300; the town staff reported the majority are two-family homes.
- Acton, Milton and Sudbury: Do not keep records. Local officials estimate it is just a few per year.

Who lives in homes with ADUs?: While towns do not keep formal records on the personal situations of homeowners and ADU tenants, most town staff see ADUs primarily serving family needs. Most often, interviewees report that an older parent moves into the ADU created by their adult child. The other circumstances most commonly cited are a relative with a disability--or his/her caretaker--lives in the ADU, and an older resident rents the ADU for additional income.

Concerns had been raised in Newton that college students would occupy ADUs and cause noise and other problems, but Newton reports this has not happened—most likely because of restrictions on number of occupants and the requirement that one dwelling has to be owner occupied.

Impact on schools and traffic: Interviewees noted that these two concerns arise with any proposed changes in zoning. All nine communities reported that ADUs had minimal or no impact on the number of school-age children or traffic. The main reason for the low impact is the small number of ADUs each town has added. In addition, a community development official who used to work in Burlington described a study there which showed that an increase in the number of apartments did not translate to an increase in school children. Apartments were used by young and older adults, not by families with children. In terms of traffic, several interviewees noted that units are scattered around town, minimizing concentration of traffic in any one area.

Change in appearance of neighborhood: Interviewees noted that the appearance and character of neighborhoods were not changed when an ADU was added. They feel this is because the language in their bylaws requires the ADU fits the style of the house, has its entrance on the side or back, disallows external stairways, etc.

Value of property: Newton is the only community that had actually studied the change in a home's value before and after adding an ADU. They determined there was no change, unless the ADU enlarged the house in which case the value increased. Several other interviewees shared their impressions: Milton thought there was no change in property value; Lexington and Westwood thought the value increased. Westwood noted that realtors consider the potential of adding an ADU to a property to be a selling point

Burden on town officials and boards/ Enforcement issues: None of the interviewees felt the ADU bylaw added to the burden of the building inspector or permitting board; inspection and permitting and the associated costs are treated the same as any other request. Issues that are raised by neighbors when an owner requests an ADU permit include parking, lot lines, obtrusiveness of the new unit, etc. These are typical issues raised when any number of zoning or permitting related requests come before a board, planning officials said, and nearly every request is granted. In several communities, including Westwood, the permitting boards were not opposed to recent efforts to expand the options for ADUs, even though it could result in an increase in their work.

The local officials noted that enforcement and tracking of properties would be significantly more difficult if the bylaw restricted ADUs to family members.

Several towns noted that they reduced problems with ADU requests by working with both the owner and sometimes the neighbors to address all issues ahead of time. Several communities (Carlisle, Newton, Scituate and Sudbury) said their on-line information for homeowners reduced time and stress on all parties. (See Appendix C for resources; Carlisle has a particularly good example.)

Grandfathering illegal units: Bringing illegal units into compliance can be a significant benefit of passing an ADU bylaw. These unpermitted, uninspected units can be hazardous, especially those that lack sufficient means of egress and/or have unsafe cooking facilities. One respondent said that the only time they learn about an illegal unit is when there is a fire.

Lexington reports that when they first passed their bylaw, they offered amnesty and most requests for ADUs were actually to legalize existing units. Scituate and Westwood also encourage people to apply for permits for existing units. Newton reported that before their bylaw was recently liberalized, few people came forward because their units were likely to be out of compliance. They hope to see a change in the coming year.

Accessibility: Three towns, Acton, Lexington and Milton, said ADUs provide an opportunity to encourage the creation of dwellings that are accessible for people with disabilities. This is done by allowing some flexibility in waiving certain zoning requirements when units are made accessible for people with disabilities, in compliance with state standards for accessibility.

Solving the housing problem: No one felt ADUs alone solved their housing problem, but, quoting a Newton report: *Responding to the needs generated by changing demographics and workforce requires multiple strategic actions, as described in the Housing Strategy, and a robust accessory apartment policy is an important part of that.* (City of Newton, Nov. 2016)

Proposing changes to bylaws in 7 of the communities

What: As noted above, seven of the towns interviewed have proposed changes to their ADU bylaws within the last two years to encourage more residents to take advantage of them. Changes that were approved included allowing ADUs: 1) in detached structures; 2) as part of new construction; 3) as-of-right right rather than by special permit; and 4) raising the cap on the numbers allowed. The one change that was not approved (in Milton) was to allow non-family to live in ADUs.

Why: Communities were motivated to act in the recent years for several reasons.

- They had recently completed housing plans that called for more housing for families, people with moderate income, and for workers in the town, and ADUs are one way to begin to address the needs of those constituencies.
- They were responding to an increased emphasis on aging in place.
- Tear downs of smaller homes to make way for large, very expensive ones is accelerating the need to act.

Concerns expressed about changing the Bylaw: For the most part, because these communities already had ADU bylaws in place, public hearings on modifications were not particularly contentious. There was push back on proposals to allow detached units, which in one case (Acton) resulted in the requirement that the unit be in existence for several years before being converted. Two towns reported hearing concerns about changes to the character and appearance of the town if more ADUs were created. This concern was allayed by pointing out the large number of requirements to make the ADU ‘invisible from the street.’

The fact that efforts to expand ADU bylaws were successful in six of the seven towns that have had them in place for a number of years indicates the broad support for the concept in communities that have experience with them.

Recommendations from town officials re: informing the community about an ADU bylaw

The interviewees offered several recommendations to Needham should it decide to begin the process of considering an ADU bylaw.

1. **Engage key partners with related interests:** Early in the process, reach out to groups whose interests will be served by ADUs. The Council on Aging is an essential partner. Other key partners mentioned by towns are housing advocates, environmental groups, the Commission on Disabilities, and the business community. Newton was particularly successful in its partnership with businesses. Retailers had reported that they were not able to get workers who are willing to travel to Newton; ADUs allow workers to live in town. The Newton/Needham Chamber of Commerce was very supportive of the recent successful initiative to liberalize Newton's ADU bylaw.
2. **Engage older adults:** Seek out older adults and their families who have concerns about the affordability and accessibility of housing. Ask them to share their perspectives and participate in public discussions and in community meetings.
3. **Tie the proposed bylaw to demonstrated needs:** Show how the bylaw fits into existing housing plans and how it addresses identified needs of older adults and families in town.
4. **Educate the public:** Distribute accurate information about what the bylaw is, and what it isn't. Clarify that it does not increase development of two-family homes or create crowding. Emphasize that there are strict requirements on *size, ownership, and appearance*. Focus on the fact that in communities with ADUs, most are used to help older and younger adults, and to support families already in town. Since concerns about the appearance of a house with an ADU are often expressed, one town (Westwood) used photos of homes with ADUs as part of their presentation to Town Meeting members. The photos show that ADUs are virtually invisible from the street.
5. **Consider the pros and cons of using a special permit or permitting as-of-right:** Several towns felt that requiring a special permit is more palatable to residents when first considering passage of an ADU bylaw, as it provides more control and oversight. On the other hand, towns with as-of-right permits contend that they reduce burdens on homeowners and permitting boards while still maintaining strict requirements.
6. **Consider the pros and cons of restricting ADUs to family members:** Limiting the ADU to family members may seem like a way to increase the likelihood the bylaw will pass. However, all local officials interviewed cautioned that this bylaw puts much more burden on town boards and officials to verify and enforce compliance. Further, it reduces the value of the bylaw by limiting flexibility for owners. According to a recommendation

in the Massachusetts model bylaw: “Allowing only family members is easiest politically and may limit the overall impact of the units, but it will also limit the use (and reuse) of these units and may result in additional administration costs associated with enforcement. Having no restrictions on accessory dwelling unit tenants gives greater control over the unit to the homeowner while offering more diverse housing opportunities.” (Massachusetts EEA)

Conclusion: Recommendations for Needham

The experiences of the nine communities described in this report provide compelling evidence that ADUs could contribute to the overall goal of increasing housing options in Needham for older adults, young adults, people with disabilities, and people with moderate incomes. Many interviewees expressed agreement with the views articulated in a recent Newton report: *The benefits of creating such units include providing opportunity for seniors to remain in their homes longer, creating a low-impact form of generally affordable housing, assisting in the preservation of historic homes and accessory structures, and addressing the issue of unsafe illegal accessory apartments.* (City of Newton, Feb 2017)

Using the Massachusetts model bylaw and bylaw language from the nine communities, it is possible to create a bylaw that ensures units will be integrated into existing single family neighborhoods with little or no negative impact on the character of the neighborhood or on town services. The bylaw can be crafted to provide flexibility for current Needham homeowners and minimize the burden on town officials.

Key elements that will support positive outcomes and minimize negative impacts:

- Specific permit types: As-of-right for units within the existing footprint of the main dwelling; special permit for units that are added onto the main dwelling or are detached from it.
- Size and occupant restrictions: Set a maximum square footage for the ADU and a maximum percentage of the main dwelling allowed for the ADU; allow whichever is smaller. Limit number of occupants in ADU.
- Occupants: One unit must be owner occupied. No restrictions on relationship of tenants to owner.
- Appearance: Requirements that the ADU is in keeping with the character of the main dwelling.
- Parking: One space per unit.
- Grandfathering illegal units: Offer amnesty to owners of existing ADUs who apply for a permit and comply with all ADU regulations.

References

City of Newton Department of Planning and Development. Public Hearing Memorandum. (November 10, 2016)

City of Newton Department of Planning and Development. Public Hearing Memorandum. (February 24, 2017)

Massachusetts Executive Office of Energy and Environmental Affairs (EEA). Smart Growth/ Smart Energy Toolkit: Model Bylaw for Accessory Dwelling Units. (n.d.)
http://www.mass.gov/envir/smart_growth_toolkit/bylaws/ADU-Bylaw.pdf

Needham Council on Aging and Needham Public Health Division. Assessment of Housing and Transit Options for Needham Seniors. (August 2016)
<http://www.needhamma.gov/DocumentCenter/View/13894>

Appendix A: Demographics of Communities Studied *

Towns	Population	Median household income 2011-2015	Land size Square miles	Housing units	% 65+
Needham	28,961	\$132,237	12.29	11,122	16.3%
Acton	21,924	\$125,635	19.87	8,530	11.0%
Bedford	13,320	\$113,729	13.66	5,368	18.6%
Carlisle	4,852	\$166,111	15.27	1,758	12.9%
Lexington	31,394	\$149,306	16.43	12,019	18.6%
Milton	27,012	\$116,444	13.01	9,700	15.4%
Newton	85,119	\$122,080	17.94	32,648	15.2%
Scituate	18,135	\$102,210	17.63	8,035	17.2%
Sudbury	17,659	\$165,745	24.2	6,221	12.2%
Westwood	14,622	\$135,884	10.88	5,431	18.2%

*=Data from US Census Bureau. <https://www.census.gov/quickfacts/fact/table/MA/PST045216>

All data from 2010, except median household income which is 2011-2015, presented in 2015 dollars

Appendix B: Questions for Interviews with Town/City Officials re: ADUs

1. Brief description of by law

- By right or special permit/ or combination of both?
- Size requirements
- Parking requirements
- Restrictions---owner occupied? relationship to tenant? attached vs detached? transfer on sale of property? Time limit to permit? In certain areas of town only, or anyplace?
- Provisions to grandfather in illegal units?—Do they have to go through special permit process?
- How is it enforced?

2. Adoption process

- What were objections? How were they overcome?
- Recommendation for other towns wanting to pass bylaws?
- Key partners to involve?

3. Modifications to law since originally passed

- What has been changed?
- Why?

4. Impact of the bylaw

- Any unintended consequence?
- # of new units created per year/ change over time?
- # of illegal units grandfathered in
- Any data on who is using ADUs? (eg, relatives, caretakers, students, etc)
- Increase in school age population due to ADUs?
- Increase in traffic due to ADUs?
- Increase in transient population? How defined?
- Any information on impact on older adults due to ADUs? ie, report they are able to stay in the community?
- Any issues with enforcement?
- Types of complaints received?
- Any moves to eliminate bylaw?
- Evidence that adding an ADU changes value of home and therefore property tax?
- Any additional burden on town departments?
- Recommendation to other towns on ways to maximize benefits of ADUs and minimize problems—both for the town in general and for owners/tenants?

Appendix C: Contacts Interviewed and Materials Collected

Acton

<http://www.acton-ma.gov/164/Planning>

Robert Hummels, Assistant Planner

Bylaw: <http://www.acton-ma.gov/DocumentCenter/Home/View/659>

Bedford

<http://www.bedfordma.gov/planning>

Tony Fields, Planning Director

Bylaw in packet for homeowners:

http://www.bedfordma.gov/sites/bedfordma/files/file/file/code-accessory-apartment_0.pdf

Carlisle

http://www.carlislema.gov/Pages/CarlisleMA_Planning/index

George Mansfield, Planning Administrator

Document for residents:

http://www.carlislema.gov/Pages/CarlisleMA_Planning/AAA%20RR%201-26-09.pdf

Draft bylaw (subsequently passed in May 2017)

http://www.carlislema.gov/Pages/CarlisleMA_PBNA/0592862C-000F8513

Lexington

<http://www.lexingtonma.gov/planning-office>

David Fields, Planner

Background on 2016 proposal to update bylaw and text of bylaw which subsequently passed

http://www.lexingtonma.gov/sites/lexingtonma/files/pages/art_40_-_accessory_apartments_report_03-18-2016.pdf

Milton

<http://www.townofmilton.org/planning-and-community-development>

William Clark, Director of Planning & Community Development

Proposed update: http://www.townofmilton.org/sites/miltonma/files/uploads/pb_article-accessory_dwelling_unit_080415.pdf

Newton

<http://www.newtonma.gov/gov/planning/default.asp>

James Freas, Deputy Director, Office of Planning and Development

Bylaw: <http://www.newtonma.gov/civicax/filebank/documents/82048>

FAQs: <http://www.newtonma.gov/civicax/filebank/documents/81178>

Scituate

Laura Harbottle Town Planner

Q & A for homeowners: <http://www.scituatema.gov/planning-board/faq/how-do-i-add-an-accessory-dwelling-in-law-to-my-house>

Bylaw (p 54): http://www.scituatema.gov/sites/scituatema/files/pages/15-11-02_zoning_bylaw_as_amended_for_web_printing.pdf

Sudbury

<https://sudbury.ma.us/pcd/>

Meagen Donoghue Director of Planning and Mark Herweck, Building Inspector

Bylaw (p 93): [https://sudbury.ma.us/clerk/wp-](https://sudbury.ma.us/clerk/wp-content/uploads/sites/270/2014/08/SUDBURYZONINGBYLAW2014Completeforprintingandposting.pdf)

[content/uploads/sites/270/2014/08/SUDBURYZONINGBYLAW2014Completeforprintingandposting.pdf](https://sudbury.ma.us/clerk/wp-content/uploads/sites/270/2014/08/SUDBURYZONINGBYLAW2014Completeforprintingandposting.pdf)

Information for residents: <https://sudbury.ma.us/boardofappeals/accessory-dwelling-guidelines/>

Housing production plan, includes ADUs: <file:///C:/Users/Chris/Downloads/Sudbury-HPP-2016-FINAL-4.21.2016.pdf>

Westwood

<http://www.townhall.westwood.ma.us/gov/depts/commdevdepts/plandiv/default.htm>

Abigail McCabe, Town Planner and Sarah Bouchard, Housing and Zoning Agent

Bylaw (8-21): [http://westwood-](http://westwood-prod.civica.granicusops.com/civicax/filebank/blobdload.aspx?BlobID=28617)

[prod.civica.granicusops.com/civicax/filebank/blobdload.aspx?BlobID=28617](http://westwood-prod.civica.granicusops.com/civicax/filebank/blobdload.aspx?BlobID=28617)

Appendix D: Key Requirements in the ADU Bylaws

Town	Year passed	Year updated	Type of unit / actions allowed after update *	Detached allowed?	Permit: By Right (BR) or Special Permit (SP)	Max size: Square feet/ Percent of main dwelling/ # bedrooms	# Parking spaces for ADU	Miscellaneous
Acton	DK	2016	Detached units/ Existing footprint can be expanded	Yes: in 1950-2010 bldg	Int: BR Det: SP	Int: 800sf/ 50% of main/ 2 bed Det: 2000sf/ 3 bed	1	1 st floor of ADU must be accessible
Bedford	1997	==		No	BR	30% of main	2	
Carlisle	1989	2017	Detached units	Yes; # limited	SP	1200sf/ 35% of main	# Not specified	Total permits allowed: 75
Lexington	1983	2016	Detached units/ ADU in new construction	Yes	Int in existing footprint: BR Int in expanded footprint & Det: SP	Basic int:1000sf/ 2 bed Expanded int: 40% of main Det: 1000sf	1	Owner can be away for 2 years
Milton	DK	2015 failed	Non family occupants	Yes	Int in existing footprint: BR Int in expanded & Det: SP	800 sf/ 2 bed/ ≤ 3 occupants	1	Occupants must be family or employed SP good for 5 years; then must reapply
Newton	1987	2017	Internal unit: By Right/ ADU on any size lot	Yes	Int: BR Det: SP	Int: 1000sf/ 33% of main Det:1200sf/40% of main	0	Total occupants in ADU and main: no more than would be allowed in main house alone
Scituate	1989	2015	Detached/ ADU in new construction	Yes	SP	750 sf/ 40% of main	2	Encouraged in business district
Sudbury	2009	--		Yes: in bldg. at least 5 yo	SP	Int: 800sf/ 30% of main Det: 850sf/ ≤4 occupants	1	No more than 5% of town's dwellings can have ADU Must recertify every 4 years
Westwood	1992	2017	Increased cap on total #	Yes	SP	900sf	1	No more than 2% of town's dwellings can have ADU Must recertify every 4 years

*=Type of Unit: Detached (Det) Separate building on property of main dwelling Internal (Int) Part of the main dwelling

Accessory Dwelling Units: A Report for Needham Public Health Department

Executive Summary

Background

This report on accessory dwelling units (ADUs) was commissioned as follow up to the Assessment of Housing and Transit Options for Needham Seniors, released in the fall of 2016. According to a survey conducted for that assessment, seniors want to remain in town as they age but many feel this won't be possible due to: "the high cost of housing (purchase price or rent, and upkeep); costliness of modifying existing homes to increase accessibility; and zoning regulations that prohibit accessory dwelling units." One of the recommendations in the assessment report was to pass a zoning bylaw to allow accessory dwelling units (ADUs). An ADU-- also known as accessory or "in-law" apartments-- is defined as "a self-contained apartment in an owner-occupied single family home that is either attached to the principal dwelling or in a separate structure on the same property." (Massachusetts EEA). ADUs are a low-impact, high-value way to address the problem of diminishing housing options. ADUs are of particular benefit to older residents, young adults, people with disabilities, and people with moderate incomes.

The report, *Accessory Dwelling Units: A Report for the Needham Public Health Department*, examines in some depth the experience of nine communities similar to Needham that have passed ADU bylaws. Their experiences, combined with recommendations from the Massachusetts Office on Energy and Environmental Affairs, can serve as an authoritative guide for local debate. The purpose of this study was to learn about the impact of these bylaws on issues of importance to Needham, including cost, density, traffic, appearance, and contributing to meeting the changing needs of our residents.

Data Collection Method

Nine cities and towns were selected because, like Needham, they are suburban communities within the 495 beltway, but unlike Needham, they have had ADU bylaws in place for a number of years. Planners in each community were interviewed by phone or in person about: 1) the specific regulations in their bylaws; 2) the impact of the bylaws on various aspects of community

life; 3) experiences modifying bylaws; and 4) recommendations for Needham. In addition to interviews, information was collected by reviewing the text of each community's actual bylaw as well as supporting documents and reports from the town.

Results of interviews

Content of the bylaws

The text of the bylaws of all 9 towns described similar goals: increase housing options while maintaining the character of the town; help young and older adults and people with disabilities stay in town as their needs change; and provide moderately-priced units in communities with ever-escalating home prices and reduced number of small homes. Several communities explicitly added the goal of helping workers live near their places of employment.

Planners noted that their bylaws were drafted to address key concerns residents expressed about ADUs, namely that they might: change the appearance of a neighborhood from one of single family homes to one that looks crowded; allow two-family homes in areas zoned for single-family homes; and increase density, stress on public services, the number of children, traffic, and cars parked outside a house.

The regulations in the nine towns are similar in their intent to meet the goals and address the concerns listed above. They ensure that the unit is clearly part of, and smaller than, the main dwelling, and that the ADU doesn't change the overall character of the neighborhood. Most of the regulations are consistent with the recommendations in the Massachusetts Model Bylaw.

Impact of the bylaws

The impact of ADU bylaws on the communities surveyed has been minimal. Only a small number of ADUs have been created over the course of many years.

For residents who have been able to take advantage of this option, ADUs have served their intended purpose. Older adults and their children are able to share a property, or older adults are able to afford to stay in their home by renting out a unit. Other effects of passing an ADU bylaw

have been bringing illegal, and possibly unsafe, units into compliance, and creating appropriate housing for people with disabilities.

None of the planners reported an increase in the number of school children, traffic, or a change in the character of the town due to the ADU bylaw.

Planning boards and housing advocates in seven of the nine communities decided to liberalize the regulations in the past few years to encourage more people to take advantage of this option. Six of the towns approved changes, indicating overall satisfaction with the general concept of accessory apartments.

Recommendations from planners re: advocating for an ADU bylaw

The interviewees in these towns offered several recommendations to Needham should it decide to enact an ADU bylaw, namely:

- Engage key partners with related interests
- Engage older adults
- Tie the proposed bylaw to demonstrated needs
- Educate the public about what the bylaw is, and what it isn't

Conclusion: Recommendations for Needham

The experiences of the nine communities described in this report provide compelling evidence that ADUs could contribute to the overall goal of increasing housing options for older adults, young adults, people with disabilities, and people with moderate incomes without negatively impacting the quality of life. Using the Mass Model Bylaw and the experiences of the nine communities as guides, Needham can create a bylaw that ensures units will be integrated into existing single family neighborhoods with little or no negative impact on the character of the neighborhood or on town services, provide new options for current Needham homeowners, and minimize the regulatory burden on town officials. The report recommends specific bylaw regulations—related to permitting, size, occupants, appearance and parking--to achieve the desired outcome.

Accessory Dwelling Units for Needham: Talking Points

What are they?

An accessory dwelling unit (ADU), also known as accessory or “in-law” apartments is defined as “a self-contained apartment in an owner-occupied single family home that is either attached to the principal dwelling or in a separate structure on the same property.”

Why are they needed?

Needham’s housing stock is changing rapidly and dramatically, and this transition is affecting the character of the community. Escalating housing prices are making Needham more exclusive. The most visible impact of this housing dynamic is felt by older, long-time residents who prefer to stay in Needham. The number of options available to older residents, young adults and those with moderate incomes is diminishing. Passing an ADU bylaw is a small, but significant, step toward addressing their needs

What are the benefits to Needham residents?

Needham has long been valued as a family-friendly suburban town accessible to residents who occupy a wide range of the economic spectrum. ADUs (encouraged by the Massachusetts Executive of Energy and Environmental Affairs and advocated by Needham’s Council on Aging and Public Health Division) are a low-impact, high-value way to:

- increase housing options while maintaining the character of the town
- help young adults return to Needham and older adults and people with disabilities stay in town as their needs change

What has the impact been in other communities with ADUs?

- A survey of communities within the 495 beltway that have had these bylaws in place for a number of years found that when wisely regulated ADUs provide a viable option for the target constituents while exerting minimal impact on town services and quality of life. In fact, passage of ADU bylaws has not led to a surge of development. Quite the opposite. Towns have found it necessary to search for ways to stimulate ADU activity.
- For those who have been able to take advantage of this option, ADUs have served their intended purpose. Older adults and their children are able to share a property, an adult with a disability or their caretaker can use the ADU, or older adults are able to afford to stay in their home by renting out a unit.
- Passing an ADU bylaw encouraged owners of illegal, and possibly unsafe, units to apply for a permit and upgrade the unit to meet the code requirements.
- Moderately-priced units were added without an increase in the number of school children, traffic, or a change in appearance of the neighborhood.

What are key elements to include in ADU bylaw?

The experiences of other communities and the Massachusetts Model Bylaw are instructive and should serve as a tool to help Needham construct its ADU bylaw. Elements to be addressed include: the type of permit to require; restrictions on size; requirements for ownership and tenancy; appearance; and parking. The ADU bylaw must strike the correct balance. The majority of towns surveyed found that in order to stimulate activity it was necessary to modify the original bylaw by removing more restrictive requirements. Needham’s ADU bylaw should address major concerns while recognizing that regulations that are too stringent will inhibit development.

*Creating a Livable
Community for All Ages:*

**ACCESSORY
DWELLING UNITS**



INTERIOR ADU

Converted
basement or attic



ATTACHED ADU

On top of attached garage,
or newly constructed
addition to main house



DETACHED ADU

Converted
garage or new
construction



Why are accessory dwelling units important? They:



Increase housing options while maintaining the character of the town



Provide moderately-priced homes. When older adults in Needham were asked “if you were to consider moving out of Needham, what would impact your decision to move? 51.4% said it will be too expensive to maintain their current home



Help young and older adults and people with disabilities stay in town as their needs change. 93% of older adults in Needham reported it is somewhat, very, or extremely important for them to remain in Needham as they age



Help young adults return to Needham, independent of their parents, by providing starter homes



Increase revenue. For homeowners through rental income; for the Town through greater tax revenue generated by added value to existing homes



Decrease isolation and depression as older adults remain in the town where they have connections and live close to others

Accessory dwelling units can be allowed while addressing community concerns.

Will accessory dwelling units change the physical character of the town?

- Unlikely, as similar towns in Massachusetts have allowed accessory dwelling units without seeing a shift in the character of the town
- These units are typically spread out and hardly visible
- Design guidelines can ensure that ADUs are consistent with neighborhood architecture and designs

Will accessory dwelling units increase congestion in Needham?

Unlikely, as these units do not significantly increase population size and are typically occupied by a single person with only one car.

Will accessory dwelling units increase the number of children enrolled in schools?

Accessory dwelling units are generally occupied by individuals, rather than families.

Needham lacks affordable,
available, accessible, age-friendly
housing for its residents.

Accessory dwelling units (also
known as ADUs or in-law units)
can help mitigate this issue.

Quotes from older Needham residents:

*“It’s impossible for young people who don’t have a lot of money to stay in Needham, and it is impossible for older people to try to downsize into a smaller house in Needham.” **

*“Given the shortage of smaller homes, most of our friends who have already downsized have moved out of town. While we would prefer to remain in Needham, we are, sad to say, probably going to be forced to follow that option. Needham has yet to consider the needs of all of its citizens.” **

*“Allowing in-law apartments in housing would be a huge benefit.” **

Executive Summary

Background

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The report, *Accessory Dwelling Units: A Report for the Needham Public Health Division*, examines in some depth the experience of nine communities similar to Needham that have passed ADU bylaws. Their experiences, combined with recommendations from the Massachusetts Office on Energy and Environmental Affairs, can serve as an authoritative guide for local debate. The purpose of this study was to learn about the impact of these bylaws on issues of importance to Needham, including cost, density, traffic, appearance, and meeting the changing needs of our residents.

Data Collection Method

Nine cities and towns were selected because, like Needham, they are suburban communities within the I-495 beltway, but unlike Needham, they have had ADU bylaws in place for a number of years. Planning and community development staff in each community were interviewed by phone or in person about: 1) the specific regulations in their bylaws; 2) the impact of the bylaws on various aspects of community life; 3) experiences modifying bylaws; and 4) lessons learned from the process. In addition to interviews, information was collected by reviewing the text of each community's actual bylaw as well as supporting documents and reports from the town.

Results of interviews

Content of the bylaws

The text of the bylaws of all nine towns described similar goals: increase housing options while maintaining the character of the town; help young and older adults and people with disabilities stay in town as their needs change; and provide moderately-priced units in communities with ever-escalating home prices and reduced number of small homes. Two communities explicitly added the goal of helping workers live near their places of employment.

Interviewees noted that their bylaws were drafted to address key concerns residents expressed about ADUs, namely that they might: change the appearance of a neighborhood from one of single family homes to one that looks crowded; allow two-family homes in areas zoned for

single-family homes; and increase density, stress on public services, the number of children, traffic, and cars parked outside a house.

The regulations in the nine towns are similar in their intent to meet the goals and address the concerns listed above. They ensure that the unit is clearly part of, and smaller than, the main dwelling, and that the ADU doesn't change the overall character of the neighborhood. Most of the regulations are consistent with the recommendations in the Massachusetts Model Bylaw.

Impact of the bylaws

The impact of ADU bylaws on the communities surveyed has been minimal. Only a small number of ADUs have been created over the course of many years.

For residents who have been able to take advantage of this option, ADUs have served their intended purpose. Older adults and their children are able to share a property, or older adults are able to afford to stay in their home by renting out a unit. Other effects of passing an ADU bylaw have been bringing illegal, and possibly unsafe, units into compliance, and creating appropriate housing for people with disabilities.

None of the interviewees reported an increase in the number of school children, traffic, or a change in the character of the town due to the ADU bylaw.

Planning boards and housing advocates in seven of the nine communities decided to liberalize the regulations in the past few years to encourage more people to take advantage of this option. Six of the towns approved changes, indicating overall satisfaction with the general concept of accessory apartments.

Recommendations from interviewees re: advocating for an ADU bylaw

The interviewees in these towns offered several recommendations to Needham should it decide to enact an ADU bylaw, namely:

- Engage key partners with related interests
- Engage older adults
- Tie the proposed bylaw to demonstrated needs
- Educate the public about what the bylaw is, and what it isn't

Conclusion: Recommendations for Needham

The experiences of the nine communities described in this report provide compelling evidence that ADUs could contribute to the overall goal of increasing housing options for older adults, young adults, people with disabilities, and people with moderate incomes without negatively impacting the quality of life. Using the Mass Model Bylaw and the experiences of the nine communities as guides, Needham can create a bylaw that ensures units will be integrated into existing single family neighborhoods with little or no negative impact on the character of the neighborhood or on town services, provide new options for current Needham homeowners, and minimize the regulatory burden on town officials. The report recommends specific bylaw regulations—related to permitting, size, occupants, appearance and parking--to achieve the desired outcome.

Background on the Report

Needham has long been valued as a family-friendly suburban town with a mix of housing types and a population that is committed to setting down roots in the community. However, rapidly escalating housing prices combined with the growing number of tear-downs of small homes threatens to change the character of the town by raising the income level required to live here. One modest, but important, way to address the problem of diminished housing options is passage of a zoning bylaw to allow accessory dwelling units (ADUs). An ADU-- also known as accessory or “in-law” apartments-- is defined as “a self-contained apartment in an owner-occupied single family home that is either attached to the principal dwelling or in a separate structure on the same property.” (Massachusetts EEA, n.d.) This bylaw is of particular benefit to older residents, young adults, people with disabilities and people with moderate incomes. The Massachusetts Executive Office of Energy and Environmental Affairs encourages the adoption of ADU bylaws and has published a model ADU bylaw to guide communities interested in pursuing this option. (Massachusetts EEA, n.d.) A number of surrounding communities have passed ADU bylaws, and their experiences are instructive as Needham considers whether to go this route. This report summarizes both the Massachusetts model bylaw and the accessory apartment bylaws in nine cities and towns within the I-495 beltway.

This report on ADUs was commissioned as follow-up to the report, *Assessment of Housing and Transit Options for Needham Seniors*, released by the Needham Council on Aging and the Needham Public Health Division in August 2016. According to a survey conducted for that assessment, seniors want to remain in town as they age, but many feel this won’t be possible, due to “the high cost of housing (purchase price or rent, and upkeep); costliness of modifying existing homes to increase accessibility; and zoning regulations that prohibit accessory dwelling units.” (Needham Council on Aging and Needham Public Health Division, 2016)

While many Needham residents support ADUs, some residents express concerns about the potential impact which may result from that type of policy change. The Public Health Division commissioned a study of the experiences of a sample of towns similar to Needham that have had these zoning bylaws in place for a number of years in order to learn about the impact of these bylaws. Interview questions about zoning bylaws which permit accessory dwelling units were chosen based on issues of importance to Needham, including cost, density, traffic, appearance, and acceptance by residents.

Data Collection Method

Communities: The following cities and towns were selected because they have had ADU bylaws in place for a number of years, and are suburban communities within the I-495 beltway, and share characteristics with Needham:

- Acton
- Bedford

- Carlisle
- Lexington
- Milton
- Newton
- Scituate
- Sudbury
- Westwood

Appendix A summarizes the demographics of these communities and Needham, including population, median household income, land size, and number of housing units.

Interview questions: The interview form used the Massachusetts model bylaw as a framework. It also contained questions on 1) the specific requirements outlined in each town's bylaws, 2) the impact of the bylaws on various aspects of community life, 3) experiences modifying bylaws and 4) lessons learned from the process. Representatives of several elected and appointed boards in Needham helped develop the questions to ensure they addressed issues of local concern. A copy of the interview tool is in Appendix B.

Data sources: Information was collected by reviewing the text of each community's actual bylaw as well as supporting documents and reports from the town. In addition, planning and community development staff members in each community were interviewed, either by phone or in person. Names and contact information and bylaws and supplemental resources are in Appendix C.

Results of Interviews

Background of bylaws

Goals: All nine towns expressed similar goals in the text of their ADU bylaws: increase housing options while maintaining the character of the town; help young and older adults and people with disabilities stay in town as their needs change; and provide moderately-priced units in communities with ever-escalating home prices and reduced number of small homes. Newton and Scituate explicitly added the goal of helping workers live near their places of employment.

Concerns: Interviewees noted that their bylaws were drafted with an awareness of key concerns residents expressed about ADUs, namely that they might:

- Change the appearance of a neighborhood from one of single family homes to one that looks crowded
- Allow two-family homes in areas zoned for single-family homes
- Increase density, stress on public services, increased public school enrollment, traffic and cars parked outside a house.

Key requirements in ADU bylaws in the nine communities

The bylaws in the nine towns are similar in their intent to meet the goals and address the concerns listed above. They ensure that the unit is clearly part of, and smaller than, the main

dwelling, and that the ADU doesn't change the overall character of the neighborhood. The bylaws are generally consistent with the Massachusetts model bylaw. The following indicates in italics the recommendations of the Massachusetts model bylaw and summarizes the corresponding key requirements in the nine communities studied. Details of these requirements can be found in Appendix D.

Type of unit: *Mass model bylaw: Only one unit per single family house or house lot.* All the communities interviewed limit ADUs to one per main dwelling. All but one (Bedford) allows ADUs as both an internal unit within the main dwelling and as a detached unit on the property.

Type of permit: *Mass model bylaw: As-of-right for units within existing dwellings with limited or no impact from the street; Special Permit for additions to existing dwelling or detached units.* (Special permits are those given by the zoning board after determining the plan meets the regulations in the bylaw. As-of-right permits do not require special review; the building inspector determines the property meets the requirements of the bylaw.) In four communities, all ADUs are permitted by special permit only. In the other five, ADUs are approved as a combination of special permit and as-of-right.

Size: *Mass model bylaw: Gross area of ADU no more than 900 square feet; no more than three occupants; no more than two bedrooms.* All communities restrict the size of the ADU to ensure it is subsidiary to the main dwelling. The allowable size ranges from 750 square feet for an internal unit in Scituate to 2000 square feet for a detached unit in Acton.

Ownership and tenancy: *Mass model bylaw: Owner must occupy one of the units.* All communities interviewed require the owner to live in either the main dwelling or the ADU, and the other unit cannot be sold. In other words, the owner cannot turn the ADU into a condominium. Only one town (Milton) requires the tenant to be a relative or employee.

Parking: *Mass model bylaw: Off-street parking should be available to owner and tenants.* All communities except Newton require that ADUs have one to two dedicated parking spaces. Most communities also require that screening be built or planted between the additional cars and neighboring property.

Appearance: All bylaws have requirements—most extensively detailed-- that the appearance of the original dwelling be substantially maintained. Most describe the need to retain the look of a one-family house, with no external stairways visible, only one main entrance, etc. Similarly, a detached ADU is required to maintain the look of the original building.

Timing and updates: The majority of communities passed the bylaws in the 1980s and early 1990s. Seven have attempted to liberalize the bylaws in the last two years, six successfully.

Impact of the bylaws

Summary: According to the interviewees and other studies of the effect of ADUs, the impact of ADU bylaws on the communities surveyed is minimal. Only a small number of ADUs have been created. The majority of local government staff members interviewed suggested that the reason for the low number of units added was the expense and the time-consuming nature of the

process, which most homeowners are unable or unwilling to undertake. As a result of the low production, seven of the nine communities interviewed have attempted to liberalize their bylaws in the last few years, reducing obstacles to greater participation.

Interviewees report that the ADU bylaws appear to have served their intended purpose. Older adults and their children are able to share a property, or older adults are able to afford to stay in their home by renting out a unit, or an older adult may bring a live-in health aide into the home.

- *When they come for a permit, it's for family members. Seniors can stay in town and their kids get to stay in town. We're losing 65 plus and recent college grads. ADUs are a way to encourage both to stay here. (Lexington)*
- *I see it as something that helps out families, where you couldn't afford to buy a separate house, prices are out of control/ people can't stay in town. It's a service for those already in town. (Scituate)*
- *We don't offer a lot of services for our seniors. This is one way we've been able to help them. (Sudbury)*

Other effects of passing an ADU bylaw are bringing illegal, and possibly unsafe, units into compliance and creating appropriate housing for people with disabilities.

None of the interviewees reported a significant increase in public school enrollment, traffic, or a change in the character of the town due to the ADU bylaw.

The following describes the responses to specific questions about the impact of the ADU bylaw.

Total number: Some of the towns do not track the number of ADU permits. Of the towns that do, the numbers range from an average of two to seven ADUs per year over the time the bylaw has been in place.

The following information represents reports from each community:

- Carlisle: 18 since 1989.
- Lexington: 200 since 1983. Most of these were grandfathered in, as opposed to newly constructed ADUs.
- Newton: 73 over 20 years.
- Scituate: 88 since 1989. Steady number of applicants; no big increase since they allowed detached units and in ADUs new construction.
- Westwood: 45 since 1992, approximately half are internal and half detached. 13 people are on the waiting list (Westwood caps the total number of ADUs).
- Bedford: Combines ADUs and two-family homes in its tracking system. There are a total of 300; the town staff reported the majority are two-family homes.
- Acton, Milton and Sudbury: Do not keep records. Local officials estimate it is just a few per year.

Who lives in homes with ADUs?: While towns do not keep formal records on the personal situations of homeowners and ADU tenants, most town staff see ADUs primarily serving family needs. Most often, interviewees report that an older parent moves into the ADU created by their adult child. The other circumstances most commonly cited are a relative with a disability--or his/her caretaker--lives in the ADU, and an older resident rents the ADU for additional income.

Concerns had been raised in Newton that college students would occupy ADUs and cause noise and other problems, but Newton reports this has not happened—most likely because of restrictions on number of occupants and the requirement that one dwelling has to be owner occupied.

Impact on schools and traffic: Interviewees noted that these two concerns arise with any proposed changes in zoning. All nine communities reported that ADUs had minimal or no impact on the number of school-age children or traffic. The main reason for the low impact is the small number of ADUs each town has added. In addition, a community development official who used to work in Burlington described a study there which showed that an increase in the number of apartments did not translate to an increase in school children. Apartments were used by young and older adults, not by families with children. In terms of traffic, several interviewees noted that units are scattered around town, minimizing concentration of traffic in any one area.

Change in appearance of neighborhood: Interviewees noted that the appearance and character of neighborhoods were not changed when an ADU was added. They feel this is because the language in their bylaws requires the ADU fits the style of the house, has its entrance on the side or back, disallows external stairways, etc.

Value of property: Newton is the only community that had actually studied the change in a home's value before and after adding an ADU. They determined there was no change, unless the ADU enlarged the house in which case the value increased. Several other interviewees shared their impressions: Milton thought there was no change in property value; Lexington and Westwood thought the value increased. Westwood noted that realtors consider the potential of adding an ADU to a property to be a selling point

Burden on town officials and boards/ Enforcement issues: None of the interviewees felt the ADU bylaw added to the burden of the building inspector or permitting board; inspection and permitting and the associated costs are treated the same as any other request. Issues that are raised by neighbors when an owner requests an ADU permit include parking, lot lines, obtrusiveness of the new unit, etc. These are typical issues raised when any number of zoning or permitting related requests come before a board, planning officials said, and nearly every request is granted. In several communities, including Westwood, the permitting boards were not opposed to recent efforts to expand the options for ADUs, even though it could result in an increase in their work.

The local officials noted that enforcement and tracking of properties would be significantly more difficult if the bylaw restricted ADUs to family members.

Several towns noted that they reduced problems with ADU requests by working with both the owner and sometimes the neighbors to address all issues ahead of time. Several communities (Carlisle, Newton, Scituate and Sudbury) said their on-line information for homeowners reduced time and stress on all parties. (See Appendix C for resources; Carlisle has a particularly good example.)

Grandfathering illegal units: Bringing illegal units into compliance can be a significant benefit of passing an ADU bylaw. These unpermitted, uninspected units can be hazardous, especially those that lack sufficient means of egress and/or have unsafe cooking facilities. One respondent said that the only time they learn about an illegal unit is when there is a fire.

Lexington reports that when they first passed their bylaw, they offered amnesty and most requests for ADUs were actually to legalize existing units. Scituate and Westwood also encourage people to apply for permits for existing units. Newton reported that before their bylaw was recently liberalized, few people came forward because their units were likely to be out of compliance. They hope to see a change in the coming year.

Accessibility: Three towns, Acton, Lexington and Milton, said ADUs provide an opportunity to encourage the creation of dwellings that are accessible for people with disabilities. This is done by allowing some flexibility in waiving certain zoning requirements when units are made accessible for people with disabilities, in compliance with state standards for accessibility.

Solving the housing problem: No one felt ADUs alone solved their housing problem, but, quoting a Newton report: *Responding to the needs generated by changing demographics and workforce requires multiple strategic actions, as described in the Housing Strategy, and a robust accessory apartment policy is an important part of that.* (City of Newton, Nov. 2016)

Proposing changes to bylaws in 7 of the communities

What: As noted above, seven of the towns interviewed have proposed changes to their ADU bylaws within the last two years to encourage more residents to take advantage of them. Changes that were approved included allowing ADUs: 1) in detached structures; 2) as part of new construction; 3) as-of-right right rather than by special permit; and 4) raising the cap on the numbers allowed. The one change that was not approved (in Milton) was to allow non-family to live in ADUs.

Why: Communities were motivated to act in the recent years for several reasons.

- They had recently completed housing plans that called for more housing for families, people with moderate income, and for workers in the town, and ADUs are one way to begin to address the needs of those constituencies.
- They were responding to an increased emphasis on aging in place.
- Tear downs of smaller homes to make way for large, very expensive ones is accelerating the need to act.

Concerns expressed about changing the Bylaw: For the most part, because these communities already had ADU bylaws in place, public hearings on modifications were not particularly contentious. There was push back on proposals to allow detached units, which in one case (Acton) resulted in the requirement that the unit be in existence for several years before being converted. Two towns reported hearing concerns about changes to the character and appearance of the town if more ADUs were created. This concern was allayed by pointing out the large number of requirements to make the ADU ‘invisible from the street.’

The fact that efforts to expand ADU bylaws were successful in six of the seven towns that have had them in place for a number of years indicates the broad support for the concept in communities that have experience with them.

Recommendations from town officials re: informing the community about an ADU bylaw

The interviewees offered several recommendations to Needham should it decide to begin the process of considering an ADU bylaw.

1. **Engage key partners with related interests:** Early in the process, reach out to groups whose interests will be served by ADUs. The Council on Aging is an essential partner. Other key partners mentioned by towns are housing advocates, environmental groups, the Commission on Disabilities, and the business community. Newton was particularly successful in its partnership with businesses. Retailers had reported that they were not able to get workers who are willing to travel to Newton; ADUs allow workers to live in town. The Newton/Needham Chamber of Commerce was very supportive of the recent successful initiative to liberalize Newton's ADU bylaw.
2. **Engage older adults:** Seek out older adults and their families who have concerns about the affordability and accessibility of housing. Ask them to share their perspectives and participate in public discussions and in community meetings.
3. **Tie the proposed bylaw to demonstrated needs:** Show how the bylaw fits into existing housing plans and how it addresses identified needs of older adults and families in town.
4. **Educate the public:** Distribute accurate information about what the bylaw is, and what it isn't. Clarify that it does not increase development of two-family homes or create crowding. Emphasize that there are strict requirements on *size, ownership, and appearance*. Focus on the fact that in communities with ADUs, most are used to help older and younger adults, and to support families already in town. Since concerns about the appearance of a house with an ADU are often expressed, one town (Westwood) used photos of homes with ADUs as part of their presentation to Town Meeting members. The photos show that ADUs are virtually invisible from the street.
5. **Consider the pros and cons of using a special permit or permitting as-of-right:** Several towns felt that requiring a special permit is more palatable to residents when first considering passage of an ADU bylaw, as it provides more control and oversight. On the other hand, towns with as-of-right permits contend that they reduce burdens on homeowners and permitting boards while still maintaining strict requirements.
6. **Consider the pros and cons of restricting ADUs to family members:** Limiting the ADU to family members may seem like a way to increase the likelihood the bylaw will pass. However, all local officials interviewed cautioned that this bylaw puts much more burden on town boards and officials to verify and enforce compliance. Further, it reduces the value of the bylaw by limiting flexibility for owners. According to a recommendation

in the Massachusetts model bylaw: “Allowing only family members is easiest politically and may limit the overall impact of the units, but it will also limit the use (and reuse) of these units and may result in additional administration costs associated with enforcement. Having no restrictions on accessory dwelling unit tenants gives greater control over the unit to the homeowner while offering more diverse housing opportunities.” (Massachusetts EEA)

Conclusion: Recommendations for Needham

The experiences of the nine communities described in this report provide compelling evidence that ADUs could contribute to the overall goal of increasing housing options in Needham for older adults, young adults, people with disabilities, and people with moderate incomes. Many interviewees expressed agreement with the views articulated in a recent Newton report: *The benefits of creating such units include providing opportunity for seniors to remain in their homes longer, creating a low-impact form of generally affordable housing, assisting in the preservation of historic homes and accessory structures, and addressing the issue of unsafe illegal accessory apartments.* (City of Newton, Feb 2017)

Using the Massachusetts model bylaw and bylaw language from the nine communities, it is possible to create a bylaw that ensures units will be integrated into existing single family neighborhoods with little or no negative impact on the character of the neighborhood or on town services. The bylaw can be crafted to provide flexibility for current Needham homeowners and minimize the burden on town officials.

Key elements that will support positive outcomes and minimize negative impacts:

- Specific permit types: As-of-right for units within the existing footprint of the main dwelling; special permit for units that are added onto the main dwelling or are detached from it.
- Size and occupant restrictions: Set a maximum square footage for the ADU and a maximum percentage of the main dwelling allowed for the ADU; allow whichever is smaller. Limit number of occupants in ADU.
- Occupants: One unit must be owner occupied. No restrictions on relationship of tenants to owner.
- Appearance: Requirements that the ADU is in keeping with the character of the main dwelling.
- Parking: One space per unit.
- Grandfathering illegal units: Offer amnesty to owners of existing ADUs who apply for a permit and comply with all ADU regulations.

References

City of Newton Department of Planning and Development. Public Hearing Memorandum. (November 10, 2016)

City of Newton Department of Planning and Development. Public Hearing Memorandum. (February 24, 2017)

Massachusetts Executive Office of Energy and Environmental Affairs (EEA). Smart Growth/ Smart Energy Toolkit: Model Bylaw for Accessory Dwelling Units. (n.d.)
http://www.mass.gov/envir/smart_growth_toolkit/bylaws/ADU-Bylaw.pdf

Needham Council on Aging and Needham Public Health Division. Assessment of Housing and Transit Options for Needham Seniors. (August 2016)
<http://www.needhamma.gov/DocumentCenter/View/13894>

Appendix A: Demographics of Communities Studied *

Towns	Population	Median household income 2011-2015	Land size Square miles	Housing units	% 65+
Needham	28,961	\$132,237	12.29	11,122	16.3%
Acton	21,924	\$125,635	19.87	8,530	11.0%
Bedford	13,320	\$113,729	13.66	5,368	18.6%
Carlisle	4,852	\$166,111	15.27	1,758	12.9%
Lexington	31,394	\$149,306	16.43	12,019	18.6%
Milton	27,012	\$116,444	13.01	9,700	15.4%
Newton	85,119	\$122,080	17.94	32,648	15.2%
Scituate	18,135	\$102,210	17.63	8,035	17.2%
Sudbury	17,659	\$165,745	24.2	6,221	12.2%
Westwood	14,622	\$135,884	10.88	5,431	18.2%

*=Data from US Census Bureau. <https://www.census.gov/quickfacts/fact/table/MA/PST045216>

All data from 2010, except median household income which is 2011-2015, presented in 2015 dollars

Appendix B: Questions for Interviews with Town/City Officials re: ADUs

1. Brief description of by law

- By right or special permit/ or combination of both?
- Size requirements
- Parking requirements
- Restrictions---owner occupied? relationship to tenant? attached vs detached? transfer on sale of property? Time limit to permit? In certain areas of town only, or anyplace?
- Provisions to grandfather in illegal units?—Do they have to go through special permit process?
- How is it enforced?

2. Adoption process

- What were objections? How were they overcome?
- Recommendation for other towns wanting to pass bylaws?
- Key partners to involve?

3. Modifications to law since originally passed

- What has been changed?
- Why?

4. Impact of the bylaw

- Any unintended consequence?
- # of new units created per year/ change over time?
- # of illegal units grandfathered in
- Any data on who is using ADUs? (eg, relatives, caretakers, students, etc)
- Increase in school age population due to ADUs?
- Increase in traffic due to ADUs?
- Increase in transient population? How defined?
- Any information on impact on older adults due to ADUs? ie, report they are able to stay in the community?
- Any issues with enforcement?
- Types of complaints received?
- Any moves to eliminate bylaw?
- Evidence that adding an ADU changes value of home and therefore property tax?
- Any additional burden on town departments?
- Recommendation to other towns on ways to maximize benefits of ADUs and minimize problems—both for the town in general and for owners/tenants?

Appendix C: Contacts Interviewed and Materials Collected

Acton

<http://www.acton-ma.gov/164/Planning>

Robert Hummels, Assistant Planner

Bylaw: <http://www.acton-ma.gov/DocumentCenter/Home/View/659>

Bedford

<http://www.bedfordma.gov/planning>

Tony Fields, Planning Director

Bylaw in packet for homeowners:

http://www.bedfordma.gov/sites/bedfordma/files/file/file/code-accessory-apartment_0.pdf

Carlisle

http://www.carlislema.gov/Pages/CarlisleMA_Planning/index

George Mansfield, Planning Administrator

Document for residents:

http://www.carlislema.gov/Pages/CarlisleMA_Planning/AAA%20RR%201-26-09.pdf

Draft bylaw (subsequently passed in May 2017)

http://www.carlislema.gov/Pages/CarlisleMA_PBNA/0592862C-000F8513

Lexington

<http://www.lexingtonma.gov/planning-office>

David Fields, Planner

Background on 2016 proposal to update bylaw and text of bylaw which subsequently passed

http://www.lexingtonma.gov/sites/lexingtonma/files/pages/art_40_-_accessory_apartments_report_03-18-2016.pdf

Milton

<http://www.townofmilton.org/planning-and-community-development>

William Clark, Director of Planning & Community Development

Proposed update: http://www.townofmilton.org/sites/miltonma/files/uploads/pb_article-accessory_dwelling_unit_080415.pdf

Newton

<http://www.newtonma.gov/gov/planning/default.asp>

James Freas, Deputy Director, Office of Planning and Development

Bylaw: <http://www.newtonma.gov/civicax/filebank/documents/82048>

FAQs: <http://www.newtonma.gov/civicax/filebank/documents/81178>

Scituate

Laura Harbottle Town Planner

Q & A for homeowners: <http://www.scituatema.gov/planning-board/faq/how-do-i-add-an-accessory-dwelling-in-law-to-my-house>

Bylaw (p 54): http://www.scituatema.gov/sites/scituatema/files/pages/15-11-02_zoning_bylaw_as_amended_for_web_printing.pdf

Sudbury

<https://sudbury.ma.us/pcd/>

Meagen Donoghue Director of Planning and Mark Herweck, Building Inspector

Bylaw (p 93): [https://sudbury.ma.us/clerk/wp-](https://sudbury.ma.us/clerk/wp-content/uploads/sites/270/2014/08/SUDBURYZONINGBYLAW2014Completeforprintingandposting.pdf)

[content/uploads/sites/270/2014/08/SUDBURYZONINGBYLAW2014Completeforprintingandposting.pdf](https://sudbury.ma.us/clerk/wp-content/uploads/sites/270/2014/08/SUDBURYZONINGBYLAW2014Completeforprintingandposting.pdf)

Information for residents: <https://sudbury.ma.us/boardofappeals/accessory-dwelling-guidelines/>

Housing production plan, includes ADUs: <file:///C:/Users/Chris/Downloads/Sudbury-HPP-2016-FINAL-4.21.2016.pdf>

Westwood

<http://www.townhall.westwood.ma.us/gov/depts/commdevdepts/plandiv/default.htm>

Abigail McCabe, Town Planner and Sarah Bouchard, Housing and Zoning Agent

Bylaw (8-21): [http://westwood-](http://westwood-prod.civica.granicusops.com/civicax/filebank/blobdload.aspx?BlobID=28617)

[prod.civica.granicusops.com/civicax/filebank/blobdload.aspx?BlobID=28617](http://westwood-prod.civica.granicusops.com/civicax/filebank/blobdload.aspx?BlobID=28617)

Appendix D: Key Requirements in the ADU Bylaws

Town	Year passed	Year updated	Type of unit / actions allowed after update *	Detached allowed?	Permit: By Right (BR) or Special Permit (SP)	Max size: Square feet/ Percent of main dwelling/ # bedrooms	# Parking spaces for ADU	Miscellaneous
Acton	DK	2016	Detached units/ Existing footprint can be expanded	Yes: in 1950-2010 bldg	Int: BR Det: SP	Int: 800sf/ 50% of main/ 2 bed Det: 2000sf/ 3 bed	1	1 st floor of ADU must be accessible
Bedford	1997	==		No	BR	30% of main	2	
Carlisle	1989	2017	Detached units	Yes; # limited	SP	1200sf/ 35% of main	# Not specified	Total permits allowed: 75
Lexington	1983	2016	Detached units/ ADU in new construction	Yes	Int in existing footprint: BR Int in expanded footprint & Det: SP	Basic int:1000sf/ 2 bed Expanded int: 40% of main Det: 1000sf	1	Owner can be away for 2 years
Milton	DK	2015 failed	Non family occupants	Yes	Int in existing footprint: BR Int in expanded & Det: SP	800 sf/ 2 bed/ $\leq$ 3 occupants	1	Occupants must be family or employed SP good for 5 years; then must reapply
Newton	1987	2017	Internal unit: By Right/ ADU on any size lot	Yes	Int: BR Det: SP	Int: 1000sf/ 33% of main Det:1200sf/40% of main	0	Total occupants in ADU and main: no more than would be allowed in main house alone
Scituate	1989	2015	Detached/ ADU in new construction	Yes	SP	750 sf/ 40% of main	2	Encouraged in business district
Sudbury	2009	--		Yes: in bldg. at least 5 yo	SP	Int: 800sf/ 30% of main Det: 850sf/ $\leq$ 4 occupants	1	No more than 5% of town's dwellings can have ADU Must recertify every 4 years
Westwood	1992	2017	Increased cap on total #	Yes	SP	900sf	1	No more than 2% of town's dwellings can have ADU Must recertify every 4 years

*--Type of Unit: Detached (Det) Separate building on property of main dwelling Internal (Int) Part of the main dwelling

Accessory Dwelling Units: A Report for Needham Public Health Department

Executive Summary

Background

This report on accessory dwelling units (ADUs) was commissioned as follow up to the Assessment of Housing and Transit Options for Needham Seniors, released in the fall of 2016. According to a survey conducted for that assessment, seniors want to remain in town as they age but many feel this won't be possible due to: "the high cost of housing (purchase price or rent, and upkeep); costliness of modifying existing homes to increase accessibility; and zoning regulations that prohibit accessory dwelling units." One of the recommendations in the assessment report was to pass a zoning bylaw to allow accessory dwelling units (ADUs). An ADU-- also known as accessory or "in-law" apartments-- is defined as "a self-contained apartment in an owner-occupied single family home that is either attached to the principal dwelling or in a separate structure on the same property." (Massachusetts EEA). ADUs are a low-impact, high-value way to address the problem of diminishing housing options. ADUs are of particular benefit to older residents, young adults, people with disabilities, and people with moderate incomes.

The report, *Accessory Dwelling Units: A Report for the Needham Public Health Department*, examines in some depth the experience of nine communities similar to Needham that have passed ADU bylaws. Their experiences, combined with recommendations from the Massachusetts Office on Energy and Environmental Affairs, can serve as an authoritative guide for local debate. The purpose of this study was to learn about the impact of these bylaws on issues of importance to Needham, including cost, density, traffic, appearance, and contributing to meeting the changing needs of our residents.

Data Collection Method

Nine cities and towns were selected because, like Needham, they are suburban communities within the 495 beltway, but unlike Needham, they have had ADU bylaws in place for a number of years. Planners in each community were interviewed by phone or in person about: 1) the specific regulations in their bylaws; 2) the impact of the bylaws on various aspects of community

life; 3) experiences modifying bylaws; and 4) recommendations for Needham. In addition to interviews, information was collected by reviewing the text of each community's actual bylaw as well as supporting documents and reports from the town.

Results of interviews

Content of the bylaws

The text of the bylaws of all 9 towns described similar goals: increase housing options while maintaining the character of the town; help young and older adults and people with disabilities stay in town as their needs change; and provide moderately-priced units in communities with ever-escalating home prices and reduced number of small homes. Several communities explicitly added the goal of helping workers live near their places of employment.

Planners noted that their bylaws were drafted to address key concerns residents expressed about ADUs, namely that they might: change the appearance of a neighborhood from one of single family homes to one that looks crowded; allow two-family homes in areas zoned for single-family homes; and increase density, stress on public services, the number of children, traffic, and cars parked outside a house.

The regulations in the nine towns are similar in their intent to meet the goals and address the concerns listed above. They ensure that the unit is clearly part of, and smaller than, the main dwelling, and that the ADU doesn't change the overall character of the neighborhood. Most of the regulations are consistent with the recommendations in the Massachusetts Model Bylaw.

Impact of the bylaws

The impact of ADU bylaws on the communities surveyed has been minimal. Only a small number of ADUs have been created over the course of many years.

For residents who have been able to take advantage of this option, ADUs have served their intended purpose. Older adults and their children are able to share a property, or older adults are able to afford to stay in their home by renting out a unit. Other effects of passing an ADU bylaw

have been bringing illegal, and possibly unsafe, units into compliance, and creating appropriate housing for people with disabilities.

None of the planners reported an increase in the number of school children, traffic, or a change in the character of the town due to the ADU bylaw.

Planning boards and housing advocates in seven of the nine communities decided to liberalize the regulations in the past few years to encourage more people to take advantage of this option. Six of the towns approved changes, indicating overall satisfaction with the general concept of accessory apartments.

Recommendations from planners re: advocating for an ADU bylaw

The interviewees in these towns offered several recommendations to Needham should it decide to enact an ADU bylaw, namely:

- Engage key partners with related interests
- Engage older adults
- Tie the proposed bylaw to demonstrated needs
- Educate the public about what the bylaw is, and what it isn't

Conclusion: Recommendations for Needham

The experiences of the nine communities described in this report provide compelling evidence that ADUs could contribute to the overall goal of increasing housing options for older adults, young adults, people with disabilities, and people with moderate incomes without negatively impacting the quality of life. Using the Mass Model Bylaw and the experiences of the nine communities as guides, Needham can create a bylaw that ensures units will be integrated into existing single family neighborhoods with little or no negative impact on the character of the neighborhood or on town services, provide new options for current Needham homeowners, and minimize the regulatory burden on town officials. The report recommends specific bylaw regulations—related to permitting, size, occupants, appearance and parking--to achieve the desired outcome.

Accessory Dwelling Units for Needham: Talking Points

What are they?

An accessory dwelling unit (ADU), also known as accessory or “in-law” apartments is defined as “a self-contained apartment in an owner-occupied single family home that is either attached to the principal dwelling or in a separate structure on the same property.”

Why are they needed?

Needham’s housing stock is changing rapidly and dramatically, and this transition is affecting the character of the community. Escalating housing prices are making Needham more exclusive. The most visible impact of this housing dynamic is felt by older, long-time residents who prefer to stay in Needham. The number of options available to older residents, young adults and those with moderate incomes is diminishing. Passing an ADU bylaw is a small, but significant, step toward addressing their needs

What are the benefits to Needham residents?

Needham has long been valued as a family-friendly suburban town accessible to residents who occupy a wide range of the economic spectrum. ADUs (encouraged by the Massachusetts Executive of Energy and Environmental Affairs and advocated by Needham’s Council on Aging and Public Health Division) are a low-impact, high-value way to:

- increase housing options while maintaining the character of the town
- help young adults return to Needham and older adults and people with disabilities stay in town as their needs change

What has the impact been in other communities with ADUs?

- A survey of communities within the 495 beltway that have had these bylaws in place for a number of years found that when wisely regulated ADUs provide a viable option for the target constituents while exerting minimal impact on town services and quality of life. In fact, passage of ADU bylaws has not led to a surge of development. Quite the opposite. Towns have found it necessary to search for ways to stimulate ADU activity.
- For those who have been able to take advantage of this option, ADUs have served their intended purpose. Older adults and their children are able to share a property, an adult with a disability or their caretaker can use the ADU, or older adults are able to afford to stay in their home by renting out a unit.
- Passing an ADU bylaw encouraged owners of illegal, and possibly unsafe, units to apply for a permit and upgrade the unit to meet the code requirements.
- Moderately-priced units were added without an increase in the number of school children, traffic, or a change in appearance of the neighborhood.

What are key elements to include in ADU bylaw?

The experiences of other communities and the Massachusetts Model Bylaw are instructive and should serve as a tool to help Needham construct its ADU bylaw. Elements to be addressed include: the type of permit to require; restrictions on size; requirements for ownership and tenancy; appearance; and parking. The ADU bylaw must strike the correct balance. The majority of towns surveyed found that in order to stimulate activity it was necessary to modify the original bylaw by removing more restrictive requirements. Needham’s ADU bylaw should address major concerns while recognizing that regulations that are too stringent will inhibit development.

*Creating a Livable
Community for All Ages:*

**ACCESSORY
DWELLING UNITS**



INTERIOR ADU

Converted
basement or attic



ATTACHED ADU

On top of attached garage,
or newly constructed
addition to main house



DETACHED ADU

Converted
garage or new
construction



Why are accessory dwelling units important? They:



Increase housing options while maintaining the character of the town



Provide moderately-priced homes. When older adults in Needham were asked “if you were to consider moving out of Needham, what would impact your decision to move? 51.4% said it will be too expensive to maintain their current home



Help young and older adults and people with disabilities stay in town as their needs change. 93% of older adults in Needham reported it is somewhat, very, or extremely important for them to remain in Needham as they age



Help young adults return to Needham, independent of their parents, by providing starter homes



Increase revenue. For homeowners through rental income; for the Town through greater tax revenue generated by added value to existing homes



Decrease isolation and depression as older adults remain in the town where they have connections and live close to others

Accessory dwelling units can be allowed while addressing community concerns.

Will accessory dwelling units change the physical character of the town?

- Unlikely, as similar towns in Massachusetts have allowed accessory dwelling units without seeing a shift in the character of the town
- These units are typically spread out and hardly visible
- Design guidelines can ensure that ADUs are consistent with neighborhood architecture and designs

Will accessory dwelling units increase congestion in Needham?

Unlikely, as these units do not significantly increase population size and are typically occupied by a single person with only one car.

Will accessory dwelling units increase the number of children enrolled in schools?

Accessory dwelling units are generally occupied by individuals, rather than families.

Needham lacks affordable,
available, accessible, age-friendly
housing for its residents.

Accessory dwelling units (also
known as ADUs or in-law units)
can help mitigate this issue.

Quotes from older Needham residents:

*“It’s impossible for young people who don’t have a lot of money to stay in Needham, and it is impossible for older people to try to downsize into a smaller house in Needham.” **

*“Given the shortage of smaller homes, most of our friends who have already downsized have moved out of town. While we would prefer to remain in Needham, we are, sad to say, probably going to be forced to follow that option. Needham has yet to consider the needs of all of its citizens.” **

*“Allowing in-law apartments in housing would be a huge benefit.” **

MassCALL3 Part B

Carol Read, M.Ed., CAGS, CPS
Needham Public Health Division

Prevention Partners Meeting Presentation

Agenda September 22, 2021

- ▶ Prevention Partners ~ Regional Prevention Meeting overview Slide 3
- ▶ Prevention Partners team Dedham | Needham | Walpole | Westwood Slide 4
- ▶ BSAS MassCALL3 Program Staff Overview & Mission Slides 5&6
- ▶ BSAS Prevention Program Resources Slide 7
- ▶ MassCALL3 Part B. *Comprehensive Strategy Implementation*- Goals Slides 8-10
- ▶ Strategic Planning, Data Collection & Assessment Slide 11
- ▶ SAMHSA- Strategic Prevention Framework 5 Steps Slide 12
- ▶ Next Steps: Strategic Planning & Leadership Team expansion Slide 13
- ▶ Expanding our Prevention Partners Leadership Team* Slide 14
- ▶ ***Goal:** *Expand our reach in your communities to engage people of diverse race, ethnicities, cultures, ages (youth-seniors) and gender identities.*

Program Manager: Carol Read cread@needhamma.gov Mobile: 508-259-5043

Massachusetts Collaborative for Action, Leadership, and Learning 3 Substance Misuse Prevention Grant Program (MassCALL3)

Prevention Partners- Regional Prevention Meeting

- ▶ Welcome & Thank you!
- ▶ Introductions Public Health | Public Safety | Prevention
- ▶ MassCALL3 Part B. Awarded June 24, 2021 Needham Public Health
- ▶ Guidance Documents released August 25, 2021
- ▶ Funded: MA Department of Public Health- Bureau of Substance Addiction Services (BSAS) \$125,000 per year*

Federal Substance Abuse Prevention & Treatment Block Grant (SABG)
To plan, implement and evaluate activities to prevent and treat substance use disorders. 50 states

* A two (2) year contract through FY23 with three (3) two (2) year renewal contract options – Eight (8) years total

Prevention Partners Leadership Team Dedham- Needham- Walpole- Westwood

Building upon the work and partnership of the Norfolk County (NC8)
Public Health collaborative

MassCALL3 Leadership Team core members

- ▶ Dedham Public Health Dedham Police Department
DOSA prevention coalition: Krissy King, MPH
- ▶ Needham Public Health Needham Police Department
SPAN prevention coalition: Karen Shannon, CPS
- ▶ Walpole Public Health Walpole Police Department
- ▶ Westwood Public Health Westwood Police Department

BSAS MassCALL3 Program overview

Substance Misuse Prevention Grant Program Procurement Funding options:

Part A: Community Engagement | Capacity Building

Part B: Comprehensive Strategy Implementation – Cluster or 75,000 city

Part C: Innovative & Promising Practices – High Capacity Non-profit & Public

MA Department of Public Health ~ BSAS program

Program Leaders & Reporting Structure

- ▶ BSAS Contract Manager: Amal Marks, Prevention Program Coordinator
- ▶ Center for Strategic Prevention Support CSPS: Ben Spooner, Technical Assistance
- ▶ Social Science Research & Evaluation: SSRE: Scott Formica, PhD., Evaluator
- ▶ **Compliance requirements:** Financial accountability & Programmatic reporting (quarterly)
- ▶ **Prevention Structure mandate:**
- ▶ SAMHSA's Strategic Prevention Framework (SPF) and 8 Guiding Principles

BSAS MassCALL3 Program Mission

Commitment to equity and inclusion ~

8 Guiding Principals

Building upon the work of past BSAS prevention initiatives 1998-2020

Underage Drinking Prevention | Opioid Consumption & Overdose Prevention |
Prescription Drug Misuse Prevention | Substance of First Use/Misuse
including: MassCALL 1 & 2- SAPC- MOAPC- PFS

Equity Centered Prevention

- ▶ The MassCALL3 program is grounded in a foundational commitment to frame our work through eight (8) guiding principles. Incorporating these principals into our processes will expand the reach of our community work across our diverse populations ensuring connection to all people bridging the gaps across race, gender, ethnicity and beyond status barriers related to economics, religion, education and culture.

BSAS Prevention Program Support Resources

Text from BSAS MassCALL3 new grantee meeting agenda:

- ▶ Registration process to be added to MassCALL3 Listserv: Email request to cread@needhamma.gov and bspooner@edc.org
- ▶ Registration process for CSPS Website access <https://csps-ma.org/>
- ▶ Useful training and professional/program development resources and newsletters
- ▶ Substance Abuse and Mental Health Services Administration (SAMHSA) <https://www.samhsa.gov/>
- ▶ Community Anti-Drug Coalitions of America (CADCA) <https://www.cadca.org/>
- ▶ National Prevention Network (NPN) <http://npnconference.org/>
- ▶ Racial Equity Institute (REI)/Other Racial Equity Resources <https://www.racialequityinstitute.com/>
- ▶ BSAS Contract Manager: Amal Marks amal.marks@mass.gov
- ▶ Assistant Director Prevention Unit: Fernando Perfas Fernando.Perfas@mass.gov
- ▶ Lead Program Coordinator Prevention Unit: Andy Robinson andrew.Robinson@state.ma.us
- ▶ *MassCALL3 program guidance documents attached to Leadership Team email and online at: <https://csps-ma.org/node/5812>*

Overview: MassCALL3 Part B

Goal: To prevent misuse of substances of first use (e.g., alcohol, nicotine, cannabis) among youth.

MassCALL3 RFR text:

Part B – Comprehensive Strategy Implementation:

- ▶ This sub-initiative is intended for communities with existing capacity, infrastructure, and experience implementing a systematic public health planning process and/or implementing a comprehensive set of evidence-based prevention programs, policies, and practices. *Ideal applicants* are those that have the infrastructure, systems, and partnerships in place to support implementation of a comprehensive, multi-domain set of prevention services directed at youth, those who interact with youth, and the environments in which they live.

MassCALL3 New Grantee Meeting slide text
SSRE State Cross Site Evaluation Scott Formica, Ph.D.

The goals for MassCALL3 –Part B are for awardees to:

Goal 1 (Prevent Use/Misuse). Prevent and/or reduce use and misuse of substances of first use/misuse (e.g., alcohol, nicotine, cannabis) among youth.

Goal 2 (Prevention Infrastructure). Increase the number of municipalities implementing a systematic public health planning process and adopting a comprehensive approach to substance use/misuse prevention.

Goal 3 (Evidence-Informed). Increase the utilization of evidence-informed prevention programs, policies, and practices.

Goal 4 (Data-Informed). Increase and enhance the collection and utilization of local data sources (both qualitative and quantitative) to assist in the assessment, planning, and evaluation of substance use or misuse prevention strategies.

MassCALL3 Part B ~ Operations & Programing

8 Guiding Principles

MassCALL3 RFR text: *To achieve these goals, funded programs are expected to incorporate the following principles into their operations and programming:*

- ▶ Principle 1. Racial Equity
- ▶ Principle 2. Trauma-informed service provision
- ▶ Principle 3. Positive Youth Development
- ▶ Principle 4. Intersectionality
- ▶ Principle 5. Cultural Humility
- ▶ Principle 6. Restorative Justice
- ▶ Principle 7. Collective Impact
- ▶ Principle 8. Build and sustain the leadership of people of color

Strategic Planning ~ 10 months

Data Collection and Assessment

- ▶ Strategic Prevention Framework (SPF) To understand substance misuse and behavioral health issues within the context of environment.
- ▶ 5 Steps: Assessment- Capacity- Planning- Implementation- Evaluation
- ▶ 2 Guiding Principals: Sustainability and Cultural Humility
- ▶ Data collection: Qualitative Quantitative – **Each town**
- ▶ Key Stakeholder Interviews | Focus Groups
- ▶ Youth risk surveys | Hospital ED data | Police incident data
- ▶ Census data- Demographic information
- ▶ Analyze data ~ Evaluate trends ~ Identify Risk factors Intervening Variables ~ A regional group process based on SAMHSA criteria.

Strategic Prevention Framework

Supports Accountability, Capacity, and Effectiveness



Assessment

Profile population needs, resources, and readiness to address needs and gaps

Capacity

Mobilize and/or build capacity to address needs

Planning

Develop a Comprehensive Strategic Plan

Implementation

Implement evidence-based prevention programs and activities

Evaluation

Monitor, evaluate, sustain, and improve or replace those that fail

Moving Forward ~ Next Steps

Your input going forward ~ Strategic Planning and Leadership Team expansion

- ▶ Core member Leadership Team **monthly Zoom meetings** 45-60 minutes
- ▶ Day and time options??
- ▶ Your participation? Designated staff?
- ▶ **Expanding our Leadership Team membership ~ Equity and Inclusion**
- ▶ **Beyond town staff ~ Expanding our reach**
- ▶ Can you refer residents and key stakeholder representatives from your towns?
- ▶ Can you refer youth from your towns?
- ▶ *Outreach text reference: our email text to you as we prepared the MassCALL3 Part B grant application, overview copied on the next slide,*

Expanding our Prevention Partners Leadership Team

Goal: Expand our reach in your communities to engage people of diverse race, ethnicities, cultures, ages (youth-seniors) and gender identities.

- ▶ To support a diverse representation on our prevention efforts and in accordance with BSAS's MassCALL3 guiding principles we have committed to **expanding** the grant leadership team to include **community representatives** from people of color. These communities have historically been underrepresented in our decision-making bodies, though they are vital parts of our communities. BSAS has rightly drawn attention to the principle of “nothing about us without us”, an expression which was first introduced in America by disability advocates in the 1990s, and BSAS directs all grantees to build prevention efforts around this principle. Additionally, as this program is focused on youth substance use prevention, we are also committed to welcoming **youth representatives** to the leadership team, likely one youth representative from each of the four towns.
- ▶ The expected time commitment from Leadership Team members is for participation in a virtual meeting of approximately 90 minutes a month for the first year of the grant.
- ▶ **Community representative nominations**
- ▶ To meaningfully integrate these principles into our prevention programming, we are asking **each town** to nominate **one to two** individuals who identify as Black and/or Indigenous People of Color (BIPOC) and **an additional one or two** individuals who identify as Latinx to participate on the Leadership Team.
- ▶ Members of this board ideally do not already hold positions of power within the town, as we are aiming to bring more marginalized voices to the center. We encourage everyone to recruit beyond the usual channels to draw in people who may not otherwise be involved in town initiatives.
- ▶ **Community representatives who are not employees of municipalities or schools** will receive a **quarterly stipend of \$150 each (\$600 annually per person)**. This stipend is an acknowledgment that more so than just volunteering their time, these community representatives are lending their expertise and wisdom as members of historically marginalized communities, as well as their intellectual and emotional labor.

LEGAL NOTICE

At a public meeting to be held on September 23, 2021, the Board of Health of the Town of Needham, County of Norfolk, Massachusetts, acting under the authority of Chapter 111, Section 31 of the Massachusetts General Laws will be considering revisions to Article 1, Regulation Affecting Smoking and the Sale and Distribution of Tobacco Products and Article 12, Rules and Regulations for the Registration and Construction of Private Water Supplies in Needham, in the interest of, and for the preservation of, the public health. This summary shall serve as notice to all.

Revise Article 1, "Regulation Affecting Smoking and the Sale and Distribution of Tobacco Products in Needham," to update the "person" definition. This regulation was last revised in April 2021.

Revise Article 12, "Rules and Regulations for the Registration and Construction of Private Water Supplies," which was last revised in April 1998. The Board will consider adding Geothermal type wells to the regulation, along with other regulation updates.

AD# 13977176

Needham Times 9/9, 9/16/21

BOH/REVISIONS

LEGAL NOTICE

At a public meeting held on September 23, 2021, the Board of Health of the Town of Needham, County of Norfolk, Massachusetts, acting under the authority of Chapter 111, Section 31 of the Massachusetts General Laws adopted revisions to Article 1, Regulation Affecting Smoking and the Sale and Distribution of Tobacco Products and Article 12, Rules and Regulations for the Registration and Construction of Private Water Supplies in Needham, in the interest of, and for the preservation of, the public health. This summary shall serve as notice to all.

Revised Article 1, "Regulation Affecting Smoking and the Sale and Distribution of Tobacco Products in Needham," which was last revised in April 2021, to update the "person" definition in the existing regulation.

Revised Article 12, "Rules and Regulations for the Registration and Construction of Private Water Supplies," which was last revised in April 1998, to add Geothermal type wells to the regulation, along with other regulation updates.

The revisions will take effect on October 15, 2021.

AD#13986286

Needham Times 9/30, 10/7/21

Nutritionally Needham Healthy Eating Week upcoming

Needham Public Health has announced that it will host its second annual Nutritionally Needham Healthy Eating Week from October 3 – 9. Nutritionally Needham is a week-long, community-based initiative designed to raise awareness of the connection between food choices, health, and the environment.

Nutritionally Needham partners with local food establishments and farms to highlight healthy menu options that meet dietitian-approved nutrition guidelines. Restaurants across Needham will highlight healthy menu items that include whole grains, fruits, vegetables, and lean proteins. In addition, many local restaurants offer plant-forward dishes that have little to no animal products, which have many benefits to human health and the planet.

You can find a list of participating

restaurants and other food establishments at www.tinyurl.com/nutritionallyneedham21.

On average, Americans spend \$3,526 eating out per year, which accounts for 42 percent of total food expenditures (U.S Bureau of Labor Statistics, 2019). While eating out can be fun and convenient, studies have shown that these foods are often less nutritionally dense and higher in sugar, saturated fat, and calories. However, dining out can still be a tasty and nutritious experience if you are mindful and equipped with helpful nutrition knowledge.

Interested in participating? Nutritionally Needham kicks off October 3 at the Harvest Fair. There will be cooking demonstrations, taste testing, and recipe hand-outs highlighting Needham's farm-fresh produce. Then, visit one of Needham's local

participating restaurants and order from the Nutritionally Needham Approved Menu from October 3 -9.

Visit www.tinyurl.com/nutritionallyneedham21 more information and resources.



SPAN receives \$50k grant to address youth alcohol use

COURTESY OF NEEDHAM PUBLIC HEALTH DIVISION

The Substance Prevention Alliance of Needham recently announced it received a \$50,000 grant from the Substance Abuse and Mental Health Services Administration to address youth alcohol use.

The federal grant is known as the Sober Truth on Preventing Underage Drinking Act grant, or the STOP Act grant. The goal of the four-year STOP

Act grant is to prevent and reduce alcohol use among youth and young adults ages 12 to 20 in Needham.

The activities implemented by this project will aim to address community norms regarding alcohol use by youth, reduce opportunities for underage drinking by limiting youth access to alcohol, create changes in underage drinking enforcement efforts, address penalties for underage use and reduce the prevalence of negative consequences associated with underage drinking. In

addition, SPAN will build on strategic plans that were developed under the Drug Free Communities grant which was awarded to Needham for 10 years.

"As we have learned from the MetroWest Adolescent Health Survey data over the years, there is underage drinking in Needham. The good news is that past 30-day use tells us that 71% of high schoolers have not used alcohol, said Karen Shannon, program director in the Needham Public Health Division. "We will work with law enforcement and oth-

er community stakeholders to create strategies to enhance the work already underway from DFC funds."

SPAN is a community coalition that works to implement strategies for youth substance use prevention. Drawing on the strengths of a civic-minded and collaborative community, SPAN offers Needham residents education, support and resources for navigating substance use and misuse among youth. For more information about SPAN, visit <https://spanneedham.org>.