

Food Safety & Defense

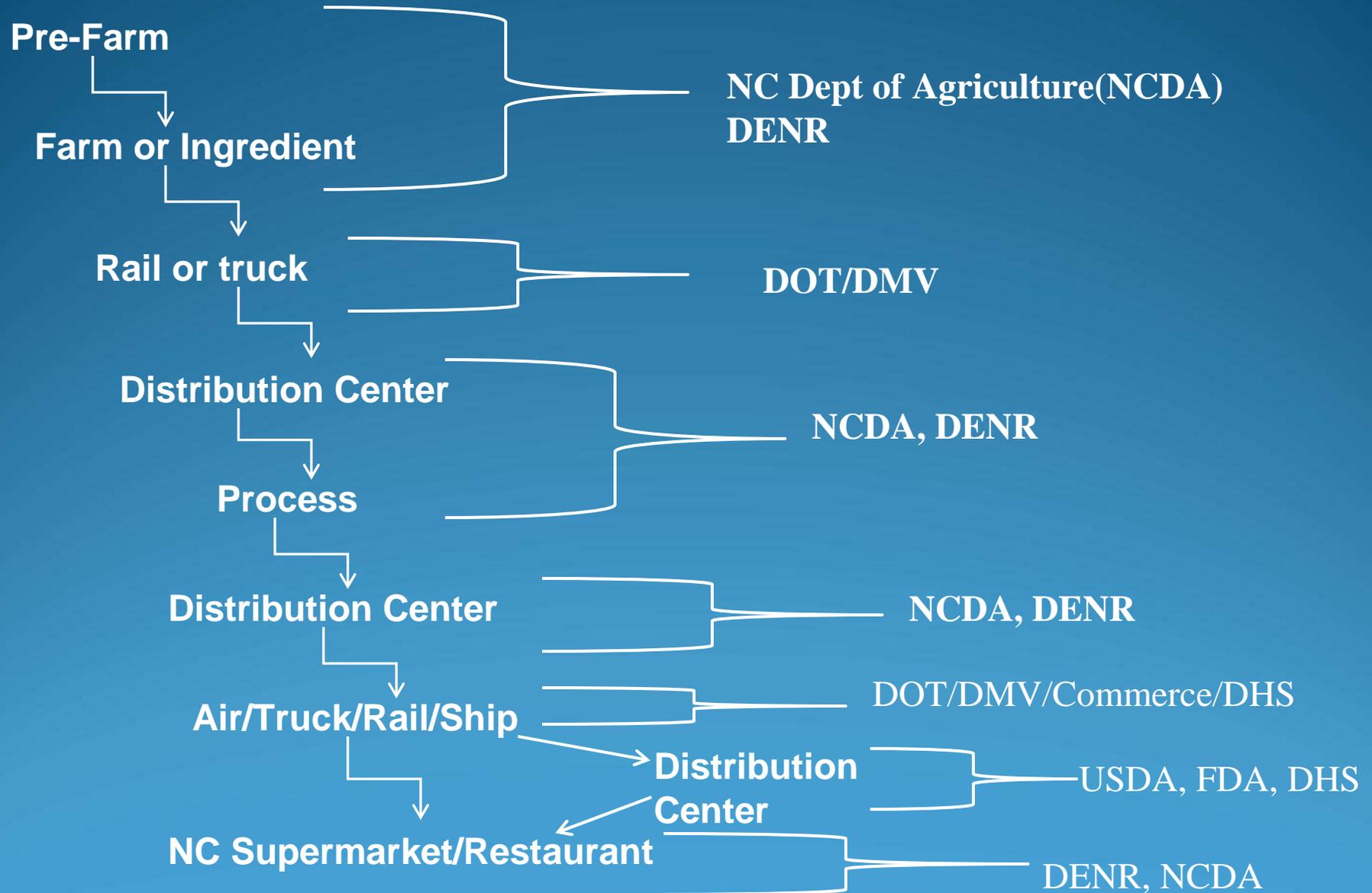
What it means for North Carolina

**Pam Jenkins, EdD, CNS, MSN, RN
UNC Chapel Hill School of Nursing**

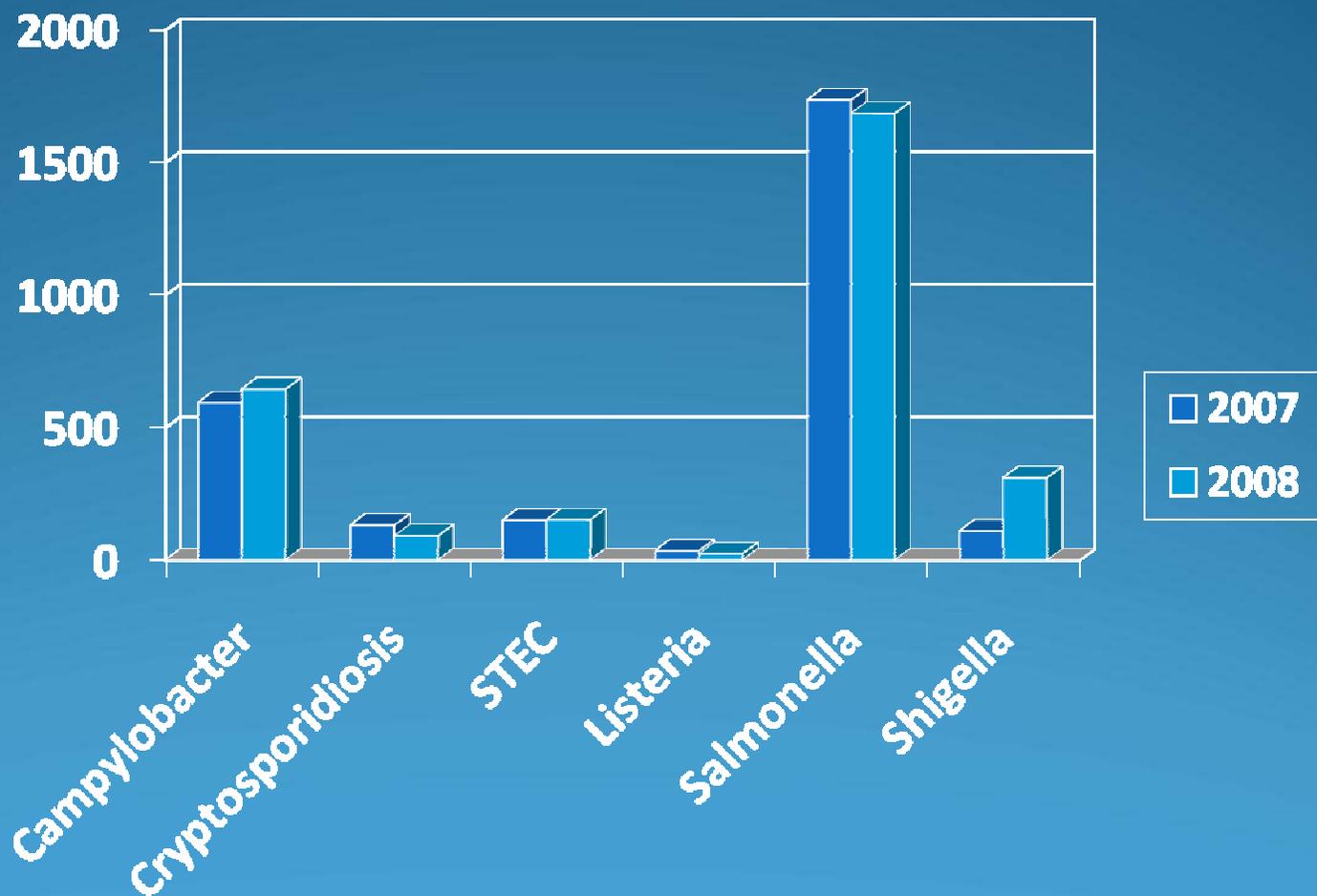
Definitions

- ❖ **Food Safety – accidental contamination**
- ❖ **Food Defense – deliberate contamination**
- ❖ **Food Security – adequate access to food**
- ❖ **Foodborne Outbreak -2+ cases of similar illness resulting from ingestion of common food**

Food Process Chain



Selected Foodborne Diseases, NC Jan – Dec 2008 (2007)



National Impact of Foodborne Illnesses

(FBI)

1998-2002

- ❖ 6,647 outbreaks (annual average 1,329)
 - 128,370 persons ill

Of those with known etiology:

- ❖ Bacterial pathogens caused 55% of outbreaks & cases
- ❖ *Salmonella* serotype Enteritidis – largest # outbreaks & cases
- ❖ *Listeria monocytogenes* – majority of deaths
- ❖ Viral pathogens (Norovirus) - 33% outbreak & 41% cases (increasing each yr)
- ❖ Chemical agents 10% of outbreaks & 2% cases
- ❖ Parasites -1% outbreaks & 1% cases

Estimated National Impact

76 million illnesses

323,000 Hospitalizations

5,000 deaths

FBI Common Contributory Factors

- ❖ **Contamination – Bare hand contact by handler, worker, or preparer**
- ❖ **Proliferation – allowing foods to remain at room or warm outdoor temperature for several hours**
- ❖ **Survivability factors – insufficient time and or temperature during initial cooking or heating process**
- ❖ **Bacterial outbreaks – raw product or ingredient contamination by pathogens from animal or environment**

Recalls & Consumer Complaints – MPID & FDA 2008

- ❖ 10 consumer complaints (state inspected products)
- ❖ 54 consumer complaints (fed. Inspected products)
- ❖ 1,426 risk based reviews-> 52 violations of State &/or Federal meat inspection laws
- ❖ >3,000 lbs illegally produced meat &/or poultry products identified & detained
- ❖ No recalls in state inspected or TA plants
- ❖ FSIS had 48 recalls nation-wide

- ❖ FDA had 100 recalls of food products

Recalls & Consumer Complaints – DENR 2008

- ❖ **Currently handled at local level**
- ❖ **2007 DENR developed BETS (Best Environmental Technology System) software to collect compliance history, violation frequency, etc. on regulated establishments throughout the state**
- ❖ **Available to all counties free**
- ❖ **Long term plan – use data to collect complaint info, analyze trends and evaluate program effectiveness**

Special State Programs

DENR's Food Protection Branch enrolled in the voluntary FDA National Retail Regulatory Program Standards in 2007

- New code is out and yet to be adopted by NC

NCDA-FDA – one of six states selected to be part of national pilot for the Manufactured Food Regulatory Standards program

- Core areas: state adoption of law; training; inspection protocols & policies; inspection audit; FBI investigation & response; compliance & enforcement; industry outreach; program resources; program assessment, & lab accreditation & support
- Designed to bring all state programs up to one national standard

Current Federal Systems

- ❖ 200 major food commodities owned & operated by Industry (for the most part)
- ❖ ~ 20 Federal agencies
 - Since 9/11 trying to connect & share information in timely fashion
 - Government Coordinating Council (GCC) for Food and Agriculture – Reps from: all Federal Agencies (USDA, FDA, DHS), Industry, National Associations, State PH & Agriculture, & Academic Centers of Excellence
 - Council to Improve Foodborne Outbreak Response (CIFOR) – Reps from: ASTHO, CDC, USDA-FSIS, CSTE, AFDO, NASDA, NEHA, APHL, NACCHO

NC Food Safety & Defense Agencies

- ❖ NC Department of Agriculture
 - Meat and Poultry
 - Food and Drug
- ❖ DENR
- ❖ Public Health
- ❖ Regional Resources
- ❖ Local Health Department
 - EHS
 - Communicable Disease

Current System Strengths

- ❖ **Public Health and Agriculture Laboratory capacities**
- ❖ **Experienced Personnel in all agencies**
- ❖ **NC Food Safety & Defense TF (all NC & some Federal agencies, industry, academia)**
 - **Goal: Establish communication and collaborative relationships before a crises. An emergency is wrong time to exchange business cards**
- ❖ **Strong state and local inspection programs**

Current System Weaknesses

- ❖ Each agency is unique with own mission, organizational culture, goals, etc.
- ❖ Food Chain not viewed as a system, but seen in “parts”
- ❖ Electronic surveillance systems don’t connect with each other
- ❖ Competition for funding
- ❖ In “response to an event” mode rather than “prevention” mode
- ❖ Lack of commitment, vision, & direction by highest levels of government and industry

Who We Are Protecting



Case Study – Castleberry Recall for Clostridium Botulinium

>90 different products recalled

27 different Brands

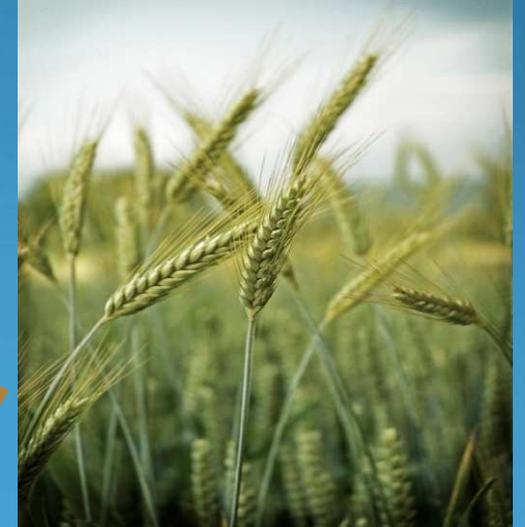
More than 1 million cans

One of the largest and most dangerous recalls

North Carolina's Experience

July 18, – August 5, 2007

What We Protect



Recommendations

#1

- ❖ **Blur of agencies lines to function in a one agency approach (while moving to a single food safety & defense policy)**
 - **Educate policy makers**
 - **Maintain adequate funding for a holistic food safety and defense program in NC at state and local level**
 - **Need more national approach to food safety & defense as food system crosses all boundaries**
 - **Develop unified (across all agency lines) proactive, scientifically-based strategy to prevent, detect & respond to FBI**

Recommendations

#2

❖ **Connect and strengthen Food Safety & Defense automated and human surveillance systems for early detection and mitigation**

▪ **Connect local and state EHS and NCDA complaint lines, PH surveillance systems, PH and Food & Drug Lab results with testing results of USDA, CDC, and FDA**

Recommendations

#3

- ❖ **Strengthen Public Health Infrastructure by adopting the current Federal Food Code in NC**

Recommendations

#4

- ❖ Encourage all industry to have & make available to government agencies HACCP plans or use Risk- Based Inspections by Government (think prevention rather than inspection)

• MMWR Surveillance for Foodborne-Disease Outbreaks- US, 1998-2002

Recommendations

#5

❖ Strengthen and increase ties to industry – Make them a valued stakeholder

- Ability to gain access to facilities and records faster**
- Coordination of efforts**
- Coordination of communication**

Together We Can Protect the Food Chain!

