They think we are poisoning them and their children—What is your response?????

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SUPERBUGS
HOW do we get them?

DEFINE: Superbug
• Bacterial infection
• Medicine can not stop its spreading
• Therefore, multi-drug resistant bacteria
• Medicine depends on antibiotics for
  – Cancer – chemotherapy
  – Organ transplants
  – Surgeries
  – childbirth

What are the SOURCES OF SUPERBUGS
• Antibiotic treatment by doctor is “viewed” as panacea
  – Led to overuse
  – Liberally requested and prescribed
  – Don’t antagonize the patient

BUT
It is not ALL the doctor’s fault

- Many patients “stop” taking the Rx when they “feel” better
  - This KNOCKS down the bugs BUT
  - Does not KNOCK out the pathogenic bacteria
- SO this is as highly effective way to SELECT bacteria to become RESISTANT next time!
- Cause: LACK of patient compliance
  - Lack responsible behavior!!!!!!

Campylobacter
1 of 18 pathogens of concern

- “No conclusive evidence of a DEFINITIVE link between use of antibiotics in food animals and emergence of drug resistant Campylobacteria”
  - can cause food illness if
    - Food is not properly handled and cooked
    - Regardless of whether it carries antibiotic resistance

Raw Milk — best source of campylobacter

- On-line— SAYS
- Q: “Won’t raw milk make me sick?”
  - A: “Not if it is properly collected from cows fed organic grass (and a minimum of grain). ETC”
  - Q: “Can anybody drink raw milk?”
  - A: “Yes, with a nod to those folks whom it just doesn’t suit, but there are a few important exceptions, ETC.”
- USDA and FDA SAYS
  - do not CONSUME!
Should Milking Cows be BLAMED?

SO, is milk a culprit????

- Are there antibiotics in milk that reach the food supply? ----- 
  - YOUR answer should be FACT!!!

  - All milk (both regular and organic) is tested for antibiotics—at ALL farms and processing plants
  - Less than 0.02% show contaminants

What about S. aureus?

(common source of food poisoning)

- Live on our skin or in our nose (1 of 4 people)
- NOT related to livestock production BUT
- Form of this is called methicillin-resistant S. aureus (MRSA)
- MRSA is bad SUPERBUG
- NEW research suggests
  - Controlling water transporter system of bacterial cells—why we need good research!
• The deadly MRSA USA300 strain has genes that make it immune to toxins on the skin, but the microbe can't always escape engulfment by humans' white blood cells.
OPPOSITE
Barnyard dust helps kids!
• 10.6% grade school children have asthma
  – According to CDC
  – Chronic and frightening
• New research:
  – Exposed to animals-more neutrophils
  – Type of White blood cells
  – Part of body’s innate immune system
  – Neutrophils were newly emerged from bone marrow-ready to react to microbial invaders

References
• New England Journal of Medicine
• Science Signaling
• Critical Reviews in Food Science and Nutrition
• FDA Mandates —Guidances 209, 213
• Journal of the American Medical Association
• OIE – World Organization for Animal Health (European Commission)