

Raw Milk Consumption A Consumer Viewpoint

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IAFP Symposium-Raw Milk Consumption:
An Emerging Public Health Threat?

Arlington, Virginia

February 17, 2009



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Public Interest

History of Dairy Outbreaks

- In 1938, milk-borne outbreaks constituted twenty-five percent (25%) of all disease outbreaks due to contaminated food and water.
- Since the pasteurization of milk has been widely used, milk and milk products are associated with less than one percent (<1%) of reported outbreaks.

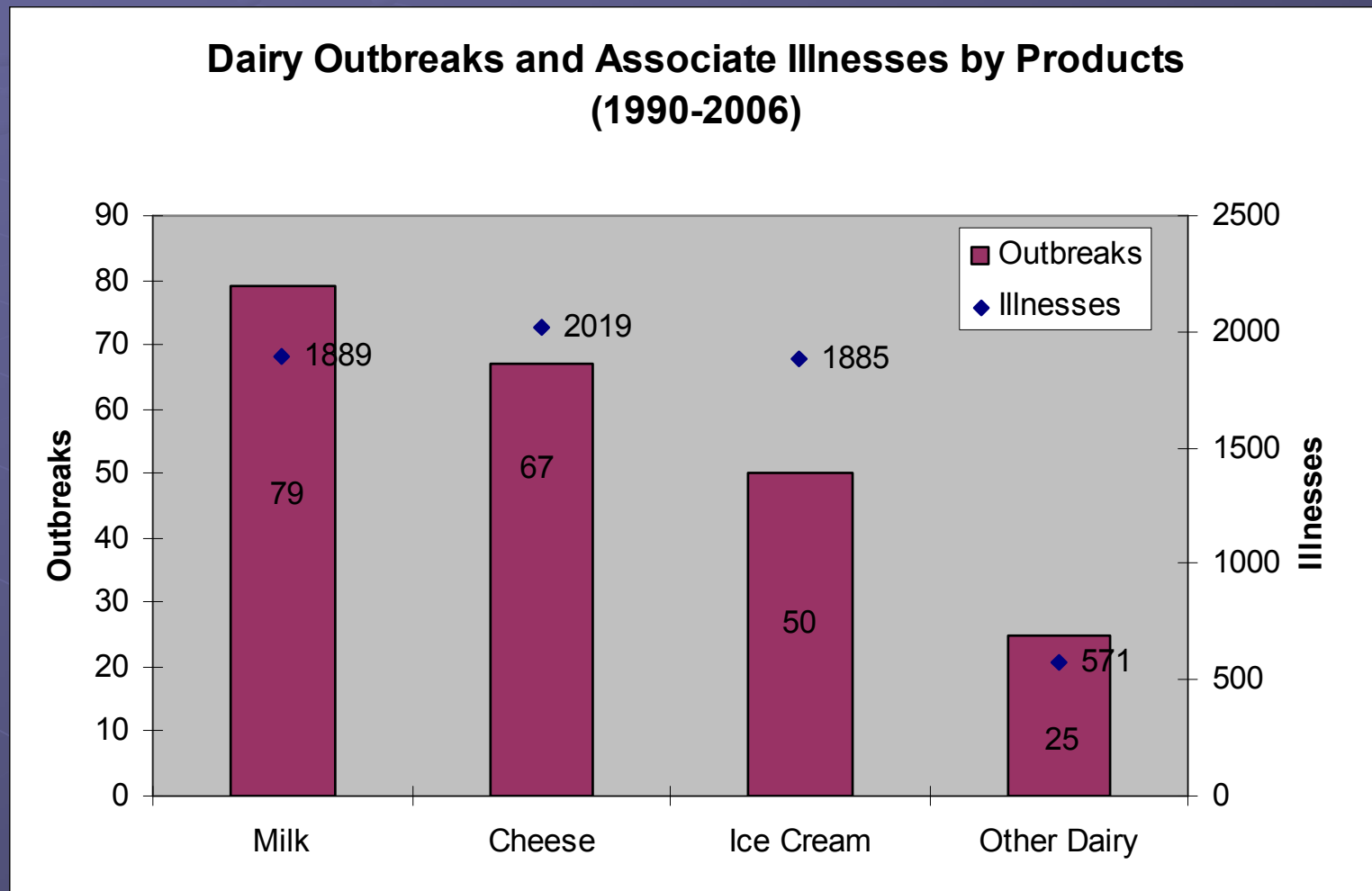
Introduction

- The Center for Science in the Public Interest (CSPI) maintains a database of foodborne illness outbreaks that have been linked to specific foods.
- CSPI identified a total of 5,778 outbreaks of illness linked to specific foods, involving 168,898 individual illnesses that occurred between 1990 and 2006.

Overview on Dairy Outbreaks (1990-2006)

- A total of 221 outbreaks and 6,364 illnesses were linked to such dairy products as cheese, milk, and ice cream.
- Outbreaks linked to dairy products represent 4% of the total outbreaks in CSPI's database.

Dairy Outbreaks and Illnesses by Products (1990-2006)

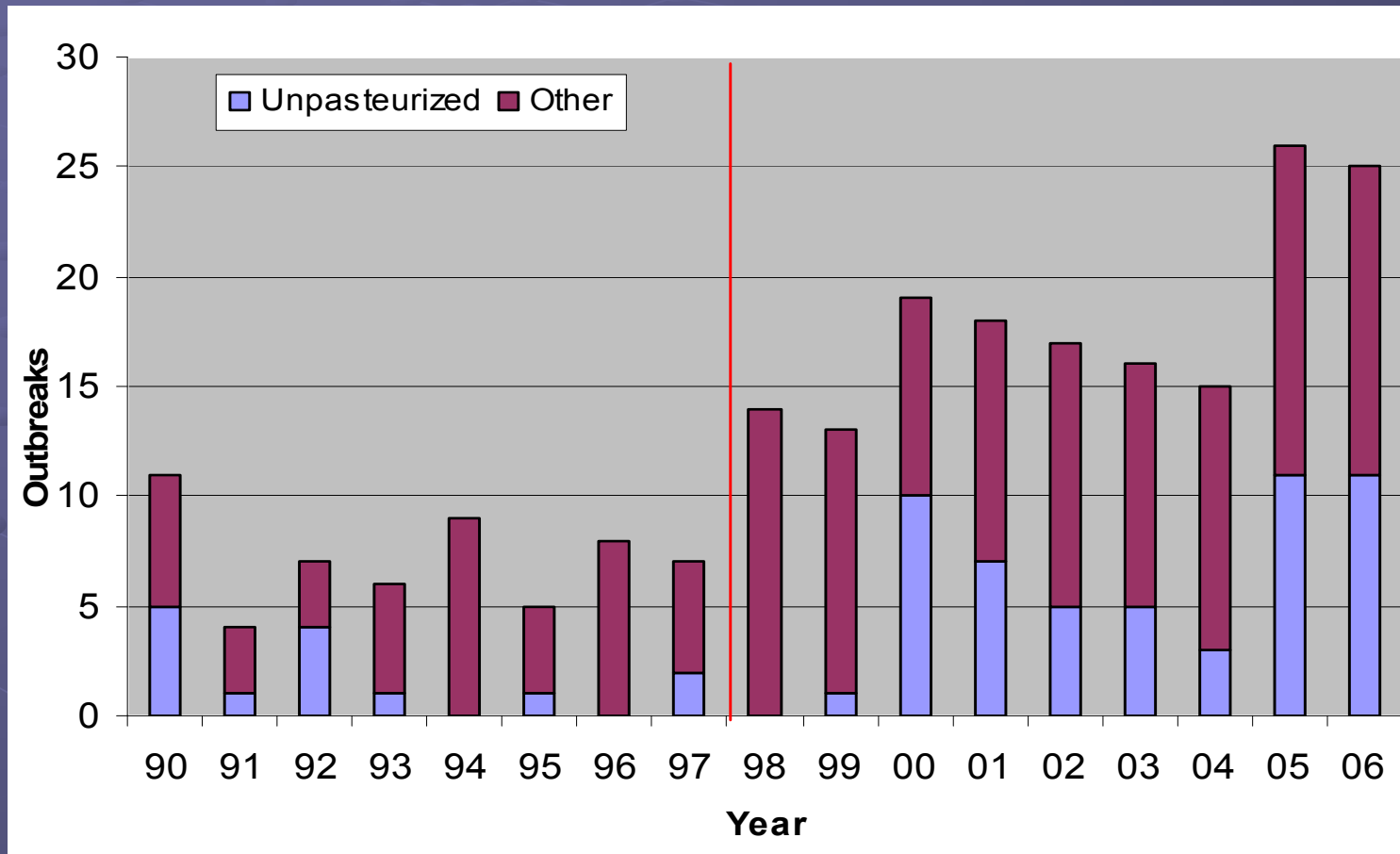


Source: CSPI Outbreak Alert! Database 2008

Dairy and UDP Outbreaks (1990-2006)

- Dairy outbreaks increased dramatically in 2005 and 2006, in large part due to a rise in outbreaks from unpasteurized dairy products.
- Dairy products identified as unpasteurized were associated with 30% of the dairy outbreaks, including nearly 70% of milk outbreaks.
- In outbreaks associated with dairy items, *Salmonella* and *Campylobacter* were the most common hazards.

Yearly Trends of Unpasteurized Dairy Outbreaks-Compared to Others (1990-2006)

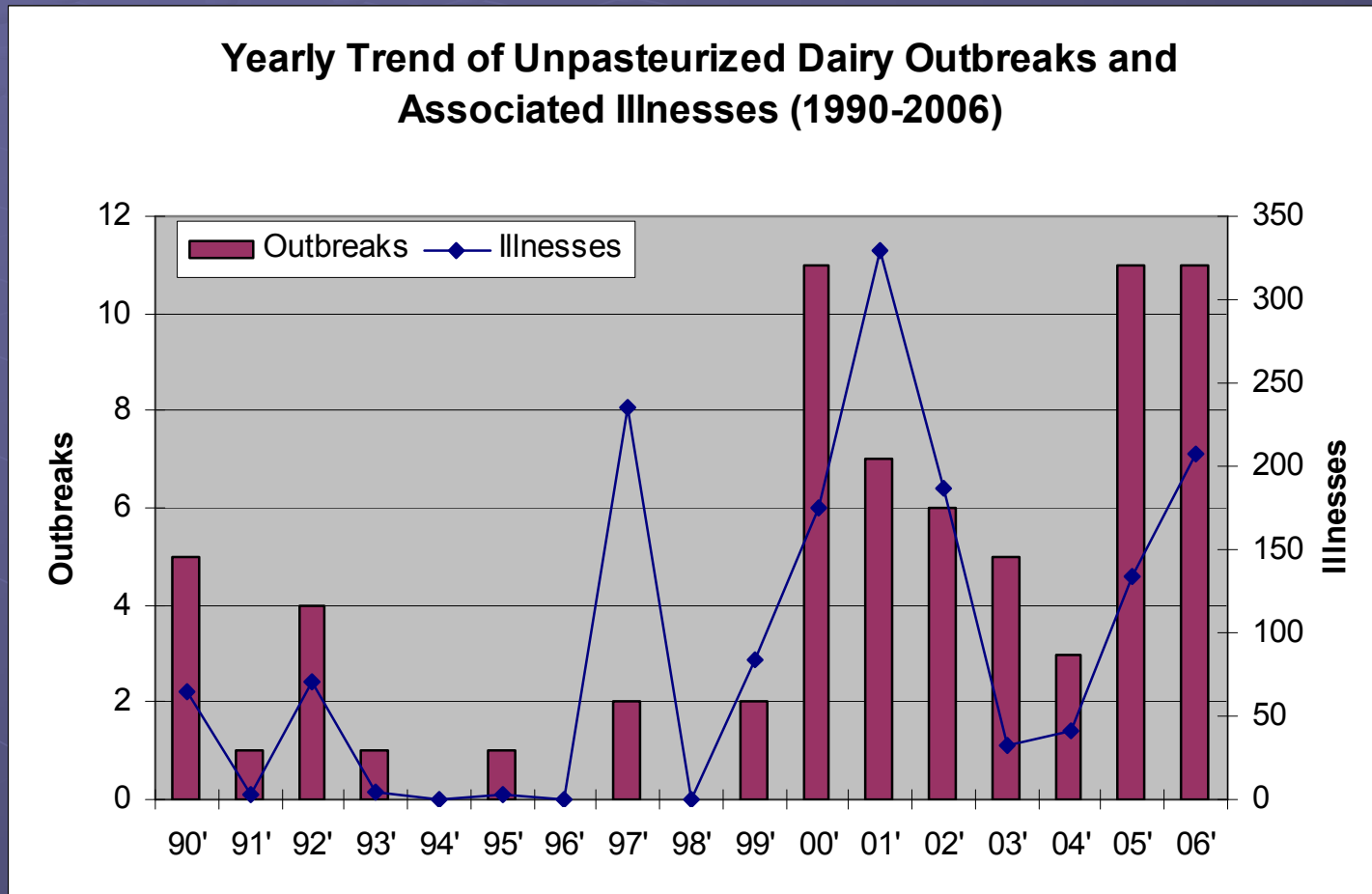


Source: CSPI Outbreak Alert! Database 2008

Outbreaks and Illnesses Associated with Unpasteurized Dairy Products (UDP)

- A total of 70 outbreaks and 1570 illnesses were associated to unpasteurized dairy products (UDP).
- Raw milk outbreaks (56) were responsible for 80% of the total UDP outbreaks with 1,073 illnesses (68%). Unpasteurized cheese was identified in 14 UDP outbreaks with 497 illnesses.

Yearly Trend in UDP Outbreaks and Illnesses (1990-2006)



Source: CSPI Outbreak Alert! Database 2008

Largest UDP Outbreaks (2000-2006)

Mth	Year	Vehicle	Cause	Etiology	Cases	States	Location
11	2001	Milk (unpasteurized)	E. coli	E. coli O157:H7	202	NC	Schools
11	2002	Milk (unpasteurized)	Salmonella	S. Typhimurium	107	OH	Restaurant/Food Establishment
3	2006	Cheese, other (unpasteurized)	Salmonella; Salmonella	S. Newport (Con.); S. Meleagridis (con.)	96	IL	Private Home
11	2001	Milk (unpasteurized)	Campylobacter	C. jejuni	75	WI	Private Home
5	2006	Cheese (homemade) (unpasteurized)	Campylobacter	C. jejuni	58	WI	Private Home
4	2002	Milk (unpasteurized)	Campylobacter	C. jejuni	46	KS	Camping/Picnic/Farms
6	2000	Milk (unpasteurized)	Campylobacter	C. jejuni	42	ID	Camping/Picnic/Farms
9	2000	Milk (unpasteurized)	Campylobacter	C. jejuni	39	NY	Other
5	2005	Milk, whole (unpasteurized)	Campylobacter	C. jejuni	33	IA	Religious/Social Club
2	2004	Milk, whole (unpasteurized)	Campylobacter	C. jejuni	32	IA	Religious/Social Club

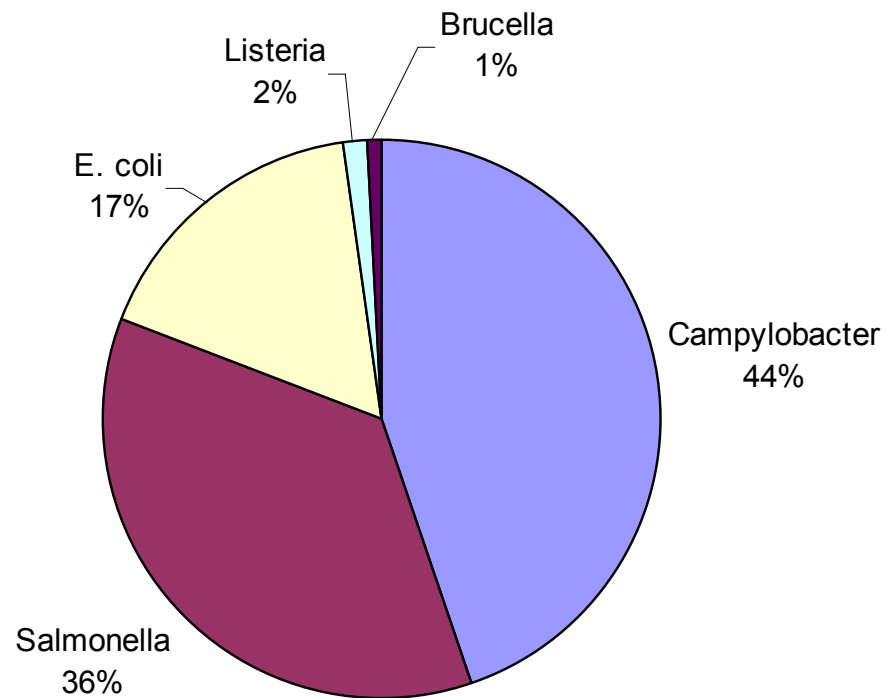
Source: CSPI Outbreak Alert! Database 2008

Outbreaks and Illnesses Associated with UDP (1990-2006)

- Near half (44%) of the illnesses associated with UDP outbreaks were caused by *Campylobacter*, and more than one-third (36%) by *Salmonella*.
- Nearly twice as many UDP outbreaks occurred in states that permitted the sale of unpasteurized dairy (45) than in states that prohibited sale (24).

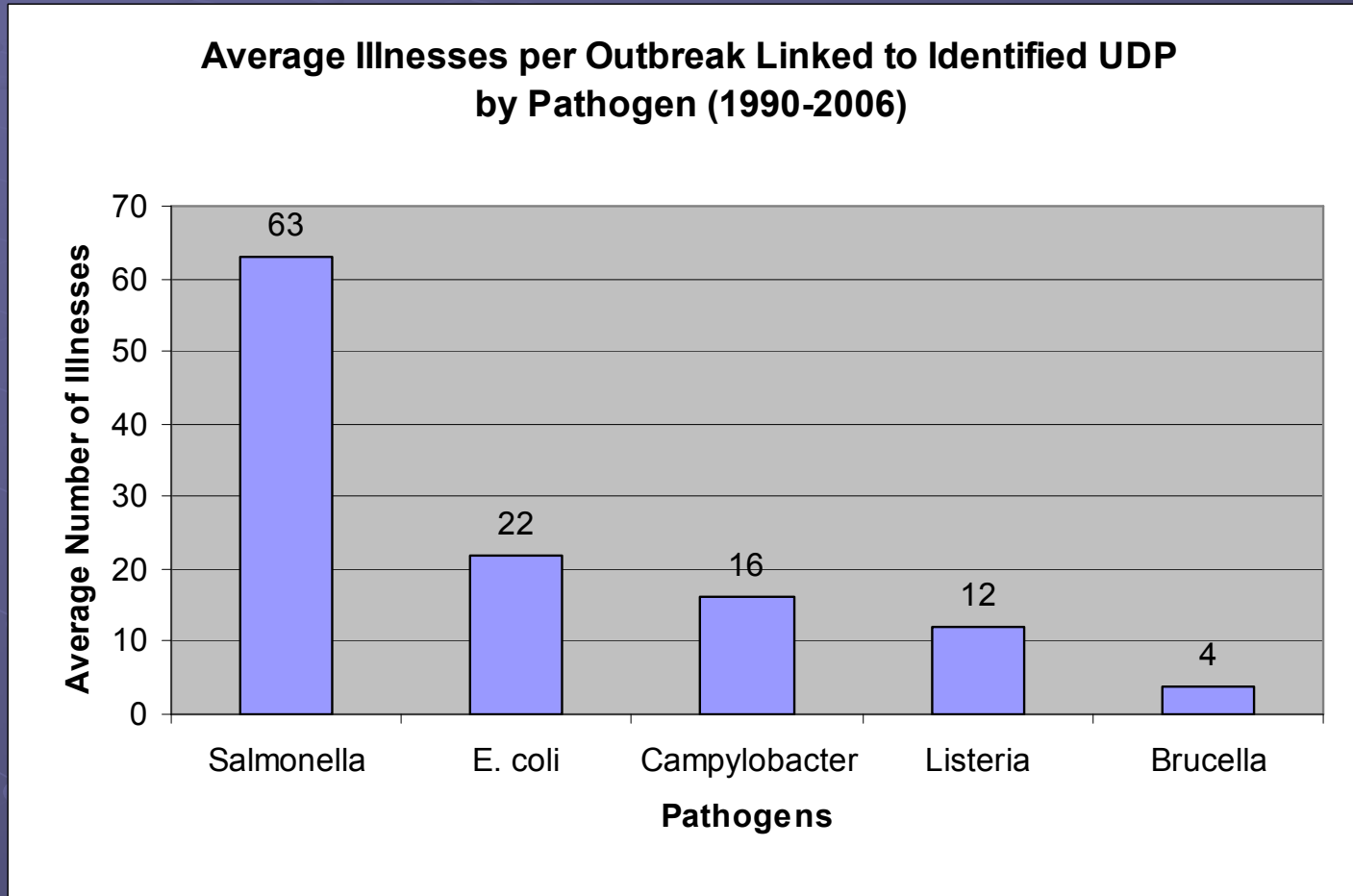
Pathogens in Identified UDP Outbreak-Associated Illnesses (1990-2006)

Percentage of Main Pathogens in Identified Unpasteurized Dairy Outbreak-Associated Illnesses (1990-2006)



Source: CSPI Outbreak Alert! Database 2008

Average Illnesses per Outbreak Linked to UDP (1990-2006)



Examples of Outbreaks in Unpasteurized Milk in 2007-2008

- Pennsylvania, 2007: 29 cases of *S. enterica* serotype *Typhimurium* infection were associated with consumption of raw milk or raw-milk products. Sixteen of the 29 case patients were aged younger than 7 years.
- Kansas, 2007: At least 87 people became ill in 2 separate outbreaks of campylobacteriosis. In both outbreaks, illness was associated with consumption of raw milk or raw-milk products.
- California, 2008: An outbreak of campylobacteriosis in California was associated with consumption of unpasteurized milk supplied from a farm operating a cow-share program. At least 15 ill and one of the patients consequently developed Guillain-Barre syndrome.

Milk Regulation: Cooperative Standard Setting

- Standards for the regulation of milk are established through the National Conference on Interstate Milk Shipments, a coalition that includes FDA, states, and representatives of the milk industry.
- FDA and the States meet with industry regularly to update the standards.
- The states enforce the standards that are established through this process.

Intrastate shipment of raw milk

- Raw milk suppliers are operating outside this state/federal system by selling their products locally, and never shipping them across state lines.
- The absence of effective state oversight could lead to additional problems, like the addition of milk extenders in China that lead to the melamine tragedy.

Emerging Threat

- FDA and other Federal and state agencies have acknowledged a long history of the risks associated with the consumption of raw milk.
- Consumers are more cognizant of health issues than ever before and look to the dairy industry to be proactive in providing safe, wholesome foods.

Recent Proposed Bills Concerning Raw Milk

- **U.S. Congress: An Act to Authorize Interstate Shipment of Unpasteurized Milk: H.R. 778**

-- Introduced by Congressman Ron Paul to the Committee on Energy and Commerce on January 28, 2009

[http://thomas.loc.gov/cgi-bin/query/z?c111:H.R.+778:](http://thomas.loc.gov/cgi-bin/query/z?c111:H.R.+778)

- **Connecticut: An Act Concerning Raw Milk in Connecticut: House Bill No. 6313**

-- Introduced in January Session, 2009. To protect the health of the public and to provide consumers with information so they may make informed decisions regarding the purchasing and consumption of unpasteurized milk.

<http://www.cga.ct.gov/2009/TOB/H/2009HB-06313-R00-HB.htm>

- **Maryland: AN ACT Concerning Milk Products – Pilot Farmstead Cheese Program – Permits: House Bill 243**

-- Introduced to the Health and Government Operations on January 29, 2009

<http://mlis.state.md.us/2009rs/bills/hb/hb0243f.pdf>

- **Arkansas: A Proposal Allow the Sale of Unpasteurized Milk. House Bill 1114**

-- Introduced by Rep. Mark Martin, R-Prairie Grove, which would allow a person to sell up to 100 gallons a year of unpasteurized milk.

-- Rejected by the Senate Committee on Public Health and Welfare on Feb 4, 2009

<http://arkansasnews.com/?p=24511>

Questions?

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