The Massachusetts Mother’s Day Floods

by Frank Singleton
Director, Lowell Health Dept.

The impact of a regional disaster requires a different response from a localized disaster. Lessons learned from these floods taught the need to plan ahead for events that begin slowly at first and then accelerate rapidly and require deployment of resources for a long period of time. Most emergency response deals with single events and are managed in a short time frame, although the recovery phase may be long, the emergency activation phase is usually less than a day up to several days. These floods demonstrated that a response to an event which took place over a 10 day period, before the emergency subsided into recovery, requires a different way of doing business.

In my role as Health Director in Lowell, I am the Health Department liaison to the municipal EOC (Emergency Operations Center). That liaison role is activated for large scale scheduled events such as the Lowell Folk Festival and for unpredictable weather related events such as a heat wave or a winter storm. Rotation of staff for this liaison function is not a major issue because the duration of these events are either short or are preplanned. Staffing a response for 10 days turns out to be a different challenge because, in the case of a city run shelter, staffing was 24/7 and the public health response by inspectors and public health nurses was 7 days a week with extended hours.

A function that is often overlooked at the EOC is what is called ESF (Emergency Support Function) 8. This is the public health job description for the public health role. The state CEMP (Comprehensive Emergency Management Plan) lists all of the ESF functions and assigns specific agencies to each function. In the case of ESF 8 at the state level, the designated agency is the MDPH. However, the local
Getting the word out quickly: Unresolved Issues in Risk Communication

by Ravi Nadkarni, President MAHB
member Wrentham BOH

Massachusetts Boards of Health and their agents have been undergoing training over the past two years to more effectively respond to health emergencies caused by bioterrorism incidents, natural disasters or a flu pandemic. Proper communications are an important part of this training. The key point is to speak with one voice through a designated person, and to provide accurate information to control misinformation and panic. Information theory teaches us that for a signal to be received, one needs to examine how the signal is generated, how it is transmitted and how it is received. The training that I have seen focuses mainly on how to generate the proper information and how to broadcast it. This article will examine the other portion of this equation: how to transmit the signal so that it is received by most if not all intended recipients.

Common modes for transmitting messages are: use local newspapers, use local (statewide) TV Channels, use Cable Access and so on. Most of these approaches get the word out within 24 hours. Sometimes, they might broadcast the message sooner, but it takes a while for the majority of the public to receive it. The following example, based on an actual incident, illustrates why sometimes, this is not enough. In a Massachusetts town with municipal water supply from a well, a painting contractor was painting the pump station building with a solvent-based epoxy paint. The well pump was not turned off during this period and solvent fumes were absorbed into the drinking water. It was determined that this solvent was present in dangerous concentrations. It was imperative to stop the people from using this water; not only to stop them from drinking it but also to stop them using it for other uses. (Often, more of a solvent is absorbed during a hot shower than would be ingested by drinking the water.) The normal modes of communications did not get the word out for 24 hours and many people missed the information for even longer periods of time. Many said they received the information only from their neighbors via the telephone. In retrospect, after...
In 2005, the Coalition for Local Public Health, (MAHB, MPHA, MEHA, MHOA & MAPHN) surveyed the local public health workforce. The results of this MDPH-funded project are posted on our website.

**Public Health Profile**

Apart from the issue of survey fatigue, there are two problems with surveys. One, the people who fill them out rarely get any feedback and two, by the time the data is collected and published, it is obsolete. MAHB is undertaking an online Public Health Profile which addresses these problems.

- The data is immediately accessible to contributors.
- Local boards of health and/or their staff can make and track changes on an annual basis and compare data from one year to another.
- Contributors can view and compare data from other communities.
- This information will be useful for public education and making the case for better funding of local public health.

**Life Defined by Data!**

All too often I am urgently asked questions for which there is no accurate answer. How many doctors serve on boards of health? How many boards of health are elected? How many towns have public health nurses? How does my town's public health budget compare with others? With your participation, we will soon have answers to these and other questions.

Converting this vision to reality was technically challenging. After exploring several options, MAHB contracted with a company to provide a custom database for our website. One important criterion was ease of use. This will only be effective if boards of health claim ownership of the data and maintain accuracy! The prime directive was to make it easier to complete than a paper survey. It should be ready for use by late October.

MAHB also embarked on a painfully bumpy road to Web-based membership forms. Last spring, after much research, I settled on a company that promised flexibility, ease of use, and a commitment to working with nonprofits. Suffice to say that after one month it was apparent that the system was not intuitive, flexible or user friendly. When I cancelled the contract, the company conceded every point raised about the failures of their system and asked for another chance with a totally reprogrammed membership module. Many additional hours were spent assisting their effort. Instead of a two week turnaround, we were at mid September, with the new setup still at a pre-beta stage of development. So it was back to the drawing board, or in this case, to the same contractor who is creating our Public Health Profile. This is a more costly approach, but will result in better integration, with a single login and password for each health department which can be shared by anyone listed in the profile.

However, because of the delay, I do not have an accurate membership address list. Please log on to our members page and make any needed changes to the 05 membership information, so future issues of this Journal will find their way to board members and staff!

Throughout the year you will be able to log on, check membership status, edit names and addresses, print out invoices and register for certification programs. You can also go online to confirm paper registration or change a workshop location. I've lost a lot of sleep over this, but in the end it will be worth all the angst! My goal was to devise a site where local health members and staff feel "at home", can easily keep the directory up to date and thus improve communications.

**MAHB Web Board** - Our new message board provides an opportunity for the entire public health community to share ideas. Subscribe now through our website and choose to receive messages as email, or just view online.

**GRANT OPPORTUNITY** - Thanks to a grant from the Harvard School of Public Health, MAHB is able to offer FULL scholarships for the Fall Certification Program. Preference will be given to those who have never attended, or who do not have a training budget. Contact me for details!

Marcia Elizabeth Benes
CEMP that each municipality is mandated to have by state law may not have a local version of the ESF function. A strong recommendation is to review your local Plan and read or develop a local version of ESF 8. The liaison role at the EOC requires that you be able to organize and deploy public health responses during an emergency or disaster when such a response is required.

The problem is that we are not accustomed to having to formulate a response for most local emergencies or disasters because the public health role locally is minimal and can be handled by contacting your office who are continuing to operate normally or by coordinating information with the MDPH. During the Merrimac floods, this was not the case. All of a sudden, public health had a major role to play in both sheltering and in environmental health and this role required coordination over an extended time period. You cannot do that from an EOC. You have to have a public health emergency center following Incident Command principles at your office to plan and coordinate the deployment and the support of staff. If you want to get subsequent reimbursement from FEMA and MEMA, you need to keep good records of your expenses even if in the middle of events this seems to be an unnecessary burden.

One lesson we learned among many is the need to plan for a coordinated local health regional response. Few local health departments have the depth of staff to rotate through an EOC that may remain open for days or weeks and few departments have sufficient staff to deploy and track staff for an extended period. Locally, our Upper Merrimac Valley Coalition is developing a regional all hazard public health emergency plan to deal with this issue. A pandemic is not the only long term event that we face as these floods demonstrated. Think what would result from the local impact of a 1938 type hurricane or a local version of Hurricane Andrew in Florida and plan to be deployed for weeks, not days. If we do not build a regional response to share the load, we will collapse into exhaustion and fail to meet our obligations.

Another issue, besides being organized and being prepared to operate locally without a lot of assistance or support from the MDPH is that you may be called to do things you have not planned for but are being handed to you because of the lack of availability of a sister support function. The floods were in southern New Hampshire as well as in the Merrimac Valley. ESF 6 is called Mass Sheltering and the designated Agency is the American Red Cross. The local Chapter, located in Haverhill was overwhelmed by the sheer volume of requests from numerous municipalities for staffing and support. As a result, many local municipalities were forced to operate their own shelters.

In the case of Lowell, I was contacted by the EOC to come in early Monday morning and was assigned the duty of assessing two shelters that had been set up in predetermined locations at the High School and the Senior Center. Our local public health emergency plan (the so called MHOA Template), as well as the City’s CEMP, designated, as does the state ESF 6, the responsibility of operating mass shelters to the American Red Cross. Local public health was relegated to a support role; not to actually staff and operate a mass shelter.

The Red Cross was not able to support a multiple staffing deployment throughout the region. As a result, the City Health Department staffed, the High School, using school and public health nurses and the regional Medical Reserve Corps assisted the Senior Center. We consolidated all shelter operations into the Senior Center after two days and that shelter remained open 24 hours a day for 10 consecutive days. The staff and the management of the Senior Center were critical in maintaining this facility, with the help of our designated ambulance company, fire and police detachments and advice from local nonprofits and the few Red Cross volunteers who were available. The need to deal with sheltering special medical need populations was and is a major gap that needs plugging. The region also faced a major evacuation of a nursing home, again, this issue needs a lot more attention.

So, be prepared to be flexible even if your plan or the municipal plan assigns a given function to someone else. This essay would not be complete if I did not point out that local health will also have to deal with a mass fatality situation in a pandemic or major weather event. As with mass sheltering, you may have a much larger role in that area than you presently have planned!
Now, what were the lessons learned from the Merrimac Valley flood?

The lessons are as follows and start with communication. The existing technology was not used by the state for the most part reducing most of us to reading the papers or the televised news. MEMA had situational reports through webEOC but did not distribute them. If you had access to webEOC and knew how to find them on the menu, they were available, but most of us were not on the web EOC or knew they were there. MEMA also seemed reluctant at our recent regional public health AAR on the floods to distribute them through a secondary channel such as the HHAN. They also did not want wide access directly to webEOC because it would slow down the software.

As a result, these important regional overviews were not available to departments such as mine and I was reduced to reading the Globe and watching TV news to get a regional overview of the impact and state plans and actions. Mass.GOV was for the most part silent except for generic postings from various sites on flood dangers and a plea to support the Red Cross. The exception was DEP who not only called us directly but posted concrete and specific regulatory waivers and information on direct assistance for such things as oil spills. They also deployed actual contractors to provide clean up services. MDPH never called local health departments to check on the local situation.

The lack of a regional command, control and communicate function at MDPH, in addition to an almost complete lack of communication for 10 days from any source was very noticeable. The regional MEMA office and the Bunker may have been in communication with each other on ESF 8 and 6 but they weren’t communicating with local health departments. A more serious event would have overwhelmed the NE Regional office phones, which are often saturated on the best of days. The same thing would have happened at the Lab, except we basically handled our response locally. This may work for a flood but not a bioterrorism attack or a pandemic.

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Outside help was not brought in from unimpacted regions. We needed food inspectors, for example to survey flooded establishments and all call for mutual aid was among the impacted communities. Again, there was no command and control from the Bunker or from the MDPH liaisons and the MDPH did not set up an incident command center to track and manage public health activities. As a result, we had to chase people at their desks; there was no central IC to call. Our regional preparedness coordinator had his cell phone break and was not allowed to replace it on an emergency basis. As a result, he could only be contacted when he was at his desk and only if the phone system at the NE Regional office was not saturated with incoming or outgoing calls.

When the state deployed their disaster relief center using MDPH personnel, there was no attempt to link with the local health department or even call. We read about the location in the newspaper. The duties and the materiel distributed at these centers were not well thought out and this deployment appeared to us to be more a public relation exercise by MDPH than a well developed plan to assist, especially when they bypassed the local health departments completely. A coordinated joint approach would have been much more effective.

Finally, something needs to be done about shelters. The Red Cross was essentially unavailable and their ESF 6 responsibility does not deal with special populations, medical care or pets. We had to deploy at our Senior Center for 10 days using school and public health nurses, EMTs etc. We had pharmacy issues, medical cot issues and, again, no guidance from the state. Mental health would have been very helpful, it was never offered although we found out afterwards it was available.
4. The Athol Board of Health regulation did not violate the Civil Rights Act.

Background: In 2004, the Massachusetts Legislature re-wrote the state law that prohibited smoking by expanding the law to "protect the health of the employees of the commonwealth." The law prohibits smoking in all enclosed workplaces, both private and public. However, it also provides that smoking "may be permitted in nine places, including "premises occupied by a membership association" under certain conditions.

This smoke-free workplace law contains what is commonly referred to as an "anti-preemption" clause which states that "[n]othing . . . shall permit smoking in an area in which smoking is or may hereafter be prohibited by law, including, without limitation: any other law or ordinance or by-law or any fire, health or safety regulation. Nothing . . . shall preempt further limitation of smoking by the commonwealth or any department, agency or political subdivision of the commonwealth." After the enactment of the state law, the Athol Board of Health adopted a local regulation that was stricter than the state law because it prohibited smoking in membership associations/private clubs. The regulation was promulgated based upon local board of health authority to enact reasonable health regulations pursuant to G.L. c. 111, § 31.

After the enactment of the state law, the Athol Board of Health adopted a local regulation that was stricter than the state law because it prohibited smoking in membership associations/private clubs. The regulation was promulgated based upon local board of health authority to enact reasonable health regulations pursuant to G.L. c. 111, § 31.

The Court summarily rejected the plaintiffs’ argument that because they were private clubs, they were somehow exempt from public health regulations. "The focus of public health is to protect the health of every member of a community." The location of where the behavior occurs is irrelevant. "Nothing in G.L. c. 111, § 31, or our prior case law warrants a conclusion that members of a community may be protected by health regulations only when they are in a location to which the public has access."

2. The Statewide Smoke-Free Workplace Law, G.L. c. 270, § 22 did not preempt the Athol Board of Health’s authority pursuant to G.L. c. 111, § 31.

The Court looked at the specific antipreemption language identified above, as well as the specific antipreemption language in the Department of Public Health’s regulations that further define the places and circumstances where smoking may be allowed, and concluded that "[t]he intention of the Legislature could not [have been] more clear: the language of the statute itself defeats any claim of preemption." The Court noted that the statute defines places where no smoking shall be permitted and places where smoking may be permitted.

"The enumerated circumstances in which smoking ‘may’ be permitted are not ‘exempt’ from the statute, as the [lower court] judge ruled. . . To the contrary, these places and circumstances (including membership associations) ‘may’ be subject to stricter regulations on smoking by municipalities and their boards of health."
The Court states that the town regulation complimented the state law by augmenting it, and was not in conflict with it. A conflict would appear only when the purpose of the state law could not be achieved in light of the local regulation.

3. The Athol Board of Health regulation was not vague or overbroad and did not violate any constitutionally protected privacy right, right to assemble, right to the free exercise of religion or due process rights.

While the Court did not need to address any of the constitutional claims raised because the plaintiffs failed to address any of these claims in their brief, the Court addressed “the constitutional claims likely to arise in similar challenges to local antismoking regulations.” The Court found no merit to these claims.

First, the Court held that just because the local regulation contained criminal penalties did not automatically make it vague. “The town regulation is sufficiently explicit to inform the plaintiffs of conduct that could subject them to criminal penalties.” They simply could not smoke in places where smoking was prohibited.

The Court dismissed the plaintiffs’ argument that, because their premises were not open to the public the regulation constituted an invasion of their privacy. The constitutional right to privacy “... protects the invasion of some personal aspect of an individual, not a location.”

The plaintiffs’ allegation that the regulation somehow violated their right to assemble freely was also summarily dismissed by the Court. “The freedom of association encompasses ‘the right to enter into and maintain certain intimate human relationships,’ and a right ‘to associate for the purpose of engaging in those activities protected by the First Amendment – speech, assembly . . .’” The regulation did not infringe on the members’ right to maintain relationships or engage in constitutionally protected First Amendment rights. The Court also held that the regulation did not prohibit members’ freedom of religion.

The plaintiffs’ claim that they were denied due process because they were not given notice before the regulation was enacted was dismissed by the Court as well. G.L. c. 111, § 31 does not require a hearing for this type of regulation. It was not clear from the record of the case whether the board published the regulation; however, even if the board failed to publish the regulation after adopting it, “the plaintiffs have not alleged that they were harmed in any respect by any failure of the board to publish the regulation.”

4. The Athol Board of Health regulation did not violate the Civil Rights Act.

While, it is not clear whether the Civil Rights Act applies to municipalities, the Court addressed the argument, and concluded that the plaintiffs did not prove that “(1) their exercise or enjoyment of rights secured by the Constitution . . . (2) have been interfered with . . . , and (3) that the interference or attempted interference was by ‘threats, intimidation or coercion.’” The plaintiffs simply failed to establish that the regulation interfered with any of their constitutional rights.

Conclusion: For all of the above-stated reasons, the Supreme Judicial Court vacated the Worcester Superior Court decision and upheld the Athol Board of Health’s authority to prohibit smoking in private clubs/membership associations. This decision is the latest in a long line of Supreme Judicial Court decisions that underscore the broad powers afforded to local boards of health. The Court makes it clear, through this decision that the focus of public health is to protect the health of every member of the community, regardless of the location.

(Endnotes) 1 American Lithuanian Naturalization Club, Athol, Mass., Inc., & others v. Board of Health of Athol & another, 446 Mass. 310, 314(2006). 2 G.L. c. 270, §22(2) (). 3 G.L. c. 270, §22(j). 4 American Lithuanian Naturalization Club, Athol, Mass., Inc., 446 Mass. 310 at 318. 5 Id. 6 Id. at 319. 7 Id. 8 Id. at 321. 9 Id. 10 Id. at 322. 11 Id. at 324. 12 Id. at 323. 13 Id. at 324. 14 Id. at 325. The only claim remanded to the Superior Court was the plaintiffs’ claim that the regulation constituted a “taking” without just compensation. This claim was not argued by the plaintiffs in the lower court. The Town of Athol argued on appeal that there were insufficient facts on the record to address the claim. Assuming for the purposes of argument that there were sufficient facts, the takings argument would also fail. D.A.B.E., Inc .v. City of Toledo , 292 F. Supp.2d 968 (N.D. Ohio 2003). The author understands that the plaintiffs’ are not pursuing this claim in the lower court. 16 See, footnote 15.
Public health officials are finding themselves at an unlikely spot – their local planning boards. With obesity, asthma, and traffic fatalities on the rise in Massachusetts, public health boards are looking to community design as part of a holistic strategy to boost active living, address air pollution, and reduce traffic injuries and deaths.

**Designing for Cars, Not People**

**Obesity.** A few years back, Business Week wrote that: “We're the quirky civilization that rides elevators to the second floor and buys electronic stairstepers to condition our thighs. We drive to convenience stores and hurry back to our treadmills. Yes, we rely on machines to save us from working, then busy other machines to save our bodies from the terminal flab.”

However, we know too well that not everyone gets on those stairmasters and treadmills. While Americans have not gotten enough exercise in their leisure time for decades, what has changed is the amount many get while going about their daily lives. As houses, jobs, and shopping become more spread out – a trend coined as “sprawl” - driving has become the only way to get from place to place. In fact, it is likely that your parents walked to school and your children don't: 71% of the parents of school-aged children surveyed in a recent study reported that they walked or biked to school when they were young; only 18% said that their children do1. Research cites the lack of physical activity as a culprit in exacerbating obesity and its associated health problems.

**Asthma.** Obesity is not the only public health risk we assume because many of our communities are engineered more for cars than for people. The total amount of miles Massachusetts residents drove increased 75% from 1970 to 2000. MassInc recently reported that one in five workers face a daily roundtrip commute of at least an hour and a half. As people drive more miles in more cars, automobile emissions increase, even taking into account cleaner fuels and more efficient vehicles. Localized pollutants, such as carbon monoxide and particulate matter, and regional pollutants, such as fine particulates and ozone, cause a variety of respiratory ailments, among other medical problems.

**Traffic Fatalities.** Traffic crashes are the leading cause of death for people ages 1 to 42, and cars pose a substantially greater danger to pedestrians and cyclists than to drivers and passengers. This danger is, of course, increased when there are more cars on the road. The public health impact of traffic fatalities and injuries does not stop with the fatalities themselves – the perceived danger acts as a disincentive for those interested in walking or biking to their destinations, and thus further dampens physical activity.

**How Smarter Growth Can Improve Public Health**

“Communities can be shaped by choice, or they can be shaped by chance,” says Richard Moe of the National Trust for Historic Preservation. “We can keep on accepting the kinds of communities we get, or we can start creating the kinds of communities we want.” Recently, smart growth advocates are joining forces with public health officials to figure out how we can design our communities so that activity is integrated into our daily activities, rather than engineered out. Here are a few strategies:

**Mix Land Uses and Cluster Development.** First and foremost, we can plan to cluster homes, jobs, parks, and shopping together so that most daily activities are within an easy walk or bike ride. Building compact, mixed-use communities also provide the density necessary to support public transportation, help guide development away from virgin natural areas, thus providing more recreational opportunities for the state’s residents, and foster a sense of community, and in many cases, safety, if well-designed.
Create Better Transportation Choices. By planning our communities to help residents get around in more ways than in their car, we can boost physical activity and reduce air pollution related to vehicle emissions. This can be accomplished in several ways. First, we can promote efficient, convenient and safe public transportation in places where many people live and work. Second, in places with public transit, we can promote the development of housing and commercial space near transit stations, a strategy called transit-oriented development. Third, we should ensure that all of our roads have safe accommodations for pedestrians and cyclists so that, over time, these transportation options become safer and easier to choose.

Develop Safe Routes to School. The highest level of traffic during the weekday is at school bell times – when school begins and ends – because most parents drive their children to and from school. Some states around the country have Safe Routes to School programs that build the walking and biking facilities that kids need to safely get to school and educate children and parents about how to safely walk and bike and the importance of changing travel behavior.

Evaluations of existing Safe Routes to School programs have shown that when more kids walk and bike to school, the amount of physical exercise children get increases, and school performance and self-image improves. Unfortunately, the bill proposing and funding a statewide program in Massachusetts has stalled in the legislature.

What You Can Do

Locally. Growth and development decisions that affect our health are being made in our communities all the time. As someone in the public health field, your voice carries weight. You can help shape your community’s development by getting to know your city or town planner – if you have one – and your local planning board. (To find the contact information of planning board members and meeting schedules, go to www.mass.gov and click on your municipality’s website.) Ask them what new developments are being proposed. Find out how best to comment on these developments. A great toolkit exists on the Executive Office of Environmental Affairs’ website that can provide you with tools to improve existing developments as well as help shape overall growth patterns in your community: www.mass.gov/envir/sgtk.htm.

Statewide. Your voice is needed at the state level, too. The state’s investment decisions, regulations, and incentives set the framework for how development happens at the local and regional level. The Massachusetts Smart Growth Alliance, a coalition of housing, environment, transportation, and planning organizations, is advancing several smart growth policy reforms at the state level. We have just won a campaign to recapitalize a fund that makes it easier to clean-up old contaminated industrial sites and turn them from blight into neighborhood housing and jobs. This next year, we could use your help on two proposals:

- Reform the Commonwealth’s zoning laws to promote compact housing, reduce sprawl and save natural areas. Massachusetts has one of the most out-dated zoning codes in the country, with many provisions that ensure single-use zoning, cookie cutter subdivisions, and unchecked sprawl. We are working on crafting solutions that guide development towards appropriate places, encourage housing construction, and protect significant natural areas.

- Transportation finance. As many who use public transportation know, our system in the Commonwealth is crumbling and inadequate. The MBTA is struggling to maintain basic service under a crippling debt load and Regional Transportation Authorities are just barely getting by. We need to completely reexamine our sources of funding for transportation and get creative so that we can have better transit service, more of it, and better walking and biking trails and facilities. We are looking to add public health voices to the chorus of supporters for smart growth reforms. If you are interested in becoming a part of our Citizen Action Network and receiving our monthly e-newsletter, send an email to Jessie@ma-smartgrowth.org with “subscribe” in the subject line.
**Local Health Boards are currently faced with the daunting task of recruiting and training significant numbers of emergency healthcare volunteers as a precaution against the real possibility of pandemic influenza or bioterrorism. In the event of such emergencies, trained volunteers would work with local health authorities to support medical surge capacity through mass prophylaxis, staffing emergency dispensing sites, public education, and care for the sick.**

The sheer number of volunteers this could require is staggering. For example, Plymouth is anticipating a need for 1,000 healthcare volunteers. How can communities begin to find this many healthcare volunteers?

One generally untapped volunteer pool has been identified by some communities, but overlooked by most. It is a community’s local complementary/alternative medicine (CAM) practitioners, such as massage therapists, chiropractors, and acupuncturists:

- CAM use in Massachusetts if common and widespread, and CAM practitioners working in the Commonwealth number in the thousands;
- Many of these practitioners have advanced degrees and have had basic medical or first aid training;
- Many are concerned with the threat of a flu pandemic striking their community, want to know how to protect themselves and their clients, and want to be of service.

A common way in which CAM practitioners have been integrated into local disaster relief efforts has been through the Medical Reserve Corps (MRC), which has welcomed massage therapists and other CAM practitioners into their ranks of volunteer healthcare professionals in Massachusetts and across the country, with great results.

For example, the Amherst Medical Reserve Corps includes nurses, physicians—and massage therapists. Its members are committed to training to support medical or public health emergency related operations, including Emergency Dispensing Site Operations, clinics, household emergency preparedness education, and community outreach.

Other MRCs across the country have gone even further in involving CAM practitioners. For example, the South West Florida MRC has established a Massage Therapy Strike Team composed of 10 licensed massage therapists, and has been active in hurricane relief efforts. The Team is trained to provide massage therapy relief to first responders, shelter workers, and disaster survivors.*

Local Health Boards should consider these issues when recruiting CAM practitioners as healthcare volunteers.

- **Certain CAM professions have a track record of responding to disasters.** For example, in the wake of Hurricane Katrina, massage therapists and acupuncturists were part of Medical Reserve Corps units and other disaster response teams that headed for the Gulf to provide relief. CAM practitioners who provide disaster relief typically have done so in the form of helping victims suffering from pain conditions or PTSD, and providing care to emergency workers suffering from exhaustion and burn-out.

- **Some CAM practitioners have had medical training, some have not.** Typically, chiropractors and acupuncturists have taken at least pre-med courses to graduate from their programs. Massage therapists commonly have a basic understanding of anatomy and physiology and have completed basic first aid/CPR training as a certification requirement. Other CAM professionals such as herbalists or energy healers work in unlicensed professions which do not typically involve any conventional medical training, although a significant number are former nurses.

- **If local health services are overwhelmed in a flu pandemic, citizens will inevitably turn to CAM practitioners seeking relief, so building ...**
bridges to these professions should be part of your town's pandemic planning. During the first wave of a severe flu pandemic, when a vaccine and effective antiviral drugs are likely to be nonexistent or tightly rationed, it is not difficult to imagine that those people unable to receive adequate conventional medical care will seek alternatives. Whether CAM practitioners are integrated into your community’s surveillance and first-case notification system, whether they are practicing proper precautions against catching and spreading the flu virus, and whether they are providing useful and sensible (or at least unharmful) health information to their clients will depend largely on whether you have acknowledged the existence of these local practitioners, both licensed and unlicensed, in your pandemic planning. Offering certain CAM practitioners opportunities to volunteer and train in pandemic preparedness can provide a useful conduit for dissemination of vital healthcare information to their fellow CAM practitioners, and for identifying those practitioners who, in a pandemic, are practicing unethically (e.g. selling “cure-alls”) or in a manner that endangers the public’s health.

Here are some useful tips for how to approach CAM practitioners in your community:

· Approach them through their professional networks, schools, and other hubs. For example, members of South West Florida MRC’s Massage Therapy Strike Team described above were recruited when the MRC’s Executive Director spoke to the local chapter of the state’s massage therapy organization, and to students and faculty of a local massage school. Most Massachusetts communities have holistic healthcare centers that can provide appropriate venues for this kind of recruitment.

· Place them in positions suited to their skills that meet your real needs. Rather than lament an inevitable shortage of doctors and nurses in a flu pandemic, examine instead the variety of skills you will need to have on hand and consider whether certain CAM practitioners may already have those skills or be trainable. Many acupuncturists, for example, have completed their studies at the Masters Degree level, and are likely able to learn various medical procedures outside their regular scope of practice, such as vaccination. But also respect that CAM practitioners have much experience caring for people suffering from pain or stress, which in a disaster will of course be endemic, and they will likely want to serve in this capacity as well.

· Offer them training, offer them respect. A great recruitment incentive for CAM practitioners is to offer them free training as a benefit of joining your volunteer pool. For example, many CAM practitioners require regular CPR recertification to stay in good professional standing. Offering them First Aid and Psychological First Aid classes will also appeal. But the greatest incentive of all is to recruit them as you would a local doctor or nurse, by acknowledging that most are ethical and earnest professionals who are seen in their community as playing a valuable healthcare role—even if the efficacy of their healing art has not been completely accepted by the scientific community.

· Acknowledge the concerns some may have about licensing. While some CAM professions have statewide licensing (e.g. chiropractic, acupuncture, and massage**), and other professions have municipal licensing (e.g. massage and certain forms of bodywork such as shiatsu), many holistic professions such as herbal medicine, homeopathy, and energy healing have no licensing system in place (owing perhaps to the rarity of harmful outcomes from some of these approaches). These latter unlicensed caregivers may enjoy some assurances from you that their involvement as healthcare volunteers will not jeopardize their livelihoods. If you cannot provide such assurances, it would be better to focus on the licensed CAM professions as a volunteer pool. Opening this new avenue of relationship with your local CAM practitioners, however, might have an added benefit of increasing compliance with existing licensing requirements on the books.

The overwhelming need for volunteer healthcare support in the event of pandemic influenza or bio-terrorism demands new thinking from health boards on where to look for trainable volunteers. The CAM practitioners working in your midst are clearly a useful resource, and working with them can further enrich your planning process and provide unique and useful pathways for the dissemination of important public health information.
2006 Influenza Update

The 2006-2007 influenza season is approaching. From 1990-1999 there were an average of 36,000 deaths each year in the United States from influenza. Serious illness and death from influenza are most common in those over 65 years of age, those younger than 2 years of age and those with medical conditions placing them at increased risk for complications from influenza. Vaccination is the primary method for preventing influenza and its severe complications. Important points from the Advisory Committee on Immunization Practices (ACIP) 2006 Recommendations for the Prevention and Control of Influenza include:

- **Routine influenza vaccination for children 6 months-5 years of age.** Acknowledging the full burden of disease experienced by children 2-5 years of age, the ACIP voted to expand the recommendations for routine influenza vaccination of young children to include those 24 to 59 months of age (the previous recommendation was only for children 6 to 23 months of age). In light of this addition, the ACIP also expanded the recommendations to include household contacts and out-of-home caregivers of children 0-59 months of age.

- **All children 6 months – <9 years of age receiving influenza vaccine for the first time should receive two doses.** Children receiving trivalent inactivated vaccine (TIV) should receive a second dose of TIV vaccine ≥1 month after the first dose, preferably before the onset of flu season. Children 5 - <9 year old who receive live attenuated influenza vaccine (LAIV) should have a second dose of LAIV 6-10 weeks after the first dose. Children who receive just one dose of influenza vaccine during the first season that they are vaccinated need only one dose the following season.

- **Recommendation against the use of amantadine and rimantadine.** ACIP recommends that neither amantadine nor rimantadine be used for treatment or prophylaxis of influenza A in the United States because recent data indicate widespread resistance of influenza virus to these medications. Until susceptibility to amantadines has been re-established among circulating influenza A viruses, oseltamivir or zanamivir may be prescribed if antiviral treatment or prophylaxis of influenza is indicated. For more information on the use of antiviral medication in the prevention and treatment of influenza, go to: http://www.cdc.gov/flu/professionals/treatment/.

As of July, influenza vaccine manufacturers are projecting that approximately 100 million doses of influenza vaccine will be available for this flu season, 16% more doses than were available last season. Because of the vaccine manufacturing process, however, distribution delays or vaccine shortages remain possible. For information on influenza vaccine available from the Massachusetts Department of Public Health Immunization Program, please call 617-983-6828.

- **Plan to vaccinate more persons than during the previous year.** Expand outreach and infrastructure to vaccinate more persons than during the previous year. Develop contingency plans for the timing and prioritization of administering influenza vaccine if the supply of vaccine is delayed and/or reduced because of the complexity of the production process.

- **Continue to offer vaccination throughout the influenza season.** Vaccination clinics should continue even after the influenza activity has been documented in a community.

For more information, visit the Massachusetts Department of Public Health flu website at www.mass.gov/dph/flu.

To locate a public flu vaccine clinic, go to http://flu.masspro.org. To post a clinic on the MassPRO flu clinic website, call Sheryl Knutsen at 781-419-2749.

Adapted from:


http://www.cdc.gov/mmwr/PDF/rr/rr5510.pdf
Almost all lamps used by businesses, schools, municipalities and institutions – including overhead fluorescents, heat lamps, tanning lamps and high-density discharge (HID) bulbs – contain mercury. In almost all cases, disposing of these lamps in the trash is prohibited by state and federal regulations (310 CMR 30), and enforced by Massachusetts Department of Environmental Protection (DEP). Boards of Health and health agents can help keep spent bulbs out of the trash and thus protect the public’s health.

Mercury is a heavy metal with unique properties, which make it useful in many industrial processes, but it is also a potent neurotoxin, making handling and disposal a public health concern. Pre-natal exposure to mercury can cause children to have lifelong language, attention and memory impairments, even though their mothers may not show symptoms of mercury poisoning. Because their nervous systems are still developing, fetuses, babies and young children are at the greatest risk of serious health problems from mercury exposure, which is linked to visual impairment, learning disabilities, attention deficit, and motor dysfunction in children. Higher levels of exposure to mercury can cause a smaller brain size, cellular distortions in the brain, and mental retardation.

In 2000, the Centers for Disease Control tested blood samples from women of child bearing age. They found that one in ten had high enough mercury levels, were they pregnant, to cause their child to suffer developmental delays. Follow up studies have shown that the numbers in the 2000 CDC study were accurate and that mercury levels are higher in fetal blood samples than in the mothers’ blood.

Recycling bulbs that contain mercury can make a real difference in the Commonwealth. The recycling process collects and re-uses the mercury instead of releasing it into the environment. When a used bulb goes into a trash dumpster or compactor, it is likely to break, releasing mercury vapors that can stay in a waste container for hours or even days. The vapors release mercury into the air and ultimately into water. Eventually, mercury that is not recycled ends up in lakes and streams. Once in our waterways, mercury starts the journey into the food chain where it will accumulate in the flesh of fish. The most common form of human exposure comes from eating contaminated fish.

Nationally, only 24% of mercury-containing lamps are recycled. Each year, about 500 million bulbs get thrown out. In addition, bulbs used in tanning beds contain four to eight times more mercury than the straight fluorescent tubes used in businesses and schools. An average tanning bed uses over 40 six-foot lamps that are typically changed every six months. One tanning bed can generate 6,400 milligrams of mercury waste per year. Recycling these lamps keeps a lot of mercury out of the trash and ultimately, our environment and food supply.

With funding from the U.S. Environmental Protection Agency (EPA), the Center for Ecological Technology (CET™) has been working with businesses, towns, Boards of Health and institutions to increase lamp-recycling rates in western Massachusetts. CET has helped hundreds of businesses in four western counties with lamp recycling.

Boards of Health taking steps to increase recycling rates. A year ago, the Board of Health of the Town of Granby received its first application to add tanning to an existing beauty salon. They adapted regulations for the tanning machines and added language requiring lamp recycling.

CET worked with the Amherst, Ware, Greenfield and Belchertown Health Boards to encourage the towns’ tanning salons to recycle lamps. CET prepared a letter that was sent on Health Department letterhead to the local tanning salons. CET then helped each salon owner establish a recycling program. CET supplied salon owners with a poster that reminds employees about proper handling for spent bulbs. Owners also received a list of area recyclers and a bid sheet to use to evaluate costs for recycling. In just one year, these few salons will collectively keep over 34,000 feet of tanning lamps out of the trash. The Towns of South Hadley and West Springfield took additional steps by encourag-
ing all permitted businesses to establish lamp recycling. CET followed up by providing technical assistance to those businesses. In South Hadley, all businesses will have to document their lamp recycling procedures as part of the permitting process. In West Springfield, the Sanitarian has been trained on lamp issues, so she is now asking about lamps when she conducts an inspection.

Health Boards can help keep mercury out of the trash!

- Health Agents conducting inspections can easily learn to ask: What are you doing with old lamps? Do you know that lamps containing mercury need to be recycled? It's easy to start recycling. For more information on how you can work with businesses in your community, visit: www.cetonline.org/FarmBusiness/fluor_bulbrecycling.htm.

- Boards of Health can amend the bylaws that regulate facilities with tanning booths to require recycling of tanning bed lamps. Find out more by visiting: www.cetonline.org/FarmBusiness/fluor_bulbrecycling.htm.

- Health Departments can require or recommend that businesses to document lamp recycling as part of the permit renewal process.

- To receive templates of letters you can send to businesses explaining the importance of lamp recycling, contact Lorenzo Macaluso at lorenzom@cetonline.org.

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**BURIAL PERMIT FEES**

*By Cheryl Sbarra JD  Senior Staff Attorney*  
**MAHB Director of Tobacco Control and Chronic Disease Prevention Programs**

In *Silva v. the City of Fall River*, 59 Mass. App. Ct.798 (2003), the Massachusetts Appeals Court held that the burial fee charged by the Fall River Board of Health was a tax rather than a fee, and was therefore illegal. In my opinion, the holding in the case is very limited, and applies only to the facts in Fall River as they were presented to the Court. The case is NOT a sweeping holding that burial permit fees are illegal – even if they go into the general fund.

In fact, the Court also held that a fee charged pursuant to a regulatory scheme that falls within the police powers of a municipality would appear to be a valid regulatory fee. In general, burial permits would fall within these police powers to protect public health. In determining whether a charge is a fee or a tax the court considers three factors:

1. Is the fee charged in exchange for a governmental service that benefits the party paying the fee in a manner not shared by other members of society?

2. Is the fee paid by choice?

3. Is the charge collected not to raise revenues but to compensate the governmental entity providing the service?

In the *Silva* case, there was no evidence presented to the Court that the municipality provided any governmental service relative to funeral homes or funeral home directors. For instance, there was no evidence that Fall River inspected funeral homes or burial sites, even though the board of health is responsible for regulating cemeteries. Nor was there any evidence relative to the purpose of the fee, i.e. to compensate the municipality for providing the service. “Other than Fall River’s assertion in its brief that the money collected is a best estimate of the cost of record-keeping, there is nothing in the record indicating what the charges are for or what expenses Fall River incurs as a result of the burial permit requirement. . . No affidavit in support of Fall River’s motion for summary judgment or in opposition to Silva’s motion appears in the record. . . There is also nothing in the record to indicate that Fall River checks the issued burial permits to be certain that the coupon verifying burial has been returned.”

Basically, the Court said that there was no evidence offered that Fall River provided any regulatory service to the funeral industry. There was nothing in the record to indicate the basis on which the charge was calculated or how the funds were used to defray expenses.

Judge Brown wrote a concurring opinion in the case. He concluded that Fall River was “doomed” because they presented absolutely no evidence to contradict the assertions of the plaintiff. The municipality failed to provide any answers or explanations relative to Questions 1 or 3 above. If they had, I believe that the Court would have upheld the fee as a proper regulatory fee – not a tax.

*This information is provided for educational purposes. It is not to be construed as legal advice.*
DOING LESS WITH LESS: THE EFFECTS OF BUDGET CUTS ON THE DEPARTMENT OF ENVIRONMENTAL PROTECTION

by Megan Amundson
Legislative Director
Environmental League of Massachusetts

The budget cuts for DEP struck in FY2003, creating the need for DEP to lay off or encourage early retirement for roughly a quarter of its staff. The budget cuts were not simply an issue of “doing more with less” as the administrative mantra claimed. The cuts caused DEP to do considerably less than it had been doing, pulling back on environmental protections. Innovation is a necessity during hard fiscal times, and DEP did innovate in an attempt to protect public health, but it could only do so much. After a number of years of cuts, DEP funding must be restored so it can protect public health and the environment and reinstate programs that were reduced or eliminated.

DEP’s mandate is broad because it is the state agency responsible for ensuring clean air and water, the safe management of toxics and hazards, the recycling of solid and hazardous wastes, the timely cleanup of hazardous waste sites and spills, and the preservation of wetlands and coastal resources. Because of this, the budget cuts the agency has experienced has had a wide range of implications, some of which are discussed in this article.

The Budget Cuts

In FY2003, DEP’s operating budget was severely cut. While DEP has seen increases in funding starting in FY2006, DEP’s budget remains roughly $10 million short of its funding in FY2002 (-14%) when adjusted for inflation.

The dramatic nature of the cuts have lead to serious environmental threats, some of which are highlighted here.

The Staffing Cuts

To adjust to a sharp downturn in funding, DEP was forced to lay off almost a quarter of its staff and encourage early retirement. At the beginning of Fiscal Year 2006, DEP still had 22 percent fewer full-time staff and contract employees than it did in Fiscal Year 2002. The staffing cuts hit both the full-time employees and the contract employees equally hard.
Between those years the Bureau of Waste Site Cleanup was hit the hardest and lost almost 30 percent of its staff. The Bureau of Resource Protection lost 27 percent of its staff, and the Bureau of Waste Prevention lost 21 percent of its staff.

To adjust to the sharp decrease in staffing, these bureaus, and the Bureau of Waste Site Cleanup in particular, had to make a number of programmatic changes. Some of those changes are discussed here.

The general staffing numbers do not tell the story of expertise lost, however. With the cuts and early retirements, DEP lost a large number of staff with technical expertise, and only began to replace those staff members in 2005. As a result, DEP shifted toward spending more time doing enforcement and had to streamline permitting. DEP minimized its technical assistance (pre-application permit assistance) and eliminated outreach to municipalities. The hazardous waste site cleanup program (21E) made a number of adjustments related to technical staff loss, not just general staff loss. Because 21E is a single program bureau, it was easier to decide what to do less of than other bureaus such as being less responsive to complaints of odor and noise, which take a lot of time.

DEP also lost administrative staff, causing inefficiencies throughout the agency. In regional offices staff with technical expertise spent a considerable amount of time dealing with administrative issues because administrative staff had been cut. The hazardous waste site cleanup program received a disproportionate number of staffing cuts because many of its staff were some of the most recent hires and according to an agreement with the union were therefore the first to go. This means that DEP lost young and energetic staff with more training in newer technologies than many of its older staff members. However, with increased early retirements, DEP also lost a considerable amount of institutional knowledge.

Employees that remained at DEP were in some cases required to reduce their hours to four days a week rather than five, leaving fewer staff members in the office to do the same amount of work as before the budget cuts. With fewer administrative staff, regional offices began to depend on automated phone messages for the office’s main line, requiring the caller to know exactly who she or he needs to speak to and adding to frustration and increased inaccessibility of agency staff.

Despite receiving additional funding in FY2006, many of these staffing issues have not been resolved. This vacuum has created a situation in which there are fewer people with technical expertise making technical decisions, fewer young professionals with technology expertise being trained and promoted through the agency, and less time for any staff to assist individuals, businesses, consultants, or municipalities with questions.

**Example: Circuit Riders**

In 1999 DEP began a pilot program that hired experienced wetland scientists specifically to assist Conservation Commissions to comply with the Wetlands Protection Act call the Circuit Riders program. Because it was a pilot program, the highly experienced group of wetland scientists first hired applied for the
job anticipating that it would be a contract position for only a year or so and then become full-time DEP position.

Circuit Riders are responsible for working with Conservation Commission members and/or staff. This translates into being available to answering phone calls relating to technical questions from Conservation Commissions. This program starkly contrasts the system prior to this where permitting staff that did not focus on the needs of the Conservation Commissions were responsible for responding to technical questions but were not able to respond in a timely matter due to other duties. In many instances Conservation Commissions would wait weeks for a response from DEP.

Unfortunately, consistent funding for Circuit Riders never materialized. Because of the uncertainty of the situation and because of the lack of benefits, many Circuit Riders began leaving for more stable positions. By 2003 there were no Circuit Riders left.

The lack of Circuit Riders and their unstable working conditions became a leading complaint about DEP from municipalities. When DEP was able to begin hiring Circuit Riders again in 2005 it found the pool of applicants much less experienced than the original hires, with no Circuit Riders from the first round of hires left to train or mentor the new hires. While DEP now has fully restaffed the Circuit Rider program, the program is still not what it once was and will remain in a tenuous position until permanent funding is made available.

Example: Publicly Owned Treatment Works

Fifty publicly owned treatment works (POTWs) are required to implement industrial pretreatment programs in Massachusetts, with a total of 1700 indirect dischargers. POTWs submit annual reports to DEP that detail their activities over the past year and include remedies for any noncompliance by industrial users. Despite growth and industrial development, DEP has not had the staff available to develop new industrial pretreatment programs to mitigate the new pollution impacts or to oversee the implementation of the existing program. Pollutants may be entering Massachusetts’ water systems, and perhaps drinking water supplies, unbeknownst to DEP simply because it does not have the staff to implement its own programs.

Enforcement and Compliance

After losing so many agency staff and having to cut back on most programs, DEP focused its staff on enforcement to make sure that the regulated community didn’t begin to take for granted that DEP would not have the resources to enforce its regulations. While DEP readjusted staff to do more enforcement work and less permitting work, among other things, it still had less staff on the whole to work with.

DEP was unable to keep up with the rate of inspection it was doing prior to the budget cuts, despite an increase in the regulated community DEP oversees.

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Instead DEP focused on higher level enforcement penalties to discourage noncompliance and focused on certain sectors that posed a greater health threat than others if the regulated community was not in compliance.

NOTE: In FY2004 DEP began a self certifying process for certain industries that is included here as enforcement actions when certification was not filed with DEP.

In FY2004 and FY2005 DEP focused its enforcement efforts in specific sectors:

- **Clean Schools:** DEP created a Clean Schools initiative intended to more comprehensively protect children from threats to water, air, and toxic chemicals. DEP began an enforcement sweep of asbestos removal contractors working at schools by doing surprise inspections, even at night and during the weekend, to make sure contractors were dealing with asbestos properly. DEP is also looking at school bus idling, working to educate school administrators and school bus drivers on the dangers to children of engine exhaust.

- **Water Testing:** DEP tested the water supply of day care centers that were not registered public water supplies and therefore not conducting their own water quality testing to make sure that the water was safe to drink. Any problems located were corrected immediately.

- **Wetlands:** DEP began with an aerial sweep taking pictures of wetlands to determine where wetlands may have been illegally altered.

- **Hazardous Waste Sites:** It began looking at hazardous waste sites that haven’t been cleaned up in a timely manner. If the owners did not take proper action to clean the sites, DEP determined it would take state money to do so and charge owners for it.

One of the major achievements DEP has touted during the budget cuts is the amount of fines assessed. While the amount of money assessed as a fine or penalty differs greatly
from what is collected due to negotiations and the ability for the regulated party to propose a supplemental environmental project instead of paying the fine.

By toughening higher level enforcement activities and fines and penalties, DEP has made its presence known in certain sectors of the regulated community, despite fewer staff and its inability to inspect at the same rate it had been prior to the budget cuts. However, since less of the regulated community is seeing enforcement actions, this smarter approach to enforcement will only work in the short term and only with those regulated entities that the sector specific approach effects. The remainder of the regulated community is still seeing less enforcement and fewer inspections, which in the long term will encourage less compliance and increased pollution.

Unfortunately, between FY2000 and FY2005, the rate of noncompliance in the regulated community has increased. While DEP has done fewer inspections, it has issued more enforcement actions.1 It would be expected that the rate of noncompliance would remain constant, however the rate has jumped 13 percent, indicating that the regulated community is complying less since the budget cuts and the environment is being polluted. The cause of less compliance could be any number of factors including DEP’s inability to provide technical assistance and hence its discovery of increased problems or the regulated community’s anticipation that DEP would be able to do fewer inspections and therefore they are more willing to take the risk of getting caught. Whatever the case, the budget cuts in FY2003 have had a direct impact of the condition of the commonwealth’s environment.

Water

Compliance with the Clean Water Act is a federal requirement for DEP. When the federal government created new rules in 1996, on top of the existing rules, DEP needed make sure that public water suppliers would meet all requirements. Because the budget cuts have prevented this program from having the capacity to do outreach training on the new federal rules it is required to enforce, DEP anticipates a drop in compliance.

With the staffing reductions in this program, DEP was forced to convert its compliance oversight from a manual approach to a more electronically based approach, which increased DEP’s dependence on technology to locate problems rather than depending on DEP staff expertise to locate them. While DEP’s new electronic reporting system, eDEP, has been a project well worth the capital funds spent on it in terms of efficiencies achieved and time saved, certain functions are still better left done by humans with technical expertise to interpret compliance reports.
Compliance with the Clean Water Act is one case in which more human oversight of reports would catch noncompliance more effectively.

In order to determine compliance, this program is required to do complex compliance calculations that have traditionally been assigned to staff that have gained expertise in a specific calculation. With fewer staff, however, existing staff are now required to be familiar with multiple rules to do multiple types of calculations. Because compliance is determined by a series of events over a period of time, staff must maintain expertise in the specific and unique context for each public water supplier. Without this expertise, DEP will be less able to locate pollution problems in drinking water supplies.

**Training**

Training is an important component of DEP because of the highly technical understanding required of its staff to oversee permits and enforce regulations. Each regulated site has different contexts that must be taken into consideration. In the case of hazardous waste site cleanup, the actual cleanups are overseen by licensed service providers (LSPs) who also must be trained to understand the regulations they are working within, understand changes to regulations, and be able to adjust cleanup needs by site. In the wetlands program, Circuit Riders must thoroughly understand wetlands regulations and various contextual adjustments that are needed for each wetland to advise local Conservation Commissions on how to appropriately comply with the Wetlands Protection Act. DEP historically did municipal trainings as well to help local officials and Conservation Commissions understand the regulations they must follow.

All of the various programs that DEP oversees have technical requirements that DEP staff must understand.

However integral training is to DEP, the amount of money spent on trainings has declined by 44 percent between 2001 and 2005 as DEP’s resources were cut. At it’s lowest point in 2004, the training budget was 60 percent less than in 2001.

As DEP’s operating funds continued to be cut and since federal funds fluctuated only slightly, DEP had to dip into other funding sources to cover the few trainings it continued to conduct after FY2002. This means that training had to compete with other capital projects for funding and that other projects did not receive funding precisely because DEP had to use more of that money for training to make up for the shortfall in operating funds.

![DEP Training Budget 2005](image)

Until the budget cuts in FY2003, DEP had a staff person who coordinated trainings. Once DEP’s budget was cut, there was insufficient funding for that position, which cost DEP $54,000 a year. Clearly DEP could not afford to continue training at such a low level. While it has not restaffed a person to coordinate trainings, in 2005 DEP dipped heavily into trust funds and capital funding to add an additional $65,000 to its training budget when operating funds increased minimally.

One of the consequences of reduced training is that DEP offered fewer continuing education courses for LSPs, which are required for LSPs to retain their licenses. As a result there was a large increase in the number of LSPs that filed for extensions in their licenses because they could not obtain the necessary DEP course credit hours to renew them.

**Permitting, Certification, and Project Approval**

With fewer DEP staff members and a shift in staff time away from permitting and more toward enforcement, DEP has instituted more self certification, implicit approval of permits after a certain amount of time (for example the Tier 1A hazardous waste sites), and has had less time to comment on proposed projects and their environmental consequences. Without more oversight on the front end of project development and facility or site certification, DEP continues to only react to environmental threats as they occur rather than prevent them with close oversight at the beginning.
Municipalities have become frustrated with DEP’s “rubber stamping” of projects. Some have commented that in the process of receiving a DEP File Number for dramatically different projects, DEP provides the same comments. This highlights DEP’s inability to focus on particular cases and projects, leaving municipalities to wonder whether environmental threats have been mitigated appropriately.

For National Pollutant Discharge Elimination System (NPDES) permits, there are more permits to review that the combined resources of DEP and EPA. To accommodate the work load, DEP is forced to prioritize those permits that discharge the most. However, because this situation has continued for a number of years, many of the smaller dischargers have permits that are significantly out of date and may very well be discharging more pollutants than DEP is aware of in violation of permissible levels and could be contributing to water quality problems across the state.

Closing the Northeast Regional Office
The closing of the Northeast regional office in Wilmington came as a direct response to the budget cuts in 2003. DEP could no longer afford to support that office and instead moved its staff and some of its files to the Boston office. DEP created a satellite office in Salem from space that had been vacated by another state agency to hold certain files for easier viewing for those living and working north of Boston. Some files, for example hazardous waste site cleanup files, traveled between the two offices.

This move had a number of consequences. The disconnect between staff and files caused considerable confusion and error in document tracking and in some cases permit applicants were forced to resubmit documents that were lost in the shuffle between Wilmington and Salem, Salem and Boston, and back, which caused delays in projects in the Northeast region. It was the death nail for the Circuit Rider program in that once the Northeast office was moved to Boston the remaining Circuit Riders could not easily move between Boston and their constituents north of the city. For businesses and municipalities that worked with DEP and needed files from DEP, moving the Northeast office added considerable difficulty in dealing with DEP because they were required to come into Boston to do business. Likewise, any citizens that had questions or needed information from DEP were also required to come into Boston during DEP hours to access files or meet with staff. As a result of the office change, the number of municipal officials and others from that region who went to a DEP office dropped precipitously.

With increased funding in FY2006, DEP was able to reopen the Northeast office in the fall of 2005, to the great relief of those doing business with DEP north of Boston. However the need to close an entire regional office, and one that caters to the most industrialized area in the state, demonstrates the drastic measures DEP was forced to take during the budget cuts. Unless DEP funding returns to the level it was at prior to the budget cuts, DEP is never far away from the threat of closing an office that so many businesses and municipalities depend on to do business in the commonwealth.

The Hazardous Waste Site Cleanup Program
When DEP’s budget was cut in FY2003, the hazardous waste site cleanup program was arguably the program hit hardest. The program made a dramatic shift from an emphasis on comprehensive assessments and permanent solutions to an emphasis on short-term risk reduction and temporary containment. It shifted from an emphasis on proactive measures and work to prevent and minimize contamination to an emphasis on a new triage system to catch and correct problems after the fact. It shifted from an emphasis on outreach and education of the public, landowners, and LSPs to an emphasis on enforcement alone. It shifted from a system of checks and balances focusing on a credible privatized system to an emphasis on identifying only immediate health threats and strategic enforcement that does not slow down the process and increased reliance on market forces to ensure compliance.

In cutting back program functions, the hazardous waste site cleanup program went from a program that included the following functions and proactively sought permanent and safe cleanup:
1. Tier 1A Program: DEP oversight of the most complex and dangerous waste sites;
2. Federal Facility/Superfund/Formally Used Defense Sites: Funded with federal money;
3. Permits: Permitting the cleanup of hazardous waste sites;
4. Source Identification: Find the source of contamination;
5. Compliance Assistance: Technical assistance to LSPs and municipalities;
6. Special Projects: Especially complicated hazardous waste site cleanups that get extra DEP attention;
7. Outreach: Public and LSP education about hazardous waste sites and their cleanup, including a bimonthly LSP Q&A forum;
8. LSP Training: Continuing education credits required for LSPs to renew their licenses;
9. Policies: Creating and updating policies for cleaning hazardous waste sites;
10. Regulations: Creating and updating regulations for cleaning hazardous waste sites;
11. Public Involvement: Assisting public involvement efforts at sites;
12. Brownfields: Technical assistance regarding both site specific conditions and legal and financial incentives to potential redevelopers;
13. Risk Reduction: Reducing imminent hazardous and reviewing sites to ensure time-critical risks are addressed;
14. Emergency Response: Responding to emergency spills;
15. State Funded Risk Reduction: Site cleanup and stabilization to reduce risks where liable parties are unable or unwilling to conduct cleanups;
16. Triage: A system that helps DEP more efficiently catch problems as submittals are received (both during- and after-the fact), prioritizing what sites and response actions will be looked at;
17. Audits: DEP hazardous waste sites oversight;
18. Enforcement: Actions DEP takes against landowners or LSPs for noncompliance;

Instead, DEP had only the resources to react to problems and their functions were reduced to the following:

1. DEP Oversight: At the agency’s discretion it oversees any site assessment or response action (e.g., Immediate Response Actions to address Imminent Hazards) regardless of Tier Classification. While mandatory oversight of all Tier 1A sites was eliminated, DEP can now pick and chose when to provide oversight based on site-specific issues or risk.
2. Federal Facility/Superfund/Formally Used Defense Sites: Funded with federal money;
3. Policies: Creating and updating policies for cleaning hazardous waste sites;
4. Brownfields: Technical assistance regarding both site specific conditions and legal and financial incentives to potential redevelopers;
5. Risk Reduction: Ensuring imminent hazards and time critical risks are addressed, but no longer following such sites beyond the time-critical actions to assure full cleanup, except by audit after the fact;
6. Emergency Response: Responding to emergency spills;
7. State Funded Risk Reduction: Site cleanup and stabilization to reduce risks where liable parties are unable or unwilling to conduct cleanups;
8. Triage: A system that helps DEP more efficiently catch problems as submittals are received (both during- and after-the fact), prioritizing what sites and response actions will be looked at;
9. Audits: DEP oversight of hazardous waste sites;
10. Enforcement: Actions DEP takes against landowners or LSPs for noncompliance;

The hazardous waste site cleanup program eliminated a number of functions such as its oversight of permits and instead focused on enforcement, despite the high environmental return of focusing on preventative functions such as source discovery and compliance assistance.

To disinvest in these programs, DEP had to rewrite regulations. This was true in DEP’s discontinuing its oversight of Tier 1A sites, the most hazardous sites, its elimination of public involvement, and its elimination of permit oversight. To reduce the number of audits required, DEP needed a statutory change which it attempted to get in the FY2005 budget but was unsuccessful.
The consequences of this disinvestment are varied. In disinvesting in Tier 1A sites, there could be increased risk of contamination of public and private drinking water supplies and increased timelines and decreased quality of cleanups because DEP no longer follows each such site through closure. In disinvesting in the Source Discovery Program, DEP abandoned its effort to identify sites that belong in the system but that do not come in through private compliance with the law. This is perhaps the most serious result of underfunding over the years. The associated risks of contamination of public and private drinking water supplies of exposures to soil and vapor contaminants are completely unknown. In disinvesting in compliance assistance, outreach, policies, and training, DEP minimized a key and effective tool in compliance, which decreased DEP’s ability to promote innovative and more protective solutions and is a less defensible assessment of cleanups. In disinvesting in the permit program, DEP reduced its ability to identify, target, and address important site issues. In disinvesting in public involvement, DEP reduced a core element of comprehensive hazardous waste site cleanup that could result in less complete assessments and cleanups and became less able to achieve public acceptance of site work. In the end, the threat of contamination from hazardous waste sites is much greater now than it was before the budget cuts.

Licensed Site Professionals (LSPs)  
The LSP program is a unique program utilizing the private sector to oversee hazardous waste site cleanups. The program only works well when there is strong public oversight—when DEP has sufficient staff to both assist LSPs when they have questions and to audit the 20 percent required by law to make sure that LSPs are doing their job.

However, with the budget cuts a number of problems have occurred to throw off this balance. While DEP made a concerted effort to make sure they were auditing the full 20 percent of sites, which it had not been able to do prior to the budget cuts, it was forced to cut back on LSP support. This has become one of the main complaints regarding DEP after the budget cuts. Rather than being able to guide LSPs when questions arose about how to proceed with a particular situation, DEP no longer had adequate staff to dedicate to compliance assistance programs. Instead, DEP is rarely able to make any comment on how to proceed with a site cleanup until the permit was filed. This puts landowners and LSPs in a difficult situation, proceeding with a plan that they could not guarantee DEP would go along with. Once the cleanup was underway, LSPs were left to interpret DEP’s regulations independently, while still subject to DEP enforcement if they interpreted them incorrectly.

Staff shortages at DEP also led to DEP’s inability to support the LSP Board’s enforcement work. The LSP Board is responsible for making sure that LSPs are properly cleaning up hazardous waste sites and evaluating licenses when complaints arise. The LSP Board had wanted to begin a non-disciplinary admonition process for LSPs for issues that do not warrant a full complaint. The admonition process is a necessary warning that heightens LSP awareness of state oversight of their work and would improve the standard of care. However, DEP was unable to support this move because it did not have the staff available to provide the LSP Board with the additional information it requested for issuing an admonition.

Conclusion: While this report only highlights certain quantifiable changes in DEP’s ability to fulfill its mandate since the budget cuts, there are other areas in which DEP has less visibly been effected. DEP’s mandate is large and vital to public health, public safety, and the environment, and the entire effect of the budget cuts must be comprehensively evaluated. We have already been seeing some of the effects of DEP’s resource constraints. Without increased operating funding for DEP, we will see much more clearly how the environment suffers when DEP lacks resources to do its job.

(Footnotes) 1 This combines both lower and higher enforcement actions. Not every enforcement action comes from an actual inspection; for example, some enforcement actions are derived from automated systems that note when certifications are not received. However, the assumption here is that during the last five years the rate of noncompliance in automated enforcement actions would have remained relatively constant, given that any new programs during this time were removed.

The background information and verification came from several sources, including current and former DEP staff who wished to remain anonymous, the DEP website, annual reports and enforcement reports. The author’s research was assisted by her intern, Colleen Kirby Cho.
PREVENTING CHILDHOOD OBESITY

By Roberta Friedman, Director of Education
Eric Weltman, Deputy Director, Policy and Advocacy, Massachusetts Public Health Association

Massachusetts is facing an epidemic of childhood obesity. Fortunately, there are common sense opportunities for Boards of Health to help prevent this problem, from supporting the implementation of school wellness policies to educating parents on packing healthy lunches to advocating for legislation to prohibit the sale of junk food in schools. They can also tap into resources and networks, such as the newly established Massachusetts Partnership for Healthy Weight.

The facts are disturbing: Between 25-30 percent of the state’s 10- to 17-year olds are overweight or obese. Nationwide, the proportion of children who are overweight has doubled since 1970. New data show that the adult obesity rate in Massachusetts rose from 16.8 percent in 2003 to 20.7 percent in 2005.

Overweight children face serious health consequences. They are at a higher risk of developing diabetes, asthma, heart disease, depression, and low self-esteem. The U.S. Centers for Disease Control and Prevention report that 1 in 3 children born in the year 2000 will develop Type II diabetes.

The causes are clear: What kids eat and how often they exercise. This epidemic is literally being fed by children’s overconsumption of sugar-packed drinks and junk food. Over the past 35 years, soda consumption in the United States has doubled, with each 12-ounce bottle containing at least 10 teaspoons of sugar. When a bag of chips and a candy bar are added to the vending machine menu, what some kids call “lunch” is really a recipe for overweight.

A broad range of social trends are reducing exercise, including cutbacks in physical education, charging families for “extras” such as participation in after-school sports, violence-wary parents keeping their kids in doors, and the popularity of video games.

The time to prevent obesity is during childhood, when kids learn the habits of a lifetime. There are numerous strategies for encouraging healthy eating and exercise, including public education, and local and state policies, programs, and initiatives. And there are equally numerous possible allies in this effort, from physical education teachers to school nurses, from cafeteria workers to PTA members.

These are some strategies that Boards of Health can participate in:

* Public education. There are many sources of tips and advice for good eating and exercise - from “packing a healthy school lunch” to “heart healthy recipes.” Ways to publicize this information include a column in your local newspaper, appearances on cable access television, and distribution of fliers at community events, libraries, hospitals, and doctor’s offices.

* Local policies and programs. In 2004, the federal government required that all schools with a federally-funded meals program develop a “wellness policy” addressing nutrition and physical activity by the start of the 2006-2007 school year. With the policies finalized, now is the time to ensure that they are put into practice. Boards of health can be an integral part of helping school departments implement their plans and achieve their goals.

* State policies. Last legislative session, progress was made in advancing two bills to prevent childhood obesity. One would have prohibited the sale of sugar-packed drinks and junk food in schools, the other would have established physical education requirements in schools. It is likely that these bills, perhaps in revised form, will be considered again in the legislation session beginning in January 2007.

Other bills would have required age-appropriate health education and prohibited corporate marketing in schools. Boards of Health can vote to endorse these bills.

As is often the case, the local level is where problems are recognized and creatively addressed. In Needham, a program called Eat Well/Be Fit is involving the public schools, health department, YMCA, and Beth Israel Hospital in improving nutrition and physical activity. In Taunton, the schools feature dance and aerobic classes, and in Attleboro, the YMCA has taken a significant role in
working with its schools, while Boston has banned the sale of soda and junk food in its schools. In Lexington, a group of concerned parents pressured the school’s food service contractor to improve the nutrition of school lunches.

Wakefield won an award for its implementation of the "5-2-1" program - five or more servings of fruits and vegetables a day; two hours or less of screen time, and one hour or more of physical activity. Efforts included distributing “5-2-1” magnets, holding a fruity smoothy context, and involving students in developing an after-school exercise program. In Pittsfield, over $10 million was awarded by the federal government for Operation Better Start, run by Berkshire Health Systems, for a comprehensive weight reduction program, including fitness clubs engaging eight elementary schools in exercise. In Holyoke, a project funded by the local PBS station to rebuild a greenhouse in an elementary school to grow fresh fruits and vegetables.

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The Internet is a good source for model programs and information:
* Massachusetts Partnership for Healthy Weight www.mphw.org is a newly launched network.
* The Center for the Science in the Public Interest (www.cspinet.org) is a preeminent advocate for healthy eating.
* The School Nutrition Association has recipes and other tools. (www.schoolnutrition.org)
* Action for Healthy Kids www.actionforhealthykids.org has a range of resources for increasing nutrition and physical activity at schools.

Local Boards of Health, along other partners in the community, can make a strong contribution to preventing childhood obesity. Please contact us for information or assistance: Massachusetts Public Health Association mpha@mphaweb.org (617) 524-6696.

**Texas Board of Health Member Perspective**

adapted with permission from a speech given by Peggie Fink, Williamson County Board of Health, representing the city of Round Rock, Texas - NALBOH conference, July 2006

The Williamson County Board of Health provides administrative oversight to the local public health department, the Williamson County and Cities Health District. I became acquainted with the director of the Williamson County and Cities Health District, through membership in a Round Rock civic club. The NOON Kiwanis Club had provided funds to sponsor a group of single mothers at a local high school. By providing a once-a-week place to meet, eat dinner, have a babysitter and ex-

change ideas, it cut the recidivism rate of repeat pregnancy to zero and encouraged them all to finish their education and go on to college.

Very briefly, my background: Bachelor of Science degree with major in Accounting from Florida State University. I have worked for the IRS, a CPA firm and other accounting and tax practice firms in Austin, and opened my own business in Round Rock, in 1988.

There are many opportunities for volunteer service in any community. I served on the planning and zoning board and as an elected city council member in our small town in Florida. In Williamson County, Texas, I was a YMCA board member for several years, member of the Kiwanis Club, on the board of a HUD housing development and the Mayor's Council on Fitness. In 2003, I completed the Lone Star Circle of Life Bicycle Tour, riding a distance of 717 miles in 7 days, raising awareness of the need for bone, blood, marrow and tissue donors.

The first task after appointment to the board in January, 1998, was to aid in rewriting the rules regulating the use of on-site sewage facilities in Williamson County. I learned a lot more than I ever wanted to know about the disposal of human waste.

It took time, work and some very unhappy land developers, but I'm happy tell you that while the State of Texas may require a single family mobile home to have at least a half-acre of land to install an on-site sewage facility in Williamson County [since 1999] you need at least two acres.

Williamson County, in the late 1990's was one of the fastest growing counties in the nation, fueled in part by the location of Dell computer. The Health District needed comparative financial statements that provided more detail so that we could evaluate progress year by year as the County grew. We also needed to meet the onerous demands of accounting for grants and donations.

We are so fortunate to have a very competent accounting staff at the Health District, and it was a pleasure for me to work with them in evaluating accounting software and assist in the design of financial statements. These
It is incredibly sad to me to see a long line of cars outside a neighborhood school, spewing gas fumes at $3.00 a gallon, one mom picking up one or two kids and driving back home a few blocks. We will die an early death because of sedentary lifestyle, and we’re taking our children with us.

Individuals, myself included, formed Friends of Public Health, Inc, a 501 (c)(3) non-profit corporation.

We specifically seek funds to develop and/or augment programs provided by the County. We’ve had our first successful fund-raiser, and have even gotten the local Chamber of Commerce to recommend our organization as a recipient of equipment for our nonprofit community gardens.

I sold my accounting practice last December, and can now spend more time being retired - promoting a healthy lifestyle, and riding my bike.

I speak to civic organizations, at City Council meetings, church gatherings, small groups and large, about the necessity of changing our attitude towards the way we eat, what we eat and the way we live. We need safe routes to schools so that children can walk or ride their bikes in safety. We need bike lines to facilitate alternate means of transportation so that children and adults can ride to play and to work. We need respect for runners, walkers and cyclists on our city streets and on our country roads.

I hope that my example will encourage each of you, as you are seeking to recruit board members, to look beyond health care professionals. Find new members who will bring their many life experiences to your Board.
In 2001, the Massachusetts Partnership for a Heart Healthy Stroke Free Massachusetts (PHHSFM) was formed to unite the many organizations committed to combating heart disease and stroke in the Commonwealth. The Partnership is a collaborative of more than 60 organizations, institutions and agencies, including the Massachusetts Association of Health Boards. Its goal is to launch and sustain a statewide, coordinated effort to prevent and control heart disease and stroke. The Massachusetts Department of Public Health (MDPH) and the American Heart Association/American Stroke Association serve as core members of the partnership.

To learn more or join, please visit www.heartstrokema.org. PHHSFM has developed a statewide plan with two overarching goals:

- Decrease death and disability from heart disease and stroke
- Eliminate health disparities

One objective of the PHHSFM is to increase Massachusetts residents’ knowledge of the signs and symptoms of stroke. Stroke is the third leading cause of death and the leading cause of adult disability. In 2003, 97% of adults could recognize one sign of stroke, but only 18% could recognize all signs of a stroke. Despite this lack of symptom recognition, 80% of Massachusetts adults would call 9-1-1 if they thought someone was having a stroke or heart attack. In Massachusetts, where an estimated 15-30% of stroke survivors live with permanent impairment, prompt treatment for stroke can have a vast impact on quality of life. Unfortunately, in Massachusetts, the average gap between the onset of stroke and hospital admission is 22 hours.

To reduce this gap and prevent severe impairments caused by stroke, MDPH has developed the Stroke Heroes Act Fast Education Program. This program uses the FAST acronym (face, arm, speech, time) to teach the subtle symptoms of stroke and create a sense of urgency in response to those symptoms.

The centerpiece of the program, a lively 3-minute music video that combines a catchy song and animated characters to teach symptoms and drive home the message: at any sign of stroke, call 9-1-1! FAST brochures, posters, and animation (DVD and VHS versions) are available free of charge at www.maclearinghouse.com. To order, go to the website, click on “Catalog of Materials” and select “Heart Disease and Stroke Prevention.” At the top of the screen there is a designated box entitled “Order Materials.” Click on this button and follow the instructions.

Additionally, a FAST education kit is available. The kit is ideal for those interested in conducting 30-60 minute educational sessions about the types of stroke, causes, signs and symptoms, risk factors, and lifestyle modifications that can prevent stroke (as well as other chronic diseases). Included in the kit are posters, brochures, copies of the DVD and VHS animation versions, an educator’s guide, and a Master CD, which contains PowerPoint presentations, copies of all printed materials, a press-release, reproducible logo, and evaluation forms. For tracking and evaluation purposes, the availability of the education kit is limited to individuals planning to use it for ongoing community education.

The Stroke Heroes Act FAST Program was released in the Fall of 2005 and has been enthusiastically received throughout the state. Nearly 60 Boards of Health have received the materials. Board of Health members, public health nurses and health directors/agents are all finding creative ways to use the various materials to raise the awareness of the signs and symptoms of stroke to members of their communities. Some uses by Boards of Health so far:

- Staff have done presentations at Council on Aging/Senior Centers
- Animation has been run on local cable television and materials made available in office
- Public health nurses used animation and brochures with walking club, meal site and Meals on Wheels workers and recreation department staff
- Materials distributed to municipal staff during health fair
MULTI-FAMILY HOUSING AND SECONDHAND SMOKE

By: Mickey T. Northcutt
Suffolk University Law School, Class of 2009

Secondhand smoke is the third leading cause of preventable death in the United States. Approximately 53,000 people die annually from diseases caused by secondhand smoke. Multi-family dwellings present a particular challenge for dealing with this significant health problem. Tobacco smoke from one unit may seep through cracks, be circulated by a shared ventilation system, or otherwise enter the living space of another. The traditionally held idea that individuals are free to smoke in their own homes has been challenged on many legal fronts. Property owners face the decision of dealing with secondhand smoke issues if and when they arise or proactively instituting smoke-free rules or lease provisions. Since the Smoke-Free Workplace Law was enacted in 2004, communities around Massachusetts have enacted other bans in such areas as private clubs, outside buffer zones and other spaces, leading many to question how smoking bans may apply to multi-family residential settings.

Does the Massachusetts Smoke-Free Workplace Law apply to private residences?

The Massachusetts Smoke-Free Workplace Law was not intended to prevent smoking in private residences. This law was primarily intended to protect workers from health hazards resulting from exposure to second-hand smoke. The U.S. Environmental Protection Agency designated secondhand smoke is a Class A carcinogen. Certain exceptions to the Smoke-Free Workplace Law include exemptions to the law for residential settings:

(1) Private residences, except when the residence is being used to operate a group childcare center, school age day care center, school age day or overnight camp, a healthcare related office or a facility licensed by the office of child care services;

(2) Nursing homes and acute care substance abuse treatment centers under the jurisdiction of the commonwealth that have received approval from the local board of health may have a designated smoking area for permanent residents only.

Constitutional Law

There is no constitutional or other legal right to smoke.

State Sanitary Codes

Each state has some regulatory mechanism to protect the health of its citizens living in multi-unit dwellings. Such state regulations may be available for use as the basis for legal action. An injured party would bring their complaints to their local Board of Health, who would review the facts of the case and make a decision on enforcement. Courts defer heavily to such local administrative bodies and usually only overturn their decisions if they were made arbitrarily or capriciously. Boards of Health could enforce the State Sanitary Code if excessive smoking in a multi-family dwelling unit led to a violation of the Code.

Common Law Theories

Boards of Health and individuals may also use several common law theories such as breach of the covenant of quiet enjoyment, negligence, nuisance, breach of the warranty of habitability, battery, intentional infliction of emotional distress, trespass and constructive eviction to address secondhand smoke in multi-family residences. Most of these common law theories would result in private
law suits. However, Boards of Health can utilize the nuisance statute to address the issue if the situation constituted a nuisance.

**Voluntary Smoking Bans**

If asked, Boards of Health may also refer landlords and condo associations to tobacco control resources to guide them in instituting voluntary smoking bans in their buildings should they choose to do so.

* Can landlords be sued for banning smoking in their properties?

As there is no legally-protected right to smoke, landlords are free to ban smoking in their buildings. In fact, landlords might be more likely to be sued for not banning smoking in their buildings by tenants who are suffering from the effects of secondhand-smoke.

* Will landlords have a difficult time renting apartments if smoking is banned in their properties?

Only 19.1% of Massachusetts adults smoke\(^1\). Presumably, the other 80.9% would either prefer or not mind living in smoke-free housing. Advertising units as smoke-free could contribute to their marketability, and by instituting smoke-free policies, landlords may register their units for rent on smoke-free housing databases. Also, many smokers already voluntarily refrain from smoking indoors.

**Federal Fair Housing Act (FHA) and the Protection of Persons with Disabilities as Related to Secondhand Smoke**

The FHA prohibits housing discrimination based on race, color, religion, sex, family status, national origin or disability. It was amended in 1989 by the Fair Housing Amendments Act, which expanded the coverage of the FHA to prohibit discrimination against people with disabilities, including those with severe breathing problems which are exacerbated by secondhand smoke\(^2\). The Office of the General Counsel of the U.S. Department of Housing and Urban Development (HUD) reaffirmed this protection in a 1992 opinion which stated that persons disabled by Multiple Chemical Sensitivity (MCS) and Environmental Illness (EI) can be handicapped within the meaning of the FHA. Under the HUD Analysis, secondhand smoke-related illnesses and disorders were specifically cited as examples of a MCS or EI.

In 2003, the Chief Counsel of a HUD field office in Detroit issued an opinion stating that nothing in federal law, including the FHA, prevents landlords from making some or all of their units smoke-free\(^3\).

**How have other communities handled the issue?**

Boards of Health have discretion over how they address and enforce complaints of secondhand smoke. Other Boards of Health in Massachusetts have already done the following:

1) Report the complaint to the landlord, condominium association or management company who owns or manages the building and provide them resources on how to deal with the issue privately.

2) Issue a warning to the individual against whom the complaint was made detailing the risks and liabilities of causing harm with secondhand smoke.

3) Assist those with complaints reporting serious health effects by installing temporary nicotine measurement devices to measure the levels of nicotine present. If high levels of nicotine exist, especially in non-smokers’ homes, this provides evidence of exposure to secondhand smoke for both the Board of Health and the resident if they choose to take the matter to court.

4) Take legal action against a landlord or individual owner using one of the legal theories discussed above.

**Examples of Cases Involving Secondhand Smoke in Multi-Family Dwellings in Massachusetts**

*Harwood Capital Corp. v. Carey*, No. 05-SP00187. In a case that could have far-reaching implications for secondhand-smoke litigation, a Boston Housing Court jury ruled this summer that a South Boston couple could be evicted from their one-bedroom condominium for heavy smoking inside their unit,
even though smoking was allowed in their lease. The defendants fought the eviction, arguing that the building’s poor construction and aging ventilation system were to blame for the smoke seepage into other units. The jury found the couple’s heavy smoking violated a clause in the lease prohibiting “any nuisance; any offensive noise, odor or fumes; or any hazard to health.”

50-58 Gainsborough St. Realty Trust v. Hail, et al., 13.4 TPLR 2,302, No. 98-02279, Boston Housing Court (1998). A nonsmoker who lived with her husband in an apartment directly above a smoky bar was sued by her landlord for failure to pay rent. The tenant withheld rent, alleging that the smoke seeping into her apartment deprived her of the quiet enjoyment of the apartment. A Housing Court judge ruled that the amount of smoke from the bar below made the apartment “unfit for smokers and nonsmokers alike.” The judge found that “the evidence does demonstrate to the Court the tenants’ right to quiet enjoyment was interfered with because of the second-hand smoke that was emanating from the nightclub below.” The judge awarded the tenants $4,350 in damages.

Lipsman v. McPherson, 19 M.L.W. 1605 No. 90-1918 (Middlesex, MA, Superior Court 1991). A nonsmoking tenant sued a smoking tenant of an apartment in the same building, alleging nuisance and negligence because the smoke from the defendant’s apartment regularly seeped into the plaintiff’s apartment, causing him annoyance, discomfort and increasing his risk of physical harm due to exposure to secondhand tobacco smoke and of fire. The defendant filed a motion to dismiss. The court dismissed the claims for negligence and risk of fire, but allowed the claim of private nuisance to be heard. The defendant won at trial before a judge without a jury. The court ruled that the “annoyance” of smoke from three to six cigarettes per day was “not substantial and would not affect an ordinary person.” It also held that the “plaintiff may be particularly sensitive to smoke, but an injury to one who has especially sensitive characteristics does not constitute a nuisance.” Shortly after this decision, the defendant moved out.

This information is provided for educational purposes only and is not to be construed as legal advice.

Resources
Massachusetts Tobacco Control Program (Department of Public Health) – http://www.mass.gov/dph/mtcp/home.htm
Massachusetts Association of Health Boards – http://www.mahb.org/
Fair Housing Act: http://www.usdoj.gov/crt/housing/title8.htm
Smoke Free Apartments - www.smokefreeapartments.org
Smoke-free housing site from Maine - http://www.smokefreeforme.org/landlord.php
Americans for non-smokers’ rights smoke-free housing page. - www.no-smoke.org/htmlpage.php?id=181

(Endnotes)

**AMATEUR RADIO EMERGENCY SERVICES**

ARES (Amateur Radio Emergency Services). The amateur radio operators are available through MEMA and have their own equipment. They can deploy almost anywhere during emergency situations. They are trained and deploy frequently in a variety of emergencies, most frequently weather emergencies. Amateur radio support is available during emergencies as follows:

- The request would be made by the local health dept. to the local emergency management office.
- A local declaration of emergency would need to be in place.
- Local emergency management requests the Regional State EOC for ARES support.
- If approved (resources permitting), MEMA will deploy an operator & equipment to the location.
The Local Public Health Institute of Massachusetts: Providing Emergency Preparedness Training for the Local Public Health Workforce

The Local Public Health Institute of Massachusetts provides education and training to strengthen the capacities of the local boards of health and regional coalitions to respond to public health threats. The Institute was established in April 2005 by the Massachusetts Department of Public Health to serve as the Commonwealth’s emergency preparedness training resource for local public health.

The Institute also serves as a clearinghouse for training information. The Institute’s website at www.masslocalinstitute.org includes a comprehensive calendar of trainings for local public health across the state. The calendar is continually updated, so website users are encouraged to bookmark the website and visit it regularly. In addition, the website includes a range of resources on emergency preparedness-related topics, including current materials on pandemic planning that local public health can use in their communities. This fall, the Institute website will offer a new feature: information on emergency preparedness core competencies for local public health roles involved in emergency response.

Working with the regional coalitions, MDPH and the Massachusetts public health professional associations, the Local Public Health Institute conducts ongoing assessment of training needs at the local level, and identifies and develops courses for local public health audiences. The Institute implemented four training programs this past year:

1. Personal Protective Equipment: Protecting Yourself and Your Community from Infectious Disease
2. Foundations for Local Public Health Practice: Key Tools to Get the Job Done
3. Be Prepared for Pandemic Flu: Key Tools for Local Public Health
4. Risk Communication Planning and Practice: Focus on Pandemic Flu.

In the coming year, the Institute will work with MDPH to continue to offer these existing trainings, and to develop new trainings on emerging topics.

The Institute is governed by an Advisory Council comprised of members of Massachusetts’ public health professional associations, Massachusetts schools of public health, MDPH and other agencies. The Advisory Council has an important role in helping develop training strategies that will best meet local needs.

The Institute welcomes input on training needs and other resources that would be of value to the local public health workforce. Please give us your suggestions by e-mailing info@masslocalinstitute.org or calling 617-354-1497 or 866-366-9064.

Join the MAHB Web Board by registering at www.mahb.org. Web board members receive the first notice of trainings, court cases, scholarship opportunities, and other issues of interest to local public health. It is also a chance to post questions to peers and experts throughout the state.

MAHB Guidebook for Massachusetts Boards of Health - 2006 Print Edition available this Fall

Although annual updated CD editions are at no cost to everyone attending the MAHB Certification Program, the print edition in a 3 inch binder has been unavailable for several years. Please watch our website for availability. The print edition is being readied for press now.

MAHB eLearning Center is up and running and will also be offering additional courses later this fall. To sign up for free online programs, go to http://www.mahb.org/learningcenter.htm
Healthy Schools Through Toxics Use Reduction

by Lynn Rose Pollution Prevention Specialist

This article provides an overview of chemical hazards in schools, including:

- School occupant exposure to hazardous materials,
- The roots of these problems,
- Health and safety issues posed by chemical hazards, and
- Strategies and resources developed to address these issues.

What is the prevalence of hazardous materials in schools and how are they managed?

Schools use industrial strength chemicals in many ways for many purposes! The major problem related to hazardous products in schools is that they do not the environmental health and safety (EH&S) programs that industry has to protect the occupants and workers in the school buildings. The Department of Education has not required an infrastructure of EH&S protocols and training for staff using hazardous products, until the recent revisions to the vocational school regulations.

The lack of enforcement of existing EH&S regulations has compounded the problem. Until the late 1990s, there was no comprehensive list of EH&S in schools. There is now a Massachusetts Health School Checklist with most of the EH&S regulations that was piloted in several school districts across the state. This checklist is undergoing revisions, which will be complete in the fall of 2006. The current version is available on the Bureau of Environmental Health Assessment, DPH website.

The state agencies that govern the various school EH&S issues began meeting with the Environmental Protection Agency in the mid-1990's to coordinate efforts. At the agency staff level, this group is called the Multi-Agency Task Force for Schools (MATS). MATS meets monthly to share information, review materials, and coordinate some events. This group has helped to identify the issues and roots of the issues in schools, compiled resources and regulatory information, and identified stakeholders. These meetings are open to anyone who would like to attend. The contact for this group is listed at the end of the article.

Hazardous products are used throughout school buildings in a number of capacities including; cleaning, maintenance, construction and curriculum. They can be found in custodial areas, shops (Graphic Art, Auto Body, Auto Mechanics, Electrical, Cosmetology, Plumbing, Metal), classrooms (Art, Home Economics, Academic Classrooms), and science related areas (Laboratories, Prep Areas, Classrooms, and Chemical Storage), nurse’s office (disinfectants, mercury thermometers), and administrative offices (toner). They are found throughout the schools in areas that are both designated for their use and storage as well as non-designated and forgotten sites.

The chemical hazards in schools are a concern due to children’s vulnerability to chemical and biological exposures. They are not just “little adults”. Their tissues, organs, and systems are more vulnerable during their physical development than adults. Pound for pound, children take in more air, food, and water than adults. Their skin is more permeable, they metabolic rates are higher, and their detoxification pathways are not matured.

The U.S. Environmental Protection Agency has targeted a number of initiatives to address the poor indoor air quality and the prevalence of asthmagens in school buildings. Asthma is among the most significant health problem due to poor indoor air quality in schools. Schools often contain many known asthma triggers, including airborne particles, chemicals, and biological pollutants. Nearly 1 in 13 school-age children has asthma. It is one of the leading causes of school absenteeism, accounting for over 10 million missed school days per year.

In addition to the acute and chronic health exposures posed by the improper and unsafe management of hazardous materials, there are safety and security risks, potential environmental contamination and property damage, and many hidden costs. These unaccounted hidden costs include costs for proper use, storage, disposal and emergency response of hazardous products. The lack of budgeting for these costs often compounds problems because schools are not prepared to pay these costs, resulting in large, unmanaged stockpiles of chemicals.

Typically, no one person in a school building really knows the quantity, toxicity, location, and condition of these stockpiles of hazardous materials stored throughout the school. When there is a chemical spill or incident, schools are not able to respond effectively because they do not have the training, protocols and working equipment and supplies. No one is assigned responsibility for management and oversight. Rarely are there qualifications required for staff using chemicals. Schools typically do not budget funds for staff EH&S training, or chemical management, storage, disposal and emergency response.

Staff demonstrate their lack of understanding of chemical properties by their poor storage practices. The most common chemical storage problems include:

- Lack of Accountability - Lack of staff assignment and management oversight for chemical management.
- Incompatible Storage - Chemicals stored in incompatible groupings, which can cause chemicals to react to each other and result in explosions, fires, release of vapors, or deterioration.
of equipment. This happens when chemicals are stored in alphabetical order instead of by hazard categories. Another common compatibility problem is when chemicals are located on incompatible shelving. This problem often results in corrosion of metal shelving and supports which result in compromised shelving breaking and causing chemicals to fall. Two other incompatibility issues are when products are stored in incompatible with containers, or containers with incompatible lids, both of which can cause a reaction.

- **Hazardous Products and Waste Stored Together** - Lack of separation of hazardous chemicals and hazardous waste, chemicals and other supplies, chemicals and food, and chemicals and workspace. Also chemicals are often stored in food containers in schools, which is dangerous for two reasons: the chemical can react with the container or lid, and someone who does speak English may recognize the container as a food product.

- **Fire Hazards** - Flammable chemicals stored improperly with ignition sources and combustibles.

- **Decentralized Storage** - Lack of a central storage area with proper equipment and a controlled environment often resulting in products stored in classrooms, prep rooms, desks, and supply closets under dangerous conditions.

- **Lack of inventory control** - resulting in stockpiles of unmanaged chemicals.

- **Lack of emergency response system** - including equipment, supplies, and signage for type and quantities of chemicals stored, increasing health and safety risks to students.

- **Lack of housekeeping** - including crowded storerooms and shelves, containers stored overhead and on the floor, trip hazards, and deteriorated products.

- **Lack of identifying information** - including; MSDSs, container labels, room placard and shelf signage.

- **Lack of proper ventilation** - which compounds many of the other problems.

**What can BOHs do to improve the management of hazardous products and waste in their schools?**

The following information is excerpted from a manual that I wrote, Chemical Reduction and Management in Massachusetts Schools, that guides these processes in schools. Call Tina Klein at the DEP Bureau of Waste Prevention to obtain copies.

Work with your school to identify, evaluate and mitigate their hazardous materials management:

- **Evaluate Chemical Emergency Response** – before you go poking around, ensure that you are prepared for responding to an incident or emergency disposal of a chemical.

- **Conduct a Safety Prescreen** – work with a Hazardous Waste Contractor off of the state contract to identify and mitigate any imminent hazards.

- **Conduct a Walk-Through Assessment of Chemical Storage** – once imminent hazards have been addressed and you determine that it is safe to have a Team or staff person do a more thorough evaluation.

- **Conduct Chemical Inventory** – develop an inventory for use in identifying items for disposal and for determining purchasing needs.

- **Establish Hazardous Waste Storage Areas** – hazardous waste must be stored separately than waste. If schools have no established system for storing hazardous waste, have them code waste for removal and leave it on the shelves until the collection (unless materials are compromised).

- **Conduct Hazardous Waste Collection** – work with a hazardous waste vendor off of the state contract to remove the waste, or work with your DPW to use their HHW collection programs.

The schools needs to follow-up with the following activities to ensure that they minimize the toxicity and quantity of hazardous materials and do not continue to accumulate stockpiles of materials.

- **Enhance Chemical Storage Facilities and Protocols**

- **Develop Chemical Reduction and Management Plans**

- **Develop Training Program**

- **Develop Recordkeeping System**

Work with other federal, state and municipal entities to provide technical assistance multi-media walk-through inspections for;

Proper housekeeping and storage of hazardous materials – supplies, equipment, signage, training, and protocols:

- Your local Fire Department governs storage of flammables and corrosives.

- DPH and DOS provide inspections and recommendations of chemical storage and related air quality. Be sure to attend any inspections or other types of visits by these agencies as it provides a great opportunity for you and your schools to learn what their issues are and what they need to do to resolve them. DPH posts all school reports on their website with findings, photographs and recommendations.

Ensuring proper inventory, storage and disposal of hazardous waste – supplies, equipment, signage, training, and protocols:

- DEP regulates and inspects hazardous waste storage
and disposal. DEP has related training and guidance information available for schools. Hazardous waste has additional regulatory requirements than the storage of chemicals. You can get DEP’s brief regulatory fact sheets with this information on their website.

- Your DPW may be able to assist with disposal of school hazardous waste. Many DPW’s offer one day Household Hazardous Waste Collections, or host a Permanent Hazardous Waste Depot. The advantage of these collection options is the municipality has already obtained a vendor based on the bidding process. The school would receive a better price than by going out to bid on their own.

Adequate chemical emergency response systems – supplies, equipment, signage, training, and protocols:

- DEP regulates emergency response for hazardous waste storage rooms.
- Your local Fire Department governs emergency response for flammables, including storage, signage and emergency wash stations.
- DOS also governs emergency wash stations.
- Your Local Emergency Planning Committee can assist the school in developing emergency response protocols related to the use and storage of hazardous products. They can also assist the coordination of the school’s protocols with your municipality’s Comprehensive Emergency Plan.

Ensure adequate ventilation of chemical storage areas and chemical processes:

- DPH and DOS evaluate both general and direct vent systems for chemical use and storage rooms.
- Your local Fire Department governs ventilation of flammables and flammable storage units.

**Resources to assist in the evaluations and mitigation of chemical use and storage problems:**

Tina Klein, Bureau of Waste Prevention, Department of Environmental Protection 617-292-5704 One Winter Street, 9th Floor, Boston, MA 02108


Nancy Comeau, Division of Occupational Safety Occupational Hygiene Program, and OSHA Consultation Service (7C-1 Program) 1001 Watertown Street, West Newton, MA 02165 Phone: (617) 969-7177

**Resources:** Public Health and Safety Inspection for Worker Health and Safety Hazards

Michael Feeney, Chief of Emergency Response/Indoor Air Quality Program Bureau of Environmental Health Assessment, Department of Public Health 250 Washington Street, 7th Floor, Boston, MA 02108 Phone: (617) 624 - 5757 mike.feeney@state.ma.us

**Inspection of IAQ in buildings.** Joan Jouzitus, U.S. EPA One Congress Street, Suite 1100 – SPN, Boston, MA 02114 – 2023 Phone: 617-918-1846 Fiske.Lee@epa.gov

Technical assistance and training to schools to develop environmental management systems; funds school environmental management and IAQ efforts.

What can BOHs do to minimize the purchase of hazardous materials in their schools?

Explore the following questions with your schools:

- Why is this hazardous product being used?
- Is there another method that will eliminate the need for the hazardous product?
- If the activity truly requires chemical use, is there a safer alternative?
- If no alternatives exist, is the hazardous product being used efficiently and safely?

Work with your school to develop purchase criteria that addresses the quantity and toxicity of products purchased. Schools often purchase more materials than they need to obtain lower bulk pricing, and to use up end of the year funds. In addition, the use of products change over time due to changes in staff and curricula and the availability of better substitutes, resulting in surplus materials. Substantial percentages of chemicals removed from Massachusetts’s schools were unopened containers of chemicals. The cost of disposal can be 5 to 10 times more than the purchase price. Also, chemicals received as free donation often end up not being used, and incur cost for disposal.

I recommend screening potential purchases through either developing or using an existing list of unacceptable products, or the using the following criteria to screen products. This list was developed by Hilary Eustace and incorporated into the DEP Chemical Reduction and Management Guide for Massachusetts Schools – Purchasing Policy.

“Red Flag List” (note that many chemicals will fall into more than one of these categories) Ratings are based on the MSDS, or the HMIS or NFPA rating system:

- Chemicals with a flammability or reactivity rating of 4
- Chemicals that are explosive or that become unstable (“shock sensitive”) as they age.

This includes peroxydizable compounds (such as ethyl ether and
picric acid).

- **Chemicals with a health rating of 4**

Chemicals with a health rating of 4 are generally fatal at very low exposure levels. All mercury and mercury compounds are strong neurotoxins.

- **Chemicals with a health rating of 3**

These should be carefully reviewed before purchase. It may not be possible to totally eliminate use of these chemicals because some common laboratory acids are in this category, but many cancer-causing and other highly toxic materials have a rating of 3. Examples include lead and lead compounds which are strongly neurotoxic, and most, such as lead acetate, are suspected cancer-causing agents.

- **Chemicals that require use of a respirator**

Respirator use requires a formal respirator program including medical monitoring and fit testing. This is not going to reasonably occur in the school environment for staff and students. Also, if the respirator fails, the student or teacher receives an exposure.

- **Chemicals with special storage requirements**

Examples include elemental sodium and phosphorus, which must be stored under mineral oil; some chemicals must be stored in an explosion-proof refrigerator, etc. These storage requirements are usually not met due to financial and time constraints.

- **Gas Cylinders**

Cylinders can be dangerous for two reasons: the compressed nature of the gas creates a handling hazard as well as an "explosive" hazard in storage, and the gas itself can be hazardous.

- **Chemicals with a regulatory designation of "Acutely Hazardous Substances"**. If your school has any amount "Acutely Hazardous Substance", your hazardous waste generator status is automatically classified at a minimum as a "Small Quantity Generator" (even if the total amount of your hazardous waste would normally classify you as a "Very Small Generator"). Thus, you invoke the more stringent level of regulations.

**Use the State Contracts - Promote Toxics Use Reduction through** the use of the MA Operational Services Department’s state contracts. OSD has a guide for schools on using state contracts to reduce the use of hazardous materials. The guide contains the following information:

- **Environmentally Preferable Products Contract** - cleaning products are screened and selected for their effectiveness, environmental impacts, health effects, conservation of resources, etc.
- **Lab Chemicals and Supplies**
- **Chemical emergency response, chemical storage, and PPE supplies and equipment**
- **Recycling and Disposal Services for Hazardous and Universal waste**
- **Integrated Pest Management services**

Which state regulations govern school chemical management?

- **MA Division of Occupational Safety**
  - The Right To Know Law - governs workers’ access to information on the hazardous chemicals that they work with.
  - OSHA Standards, DOS - New Department of Education regulations for vocational schools now require vocational teachers to develop health and safety programs for their shops and to teach students to OSHA standards.

**Office of the State Fire Marshal**

- Fire Prevention Regulations - govern the management of flammables, corrosives, and oxidizers, and related emergency response.

**MA Department of Environmental Protection**

- Hazardous Waste Regulations - governs the management of hazardous waste, and related emergency response.

What can BOHs do about minimizing occupant exposure to hazardous materials during renovations of occupied buildings?

Can sponsor and serve on a school-based IAQ committee to oversee the renovations.

Can promote the use of **IAQ Guidelines for Occupied Buildings Under Construction** by SMACNA, which is now legally required:

Sheet Metal and Air Conditioning Contractors’ National Association
4201 Lafayette Center Drive Chantilly, Virginia 20151-1209
Phone: (703) 803-2980, Fax: (703) 803-3732, email: info@smacna.org

Obtain technical assistance from DPH to ensure that the guidelines are being adequately followed by the school and the contractor.

What TUR resources are available for schools?
State Purchasing Contract

Dmitriy V. Nikolayev, Environmental Purchasing Project Specialist
Operational Services Division, One Ashburton Place, Room 1017, Boston, MA 02108-1552
Phone: 617-720-3351, Fax: 617-727-4527
Email: dmitriy.nikolayev@osd.state.ma.us, Web Site: http://www.state.ma.us/osd/enviro

Electronic newsletter, EPP Buyer Update http://www.state.ma.us/osd/enviro/newsletter_form.html

Toxics Use Reduction Institute TURN Community Program
University Massachusetts Lowell, One University Avenue, Lowell, MA 01854-2866
Phone: (978) 934-4343 Fax: (978) 934-3050

They have a great library, a Surface Solutions Laboratory, and the Toxics Use Reduction Networking (TURN) Grant program that funds community projects.

What resources are available for green design for new schools?

MASS Collaborative on High Performance Schools (CHPS)

In May, 2001, the MA Technology Collaborative and the Dept of Education signed an agreement to: create a high performance school pilot program to provide information, technical support, and financial resources for school construction planning, design, and building processes; fund a three year position in the Dept of Education to hire a Green Schools Program Coordinator. It is funded by the MA Renewable Energy Trust. Program involves 16 funded and 2 volunteer schools. School designers and contractors have to consider indoor environmental quality in their material specifications and installation procedures. Preferred products emit low or no VOCs and comprise durable, long-lasting materials. E.g., environmentally preferable flooring, carpeting, paint, surface finishes, mastics, and roofing.

Massachusetts Technology Collaborative
5 North Drive, Westborough, MA 01581
Phone: (508) 870-0312 Fax: (508) 898-2275
Email: mtc@masstech.org

Massachusetts School Building Authority
Andrea Ranger, Green Schools Specialist - LEED AP
3 Center Plaza, Suite 430, Boston, MA 02108

Direct line: 617.960.3017, E-mail: Aranger@msba.state.ma.us

What other groups are involved in healthy school initiatives?

MA Healthy School Network

The MA HSN is a statewide coalition of parent, education, labor, environmental, and public health advocates. It works to improve environmental health and safety conditions in our public schools through information dissemination, assistance referral, and advocacy. It promotes green design, toxics reduction, improved IAQ, etc.

Tolle Graham, Healthy Schools Coordinator
Massachusetts Coalition for Occupational Safety and Health
12 Southern Avenue, Dorchester, MA 02124
Phone: 617-825-7233 x 19
tolle.graham@masscosh.org
Web Site: http://www.mphaweb.org/pol_schools.html

Massachusetts Teachers Association
20 Ashburton Place, Boston, MA 02108-2795
800.336.0990 - Fax: 617.557.6687
http://www.massteacher.org/

(Endnotes)

1 Toxics Use Reduction Institute
2 EPA IAQ Website - Asthma Frequent Questions
3 Portable Classroom Study, California Air Resources Board and the California Department of Health Services, 6-12-03
4 Portable Classroom Study, California Air Resources Board and the California Department of Health Services, 6-12-03
MEASLES UPDATE

This year, Massachusetts experienced the largest outbreak of measles since 1993. Eighteen laboratory-confirmed cases have been identified since May 2006, with 3 generations of transmission. The cases range in age from 23-45 years, with onsets between May 5th and June 24th.

Measles is a viral illness that is characterized by fever, cough, runny nose, eye inflammation and a red, raised rash. Complications include pneumonia, ear infections, encephalitis, seizures and death. It is one of the most infectious diseases, spreading easily among those not immune from previous infection or immunization.

In the pre-vaccine era, approximately 500,000 cases and 500 deaths were reported annually in the U.S.; however, estimates indicate that there were actually 3-4 million cases and that 90% of the population had measles by age 15. Since licensure of vaccine in 1963, the incidence of disease in the U.S. decreased by more than 98%. In 2004, only 37 cases were reported nationwide. However, other countries have much lower rates of measles vaccination and continue to be a reservoir of infection, with the majority of the cases in the U.S. due to importation.

In May 2006, a laboratory-confirmed case of measles was identified in an unvaccinated individual who had recently come to the U.S. from India. He worked in a large office building in downtown Boston, and active surveillance resulted in the identification of seven additional cases in co-workers. Two additional cases occurred in individuals working for other companies in the same office building and eight cases occurred in those living or working nearby. One case was hospitalized and several others received IV fluids in emergency departments. Genotyping of virus isolates, performed at the Centers for Disease Control and Prevention, has identified the strain to be D8, which is consistent with an Indian origin.

Nine of the 18 cases had an unknown immunization history. Twelve cases were U.S.-born. Over 12,000 doses of measles-mumps-rubella (MMR) vaccine were distributed for outbreak control. Many of these doses were given to susceptible patients and staff exposed in health care settings.

Many of the cases were young adults in their 20’s and 30’s, and therefore, were not old enough to have had measles (those born in the United States before 1957 are assumed to have had disease and are considered immune) and too old to have been affected by the 2 dose MMR school entry policy in 1991. Additionally, documentation of vaccination history or serologic proof of immunity was often not available. Thus, this outbreak reinforces the conclusion that many young adults are not protected against measles. It is important to review the immune status of all individuals, particularly those in this age group, and ensure they are immune.

Over 120 suspect cases were investigated, and nearly all cases were evaluated at some point during their infectious period. Often, these infectious individuals were not immediately identified as suspect measles cases and not on proper precautions during their medical evaluation. This led to the exposure in many health care settings. When such an exposure occurs, the immunity status of all exposed (including patients and staff) must be immediately assessed. MMR vaccine can be given within 72 hours of exposure to prevent disease among exposed, susceptible individuals. If MMR vaccine is not given within the appropriate time period, exposed susceptible individuals must be excluded and quarantined from the 5th through the 21st day after their exposure. Therefore, to avoid spread of disease as well as exclusion, all health care workers should be immune to measles and have appropriate documentation that is readily accessible.

Recommendations for ensuring immunity are outlined below. Please note that the criteria for health care workers are more stringent than for the general population.

Measures to assure immunity to measles:

All individuals born in and after 1957* should have 2 doses of MMR vaccine (regardless of country of birth). Particular attention should be paid to those young adults between the ages of 20-40 years to ensure they are immune. Individuals born in the U.S. before 1957* are usually considered immune but, they may wish to receive 1 dose of MMR vaccine to increase their likelihood of protection against measles. (Exception: Healthcare workers born before 1957 should have 1 dose of MMR vaccine.) Individuals born outside the U.S. before 1957* should also have 1 dose of MMR.* Without laboratory evidence of immunity.

Fortunately, no cases have been reported in school-aged children, thus far. This is likely due to the high vaccination rates in children throughout the Commonwealth. However, health care providers and schools are encouraged to review the records and ensure that all children are up-to-date for MMR.

Timely reporting of measles is essential for effective control measures. Cases or suspect cases of measles should be reported immediately to the local board of health and to the MDPH Division of Epidemiology and Immunization at (617)983-6800. Additional information is available at: http://www.mass.gov/dph. This includes the newly revised Guide to Surveillance and Reporting (2006) and measles fact sheets in English, Spanish and Portuguese.

Stephanie Schauer Aug 2006
Senior Manager, Immunization Program
Massachusetts Department of Public Health
Division of Epidemiology and Immunization
Telephones can be a cheap and effective way to get the message delivered to many people, as political candidates have discovered. But even now, with the increasing use of unlisted telephones, either hard wired or cell phones, or the use of the Internet for voice telephones (VOIP), this channel of communications might not reach everyone, but should give rapid coverage in the case of a real emergency.

The "Cadillac" system for sending a message to all residents of a town is "reverse 911" which, requires an initial investment to set up the system and then an annual maintenance fee to keep the system up to date. You should note that "reverse 911" is a generic approach available from more than one company. During an emergency, an appropriate message is recorded and then sent to the entire town through a computer that automatically dials the numbers and plays the message. Alternately, the message can be sent to a portion of the town (based on its GIS coordinates). A typical cost for a town with a population of 10,000 people (or about 3,500 homes) will be in the range of $20,000 - $35,000 to set up and will require about $5,000 to 8,000 per year to maintain. These numbers are generally outside the range for Public Health. Most towns with these systems obtained them through their Public Safety budgets.

The next system is one used by schools to call parents. This system requires the user to supply the phone numbers. Here, the school or the PTO gets people to sign up for this. The PTO might even pay for the system so that it can then be used to lobby for more funds for school since taxpayer funds are not used. These systems cost about $2 -3 per user per year or about $10,000 per year for a town of 10,000 people. The pricing structure is different in that they allow an unlimited number of calls in a year after the initial fee is paid. This system is therefore more suitable for informing parents about winter storm closings and other school news than for a real health emergency, i.e. no calls in most years and one call or two calls in some years.

The cheapest system is one that is used for calling in the "political" arena, where you supply the phone numbers (Excel spreadsheet form) and record the message which is then delivered through a computer caller. The pricing structure is on a per-call basis (calls delivered) depending on the length of the call. A typical schedule is:

- less than 30 seconds = 8 cents per message delivered
- less than 45 seconds = 10 cents per message delivered
- less than 60 seconds = 12 cents per message delivered

For a town of 10,000 population or 3,500 households, the cost for a short message would be under $300. This is obviously the best answer for Boards of Health under severe budget pressure. Also, note that any of the systems discussed require only a phone number and not name and address. So the privacy of the individual is protected.

But there is a problem: How to get phone numbers and how keep this list reasonably up-to-date.

One approach is to buy directories from Verizon. These are now available on CD-ROM from http://www.directorystore.com/ for a cost ranging from $30 to $50. It appears that Verizon releases a new version each year so that will be a recurring cost. Since the format of these directories is the same as that for paper directories, I presume that it would be possible to extract the information into a spreadsheet and sort it, but I have not had a chance to try this. The disadvantage of this approach is that it will not contain any "unlisted" numbers nor will it contain any cell or VOIP numbers.

The other approach is to get this information from your Town Clerk who collects it as a part of the annual census each year. The problem here seem to be that some of the numbers may be unlisted. A comment from the Elections Director (Michelle Tassinari) from the Office of the Secretary of the Commonwealth suggests that providing the listed numbers would be labor intensive since each unlisted number would have to be deleted manually, and, in any event, not enough Boards of Health appear to be interested in this issue. The first issue is incorrect in that one would sort the phone numbers, downloaded into a spreadsheet, by the unlisted label and then erase them all at once, something that can be done with a few key strokes. You can take care of the latter objection by calling Michelle at (800) 462-VOTE
Co-sponsored by the Mass. Department of Public Health
Bureau of Communicable Disease Control

Governance
• Athol Court Case Study
• Nuisances and Noisome Trades; Condemnation Case Study
• Administrative Search Warrants

Environmental & Community Health
• How to Read a Septic System Design Plan
• Housing Issues
• Smart Growth Role for Board of Health
• Nail Salon Regulation and Health Issues

Emergency Preparedness
• Personal Protective Equipment, keeping your staff safe
• Data are Your Friends : How to Use Data to Get What You Want
• Behavioral Health
• Funding Medical Reserve Corps

plus an Orientation Session for new board members

Check Location/Date-
Registration and networking breakfast 8 am
Programs  8:45 A.M. - 4 P.M.
CMEs and CEUs for Registered Nurses, Registered Sanitarians & Certified Health Officers.

[ ] November 18th - Holiday Inn Taunton off Rt. 495 Exit 9
[ ] December 2nd – Sheraton Framingham - 1657 Worcester Road (Rt. 9) From Massachusetts Turnpike – exit 12 bear left after toll. Sheraton Framingham is immediately on the right.

2006 Edition Guidebook for Massachusetts Boards of Health CD, including all Certification Program Presentations and Handouts will be provided at sign-in.

Please use additional paper if needed. **Type or print clearly to eliminate mistakes on Certificates.**

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Please log on to our new members page www.mahb.org/members so that we will have an accurate mailing list for future issues.