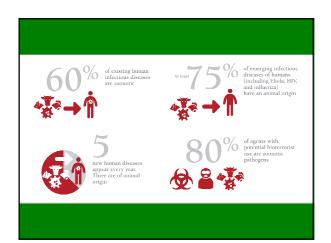


They think we are poisoning them and their children— What is your response?????

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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."
- LISDA and EDA SAVS
 - 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 <u>BUT</u>
- 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!

MRSA--

• 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 Comission)