

Hepatitis A: A Briefing for New Hampshire Food Service Managers And Employees

Beth Gagnon, MPH

Foodborne Disease Epidemiologist

NH DHHS, Disease Surveillance Section

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**NH Department of Health and Human Services
Division of Public Health Services**



Purpose

- **New Hampshire is currently experiencing an increase in Hepatitis A**
- **This increases the likelihood of identifying a food service worker with Hepatitis A**



Agenda

- **Overview of Hepatitis A**
- **Overview of Norovirus**
- **Reducing transmission in the workplace**
- **Response and Investigation by DHHS**



Hepatitis A Virus



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Intro to Hepatitis A

- Hepatitis A is a virus
- The virus temporarily damages the liver by infecting cells
- It is this damage that produces the symptoms
- Hepatitis A is different than other forms of Hepatitis (such as B & C)



Symptoms of Hepatitis A

- Nausea
- Vomiting
- Diarrhea
- Fever
- Dark Urine
- Jaundice (yellowing of the skin and eyes) is the characteristic sign



Symptoms of Hepatitis A

- Symptoms are less severe in children (70% have no symptoms at all)
- Symptoms can lead to hospitalization and can last for weeks
- Serious complications or death are rare, occurring in 0.1 – 0.3% of all cases
- The incubation period is 15 to 50 days (average is 30 days)



Diagnosis of Hepatitis A

- While symptom information is useful in determining if a person has Hepatitis A, a blood test is the only way to diagnose Hepatitis A



Treatment

- No specific treatment or antibiotics
- Supportive therapy
 - Replace fluid losses
 - Rest

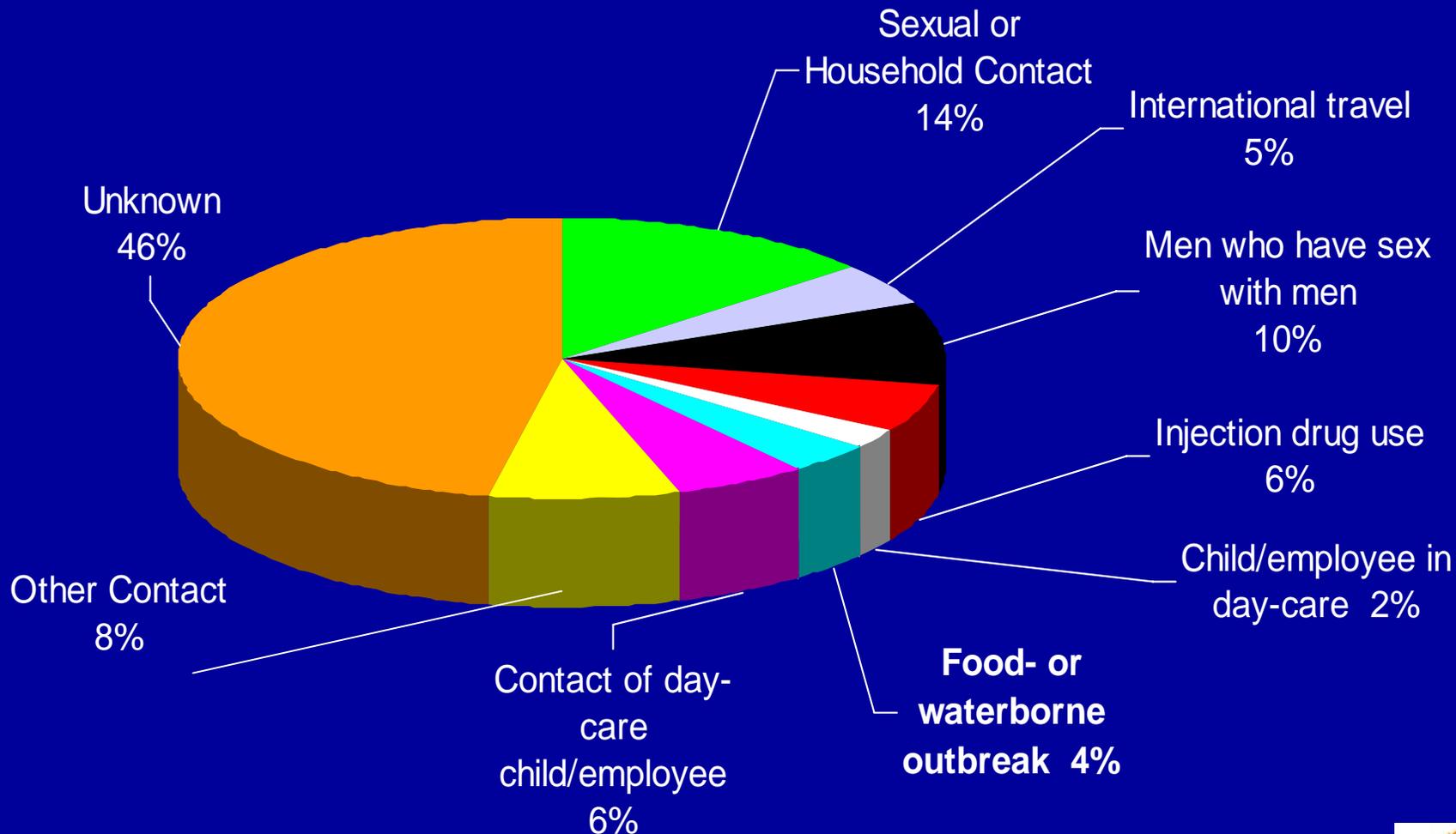


How Is It Spread?

- **Contaminated food or water**
- **Close personal contact**
(e.g., household contact, sex contact, child day-care centers)
- **Blood exposure**
(e.g., injection drug use, rarely by transfusion)
- **Communicability is highest in the two weeks prior to and the first week after the onset of symptoms**



Risk Factors for Hepatitis A in the United States



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Hepatitis A

- **Transmission through a foodborne outbreak is a rare cause of Hepatitis A**
- **When it occurs through a foodservice establishment, it causes substantial disruption to the workplace and the community**

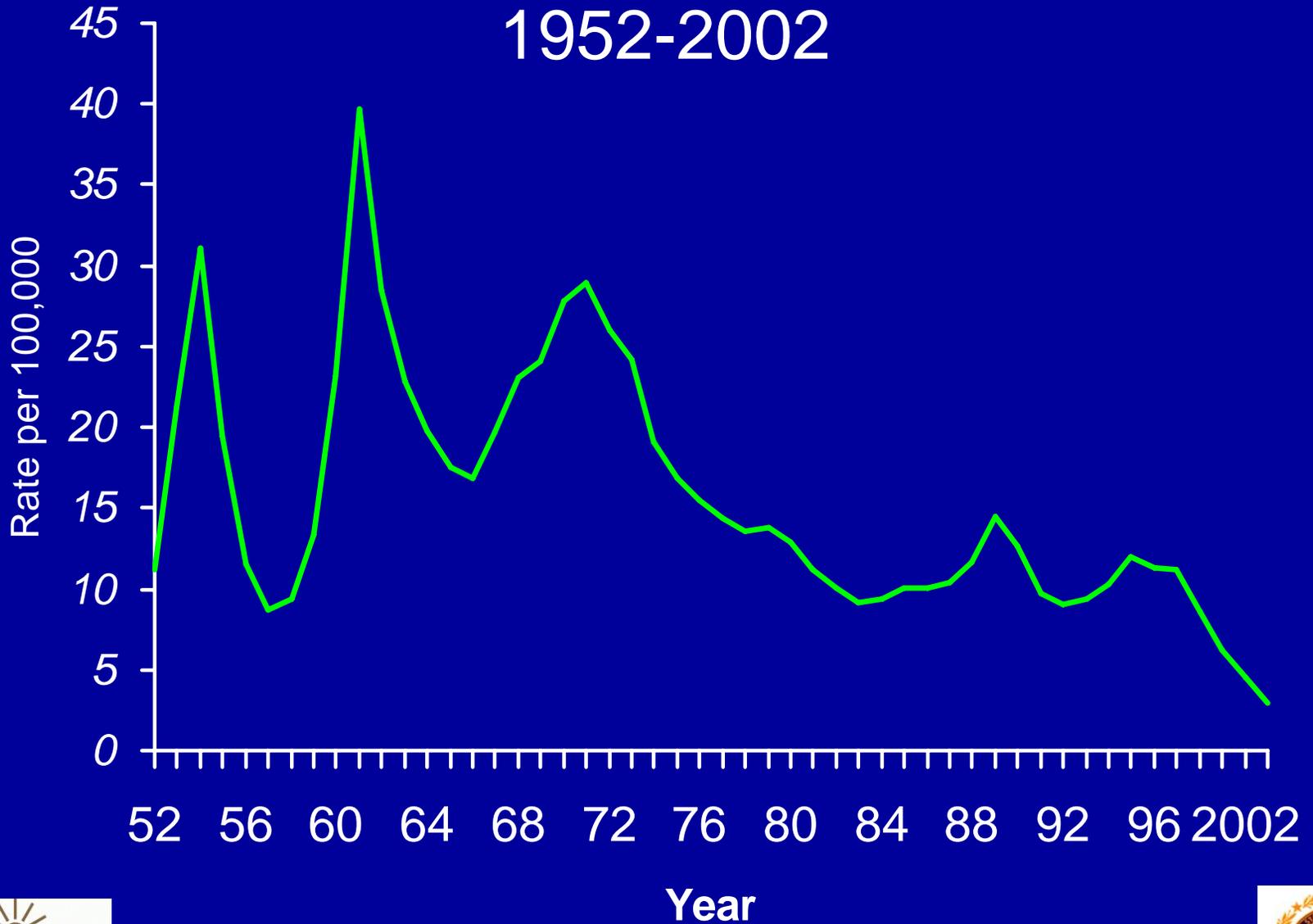


National Trends in Hepatitis A

- National rate decreasing
 - 1980: 29,087 cases
 - 2003: 7,653 cases
- Rates increasing in some states
 - among adults in high risk groups (e.g. MSM, drug users)
- New Hampshire rate lower than the national average
- Hepatitis A naturally increases and decreases cyclically



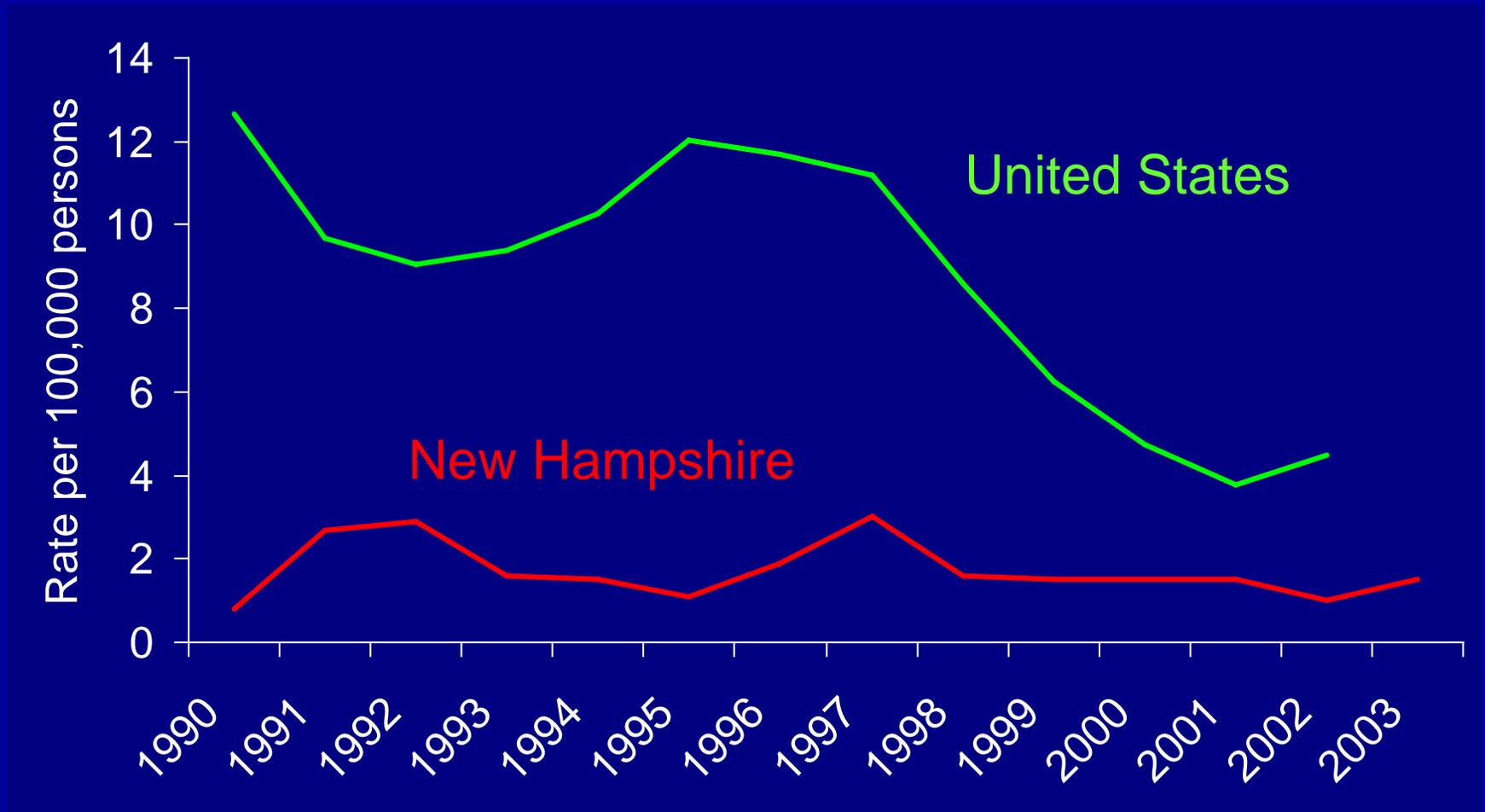
Reported Cases of Hepatitis A in the US, 1952-2002



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Hepatitis A. US and NH, 1990-2003



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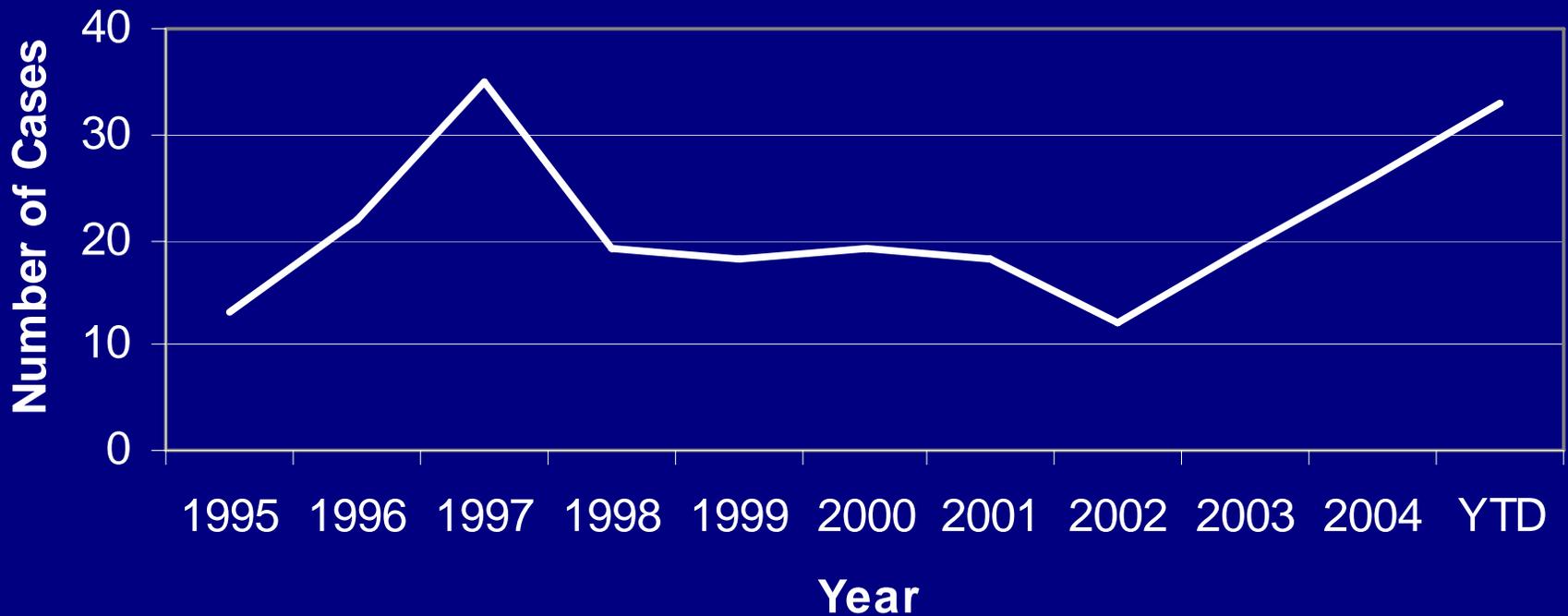


Comparison of Common Diarrheal Diseases New Hampshire, 1995 - 2004

<u>Micro-organism</u>	<u>Average # of cases per year</u>
Campylobacter	197
Salmonella	156
E. coli O157:H7	32
Hepatitis A	20
Botulism	0.5



Incidence of Hepatitis A in New Hampshire, 1995-2005



1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	YTD
13	22	35	19	18	19	18	12	19	27	35



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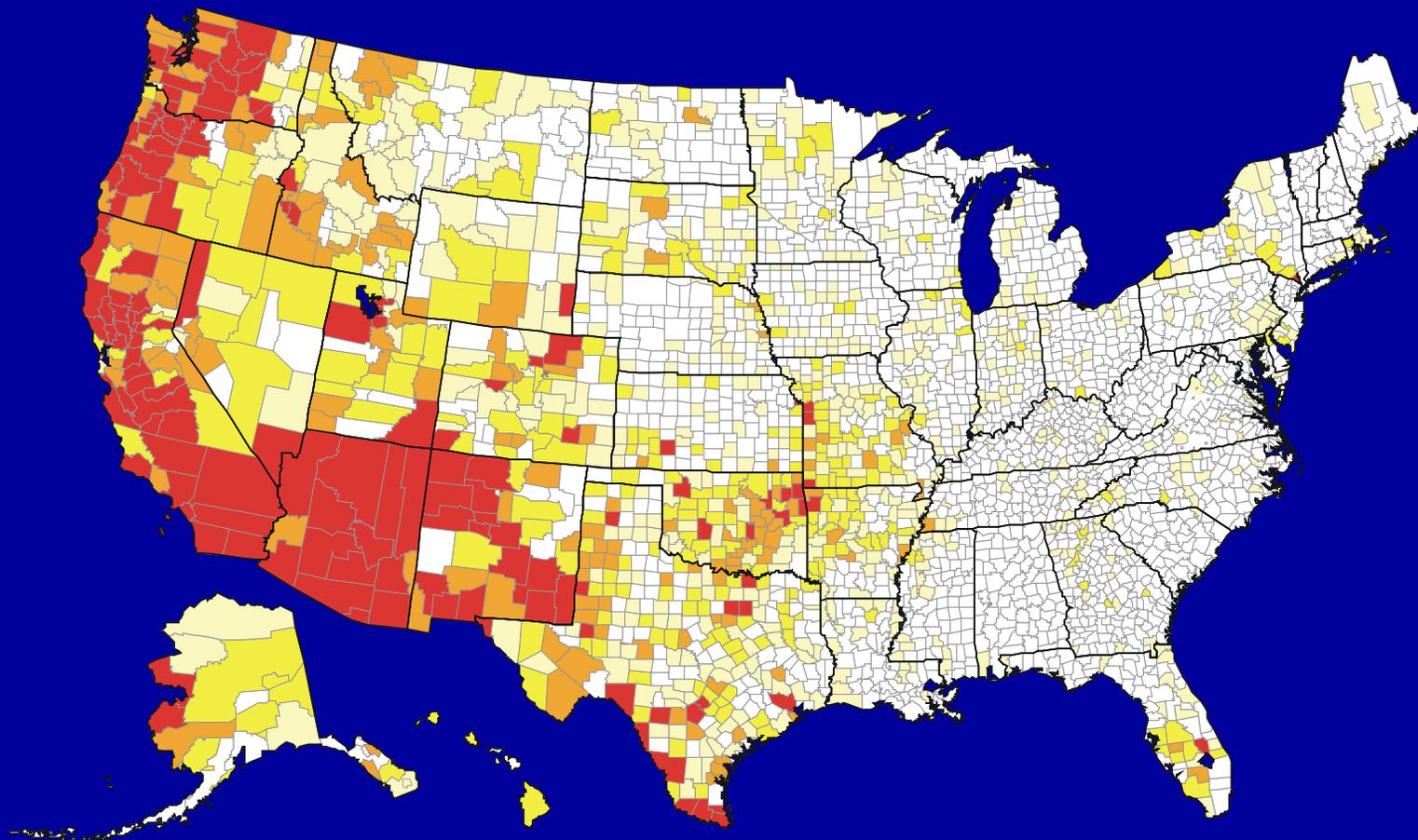


Recent Increase in Hepatitis A in New Hampshire

- Hepatitis A naturally occurs in a cyclic pattern of increases and decreases
- Changing population dynamics relevant to risk factors
 - Increase in drug use, increase in immigrant or refugee populations, etc.



Incidence of Hepatitis A per 100,000 Population, By County, 1987-1997



0-1 2-3 4-5 6-7 8-11



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Norovirus



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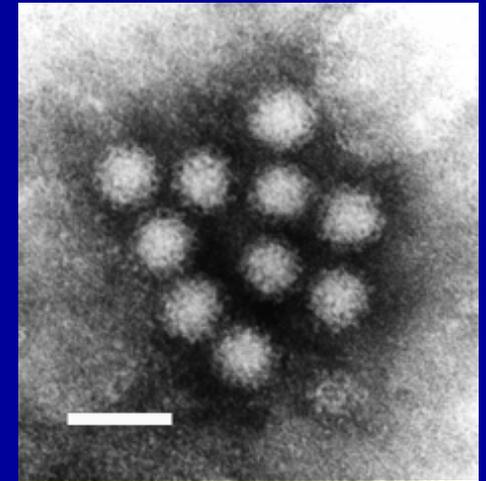


Importance to Food Establishments

- Most common cause of outbreaks in food establishments
- Viral diseases are easy to transmit
- A very small dose may produce illness
- During incubation a person may be infective
- Person may not know they have an illness



Norovirus



- A virus that causes a diarrheal disease in humans
- Noroviruses are named after the original strain “Norwalk virus,” which caused an outbreak of gastroenteritis in a school in Norwalk, Ohio, in 1968



Norovirus

- **Estimated 23 million cases each year in the United States**
- **Not a reportable disease in New Hampshire**
- **At least 50% of all FBO's are attributed to norovirus most often through direct contamination of food by a food handler immediately before its consumption**
- **In 2004 NH investigated 4 outbreaks of foodborne Norovirus; in 2005 there have been 4 Norovirus outbreaks**



Norovirus

- **Outbreaks have been associated with consumption of ready-to-eat and cold foods, including:**
 - **various salads**
 - **sandwiches**
 - **salad dressing**
 - **cake icing and bakery products**
- **Bare hand contact with ready to eat foods and cold storage contribute to implication of these food items in outbreaks**



Norovirus

- **Food can also be contaminated at its source**
 - oysters from contaminated waters have been associated with widespread outbreaks
 - Raspberries and other produce, have been contaminated before widespread distribution and caused extensive outbreaks
- **Waterborne outbreaks of norovirus in community settings have been caused by sewage contamination of wells and recreational water**



Features of Norovirus

- The incubation period is usually between 24 and 48 hours (median in outbreaks 33 to 36 hours), but cases can occur within 12 hours of exposure
- Recovery is usually complete and there is no evidence of any serious long-term complications
- Asymptomatic infection may occur in as many as 30% of infections



Symptoms

- Vomiting
- Diarrhea
- Abdominal cramps
- Nausea
- Fever is uncommon and if present will be low
- Symptoms usually last 24 to 60 hours and resolve on their own



How Is It Spread?

- **Fecal-oral route**
 - consumption of contaminated food or water
 - direct person-to-person spread
- **Environmental contamination may also act as a source of infection**
- **During outbreaks all of the mechanism may apply**
- **Highly contagious - as few as 10 virus particles may be sufficient to infect an individual**



How Is It Spread?

- **Presymptomatic viral shedding is possible**
- **Transmission begins with onset of symptoms and may continue for 2 weeks after recovery**



Treatment

- No specific treatment or antibiotics
- Supportive therapy
 - Replace fluid losses
 - Rest



Norovirus

- **Noroviruses are relatively resistant to environmental challenge: they are able to survive freezing temperatures and temperatures as high as 140°F**
- **Noroviruses can survive in up to 10 ppm chlorine, well in excess of levels routinely present in public water systems**



How to Prevent Virus Transmission in a Foodservice Establishment



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Key Prevention Principals

1. **Good Worker Hygiene**
2. **Environmental sanitation (e.g., cleaning and sanitizing equipment, utensils, food contact surfaces)**
3. **Management Attention**



Worker Hygiene Protections

- **Frequent and proper hand washing**
- **No bare hand contact with ready-to-eat foods**



No Bare Hand Contact with Ready-to-eat Foods

- This is a rule in NH (He-P2300)
- Review food service practices to ensure no-bare hand contact with ready-to-eat foods including fruits, breads, and garnishes
- Use gloves, tongs, tissue, utensils
- Remember that employees can shed bacteria and viruses even when not symptomatic



Frequent Handwashing

- **Become aware of Critical Hand Washing Opportunities**
 - After using the toilet
 - After coughing, sneezing,
 - After using a handkerchief or disposable tissue
 - After using tobacco products, eating or drinking
 - After any grooming activity



Proper Hand Washing

- **Encourage good hand washing technique**
 - Using enough soap
 - Washing for long enough
 - Using the hand wash sink only for hand washing and keeping it clean



Cross Contamination of Surfaces and Equipment

- **Wash, rinse and sanitize all:**
 - Tableware & glassware
 - Food preparation surfaces & cutting boards
 - Utensils
 - Handles and pulls
- **Avoid:**
 - Contamination during preparation
 - Contamination during storage
 - Contamination during transport



Additional Prevention Practices

- Linens (including clothes, towels, tablecloths, napkins) soiled to any extent with vomit or stool should be promptly washed at high temperature
- Wash raw vegetables thoroughly before serving
- Assure appropriate sewage disposal and maintenance of sewage systems



Management Activities

- Adequate facilities & supplies for hand washing and for food preparation
- Establish initial & regular training
- Monitor illness in employees
 - Employees should report illness
 - Employers should look for illness



Monitoring Ill Employees

- **Symptoms to Look For:**
 - Diarrhea
 - Fever
 - Vomiting
 - Jaundice
 - Sore throat with fever
 - Lesions or wounds



Employee Restrictions

- **Employees with these symptoms**
 - Should not be involved in food preparation
 - Should not handle clean tableware, utensils or glasses
 - May be asked to visit a health professional
- **Employees should be excluded for at least 48 hours after the onset of symptoms or until cleared by a physician**



III Employee Issues

- Any surfaces contaminated by vomit should be promptly cleaned, disinfected with bleach solution, and then rinsed
- Food items that may have become contaminated must be thrown out
- Remember that vomit particles may be too small to see but still contain virus
- When in doubt, throw it out



Additional Hepatitis A Specific Prevention

- Hepatitis A vaccine is available
 - 94 -100% effective
 - Requires two injections
 - Cost ~ \$50 – \$80 per injection



Persons Who Should Receive Hepatitis A Vaccine

- Men who have sex with men
- Drug users
- Some international travelers
- Persons who have certain medical conditions of the liver
- National Guidelines currently do not recommend routine vaccination for food service workers
- Food service workers may wish to take advantage of it as a personal health choice in consultation with their physician



Health Department Investigation and Response?



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Investigation and Control of Potential Diseases

- Events get reported through RSA 141-C
- Initial case investigation
- Worker hygiene assessment
- Foodservice establishment inspection
- Determination of risk
- Recommendations and plan for response



What happens if a Food Service Worker has Hepatitis A

- Food service manager/operators can expect to be notified in the event an employee is diagnosed with Hepatitis A
- That person must be excluded from duties involving the handling of food for one week after the onset of symptoms



Immune Globulin (IG)

- **IG is a protective shot that prevents Hepatitis A infection after exposure**
- **IG is not the same as the Hepatitis A Vaccine**
- **IG is often recommended for all food service workers in the establishment if a food worker is diagnosed with Hepatitis A**
- **IG may be recommended for patrons of the establishment depending on the risk assessment**



For more information about food safety regulations in NH

Contact the NH Department of Health and Human Services Bureau of Food Protection:

- **E-mail:** foodprotection@dhhs.state.nh.us
- **Web:** www.dhhs.state.nh.us/DHHS/FOODPROTECTION
- **Phone Number:** (603) 271-4583



NH Department of Health and Human Services
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Contact Information

Monday - Friday 8:00am to 4:30pm:

Disease Control (603) 271-4496

Food Protection (603) 271-4583

Non-business hours:

(603) 271-5300



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- New Hampshire Police Standards and Training Council
- New Hampshire Fire Standards and Training
- New Hampshire Department of Health and Human Services
- UNH Cooperative Extension



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