

Health Officers' Enforcement Duties



City of Manchester
Department of Health

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Course Objectives

Participants will be able to:

- Define the role of a local Health Officer within the public health system in NH.
- Identify laws regarding the appointment and authority of local Health Officers.
- Cite helpful tips and important resources to assist with the duties of a Health Officer.
- Identify enforcement duties as they pertain to the local health officer
- Complete standard forms used in the enforcement of local and state regulations

WHEN SERVING AS A LOCAL HEALTH OFFICER OR DEPUTY:

- **Keep a log to document complaints, and your response to them. Include notes on phone calls, e-mails, and other activities you take to respond.**
- **Keep a hard-copy file on all cases and inspections.**
 - **Many health officers now back this up with electronic copies as well.**
- **Carry a camera to take pictures if necessary when you are in the field.**

WHEN SERVING AS A LOCAL HEALTH OFFICER OR DEPUTY (Cont.):

- **For additional support during inspections, take a second person with you.**
 - This could be a selectman (who under state law is a member of the local Board of Health), another town official such as a building inspector, police officer, animal control officer or your deputy health officer.
- **For continuity between health officers, when your term is completed, please meet with the new health officer to pass on your manual and files.**
 - Brief the new health officer on any cases that are not resolved that they may be involved in.

Licensing and Inspections Overview

- Local Regulations (RSA 47:17-cities and 147:1-towns)
 - Can enact health codes, promulgate bylaws and ordinances (RSA 47:17). These bylaws/ordinances can be more stringent than state statute (unless preempted).
 - However, they can not be more lenient.
 - Health Officers have the authority to promulgate regulations for the prevention and removal of nuisances.
 - Including other public health issues to protect the public's health and safety.
 - Local regulations must be approved by the Board of Selectmen, recorded by the town clerk, and published in a local newspaper or posted in two or more public places (147:1).

Licensing

- The purpose of licensing laws is primarily to protect public health and safety.
- State and local health officers are frequently responsible for implementing and enforcing these laws.
- Licensure is an extremely effective regulatory tool.
- Applicants must submit detailed documentation proving they have such things as the required education and training, adequate equipment and facilities, and proof of compliance with local ordinances including building and fire.
- An inspection by the local health officer is usually the final step in the licensing process (i.e. restaurants).
 - Self-inspecting towns will have greater responsibility.

Inspections

- **Health and safety inspections are central to the core assurance function of public health agencies.**
- **Through inspections health officers assure applicable standards are being met.**
- **It is important to conduct inspections properly.**
- **Data from inspections creates the foundation for later law enforcement action and evaluation of programs.**

Facility Inspections

Foster Care

- **Individuals or families applying to become foster parents, or to adopt a child, must have their home(s) inspected to gain approval from the NH Department of Health and Human Services (DHHS).**
 - Home inspections assess whether the home meets health and safety standards.
- **Home health and fire inspections are required by the local fire dept and health officer.**
 - The home must first meet the local standard, and minimally meet the state standard as noted in the forms for these inspections.
 - The inspection forms for the health officer to complete are obtained from the applicant at time of the inspection.
 - The home health inspection is required only at initial licensure.

Foster Care (Cont.)

ROLE OF THE HEALTH OFFICER:

- Complete a health inspection of the family home, using forms provided by the DHHS, to ensure that local health ordinances for single or multi-family dwellings, and the minimum standards set by the Division for Children Youth and Families (DCYF) for foster and adoptive homes, are met.
- <http://www.dhhs.state.nh.us/DHHS/FCADOPTION/default.htm> (Foster Care Form)

Childcare

- Daycare inspections are completed prior to licensing and every three years there after or for complaints.
- Application is done at State level by applicant.
 - <http://www.dhhs.state.nh.us/DHHS/BCCL/LIBRARY/Form/cc-licensing-package.htm> (Daycare)
- Local health officer inspection form should be received by applicant and provided to Health Officer.
 - <http://www.dhhs.state.nh.us/NR/rdonlyres/e66ahjnkcpnsuqix7tjuzkbw26qydiwia7h3t4uwxtm5ki3v3pnqv3ljzpyauy2djtzxxyjv7kowb2h4xrq4vq2qmwa/hlth-officer-inspect.pdf> (Daycare example)

School Inspections

- School inspections are required at least every 3 years.
 - **More frequently if deficiencies noted.**
- Inspection form received from school and given to Health Officer to complete during inspection.
 - <http://www.ed.state.nh.us/education/doe/organization/curriculum/SchoolApproval/CharterSchools/documents/HealthInspectionForm.pdf>
(sample school inspection form)

Health Facilities

PUBLIC HEALTH ISSUE:

- As part of the requirements for a health facility to receive a license from the State of New Hampshire, it must meet the local health regulations of the town in which it is located.
- Local health officer approval is required as a part of the licensing for all new or changed facilities, as defined by RSA 151.

Health Facilities

ROLE OF THE HEALTH OFFICER:

- Health officer approval is required for:
 - all new facilities
 - all additions to currently licensed facilities
 - any increase in the number of beds in a residential facility
 - a change in ownership of the facility
 - a change in the type of services provided
- Health officer approval is designated by the completion and signing of the local approval form.
 - By signing the form, the health officer certifies that the facility conforms to applicable local rules, regulations and ordinances having to do with health.

Nuisance
Complaints / Investigations

Nuisances

Investigations and complaints

- RSA 147:3 and RSA 595-B
- Town health officers shall inquire into all nuisances and other causes of danger to the public's health.
- Whenever a health officer knows or has cause to suspect that any nuisance or other causes of danger to the public health is in any building or enclosure, he/she may obtain an administrative inspection warrant under RSA 595-B, which may include, when necessary, authority for forcible entry.
- An **administrative inspection warrant** is a written order in the name of the state, signed by a justice of any municipal, district or superior court.
 - <http://www.courts.state.nh.us/forms/nhjb-2326-d.pdf>

Health Officer Responsibilities

- **Conduct sanitary investigations into complaints and nuisances that may endanger public health.**
 - These include noise, garbage, insects, unsanitary living conditions, rodents, and safe drinking water inspections.
- **Inspect septic systems to determine if it has failed and certify that, when necessary, in cooperation with NH Department of Environmental Services.**
 - May perform a dye test and, perhaps, a test of suspected sewage to confirm system failure.
 - Depending on town ordinances, a health officer may also witness test pits, inspect repaired and new system installations, and review and approve septic system design plans.
 - Many health officers report that becoming licensed as a septic system installer and/or designer is very helpful.

Procedures for Abatement of Nuisance

- **Fill out complaint form with all pertinent information.**
- **Investigate complaint and establish proof of problem using photos if necessary.**
- **Contact the property owner and/or tenant.**
 - Document all contact/inspections
 - Notification of property owner shall contain explanation of complaint, location, and reference to city or town ordinance or state statute and time allowed for abatement of complaint.
- **Abatement shall occur within 7 days or as determined by Health Officer.**
 - Re-inspection will occur after specified time period.

Indoor Air Quality

Indoor Environments

Air Quality

- Investigate complaints of poor air quality to ensure that they are not related to septic problems or poor sanitation.
- Recommend that all symptomatic or ill persons to visit their primary care physician or other medical provider.
- Refer requests for information from residents to DES, Indoor Air Quality Coordinator.

A CHECKLIST FOR HEALTH OFFICERS

- **Obtain a description of the building condition (age, design, problems, etc.), and type of heating/ventilation.**
- **Obtain a description of any symptoms or odors experienced by the occupants.**
- **Interview occupants who are concerned about IAQ to determine how their concerns or symptoms may be linked to the building air or other causes such as job type, personal behaviors, etc.**
- **Determine the last date when the heating, ventilation and air conditioning (HVAC) system was serviced.**

A CHECKLIST FOR HEALTH OFFICERS (Cont.)

- Inspect the ventilation system to see if the filters are in good working order.
- Identify from where fresh air is being drawn into the building.
- Inspect the building for signs of mold, mildew, water damage or excess dust on the floors, carpets or upholstery.
- Inspect the building for toxic pollution sources.
 - i.e. chemical storage, use of solvents, paints, glues, adhesives, fuels, cleaning supplies or other materials that may produce noxious vapors.

Indoor Air Quality Inspection Steps for Schools and Other Facilities

Five Phases:

1. Receipt of Complaint
2. Data Gathering
3. On Site Investigation
4. Report
5. Discuss Results

Asbestos



Asbestos

- **Asbestos** = a mineral with fiber-shaped crystals.
- Three major health problems:
 - **Asbestosis**
 - **Lung Cancer**
 - **Mesothelioma**
- Material containing asbestos has been used for:
 - **Thermal insulation**
 - **Fireproofing**
 - **Aesthetic Purposes**
 - **Sound Absorbents**





Education on Asbestos

- The amount of asbestos present in materials used for insulation can range from 10% to 80% of the total dry weight.
- Friable asbestos insulation can be found in any structure regardless of year of construction or type of insulation.
- Special procedures and precautions must be followed to protect health and comply with OSHA and EPA regulations.
- The local health officer will educate the public and refer those with issues to NH DES.

Asbestos-Local Ordinances

- **State law allows town ordinances to be passed in order to have more local control over asbestos issues.**
 - Such ordinances can provide authority for the local health officer to order abatement in a building, or cease an abatement project.
 - For information on enacting local ordinances contact the New Hampshire Municipal Association at (603) 224-7447.
- **Each facility owner must provide written notification to DES and the local health officer at least ten (10) working days before any building demolition activity occurs.**
 - This notification is **required for all building demolition** projects regardless of the amount of asbestos present, and even when no asbestos is present.

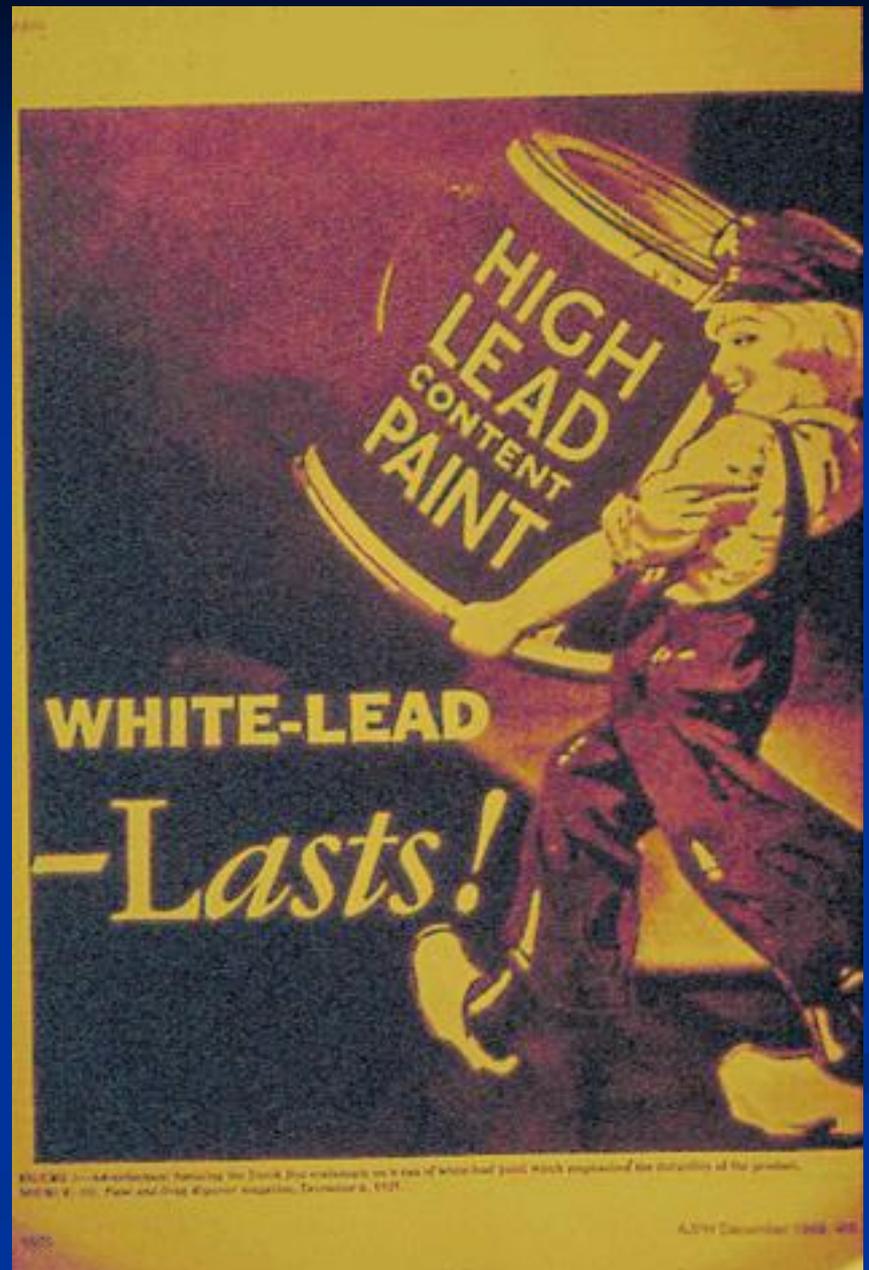
Asbestos-Local Ordinances

- **Written notification is required at least ten (10) working days prior to any asbestos abatement activity conducted as part of renovation work only if the abatement involves greater than 10 linear feet, or 25 square feet of asbestos containing materials.**
 - No notification is required for renovations if the amount of asbestos containing materials is less than this, or if there is no asbestos containing materials present that will be disturbed during the renovation.
- **A special Demolition/Renovation Notification Form must be used for the written notification.**
 - A notification fee may be required depending on the amount of asbestos being removed.
 - The forms can be obtained from the N.H. Department of Environmental Services at (603) 271-1370, or on-line at www.des.nh.gov/ard/asbestos.htm.

Asbestos – Role of Health Officer

- **The health officer should be aware of the requirements regarding asbestos management and control that apply to building demolition and renovation projects.**
 - **RSA 141-E and the N.H. Code of Administrative Rules Env-A 1800 establish certain requirements to properly address and abate asbestos hazards, including a requirement that health officers be notified prior to demolition and renovation projects.**
- **For any complaints or concerns about asbestos during building renovation and/or demolition projects, the health officer should call the N.H. Department of Environmental Services immediately at (603) 271-1370.**

Lead



Lead is...



- A naturally occurring metal
- Found throughout the environment
- A poisonous substance
- Found in paint until 1978

How About 2014?

Will the houses you are building today last one hundred years?

NEW YORK CITY has over a score of frame houses built before 1800.

"Well built," you say. True, but well painted, too, and almost uniformly with

Dutch Boy White Lead

and Dutch Boy linseed oil. Such paint, tinted any color, is so fine that it sinks into every joint and wood pore. It is

just elastic enough to prevent cracking, to keep the wood thoroughly covered and hence perfectly preserved.

Write for
PAINT FOLDER B

Tells how to mix materials for any surface or weather condition; how to choose best and last-longest colors; how to estimate quantity of paint and probable cost.



NATIONAL LEAD COMPANY

NEW YORK

BOSTON

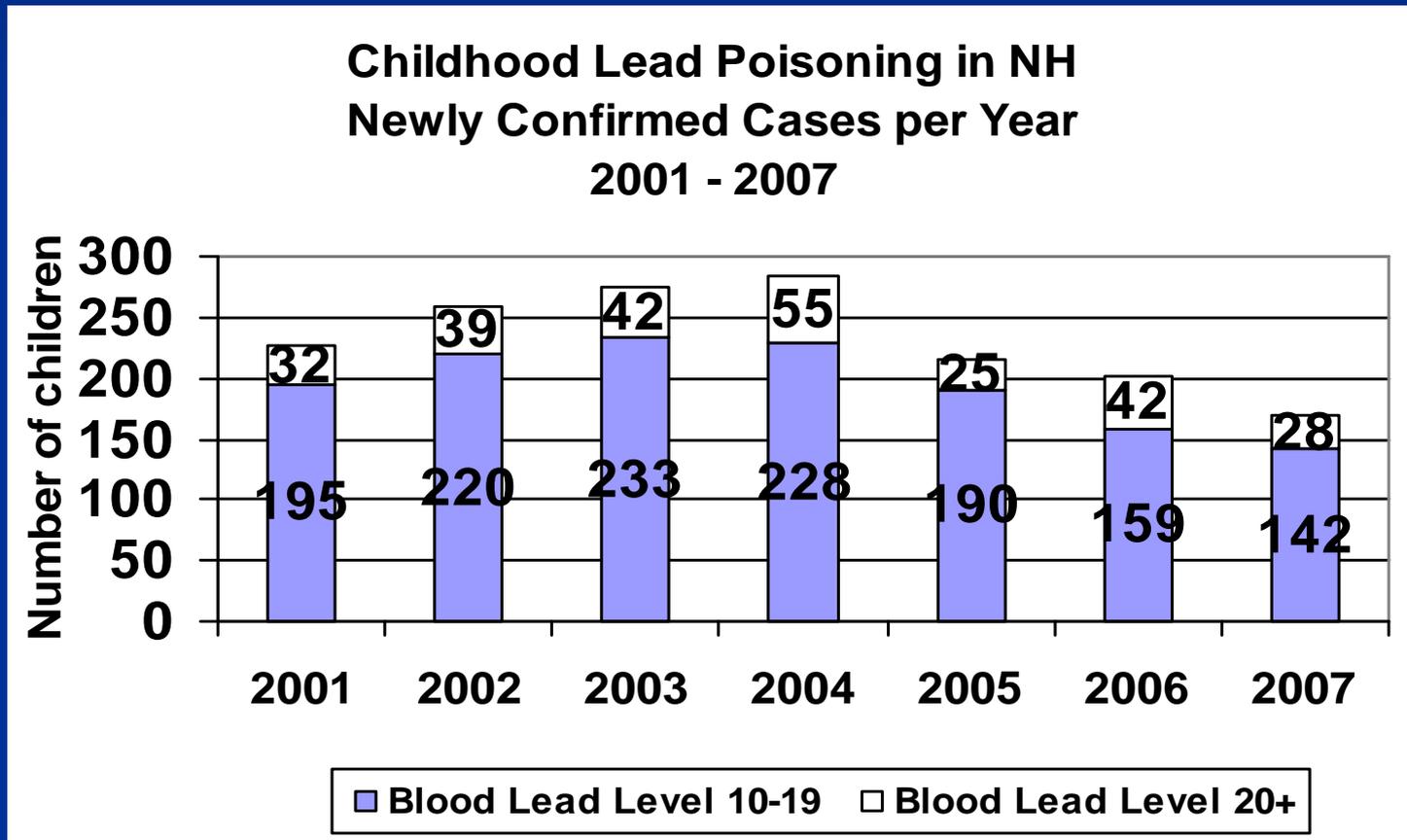
BUFFALO

CHICAGO

CINCINNATI



New Cases of Lead Poisoning





Lead-Based Paint Hazards

- Deteriorated lead-based paint
- Lead-contaminated dust
- Lead-contaminated bare residential soil
- Lead-based paint on friction, impact, or chewable surfaces



Principal Route of Exposure to Lead-Based Paint

- Paint deteriorates or is disturbed by abrasion, friction, or renovation.
- Paint dust, chips, or flakes ingested or inhaled.
 - Especially by young children through hand to mouth behavior.



How do you know if you have lead paint?

- Pre-1978 can assume lead
- Licensed lead risk assessor (inspector)
- Laboratory paint chip analysis
- Home test kits - least accurate



Lead Regulations

- **NH Lead Poisoning Prevention and Control Act (RSA 130-A)**
 - Recently amended
- **Lead-Based Paint Hazard Reduction Act (Title X)**
 - Real Estate Notification and Disclosure
 - Pre-Renovation Information Rule



Law: NH Lead Poisoning Prevention and Control Act

- Automatic letter to property owners when a child has a level of 7.5-9.9
- Allows DHHS to investigate when kids have lead level > 10 mg/dl, (venous-2 samples or physician's certification)
 - When the home is rental property, the owner must make the home lead safe.
- Requires licensing/certification of lead professionals (\$\$\$).



Resources Available to Assist Property Owners

- **MHRA lead abatement money**
 - Under orders, 0-5% interest, 3 estimates (\$5-50,000)
- **HUD lead abatement money**
 - Under orders, >1 unit , forgivable loan
- **ST. Mary's Bank - Lead Safe Loan Program**
 - not under orders, \$10,000 (1 unit) \$30,000 (building)
- **The Way Home's Healthy Home Services**

Lead – Role of Health Officer

- According to RSA 130-A, the state of New Hampshire is responsible for issuing Orders of Lead Hazard Reduction in towns, or cities (a responsibility formerly assumed by the local city or town government).
- State law does provide for municipalities to adopt RSA 130-A, which then allows them to assume full and sole legal authority to enforce the provisions of RSA 130-A, except for matters pertaining to licensure and certification of lead hazard reduction professionals and businesses.

Lead – Role of Health Officer

- **The NH Childhood Lead Poisoning Prevention Program (CLPPP) is the lead agency addressing lead poisoning prevention and control.**
- **At times the CLPPP asks a local health officer to determine if lead hazard reduction activities are occurring at a specific site that is under an Order of Lead Hazard Reduction.**
 - **This allows state staff to more easily know when work is occurring in order to conduct follow-up inspections to ensure state laws and regulations are being complied with.**
- **Health officers can also play a vital role in disseminating information to “do-it-yourself” homeowners and renovation professionals on lead-safe work practices.**
 - **Refer those with further issues to NH DES**

Mold

Mold – Role of Health Officer

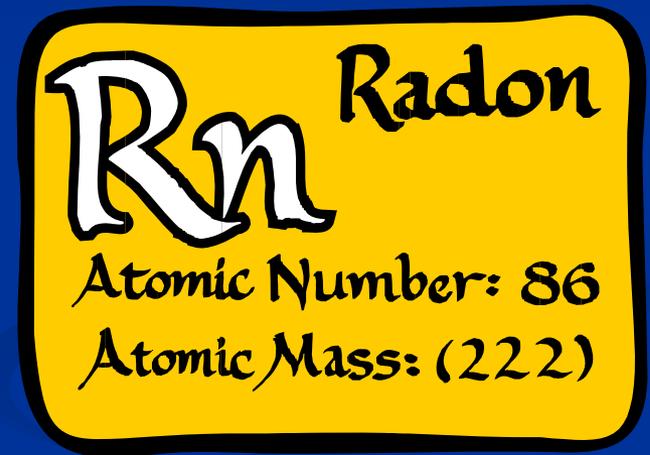
- The health officer should serve as a local resource for indoor air quality information regarding building dampness and indoor mold.
- The health officer may conduct site visits and make recommendations to remediate the problem.
- The Department of Environmental Services' brochure, **'Mold in Your Home?'** is a helpful source of information.
- While there are no New Hampshire laws specifically regarding mold growth in a home, RSA 540-A, which addresses rental properties, may be applicable in some cases.
 - Should significant mold growth be the result of a code violation, (i.e. a plumbing leak) action can be taken to enforce the code.
 - Minimum housing standards (RSA 48A:14) if city or town has not adopted building codes.

Radon



Radon Characteristics

- Colorless Gas
- Odorless Gas
- Tasteless Gas
- Naturally Occurring
- Radioactive
- Inert, does not chemically react (Noble gas)





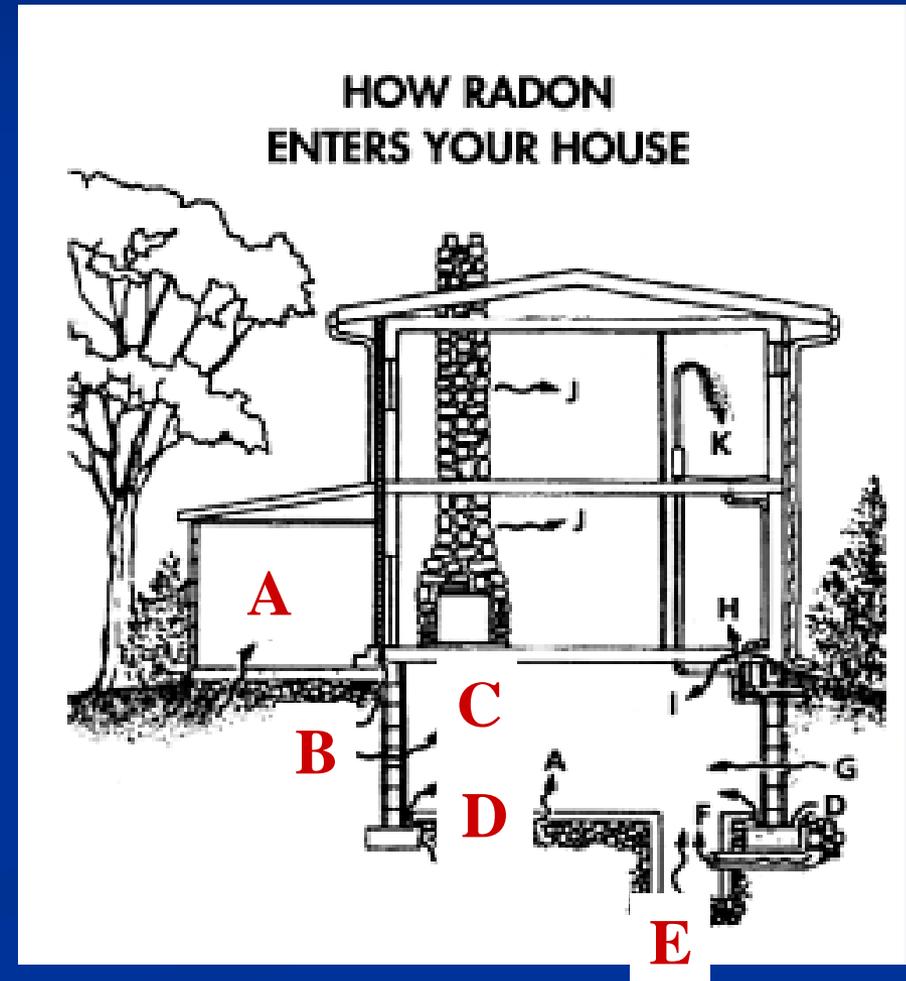
Radon Risk

- **Comparative Risk Assessments by EPA and its Science Advisory Board have consistently ranked Radon among the Top Four Environmental risks to the Public.**
- **Second Leading cause of Lung Cancer**
 - **Exceeded only by Active Cigarette Smoking**



How Radon Enters Your Home

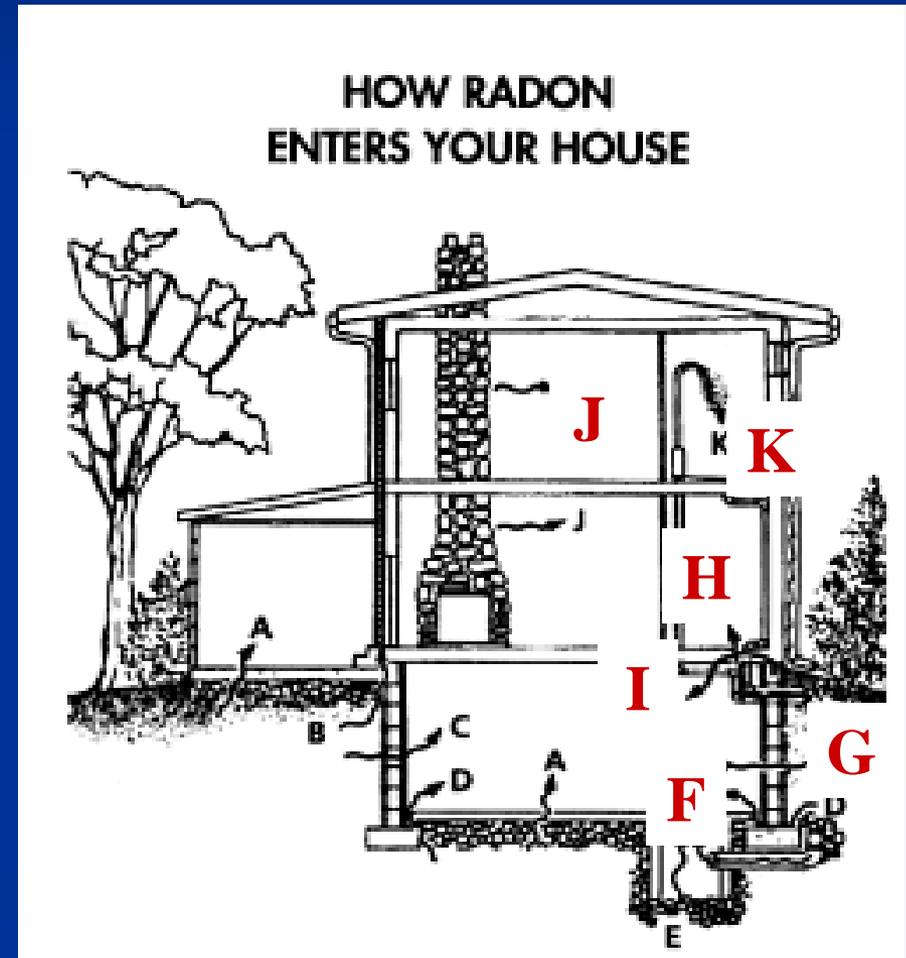
- A = Cracks in concrete slabs.
- B = Spaces behind brick veneer walls that rest on uncapped hollow-brick foundation.
- C = Pores and cracks in concrete blocks.
- D = Floor-wall joints.
- E = Exposed soil, as in a sump.





How Radon Enters Your Home (Cont.)

- F = Weeping (drain) tile, if drained to open sump
- G = Mortar Joints
- H = Loose fitting pipe penetrations.
- I = Open tops of block walls.
- J = Building materials such as some rocks.
- K = Water (from some wells).



Relative Radon Emanation Potential of New Hampshire's Bedrock

This map depicts the relative radon emanation potential of the various bedrock mapping units in New Hampshire.

The reader is advised that there are more than 150 different bedrock mapping units in New Hampshire. Assigning each to one of three different categories results in a wide range of emanation potentials within any particular classification.

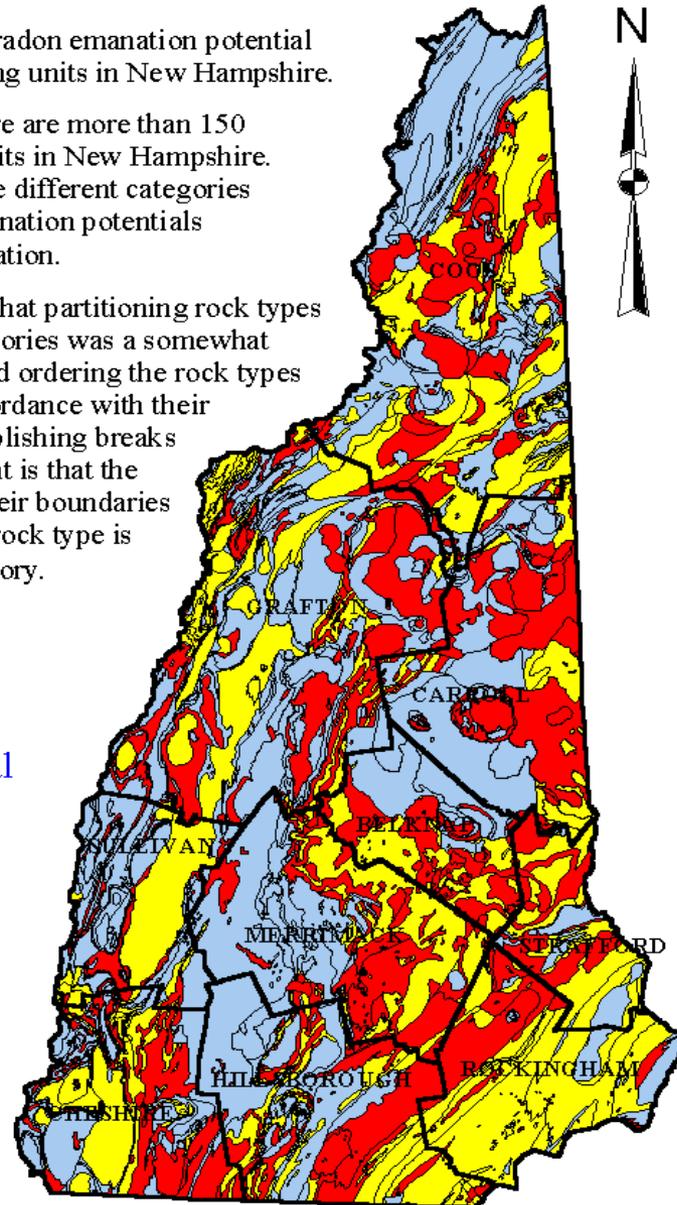
The reader is further advised that partitioning rock types into the three emanation categories was a somewhat subjective process. It involved ordering the rock types from highest to lowest in accordance with their emanation potential then establishing breaks between the groups. The point is that the categories are not absolute, their boundaries will change as any particular rock type is reassigned to a different category.

RELATIVE
Radon
Emanation Potential

HIGH

MEDIUM

LOW



Radon – Role of Health Officer

The Local Health Officer Serves as a local resource and referral to radon information, testing procedures, and treatment options.

Housing

Housing

■ Rental housing

- Enforce the minimum health and safety standards set forth in RSA 48-A:14 that are specific to rental housing.
 - Includes safe drinking water, availability of hot water, garbage control, properly functioning septic systems, vermin control, adequate heat, and that walls and roofs do not leak.
- Respond to complaints that buildings are unfit for human habitation, and when necessary, condemn a property until repaired or demolished (RSA 147 and RSA 48-A).

■ Insanitary Living Complaints

- In an investigation of sanitary conditions, a health officer may enter onto private property without the consent of the owner (RSA 128:5a).
 - However, Health Officers should make every possible attempt to gain the permission of the property owner.

■ Pests, rodent and insect infestation

Housing – Role of Health Officer

- Enforce the minimum health and safety standards set forth in RSA 48-A:14 that are specific to rental housing.
- In conjunction with the municipal building and fire officials, respond to complaints that buildings are unfit for human habitation.
 - When necessary, condemn a property until the conditions have been repaired or the building demolished
 - RSA 147:16A for order to vacate
 - RSA 155B is ordinance to condemn for health only
- Other aspects of housing enforcement can be addressed by local health officers through a process that defines a housing problem as a *nuisance, injurious to the public health* as found in RSA 147:1.
 - This law applies to both owner-occupied (48A) and rental units(48A:14).

Housing – Role of Health Officer

- **Document the date, time of inspection, who was present, and what you observed.**
 - It is recommended that you document your findings with a camera and written notes.
- **If a violation exists, issue a warning or an order to the responsible person to abate the problem.**
- **Suggested steps include:**
 - Verbal warning
 - Follow-up inspection
 - Written warning
 - Follow-up inspection
 - Written order
 - Follow-up inspection

Housing – Role of Health Officer

- **A common situation is for the health officer to be called because of a dispute between the landlord and the tenant.**
 - The health officer may have a role to play in such a dispute, provided that the concerns pertain to conditions that may affect the health and safety of the residents.
 - It is important for health officers to be impartial in their dealings with all parties, including the inspection, and firm in the issuance of warnings and orders.

SUGGESTED PROTOCOL:

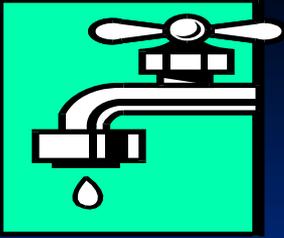
- **When a health officer or local board of health learns of a complaint or violation, they would:**
 1. Call ahead to notify the current tenant (if any), that you would like to perform an inspection.
 2. If you would like a second opinion, bring another town official, such as the Building Inspector, member of the Board of Health or Board of Selectmen, police officer, or the Deputy Health Officer.

Water and Septic

Water Quality and Septic

- **Public swimming (beaches and pools)**
- **Drinking water**
- **Septic system failures**

Public Swimming



Water-Oriented Recreation

- **Bathing places can be classified into three main categories:**
 - Natural Waters = ponds, rivers, tidal waters, and beaches
 - Outdoor Pools = partly artificial and partly natural
 - Artificially Constructed Pools = indoor and outdoor pools that are entirely of artificial construction

Water-Oriented Recreation

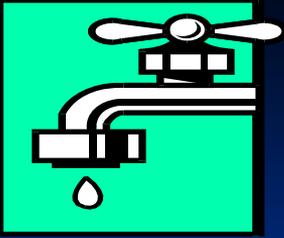
■ Pool Safety Features

- Main drain secure
- Self-closing and latching door/gate
- Posted rules
- Posted location of the nearest phone
- Life ring with rope
- Depth markers
- breakpoint markers

Water-Oriented Recreation

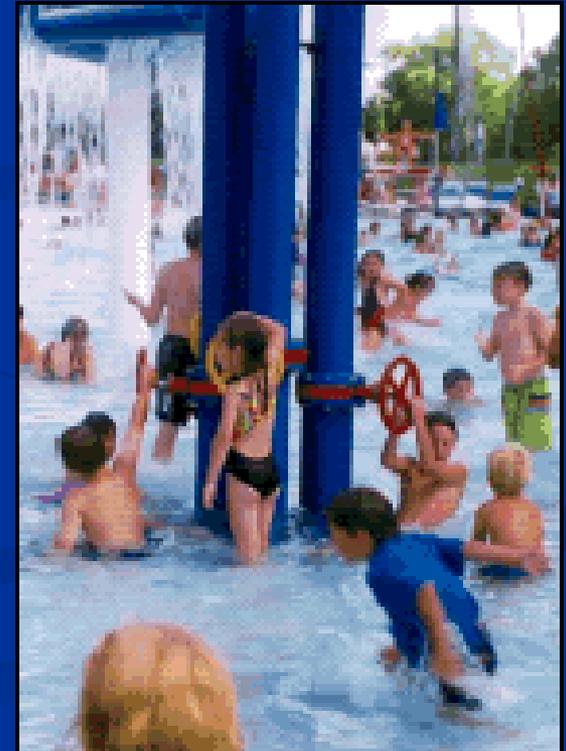
■ Spa Safety Features

- water temperature no greater than 104 F
- clock (no longer than 15 minutes per use)
- hair strainer
- anti-vortex drains
- new construction should have auto-shut off valves

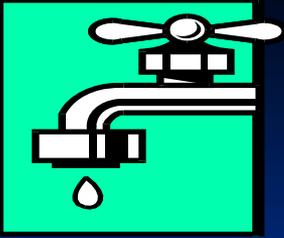


Water-Oriented Recreation

- In relation to water-oriented recreation, water quality is the number one concern.
- Public health officials may restrict or even ban the use of a body of water if it is contaminated with a substance that may pose a hazard to human health.



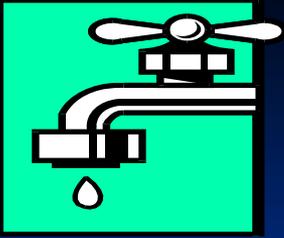
Drinking Water



Water Quality



- In order for water to be used for human consumption, it must:
 - Be aesthetically acceptable
 - Free from apparent turbidity, color, odor, objectionable taste
 - Be free from disease-causing organisms
 - Have a reasonable temperature
- Water meeting these conditions is termed **potable**.
 - It may be consumed in any desired amount without concern for adverse effects on health.



Water Quality (Cont.)

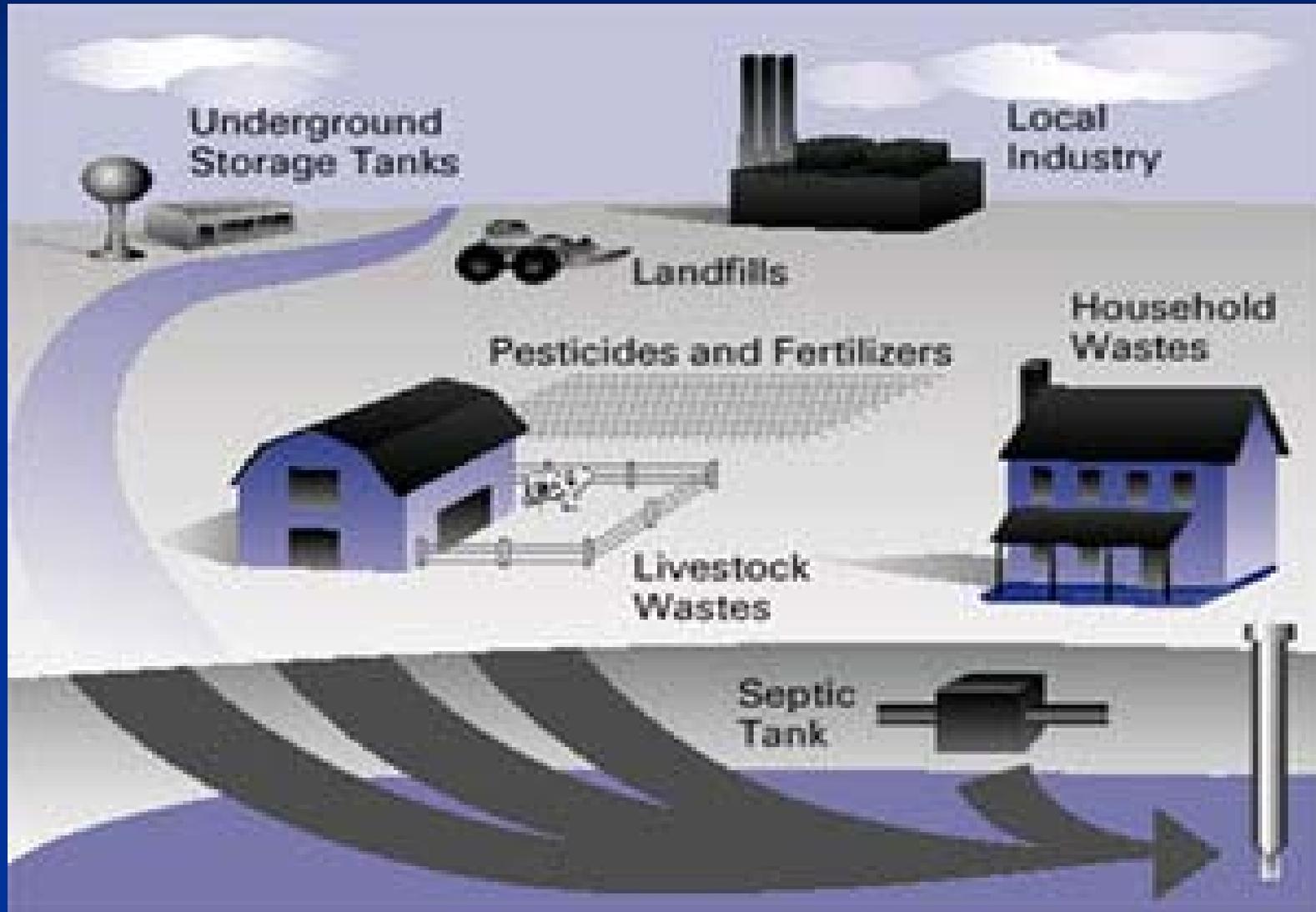
- Many chemicals also have the capability to alter water quality and can lead to serious health issues.

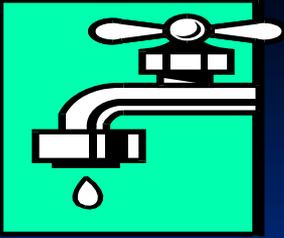
- Arsenic
- Lead
- Copper
- Radon
- Mercury
- VOCs
- Nitrate
- Nitrite
- Atrazine

- Water Hardness:

- Caused by dissolved minerals - usually calcium and magnesium.
- Hard water interferes with almost every cleaning task.

What Human Activities Can Pollute Groundwater?





Groundwater Supplies

- Health Departments and environmental agencies impose minimum separation distances between drinking water wells and pollution sources.
 - Private Wells = must be at least 50 and preferably 100 feet away from sewage disposal systems.
 - Public Wells = must be at least 100 feet from sewers and other sources of contamination.
- Also, wells should NOT be located in a flood plain or areas that receive large amounts of surface water runoff.

Water – Role of Health Officer

- The local health officer may be contacted for information on water quality issues such as lead, copper, giardiasis, cryptosporidium, radon, chemical contamination, or protective well radii.
- When there are bacterial problems with a public drinking water system, Letters of Deficiency (LOD), and Notices of Violation (NOV), are sent to the owner of the public water system by DES.
 - A copy is also sent to the local health officer.
 - The purpose is to keep the local health officer informed about the status and quality of the drinking water within their town.

Water – Role of Health Officer

- **Testing of water supplies (RSA 485:33)**
- **If a health officer suspects, or is made aware of, a public or private water supply that may be contaminated, they may order testing (at no expense to the owner).**
- **Public notice:**
 - When a public water system fails to submit required bacterial samples to DES, the owners are guilty of a violation of the program and must formally notify all consumers (“give public notice”).
 - In such instances, the local health officer might be asked to verify that public notice did in fact occur, or aid in the issuance of public notice.
 - The water system owners must also give public notice when the water tests for bacteria or other parameters are higher than the MCL (maximum contaminant level) for that parameter.

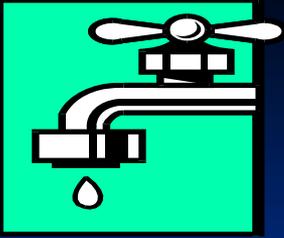
Boil Orders – Role of Health Officer

- When the water in a public water system is contaminated with fecal Coliform or Escherichia (E. coli) bacteria, the system owners are required to make a public announcement to boil all water from the system used for human or animal consumption.
- DES sends health officers a copy of all boil orders.
 - If a municipality owns the water system, then the health officer might be actively involved in public notice and issuing the boil order.
 - If the town is served by a public water system not owned by the town, the health officer is not formally or legally obliged to issue orders.
- The local health officer should be an important local resource for the community by keeping them informed as to the status of the water supply.
- The health officer may also request additional public information or notice from the water system owner.

Boil Orders – Role of Health Officer

- A local health officer can issue a boil order if they believe there is risk to the population.
 - For example, when a water main break occurs (a rupture in the line), there is a loss in pressure in the water system. This can result in back siphonage, pulling in soil and other contaminants into the water system. If this occurs, the health officer might initiate the boil order as a protective measure, rather than DES.

Septic



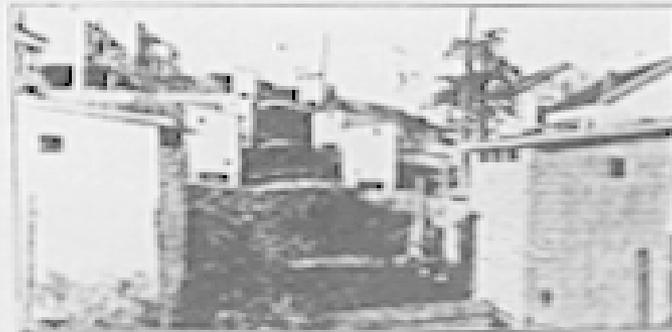
Wastewater Management

- **Wastewater** = (aka sewage) water containing human waste.
 - 99.9% water - the remaining 0.1% is waste.
- In the U.S., state laws require that human excrement must be disposed of in a sanitary manner.

Non-Water Carried System

- **Pit Privy** = can underground area where urine and feces can be deposited and retained in a sanitary manner.
 - Constructed if dwellings are not equipped with indoor plumbing.
 - Used in many underdeveloped nations and in some rural parts of the U.S.
- The pit privy area must be built sufficiently above the water table, provide a self-closing door, and cover openings with screens to prevent vermin/insect infestation.

Sanitary Privies Are Cheaper Than Coffins



For Health's Sake let's keep this Privy CLEAN. Bad privies (and no privies at all) are our greatest cause of Disease. Clean people or families will help us keep this place clean. It should be kept as clean as the house because it spreads more disease.

The User Must Keep It Clean Inside. Wash the Seat Occasionally

How to Keep a Safe Privy:

- 1. Have the back perfectly screened against flies and animals.*
- 2. Have a hinged door over the seat and keep it CLOSED when not in use.*
- 3. Have a bucket beneath to catch the Excreta.*
- 4. VENTILATE THE VAULT.*
- 5. See that the privy is kept clean inside and out, or take the blame on yourself if some member of your family dies of Typhoid Fever.*

Some of the Diseases Spread by Filthy Privies:

Typhoid Fever, Bowel Troubles of Children, Dysenteries, Hookworms, Cholera, some Tuberculosis.

The Flies that You See in the Privy Will Soon Be in the Dining Room.

Walker County Board of Health

Individual Water Carried System

- If a central sewage disposal system is not available, the property must be evaluated for an on-site, water-carried subsurface sewage disposal system.
 - Typically known as a septic tank and drainfield system.
- Septic Tank and Drainfield System = functions to remove as many solids as possible from wastewater and filter this waste through the soil.

Individual Water-Carried System (Cont.)

- A soil evaluation must be performed prior to the installation of a subsurface sewage system.
 - Determines the soil's capability to absorb wastewater.
 - Soil evaluations may be performed by environmentalists, sanitarians, or soil scientists.
- Soil is usually evaluated using the following techniques:
 - percolation test
 - soil maps
 - soil color and texture evaluation

Individual Water-Carried System (Cont.)

- **The sanitarian/environmentalist designs the on-site wastewater disposal system according to the specific properties of the evaluation.**
 - **Permits are required for construction of the system.**
- **Once installed, the sanitarian/environmentalist inspects the system to ensure system quality and compliance with applicable regulations.**

Septic – Role of Health Officer

- **The health officer has four enforcement responsibilities concerning septic systems according to state laws and Administrative Rules:**
 1. **RSA 48A: Addresses rental and public housing**
 - There must be adequate waste disposal available.
 - Toilets must function properly, and there must be an adequate supply of water.
 2. **RSA 147: When a residential septic system is in failure, creating a nuisance and health hazard, the health officer has the authority to order the system repaired or replaced in accordance with Administrative Rule Env-Wq 1000.**
 - These requirements apply to both rental units and privately owned homes.

Septic – Role of Health Officer

3. **RSA 147:8 - All occupied buildings must have readily accessible toilet facilities, which are in proper sanitary condition with suitable drains or sewers for conveying wastewater and sewage away from the premises.**
 - These requirements apply to all occupied buildings, including residential and commercial buildings.

4. **RSA 485-A:29-44 [Accompanies the Subdivision and Septic System laws.]**
 - This law applies to the subdivision of land and construction of septic systems.
 - Local health officials may be authorized with concurrent (joint) enforcement of these laws and supporting Administrative Rules upon written application by Selectmen, to the Administrator, Subsurface Systems Bureau, DES Water Division.

Septic – Concurrent Authority

- **CONCURRENT AUTHORITY UNDER RSA 485-A:29-44 AND ADMINISTRATIVE RULES ENV-WQ 1000:**
 - Concurrent authority allows local officials and DES to jointly enforce regulations for the construction of septic systems.
 - Concurrent authority may be conferred upon local officials by DES.
 - It allows local officials to intervene when they observe a house or septic system being constructed when there is no approval by DES.
- **DES recommends the municipal Board of Health (as defined by RSA 128) be so certified.**
 - Manchester currently is the only city to have this certification
- **For information about concurrent authority, contact the Enforcement Section of DES, Subsurface Bureau at 271-3501.**

Septic – Role of Health Officer

- **RSA 485-A:2 IV defines “failure” of a septic system.**
 - **When there is discharge of sewage into surface water, directly on the ground or into the ground water, or the system threatens to do so, then both the health officer and the DES Subsurface Systems Bureau jointly enforce RSA 147.**
- **Before any new septic system is installed, written approval (i.e. Approval for Construction) must be granted by the DES Subsurface Systems Bureau.**
 - **Copies of these approvals, and plans when requested by the municipality, are sent to the town or city.**
- **Some towns require that the health officer witness test pits and percolation tests, and sign off on septic plans before the plans are reviewed by the New Hampshire Department of Environmental Services.**

Septic - Suggestions

- **Notify the owner of your activities.**
 - If you have not called in advance, knock on the door to inform them you are there to conduct an inspection.
 - If you expect you may encounter an uncooperative person, have a witness (i.e. your deputy health officer or a police officer.) See state laws regarding entry (RSA 147:3) and reversion to warrant (RSA 595:B).
- **Document in your log, the date, time, location of the home, location of the septic system, and your detailed observations.**
- **Develop a site sketch showing the house, any fill areas—where the leach field would probably be, any lush growth or vegetation or grass, any soft spots in the soil, or noticeable overland flow of effluent.**

Septic – Suggestions (Cont.)

- **Carry the legal definition of “failure” at all times and be prepared to show it to the property owner (RSA 485-A:2 IV).**
 - "Failure" means the condition produced when a subsurface sewage or waste disposal system does not properly contain or treat sewage or causes the discharge of sewage on the ground surface or directly into surface waters, or the effluent disposal area is located in the seasonal high groundwater table.
- **Perform a dye test when you can see a discharge. Ask the property owner to observe the emerging dye.**
 - If unable to dye test, obtain a sample and have it tested at the Lab.
- **If you find evidence of failure, notify in writing, the homeowner, town, and DES, by sending a copy of the Letter of Deficiency, that there is a failure, and what steps are necessary to correct the situation.**
 - Start to pump within 24 hours, fully correct within 60 days.
- **Pumping is not a permanent solution.**
 - If one has to pump, the system is in failure and must be corrected and a permanent solution has to be reached.

Failed Septic-Steps to Follow

- Visit the site and look for signs of a failed system.
- Dye the toilet facilities to prove that sewage from the house is surfacing near the septic system.
- If dye testing is not feasible, but there is liquid at the surface, take a sample and have it analyzed for fecal coliform at a state certified laboratory.
 - Phosphate analysis may also be helpful to indicate human waste, separate from natural fecal counts.
- If dye testing or lab analyses indicate the presence of sewage, (greater than 2,400 MPN of total coliform bacteria, or greater than 406 E. Coli bacteria per 100 ml. of sample) the system is likely in failure.

Failed Septic-Steps (Cont.)

- Prepare a **Letter of Deficiency** stating that the septic system was identified in failure and give the owner a defined time (e.g. 30 days) to correct the situation.
 - Send the homeowner two copies of the letter: one copy for their files; one copy which they are to give to their septic system designer when applicable. (See the example in the Attachments)
- If the septic system is not repaired or replaced within the required time, the health officer should issue an **Order**. (See the example in the Attachments.)
- If the septic system is still not repaired or replaced, the town may have its attorney present the case in the Superior Court.
- The town may elect to appropriate funds, correct the problem at the town's expense, and then recover costs as per RSA 147:17-b and RSA 147:7b. A lien would be put against the property deed.

Failed Septic Remedies

- **The following are some examples of choices for the health officer in correcting septic problems:**
 - Require pumping of septic tank be performed immediately, or at set intervals (i.e. once a week) so that overflow ceases.
 - This should be paid for by the owner of the building, or pumping may be performed at town expense and a lien put on property.
 - Copies of pumping receipts need to be submitted to the health officer weekly or depending on how often pumping. *{Remember: pumping is a temporary solution.}*
 - Eviction of the occupants if the dwelling is found to be in unsafe condition and pumping cannot or will not be done by owner.
 - Issue a cease and desist order. If this order is issued prior to sale of a property and attached to the deed-the new owner must correct the situation before occupying the property.
 - Place lien on property and repair, or replace the septic system at town expense.
- **Note: Contact your town attorney before issuing a cease and desist order, an eviction notice, or a lien on the property. A pump order does not usually have to go before the town attorney.**
- **Note: Copies of all paper work/documents should be kept in health officer files, as well as noted in logbook.**

Failed Septic - Enforcement

- Using RSA 147, and any health regulations adopted by the town, the health officer has direct enforcement authority over septic system failures.
- The health officer can issue a pump order or a cease and desist order effective within 48 hours or less.
 - The health officer in such a case has more direct enforcement authority than the DES. The DES's time frame would be in the range of 60 days.
- In some emergency cases it may be more efficient for the health officer to step in to initiate enforcement proceedings.

Failed Septic – Enforcement (Cont.)

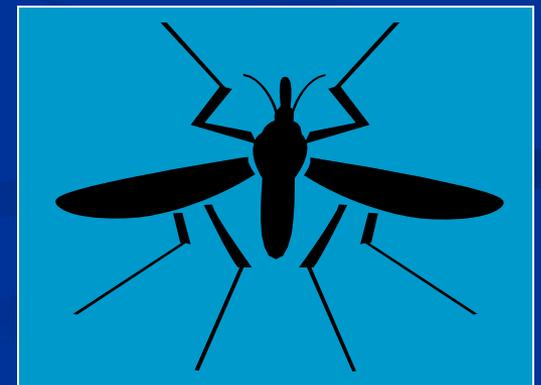
- DES advises that after verbal notification, a Letter of Deficiency (LOD) should be issued (sent certified mail) or handed to the property owner.
- If there is sewage discharge directly to surface waters, this can also be enforced by DES (under RSA 485-A).
 - DES should be notified immediately.
 - If there is a sewage discharge directly into a public use area (such as swimming areas), then the health officer would immediately step in to enforce a safety and public health issue, (RSA 147) possibly by temporary closure.

Vector and Surveillance Control:
Pest Control Knowledge and
Community Education

Insects



- Insects infect many people with diverse agents of disease every year.
- Insect-related diseases are not as prevalent in the U.S. as in most other developing countries.
- However, they are still a serious public health problem:
 - Eastern Equine Encephalitis
 - Rocky Mountain Spotted Fever
 - Lyme Disease
 - West Nile Virus



Mosquito Surveillance

- Used as an indicator as to whether or not mosquitoes infected with disease are in a community.
- MHD staff trap and sort mosquitoes by male / female & species.
- Mosquitoes sent to NH PHL for testing.



Mosquito Surveillance

- **Adult Mosquito Surveillance**
- **Larval Mosquito Surveillance & Treatment**



Mosquito Surveillance: Trapping



Light Trap



Gravid Trap

Role of Health Officer

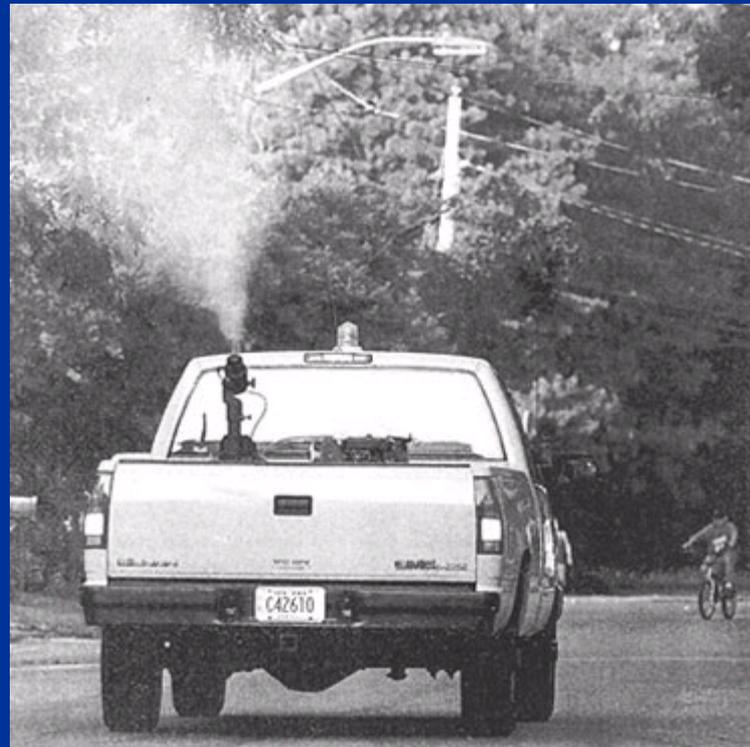
- The health officer may be consulted by residents of his/her community to provide recommendations for various WNV or EEE issues.
 - The following information will guide the health officer in providing such information:
 - Call the WNV/EEE information line at 1-866-273-6453
 - OR
 - Bureau of Communicable Disease Control at 1-800-852-3345 x 4496.
 - Many resources including fact sheets and the State Arboviral Plan are available at www.dhhs.state.nh.us

Role of Health Officer (Cont.)

- **Dialog with property owner for permanent abatement of issue.**
 - Removal of standing water
 - If pool: Chlorination or mosquito dunks if not used
- **For Interim control measures ensure:**
 - Property owner provides access to the standing water for visual inspection and verification of the efficacy of treatments
 - Owners signs agreement that can be revoked
 - Owner must provide receipts for materials used for effective treatment of standing water

Spraying for Mosquitoes

- When is it an appropriate community response to spray for mosquitoes?

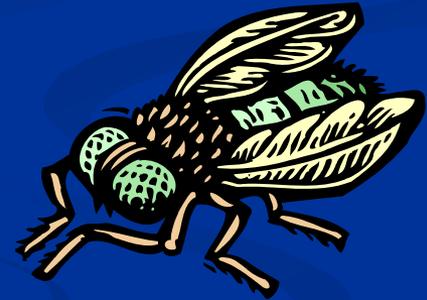




Insects

Houseflies

- The housefly breeds in a variety of decaying animal and vegetable matter.
- In rural areas, pig, horse, cow, or chicken manure frequently serves as a breeding habitat.
 - Sometimes even human excreta that is not disposed of properly.
- In warm weather, the average time from larval stage to adult stage is 10-16 days.
 - Larval stage (maggot) = 4-8 days
 - Pupal stage = 3-6 days



Insects



- **Examples of specific diseases that may be transmitted by the housefly:**
 - Typhoid
 - Dysentery
 - Diarrhea
 - Cholera
 - Yaws
 - Trachoma
 - Shigellosis



Houseflies can transmit worms and other diseases to people and animals.



Insects

- Control methods for houseflies:
 - All buildings should be equipped with screens on windows that open.
 - Comprehensive sanitation program (i.e. proper maintenance and disposal of garbage and excreta).
 - Chemical insecticides for indoor purposes and larvicides in outdoor breeding areas.
 - Radiation sterilization - artificial breeding of sterilized adult male flies (by radiation) to interfere with the reproduction process.



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Cockroaches are nocturnal insects.

Cockroaches

- Cockroaches are a diverse group of insects with some 4,000 species worldwide.
- 69 species are known to exist in the U.S., and fewer than 10 species regularly infest homes.
- They are nocturnal insects that are usually found in areas where food, water, and shelter are abundant.
 - Kitchens, cabinets, and appliances are primary living and breeding quarters for cockroaches.

Cockroaches

- Cockroaches can be a health hazard to humans in primarily two ways:
 - Incidental transfer of microorganisms from cockroaches can occur and is likely to:
 - Contaminate foods and produce spoilage.
 - Cause gastrointestinal illness in humans.
 - Cockroaches also produce antigens from their bodies and excretions
 - Important triggers for asthma and other allergies.

Cockroaches

- Control methods for cockroaches:
 - Minimize food and water access.
 - OTC aerosols, fumigators, bait/traps can be used to reduce indoor infestations.



Cockroach Trap



UC Statewide IPM Project
© 2000 Regents, University of California

Bed Bugs

- Bed Bugs (*Cimex lectularius*) are parasites that feed on humans.
- Before World War II, bed bug infestations were common.
 - In the 1940s and 1950s, widespread use of DDT greatly reduced the bed bug population.
- Today, bed bug populations are increasing across the U.S.
 - Common places of infestation: homes, hotels/motels, dormitories, shelters, and modes of transportation.



Bed Bugs

- **Control and Prevention Methods:**
 - Inspect clothing and baggage when returning from a trip.
 - Inspect secondhand beds, furniture, and clothing before purchasing.
 - Eliminating bed bugs from a dwelling can be challenging.
 - A combination of vacuuming, laundering bedding and clothing, and pesticide use can be effective.
 - Licensed pest control operators may be required in heavy infestations.



Ticks

- There are many species of ticks that are responsible for the transmission of various diseases to humans:
- Deer Tick
 - Principally found in the Northeast and Northern Midwest.
 - They are dark in color and very difficult to see due to their small size (adult = size of a pinhead).
 - They are the most common carrier of Lyme Disease.
 - Also carry Ehrlichiosis and Babesiosis.



Ticks

- Control and prevention methods:
 - Educate the public about the mode of transmission and the means for personal protection.
 - If working or playing in an infected area, search the total body area daily, including hairy areas.
 - Avoid tick-infested areas when feasible.
 - Wear light-colored clothing, long sleeves/pants.



Ticks

- Tuck pants into socks to keep exposed skin covered.
- Appropriate use of insect repellent containing DEET.
- Remove ticks immediately - proper tick removal is important.
 - Use tweezers.





Rodents

- **Rodents have been a public health problem for centuries.**
 - 1347, Genoa - Ships carried in flea-infested rats which resulted in the spread of bubonic plague killing 25 million people in three years.
 - 1665, London - plague killed 100,000 people.
 - 1994, India - 1,000 plague cases with ~100 deaths.





Rodents – Control Methods

- **Eliminating Food Sources** = rats cannot live and reproduce without food.
 - Control of garbage and refuse.
 - Comprehensive public education.
- **Rat-proofing** = an essential part of a long-range control program is the rat-proofing of buildings.
 - Seal all openings.
 - Demolish buildings that cannot be rat-proofed.
 - Strict building codes should be enacted to assure proper construction of new buildings.



Rodents – Control Methods (Cont.)

- Traps, Fumigants, or Poisons = once rat-proofed and food is unavailable, rat populations can be reduced.
 - Fumigants consist of gases (i.e. calcium cyanide).
 - Poisons are generally placed in food as bait for the rats (i.e. warfarin, red squill, zinc phosphide).

Communicable Diseases

Communicable Disease

- Isolation and Quarantine
- Communicable Disease Control
 - NH DHHS responsibility to lead these efforts.
 - Health Officers serve as a local contact to notify the State of public health concerns.
 - There are specific instances when the Health Officer may be called upon to assist in the investigation.

Example: Rabies

- Enforce the Rabies Control Act (RSA 436:99-109) in conjunction with the local animal control officer.
- Serve as a local source of public information and education using fact sheets about rabies or any other communicable disease.

Surveillance: Essential for Public Health Action



Why Investigate Possible Outbreaks?

■ Public, Political, or Legal Concerns

- “Responsibly responsive” to public concerns
- Responsibility to educate the public
- Law requirements

■ Program Considerations

- Program evaluation - TB programs
- Identifies “overlooked” populations
- Failures in intervention strategies
- Changes in the agent/event beyond the scope of the program

Food Protection & Safety

Food Protection & Safety

■ Food Protection

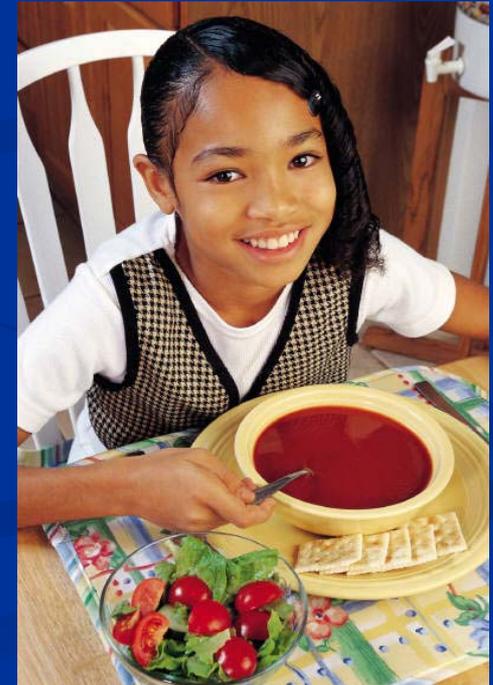
- **Local health officers should report suspect or confirmed occurrences of foodborne illness outbreaks to NH DHHS Communicable Disease Bureau.**
- **Also report this information to the Food Safety Coordinator in the Disease Surveillance Section to monitor complaints.**
- **Non self-inspecting jurisdictions: notify the Food Protection Section at NH DHHS if:**
 - **A food service establishment is not licensed,**
 - **The establishment changes ownership,**
 - **There is a new establishment.**
- **If NH DHHS revokes a license or issues an order of closure, the local health officer may be requested to document compliance with the order.**

■ Licenses; Inspections; Complaints; Food-borne Illnesses



Food Safety & Protection

- Protection of food from contamination and adulteration has always been an important goal of public health.
- During the last decade, the importance of protecting the public from foodborne illness and ensuring a safe food supply has become a national priority.



Violations

- **Critical Violation (known to increase risk of Foodborne Illness)**
 - Food at improper temperature
 - Poor hygiene (bare hand contact, smoking)
 - No sanitizing (cross-contamination)
 - Pest control issues
 - Moldy foods, dented cans
 - Ill employees

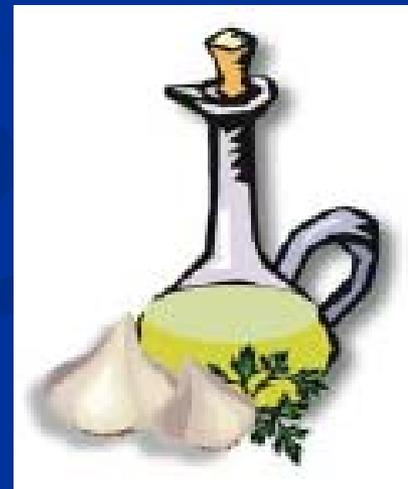
Violations (Cont.)

- **Non-critical (no imminent threat, but could increase risk)**
 - storage of food
 - equipment maintenance
 - storage of equipment
 - condition of floors, walls and ceilings
 - hair restraints

Potentially Hazardous Foods



- **Potentially Hazardous Foods** = Any food natural or synthetic that is capable of supporting the rapid growth of pathogenic organisms, toxins or other harmful substances.
 - Can also be any food, if mishandled
- **Common PHF's:**
 - eggs, shellfish, cooked rice, sprouts, baked potatoes, garlic and oil mixtures.





Temperature Control

- Cold foods shall be kept at or below 41°F.
- Hot foods shall be held at or above 140°F.
- Frozen foods shall be frozen, preferably under 0°F.
- All refrigerators and freezers must have conspicuous, internal thermometers.
- Use thermometers to temp foods.

Cleanliness/Personal Hygiene

- **Employees must report illness to their manager.**
- **These employees will not be allowed to handle food or utensils.**
- **Managers/owners MUST report certain illnesses to the Health Department.**
- **Wounds and open sores must be protected with impermeable covers.**

Personal Hygiene: Reportable Diseases

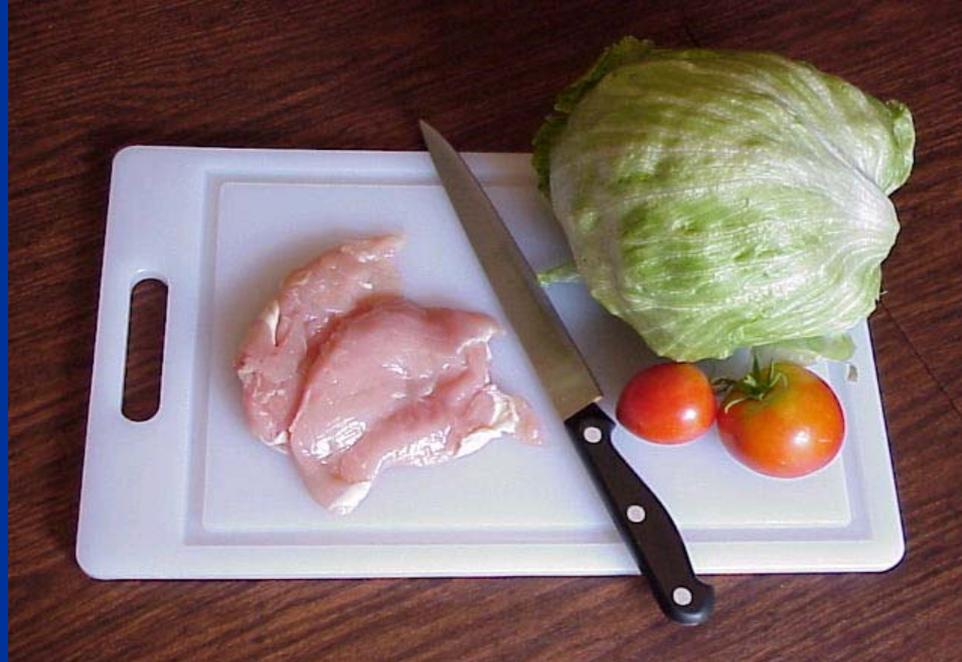
- **Campylobacteriosis**
- **E. coli 0157: H7**
- **Salmonellosis**
- **Shigellosis**
- **Hepatitis A**



E. coli O157:H7

Cross-Contamination

- Cross Contamination = occurs when bacteria or other harmful substances that exist in one food are transferred to another food causing it to become contaminated.



Prevention of Cross-Contamination

- Clean and sanitize all equipment, utensils, and food contact surfaces.
- Prepare raw foods in areas that are separate from cooked foods or produce.
- Use specific equipment for preparing different types of foods.
- Only use designated wiping cloths or towels for cleaning food spills.
- Use good food-handling techniques at all times when preparing or serving food.

Sanitation

- Clean = free of visible dirt and filth.
- Sanitary = reducing the amount of disease causing microorganisms to “safe” levels.



Sanitizing Methods

- Hot temperatures
 - greater than 160° F at the dish surface
- Chlorine (bleach)
 - 50-200 Parts per million = 1 tsp.. per gallon
- Quaternary Ammonium (Quat)
 - 200 PPM
- Iodine
 - 12.5 PPM

Administrative Items of Interest

- Food service establishments shall cease operation and notify the Health Department when...
 - There is a fire
 - There is no electricity
 - There is a sewage back- up
 - There is a lack of refrigeration
 - There is a lack of hot water under pressure

Health Inspection Process

- Health Inspectors Identify Themselves
- Check Permit
- Conduct Inspection
- Prepare Report
- Review the Report
- Questions, Answers, and Future Plans



Scoring

- **Routine inspections are unannounced**
 - Should be done at least once a year
 - Increased frequency with risk, past performance
- **Score based out of 100**
- **Each critical item subtract 4 or 5 points**
- **Each non-critical violation subtract 1 or 2 points**
- **Critical item violations require follow-up as indicated by law**

Scoring and Reporting

- **In Manchester, failure to correct a critical item violation upon announced reinspection may result in a fine.**
- **Scores less than 70 are failing**
- **Barring a complete lack of facilities or imminent public health risk, a facility will be given due process for chronic deficiencies.**
- **All non-medical reports are public record.**

PROCEDURE AND REQUIREMENTS FOR BECOMING A SELF-INSPECTING COMMUNITY

- A number of town elected officials and health officers are increasing their commitment to regulate food service establishments by meeting the requirements to be self-inspecting.
 - This designation allows the town to issue food service licenses and conduct food service inspections.

PROCEDURE AND REQUIREMENTS FOR BECOMING A SELF-INSPECTING COMMUNITY (CONT.)

- **The town must adopt He-P 2300, the NH Rules for the Sanitary Production and Distribution of Food.**
 - Contact the DPHS Food Protection Section to gather more information about the process and requirements.
 - The Board of Selectmen must pass an ordinance for the town to be designated “Self-Inspecting”.
 - A letter is sent from the local Board of Health to the Commissioner of the Department of Health and Human Services requesting self-inspecting status.
 - The Commissioner and the Board of Selectmen sign a Memorandum of Agreement.
 - The state food-rating officer trains and standardizes the local inspector(s) by conducting joint inspections. Through the inspection process the local inspector is evaluated on his/her knowledge of the food code.

Emergency Planning & Response

Emergency Planning and Response

- **Participate in local planning efforts to ensure public health needs and issues are addressed.**
 - Strengthen connections with community partners and become knowledgeable of your local emergency plans and your role as a health officer.
 - Receive training to use personal protective equipment (PPE).
 - Receive vaccinations, prophylactic antibiotics or antivirals as recommended by NH DHHS so you can participate in emergency response efforts.

Emergency Planning and Response

- **Receive National Incident Management System (NIMS) training to become certified as directed by Homeland Security Presidential Directive 5.**
 - **Two online trainings are required: Incident Command System and Introduction to NIMS.**
 - On-line trainings are available at <http://training.fema.gov/EMIWeb/IS/crslist.asp> .
 - Contact the DOS at (603) 271-2661 for more information about their training programs.
- **Participate in local efforts to identify hazards and vulnerabilities in your community.**
- **Participate in emergency drills, exercises, etc. to test emergency plans.**

Responding to an Emergency

- **Make sure suspect or confirmed cases of reportable communicable diseases are reported to DPHS .**
- **Assist in coordinating environmental and food specimens/samples being delivered to the NH Public Health Laboratories in Concord.**
- **Ensure timely reporting of suspicious symptoms, illnesses, or circumstances identified by local clinicians by facilitating case reporting to the DPHS' Bureau of Disease Control (BDC).**
- **Assist with epidemiologic investigations as requested by BDC.**

Responding to an Emergency (CONT.)

- Provide public health related support and expertise to the Public Information Officer, who is part of the local Incident Command System, with the goal of providing accurate health and safety information to the public and emergency response participants.
- Provide technical advice to the Incident Command on worker health and safety (i.e. heat stress, rest cycles, PPE).
- Assume your role as outlined in local emergency operations plan (LEOP) to implement mass vaccination or prophylaxis clinics.

Emergency Planning and Response

RECOVERING FROM AN EMERGENCY

- Participate in post-event planning and operations to restore general public health services.
- Collaborate with response partners to issue and disseminate interim guidance on risk and protective actions by monitoring air, water, food, and soil quality, vector control, and environmental decontamination.
- Collaborate with response partners to disseminate information resources and messages to foster a community's return to self-sufficiency.

IMPROVING EMERGENCY RESPONSE

- Participate in post-event debriefings to identify strengths and deficiencies in personnel, training, equipment, and organizational structure.
- Implement corrective actions for public health related deficiencies and integrate these changes into the LEOP.

Resources

Resources

- **The Health Officer Manual contains a listing of important contacts and web-based resources.**
 - **NH DHHS Program Area Directory**
 - **NH DHHS District Office Information**
 - Berlin, Littleton, Claremont, Manchester, Concord, Nashua, Conway, Portsmouth, Keene, Rochester, Laconia, and Salem
 - **Other Key Agencies/Programs List**
 - **NH American Red Cross Chapters**
 - **DES Subsurface Regional Offices**
 - **Education/Training Resources in Emergency Preparedness**

Resources (Cont.)

- **The Health Officer Manual contains a listing of pertinent forms and templates.**
 - Sample of a Board of Health Order
 - Sample of an Order to Vacate
 - Sample letter of deficiency for a failed septic system
 - Request for an Administrative Inspection Warrant
 - Petition for an Administrative Inspection Warrant
 - Local Health Officer Nomination Form
 - Deputy Health Officer Appointment Form
 - NH Communicable Disease Report Form
 - All Health Hazards Region Map

Resources (Cont.)

- A CD with the above and additional resources is available through the completions of these trainings.
- For technical assistance and support:
NH DHHS, DPHS
Louise Merchant Hannan
1-800-852-3345 ext. 4781