# SALMONELLA AND... REPTILES, AMPHIBIANS, RODENTS, POCKET PETS

#### Salmonellosis

- Diarrhea, fever, and abdominal cramps 12 to 72 hours after infection
- Lasts 4 to 7 days, most recover without treatment
- 42,000 cases reported each year
  - Estimated1million illnesses and 400 deaths per year
- Elderly, infants, and those with impaired immune systems are more likely to have a severe illness
  - Rate of diagnosed infections in children <5 years old is higher than the rate in all other persons
- Reptiles, amphibians, birds, and others known to shed Salmonella asymptomatically

#### Outbreaks 101

- Person with illness goes to doctor and culture performed
- Salmonella isolated and PFGE performed
- PFGE uploaded to PulseNet
- Identify cluster of identical PFGE patterns
  - Location or temporal
- State/local authorities interview cases to look for similar exposi

#### Recent Outbreaks

# Amphibians

- $\square$  2008 2011
- 241 illnesses in 42 states
- 30% hospitalized
- □ 69% <10 years old (median 5 years)</p>
- 63% of cases had frog contact in week before illness
  - 65% of those reported African Dwarf Frogs
  - Many purchased frog because knew turtles associated with illness
- Traced to single breeder in CA
  - Worked with industry experts to develop interventions
  - Stopped shipments for several months
- Seen just a few cases since resumed shipping
  - Not associated with newly purchased frogs

http://www.cdc.gov/salmonella/water-frogs-0411/



## Hedgehogs

- 14 cases in 6 states since December 2011
- 3 hospitalized
- □ 50% ≤10 years old
- 10/10 (100%) interviewed cases reported hedgehog exposure
- Ongoing investigation tracebacks still pending

#### Frozen Rodents

- □ 500 cases in U.K. traced to Georgia facility
- 2010 U.S. outbreak ~77 cases; median age 12 years; same facility as U.K. outbreak
- Cases more likely to have handled frozen rodent in week before illness than well persons
- Issues: bulk packaging, often repackaged at pet store – no lot codes, no warning labels (stored and prepared alongside human food)
- Should be treated as raw meat
- WI did environmental testing
  - Bearded Dragon fed rodents shed bacteria

#### **Turtles**

- <4" banned for sale (with exceptions\*) in US since 1974</p>
- Estimated 280,000 illnesses in 1972 publication
- 11 multistate outbreaks since 2006
  - >500 illnesses and one death in a 3 week old infant

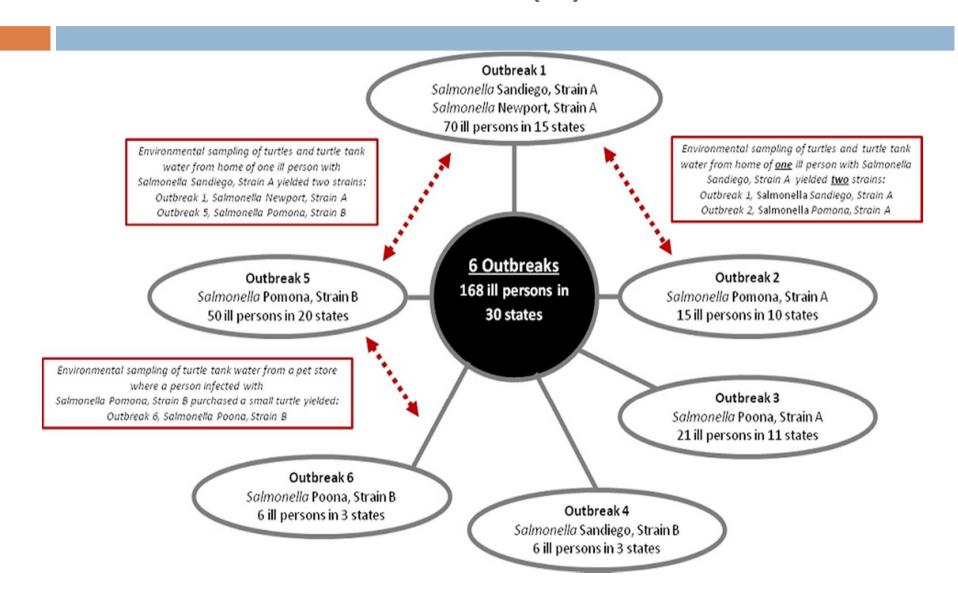
\*for bona fid scientific, educational, or exhibitional purposes, other than use as pets

# Turtles – September 20, 2012

- Currently\*
  - 196 persons from 31 states; 36 hospitalized
  - 63% <10 years; 29% <1year</p>
  - 55% Hispanic
- S. Poona, S. Pomona, S. San Diego
- 72% of ill persons reported turtle exposure
  - 92% turtles <4"</p>
  - 40% from street vendors, 17% from pet stores
    - Also gifts and internet sales

<sup>\*</sup>http://www.cdc.gov/salmonella/small-turtles-03-12/index.html

# Current Outbreak(s)



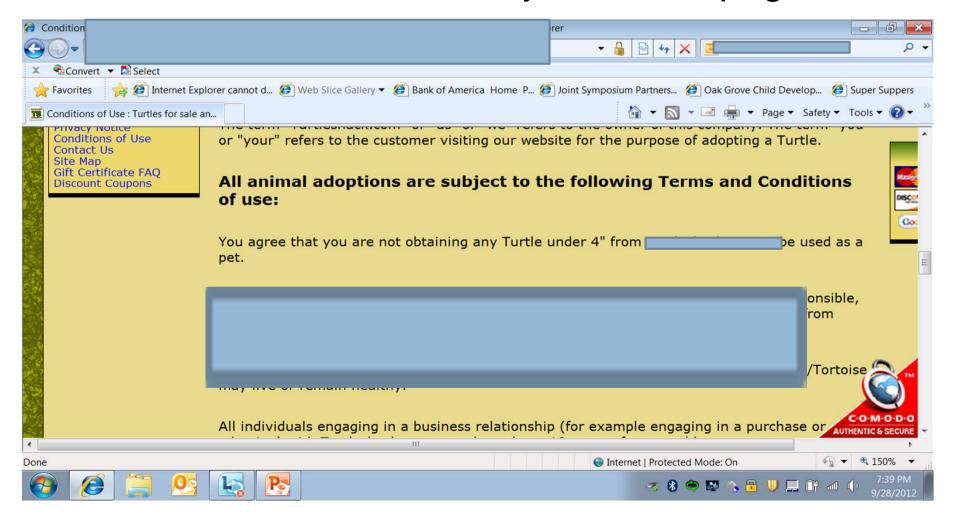
### Loopholes?

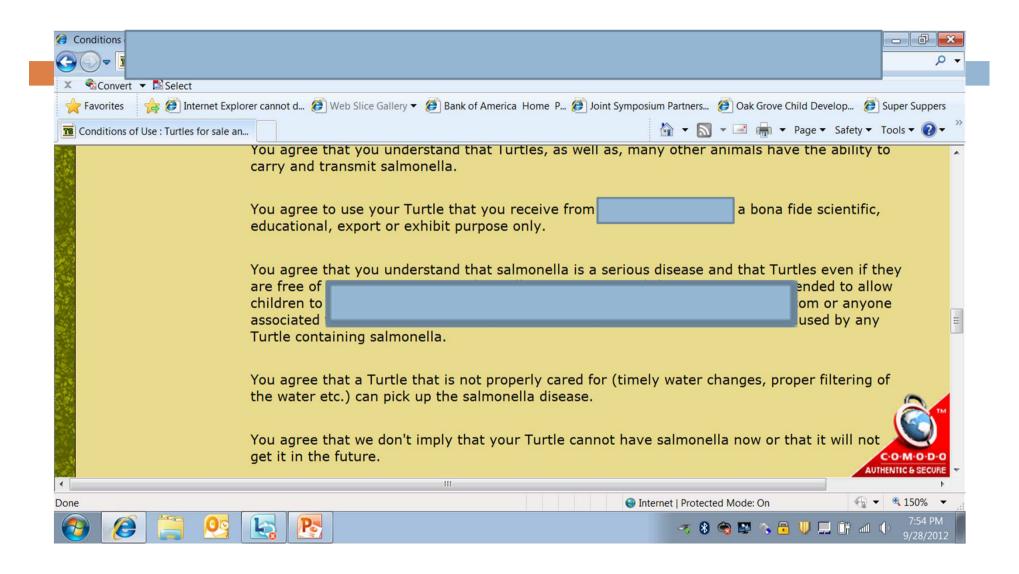
- Internet sales with "buried" disclaimers and "adoption" fees
- No proof of profession (teacher, research) required
- "Buy the cage and get the turtle free"



# After signing in to purchase, get link

Text is more than halfway down the page





#### Yet...

- Testimonials on same page reflect use as "pets"
  - "just received my three baby sliders along with food. they are so cute and cool looking! They're a little shy but will get used to their cage and habitat! thanks so much turtle shack! You've made my dream of having a <u>pet turtle</u> come true! will be buying from this site very soon!"\*

# **Educational Flyer**



http://www.cdc.gov/healthypets/resources/amphibian-reptile-poster.pdf

### Help educate

- Successful partnership with NPIP and hatcheries
- Flyer shipped with every box of live baby chicks
- Could we do something similar with turtles and other reptiles?