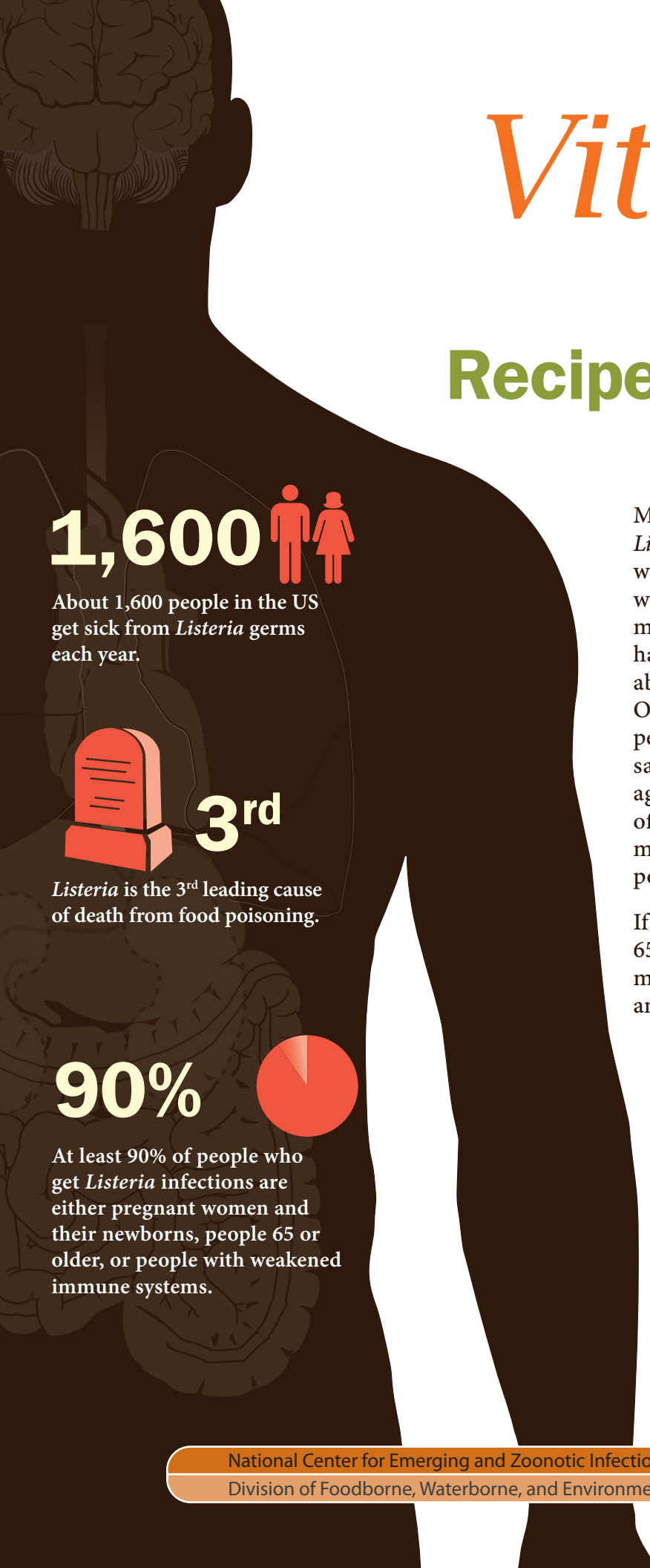
CDC Vitalsigns™
June 2013

Recipe for Food Safety

Protecting people from deadly *Listeria* food poisoning



1,600

About 1,600 people in the US get sick from *Listeria* germs each year.

3rd

Listeria is the 3rd leading cause of death from food poisoning.

90%

At least 90% of people who get *Listeria* infections are either pregnant women and their newborns, people 65 or older, or people with weakened immune systems.

Many germs can be spread through food. Some, like *Listeria*, can be deadly. *Listeria* strikes hard at pregnant women and their newborns, older adults, and people with weakened immune systems. *Listeria* can cause miscarriage and meningitis. Most people found to have *Listeria* infection require hospital care and about 1 in 5 people with the infection die. Outbreak investigations tell us what foods make people sick and what needs to change to make food safer and save lives. We have made some progress against *Listeria*, which is the third leading cause of death from food poisoning. However, we can do more to protect people at higher risk for food poisoning and make food safer for everyone.

If you, or someone you make food for, are pregnant, 65 or older, or have a weakened immune system, you must be especially careful when selecting, preparing, and storing foods.

- ◇ Know your risk of food poisoning.
- ◇ Select, prepare, and store food safely.
- ◇ Follow the safe food guidelines – Clean, Separate, Cook, Chill – at www.FoodSafety.gov

Learn more about how to prevent food poisoning and outbreaks.

→ See page 4

Want to learn more? Visit

www http://www.cdc.gov/vitalsigns

National Center for Emerging and Zoonotic Infectious Diseases
Division of Foodborne, Waterborne, and Environmental Diseases

Problem

Listeria is a deadly germ that is hard to control

Listeria is challenging because

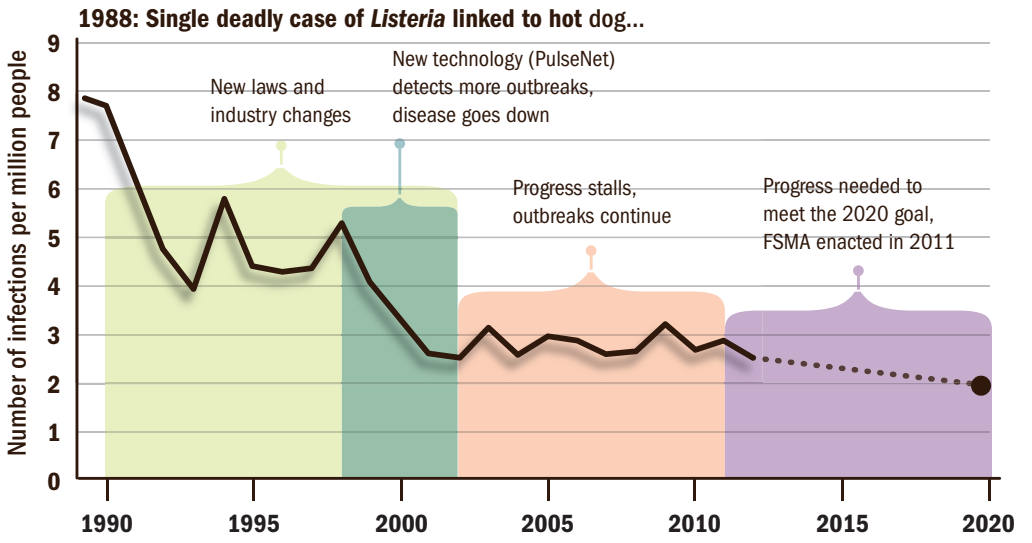
- ◇ When someone eats food contaminated with *Listeria*, sickness or miscarriage may not occur until weeks later when it is difficult to identify which food was the source.
- ◇ *Listeria* can contaminate many foods that we don't usually cook, like deli meats, cheeses and sprouts.
- ◇ Some foods we might not suspect can be contaminated with *Listeria* and cause sickness and outbreaks, such as cantaloupe and celery.
- ◇ *Listeria* is a hardy germ that can even grow on foods that are refrigerated.
- ◇ *Listeria* can hide unnoticed in the equipment or appliances where food is prepared, including in factories and grocery stores.

We can prevent *Listeria* infections by

- ◇ Identifying outbreaks fast by using special laboratory tests and disease detectives.
- ◇ Rapidly finding and removing contaminated food before people eat it.
- ◇ Using lessons from outbreaks, including environmental investigations, to make food safer.
- ◇ Applying new safety measures for food production, like those included in the Food Safety Modernization Act (FSMA), so that food doesn't get contaminated in the first place.
- ◇ Reducing *Listeria* contamination of ready-to-eat meat and poultry products by following USDA guidance.
- ◇ Having a robust public health system that provides the tools and resources needed to promote food safety.
- ◇ Learning more about which polices and practices work best.

Detecting more outbreaks points the way to prevention

Outbreaks from *Listeria* in the 1990's traced to hot dogs, and later to deli meats, led to changes that made processed meats safer and reduced the number of such outbreaks. But, *Listeria* infection rates have not gone down since 2001.



SOURCES: JAMA, 1995; CDC, 2012

Faster detection and response saves lives and protects people

Listeria Outbreaks

Days from outbreak detection to first public warning

Soft Cheese	Cantaloupe
1985	2011
31	7

SOURCES: New England Journal of Medicine, 1988; Morbidity and Mortality Weekly Report, 2011

Who has a higher risk of getting *Listeria* food poisoning?

Lessons from *Listeria* outbreaks: Food poisoning can happen to anyone. Each year, about 48 million people in the US (1 in 6) get sick from eating contaminated food. It can be especially dangerous for pregnant women and their newborns; older adults; and people with immune systems weakened by cancer, cancer treatments, or other serious conditions (like diabetes, kidney failure, liver disease, and HIV/AIDS). *Listeria* is a prime example of how germs that contaminate food can cause sickness and death in these groups.

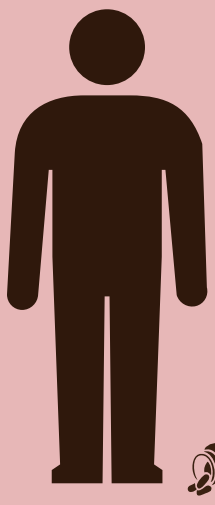
Pregnant women, fetuses, and newborn infants

Listeria can pass from pregnant women to their fetuses and newborns. It can cause miscarriages, stillbirths, and newborn deaths.

Chancy cheese

LISTERIA OUTBREAK: Queso fresco (a type of soft cheese) sickened 142 people, killed 10 newborns and 18 adults, and caused 20 miscarriages.

People with weakened immune systems



Listeria can spread through the bloodstream to cause meningitis, and often kills. The weaker your immune system, the greater the risk.

Contaminated celery

LISTERIA OUTBREAK: Pre-cut celery in chicken salad served at hospitals sickened 10 people who had other serious health problems. Five of them died as a result.

Adults 65 or older

Listeria can spread through the bloodstream to cause meningitis, and often kills. The older you are, the greater the risk.

Tainted cantaloupes

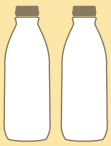
LISTERIA OUTBREAK: Contaminated whole cantaloupes sickened 147 people in 28 states and caused one of the deadliest foodborne outbreaks in the US. There were 33 deaths, mostly in adults over 65, reported during the outbreak.

SOURCE: CDC, 2013

What foods are risky?

When it comes to *Listeria*, some foods are more risky than others. Meet some of the other foods where *Listeria* is known to hide.

Raw Sprouts



Raw Milk
(unpasteurized)

Soft Cheeses

Deli Meats and Hot Dogs
(cold, not heated)

Smoked Seafood

What Can Be Done

Federal, state, and local governments are

- ◇ Providing guidance to industry and developing regulations, like FSMA, to focus food safety efforts on safer production and handling of foods.
- ◇ Tracking *Listeria* infections to identify opportunities to improve policies and practices, particularly to protect groups at higher risk.
- ◇ Investigating and stopping outbreaks by recalling contaminated foods and warning the public.
- ◇ Applying CDC's enhanced approach to investigating *Listeria* infections in all states so disease detectives can rapidly solve outbreaks by:
  - DNA fingerprinting the *Listeria* germ to identify outbreaks and contaminated foods, and interviewing people who are sick—quickly and uniformly—about what they ate.
    See *Listeria* Initiative, http://www.cdc.gov/listeria/pdf/ListeriaInitiativeOverview_508.pdf
- ◇ Building public health capacity for advanced genome sequencing and analysis, which will make it possible to more quickly detect *Listeria* infections and outbreaks, and track them to their sources.

Food industry and places that sell or serve food can

- ◇ Promptly communicate recalls of foods at risk for contamination.
- ◇ Follow related guidance and regulations that address foods that are more likely to be contaminated.
- ◇ Adopt proven actions like good sanitation and refrigeration in all food production and service facilities for *Listeria* control.
- ◇ Identify and apply research to better prevent *Listeria* growth and cross-contamination in factories and stores, such as retail delis.

www http://www.cdc.gov/vitalsigns

www http://www.cdc.gov/mmwr

Health care providers can

- ◇ Tell pregnant women, older adults, and people with weakened immune systems about *Listeria* and other dangerous germs spread through food.
- ◇ Report *Listeria* infections quickly to the local health department to help spot and stop outbreaks.

People at higher risk and those who cook for them can

- ◇ Know which foods are risky for pregnant women, older adults, and people with weakened immune systems, and avoid these foods.
  See http://www.cdc.gov/listeria/prevention.html
- ◇ Heat deli meats and hot dogs until steaming hot before eating.
- ◇ Not drink raw (unpasteurized) milk or eat soft cheeses made from it.
- ◇ Be aware that Mexican-style cheeses made from pasteurized milk, such as queso fresco, likely contaminated during cheese-making, have caused *Listeria* infections.
- ◇ Refrigerate leftovers within 2 hours in shallow covered containers and use within 3-4 days.
- ◇ Be careful to avoid cross-contamination in the refrigerator or other places in the kitchen.
- ◇ Use a thermometer to make sure your refrigerator is 40°F or lower and your freezer is 0°F or lower.

Everyone can

- ◇ Know the risks of food poisoning and follow the Clean, Separate, Cook, Chill guidelines.
- ◇ Visit http://www.FoodSafety.gov for the latest information on preventing food poisoning.

For more information, please contact
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Publication date: 6/4/2013

CS239776B