

# December 2022 Board of Health Spotlight

*History of Public Health and the  
Yakima Health District*



# Public Health Services



## Public Health 1.0

- Tremendous growth of knowledge and tools for both medicine and public health
- Uneven access to care and public health

## Public Health 2.0

- Systematic development of public health governmental agency capacity across the United States
- Focus limited to traditional public health agency programs

## Public Health 3.0

- Engage multiple sectors and community partners to generate collective impact
- Improve social determinants of health

Late  
1800s

1988 IOM  
*The Future of  
Public Health* report

Recession

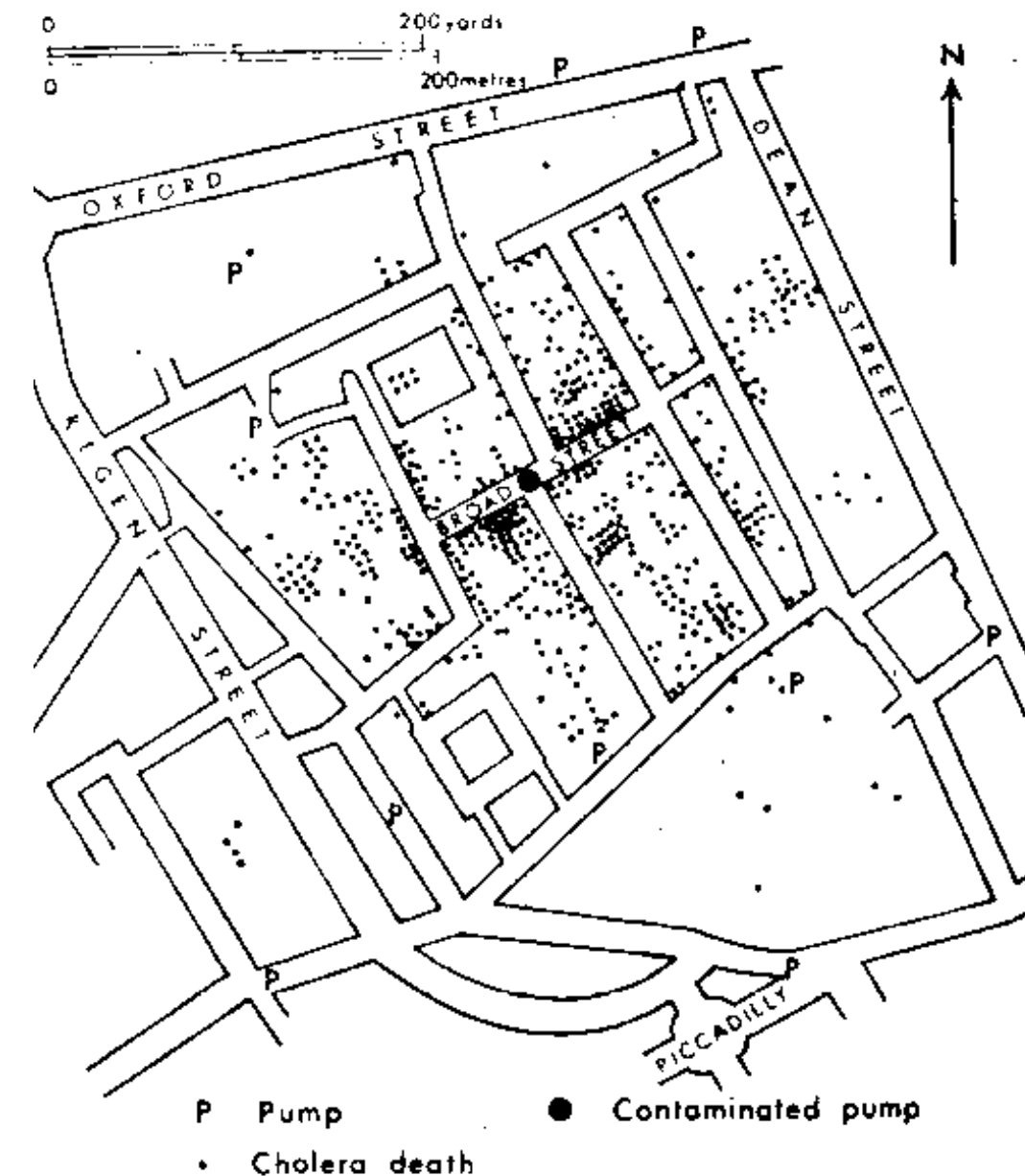
Affordable  
Care Act

2012 IOM  
*For the Public's  
Health* reports

# Birth of Epidemiology

## 1854 Broad Street cholera outbreak

- Dr. John Snow demonstrated that there was a cholera problem among people who drank water from the Broad Street pump.
- He tracked hundreds of cases using geographical grids and death charts.
- With his research, he convinced town officials to take the handle off the pump and the cholera outbreak immediately came to a stop.





# Public Health in Yakima County

## YHD History

- In 1911, Yakima County experienced a typhoid fever outbreak.
- Dr. Leslie Lumsden , an epidemiologist, narrowed the source of outbreak to the city's water supply.
- Dr. Lumsden's discovery and recommendations produced a dramatic decrease in disease and prompted the development of the Yakima Health District.

TOP STORY

It Happened Here: Yakima Health District organized in response to typhoid fever outbreak





# The Meningococcal Epidemic 1989

- Meningococcus cases quickly rose at the beginning of 1989. There were 15 diagnosed cases by March 10, 1989.
- Immunization clinics were set up by the Health District to deal with possible exposures in schools.
  - YHD staff worked more than 16 hours a day.
  - More than 900 volunteers working at these clinics over a 5 week period.
  - A total of 15,930 people were immunized.
- Dr. Robert Atwood stressed that the vaccine does not prevent people who carry the organism from spreading to others, but it protects vaccinated individuals from becoming ill.

**Massive vaccinations begin**

Selah clinic today; tribe to begin program

By GARY E. NELSON  
Of the Herald-Republic

Some 2,400 children in Selah schools — except those in middle school — may have been exposed to meningococcal disease, and public health officials are asking parents to bring those children to a special clinic this afternoon.

The most recent case of meningococcal disease, confirmed Saturday, involves a Selah infant in a family with school-age children, officials said Monday.

Meanwhile, the Yakima Indian Health Center decided Monday to begin a blanket vaccination program for about 5,000 Indians between the ages of 1 to 25 years.

These tribal members are considered to be at higher risk than the general population, said Carl Olden, a physician at the health center.

To date, the tribe's rate of meningococcal patients has been higher than that of the general population, Olden said.

Three cases have been reported within the tribe, according to the

Yakima Health District.

The Indian community is in closer contact with one another and there has been no way to tie together the cases to date, Olden said.

Vaccinations are scheduled to begin Thursday, but exact details have yet to be worked out, he said.

In Selah, families will be interviewed to determine the best course of action.

Linda Topel, Yakima Health District assistant director, said some children will receive the antibiotic Rifampin and a vaccine against the disease. Others may receive only Rifampin, and those determined to be without risk of the disease will be sent home, Topel said.

Health district officials were drafting a questionnaire late Monday to help screen people, she said.

Parents of children in any Selah school except the middle school are asked to bring their children to the Lince Intermediate School cafeteria, 316 W. Naches, between 3:30 and 10 p.m. today. District officials are requesting that families with surnames beginning with A through L come to the school between 3:30 and 6:30 p.m., and those with surnames beginning with M through Z arrive after 6:30 in order to prevent congestion.

Also Monday, volunteers and health agency workers vaccinated hundreds of children in Wapato after health district officials determined the two cases in that city may have exposed large numbers of school children.

District officials have called for volunteers to assist with the Selah and Wapato clinics. Registered and licensed practical nurses and others may call Jim Roady, 966-8397, between 8 and 10:30 a.m. today to volunteer.

The Selah case is the 17th diagnosed since the outbreak began, Public Health Officer Dr. Bob Atwood said Monday. The disease has claimed four lives, three of them children under 18 months old. The other death was a 23-year-old Yakima man.

(See OUTBREAK, Page 3A)

**Concerned callers swamp health district**

Dr. Robert Atwood, director of the Yakima Health District, discusses what's happening with the outbreak of meningococcal disease.

(Staff photo by Kirk Hirota)



# Meth Lab Cleanups in the 90s

- Yakima County was the third busiest county in the 3rd busiest state for meth lab clean ups.
- The Health District worked with the Department of Ecology to get a list of chemicals that were at the meth lab property.
- An EH Specialist would evaluate whether the property was unfit for use based on the list of chemicals and the location of the manufacturing and storage of those same chemicals.
- They would then approve a work plan for clean up and decontamination and ensure the job meets public health standards.



# The Housing Boom in the early 90s

- In the early 90s, many houses were being built at the time resulting in an increase in the number of septic inspections.
- The waiting period after submitting the application was around 8 weeks, compared to the 1-2 week waiting period today.
- Most property owners were first time home builders so EH Specialists educated them on the process of what needed to be done.
- EH Specialists would also do their best to give alternative plans on where the septic system could be placed in order to be compliant with the rules and regulations.



# Jack in the Box Outbreak

- January 1993: Investigation launched into a high incidence of Hemolytic Uremic Syndrome (HUS) among children in the Seattle area.
  - 602 cases in Washington State. Majority affected were under the age of 10.
  - 171 hospitalizations and 4 deaths.
- Tracked down to E. coli contaminated hamburger patties sold at Jack in the Box locations.
  - Cooked to 140 °F instead of 155 °F, the temperature required to completely kill E. coli bacterium.
- Scale of the outbreak and wide media coverage brought this bacterium into public consciousness.
  - Consumers' perceptions changed.
  - Change in food regulations.



## Jack in the Box chain linked to 'severe' outbreak

OLYMPIA, Wash. (AP) — An outbreak of severe diarrhea and abdominal pain among more than 50 children and adults in western Washington has been traced to a fast-food restaurant chain, state authorities said yesterday.

About 75% of the people stricken ate at Jack in the Box restaurants, said Dean Owen, spokesman for the state Health Department. He couldn't say how many restaurants were involved.

**"Kids were writhing in pain, seriously. Their stomach cramps were very bad ..."**

**DEAN OWEN**  
Health department spokesman



# Yakima Valley Floods of 1996





# 1997 Salmonella Typhimurium Outbreak

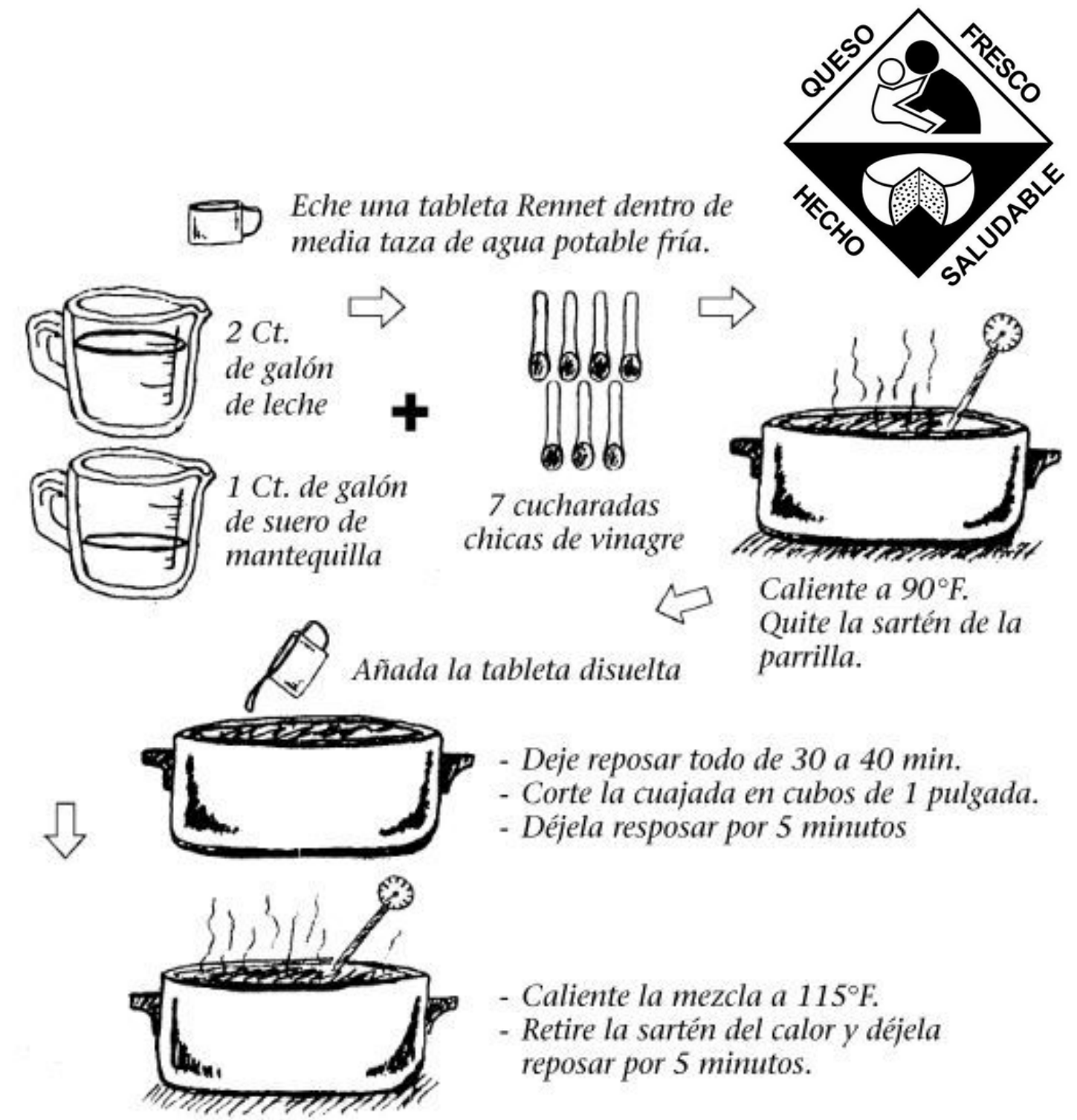
- Investigators from the CDC and the Yakima Health District linked 90 cases of Salmonella Typhimurium with the consumption of queso fresco.
- 91% of the cases occurred in Hispanic people and infected mainly children around the age of 4.
  - Street vendors were the most frequent source of queso fresco for persons who developed illness (70%).
  - Friends and family were the second most common source (23%).





# Development of the Abuela Project

- A multiagency intervention was initiated in response to the salmonella outbreak
- A new and improved queso fresco recipe that used pasteurized milk instead of raw milk was developed.
  - Pamphlet had step-by-step graphical instructions
- 15 female Hispanic volunteers were trained to make the new recipe.
  - Volunteers signed a contract to teach at least 15 additional members how to make queso fresco safely.



# Results of the Abuela Project

**TABLE 1—Attitudes and Behaviors of Abuela Project Educators and Participants Regarding *Queso Fresco* Before and After Safe Cheese Workshops: Yakima County, Washington, 1997–1998**

	Abuela Educators, No.		Participants			$\chi^2$
	Before	After	Before (n = 165), %	After (n = 165), %	6-Month Follow-up (n = 47), %	
Will people in the community eat <i>queso fresco</i> made from pasteurized milk?						
Yes	9/15	15/15	71 <sup>a</sup>	94 <sup>a</sup>	NA	29.9*
No	1/15	0/15	2	1	NA	
Not sure	5/15	0/15	27	5	NA	
Are there health risks associated with eating unpasteurized milk and cheese?						
Yes	10/14	14/15	78 <sup>a</sup>	92	85 <sup>a</sup>	1.5 <sup>b</sup>
No	0/14	1/15	8	2	9	
Not sure	4/14	0/15	13	5	6	
Do you make <i>queso fresco</i> with...?						
Fresh unpasteurized milk	6/12	1/15	47 <sup>a</sup>	1	0 <sup>a</sup>	19.3*
Fresh unpasteurized milk that you heat or pasteurized milk	5/12	14/15	47	99	100	
Not sure what kind of milk	1/12	NA	5	NA	NA	

*Note.* Sample sizes for individual measures differ because of missing values. NA = not asked.

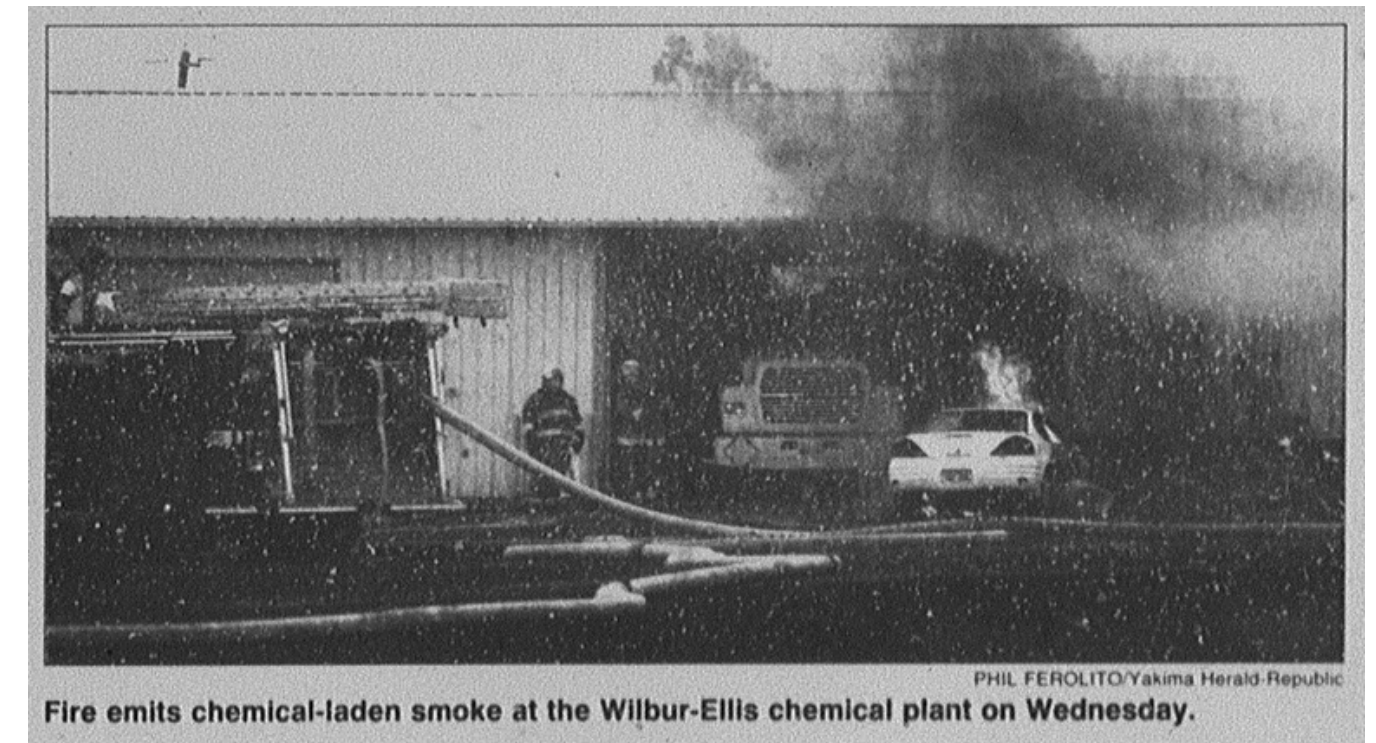
<sup>a</sup>Indicates that data were compared.

<sup>b</sup>No significant change.

\* $P < .01$ .

# Grandview Chemical Fire Incident

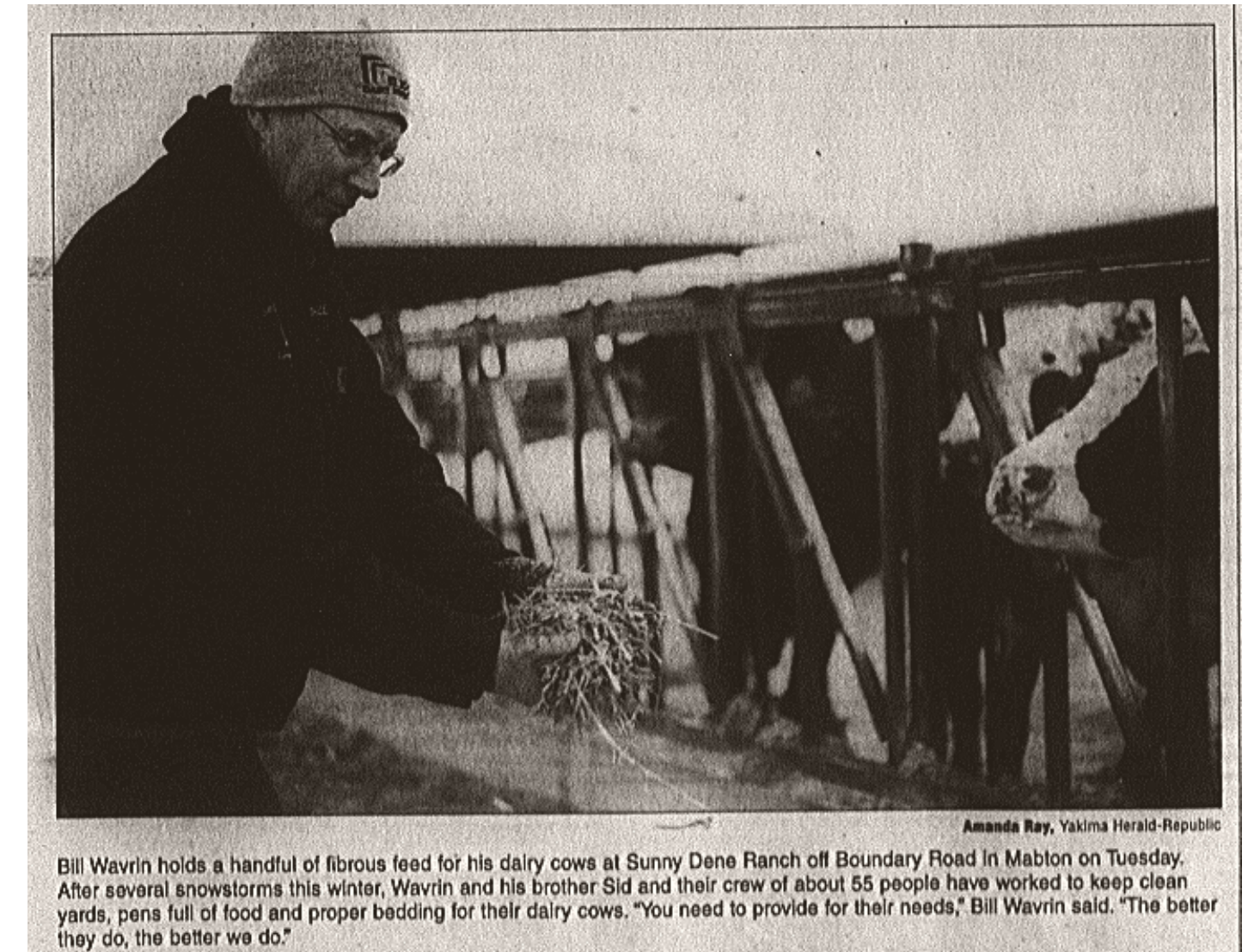
- January 26, 2005 - A fire at a pesticide storage facility in Grandview initiates one of the largest Haz-Mat incidents that have occurred in Yakima County.
- Initial evacuation was 1/2 mile radius around the fire due to the unknown make-up of smoke coming from the fire.
- The Health District was responsible for determining the final evacuation area and the criteria for re-entry.
- Staff monitored the amount of chemicals in the air to determine when it was safe for people to return to their home. Staff would go to the site and be there until 1AM monitoring the air quality and working with the other agencies involved.



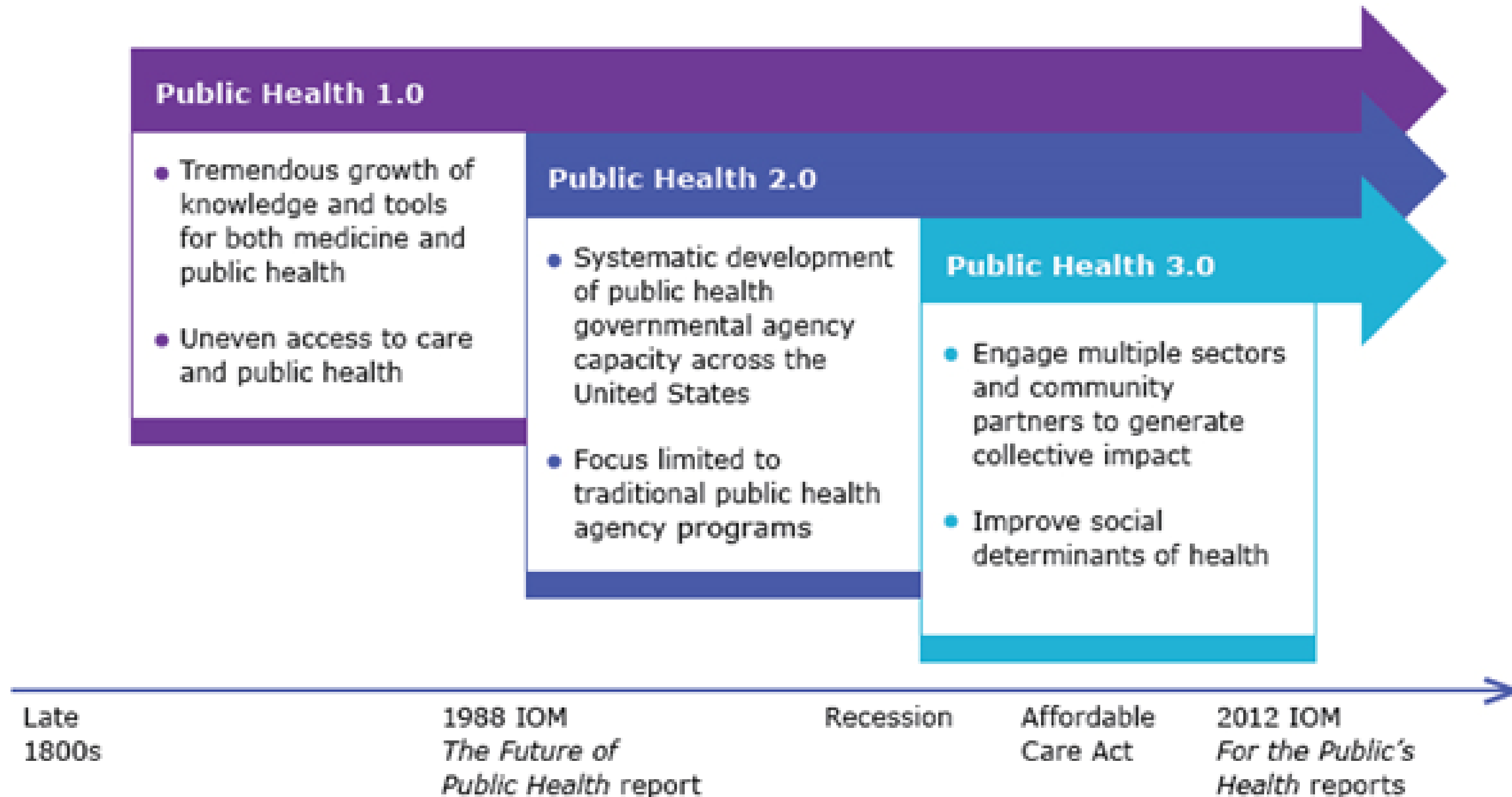


# Winter Storm of 2019

- An unexpected blizzard with winds up to 70-80mph in the lower valley led to nearly 1,850 deceased cows within a span of a few hours.
- Staff from EH and Emergency Management helped with the disposal of the cows.
  - Had a week to get this done before the cows thawed out and got into the groundwater.
- Safely composted some cows.
  - Properly buried and covered.
  - Regular temperature checks for the next few months to ensure proper composting.



# Our Work





# Thank you Ted!

- Environmental Health Specialist
- 32 years of service
  - That's about 30% of YHD's history!
- Formalized the water program and standardized it
- Helped on the meth lab clean ups, Grandview Haz-Mat incident, cow disposal, floods of 1996, and more events not previously mentioned





**Questions?**