



# ASSOCIATION OF FOOD & DRUG OFFICIALS



## Making a Difference

Focus on What Will Have the Greatest Impact in  
Reducing Deaths, Long Term Disabilities, and Illnesses

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# Added Benefits





Reducing Long Term Disabilities and Illnesses  
Will Reduce:

- Health Care Costs
- Economic Impact on the Food Industry
  - E.g. Spinach
  - Tomatoes
  - Peanut Butter
  - Romaine



# 2015 FOOD SAFETY REPORT

Measuring progress toward Healthy People 2020 goals

Pathogen	Healthy People 2020 Target Rate*	2015 Rate†	Change Compared with 2006-2008‡	
<i>Campylobacter</i>	 8.5	12.97	↑ 9%	
<i>E. coli</i> O157§	 0.6	0.95	↓ 30%	
<i>Listeria</i>	 0.2	0.24	No change	
<i>Salmonella</i>	 11.4	15.89	No change	
<i>Vibrio</i>	 0.2	0.39	↑ 34%	
<i>Yersinia</i>	 0.3	0.29	No change	



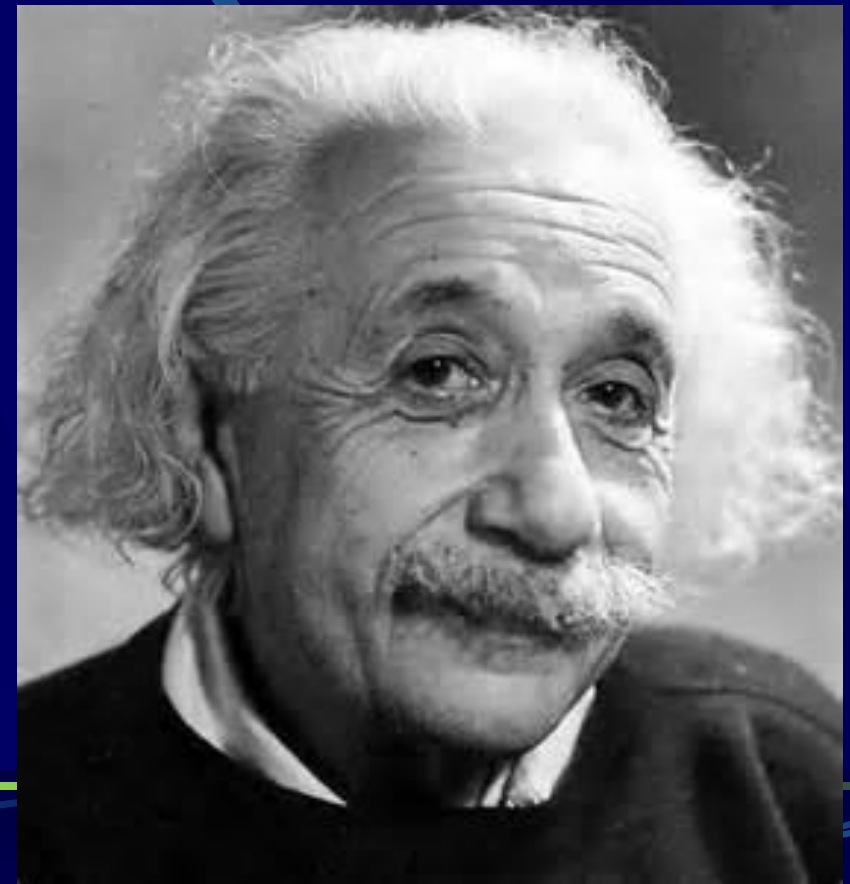
# How Are We Doing Now?

- With Culture Independent Diagnostic Tests (CIDT), hard to evaluate trends
- Increases in
  - Campylobacter
  - Salmonella
  - E. coli
  - Yersinia
  - Cyclospora
  - Co-infections (e.g. Salmonella and Campy)
- To What Extent are Increases Due to Changes in Testing?



- Insanity: doing the same thing over and over again and expecting different results.

Albert Einstein



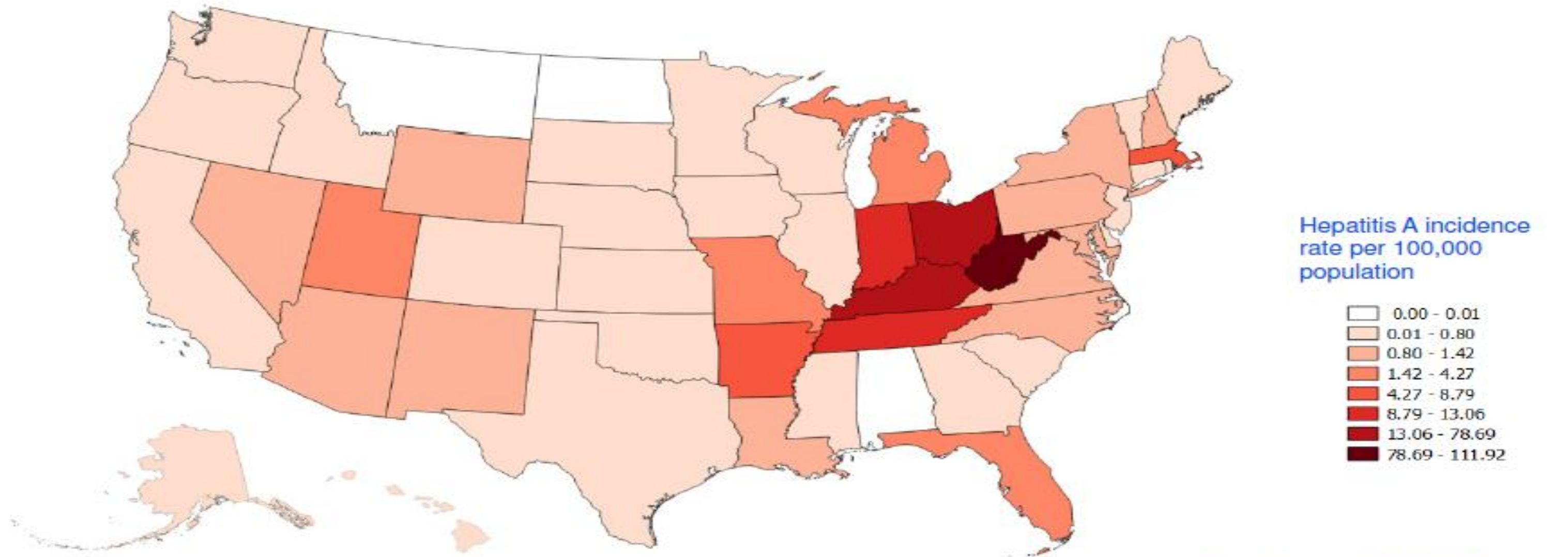
# Priorities – Short, Mid and Long Term



- Prevent Recurring Outbreaks
  - Greatest Predictor of the Future is the Past
  - Those that Fail to Learn from History Are Doomed to Repeat it
- Whole Genome Sequencing (WGS) is a Game Changer
  - Will Detect Small and Recurring Outbreaks
  - Find and Eliminate the Root Cause
  - Coordinated Actions and Sampling
    - Outbreaks (e.g. flour)
    - Sample at Time of Recurring Outbreaks (e.g. Romaine)

# Short Term Priority

## Hepatitis A Incidence – United States, 2018\*



Data Sources: NNDSS, US Census Bureau





# Priorities – Short Term

Prevent Hepatitis A outbreaks, and  
steps to take if there is an ill worker

- Exclude jaundiced employees until tested
- Excellent handwashing
- No hand contact of ready-to-eat foods
- When to treat exposed employees and the public



# Priorities – Short Term

Evaluate Illnesses Regionally to ID Sources

Involve Mexico on import safety

Opioids – AFDO Role?

- Kratom Info on Website and Coordinated Testing
  - If Salmonella positive, remove from market

# Priorities – Short and Mid Term



- Decrease illnesses due to undercooked chicken livers
  - Campylobacter and Salmonella outbreaks
    - CDC/USDA infographic
  - Restaurants often stop serving after illnesses
- Decrease raw milk consumption
  - Research number of farms that went out of business after an outbreak or went back to pasteurization
  - Legislators want to help the farmers
    - Show negative impact on kids, health care costs, farmers, and the industry

# Priorities



- Prevent Recurring Outbreaks
  - Delmarva tomatoes
    - Salmonella was shown to go through soil, into plant, and into tomato
    - Dramatic reduction in illnesses after chlorinating irrigation water
  - Leafy Greens – 28 outbreaks since 2009
    - Contaminated irrigation water
    - Chlorinating irrigation water dramatically decreased illnesses
  - Listeria or Salmonella from same processors
  - Restaurants with recurring outbreaks

# Priorities



700,000 human deaths worldwide from Multi-Drug Resistant (MDR) Pathogens

- MDR *Salmonella Infantis* associated with chickens
- MDR *Salmonella Reading* associated with raw turkey
- MDR *Salmonella 1,4,[5],12:i:-* associated with swine and other livestock
- MDR *E. coli O157:H7* from Romaine last year
- MDR *Salmonella Newport* from beef

2 calls with CDC, FDA, AFFCO

- Any of these pathogens found in feed?
- Coordinated federal and state sampling to determine extent feed may be resulting in human MDR illnesses



# Priorities – Long Term

- Healthy People 2030 Food Safety Objectives
  - Coordinated Federal, State, Local and Industry Plan to Actually Reduce Illness Due to:
    - STEC
    - Listeria
    - Salmonella
    - Campylobacter
    - Norovirus



# What You Can Do – Regulators

- Mandate Food Manager Certification
  - CDC EHS-Net found association between not having a manager certified and having outbreaks
  - FDA found association with lack of a certified manager and presence of certain foodborne illness risk factors
  - Reduce frequency of targeted risk factor violations
- Improve Traceability
  - Mandate production of shopper card/product purchase info during illness investigation
- “Go After Bad Guys” (Highest risk of causing illness)
  - Chain/corporation inspections and evaluations



# What You Can Do – Food Service

- Certified Managers
- Trained staff
- Sick time for employees or can make up time so no economic incentive to work while ill
- No bare hand contact of ready-to-eat foods
- Purchase from safe sources
- Have a system in place to assure food safety and verify it works





# What You Can Do – Retail Food

- Same as food service plus
- Traceability – Block Chain
- Provide Purchase Info during outbreak investigations to Health Dept. within 24 hours
- Directly notify consumers by text, email, calling, etc. through purchase info



# What You Can Do - Farmers

- Irrigation and processing water must be safe
- Manure use of major concern

# Research and Update Website on Emerging Issues



- Use IFPTI Fellows and Public Health Scholars/Interns to conduct needed research
  - Farms selling raw milk that went out of business after outbreaks or went back to pasteurization
  - Kratom
  - Kava
  - CBD/drug interactions and other health effects
  - Guidance on emerging issues



- Thanks to All the Staff and Everyone who Made this Conference a Success!!!
  
- Safe Travels