One Health
Connecting the Dots
• One Health – poll question: have attendees have heard of this concept? [yes, no]

• Exciting, but difficult to identify how to contribute in a meaningful way.
One Health is “...a movement to forge co-equal, all-inclusive collaborations between physicians, osteopathic physicians, veterinarians, dentists, nurses and other scientific-health and environmentally related disciplines” including ecologists, epidemiologists, microbiologists, public health professionals, etc.

2013 MLA in Boston: “One Health: Information in an Interdependent World”

Interprofessional Education (IPE) – collaboration among diverse disciplines. IPE trained providers have more tools to solve health care problems.

One Health, as envisioned by its founders back in 2008, might be thought of as the ultimate IPE, a global collaboration with the potential to truly improve health worldwide.
Why am I so passionate about One Health? Here’s a trick question...

What do health science libraries, animal rescue, therapy dogs, and zoos have in common? [chat box]
• Short answer, at least in Buffalo: I’m involved in all four arenas that have somehow happily collided.

• The intersection of these seeming disparate fields actually took place over the last ten years or so:
  
  • Many years of cat rescue led to my doing research for my own vet
  • Being a Zoo Docent led to doing research for the Zoo vet
  • Connections with UB Anthropology (my undergrad degree) led to adjunct faculty appointment for our then Zoo President to access library resources
  • Having a therapy dog and planning for stress relief events for students led to the introduction and subsequent proliferation of therapy dogs on campus
• Being a part of each of these fields I am familiar with their unique terminology

• Understanding different fields of practice gives a wider view: e.g. treatments developed for animals may be applied to humans and vice versa

• Collaboration and formal/informal IPE – synergy and discovery
Human-animal connections

- At least as old as first emergence of Homo sapiens
- Animal Assisted Activities (prescribed therapeutic use of animals)
- 800 AD physically disabled cared for farm animals as therapy
- 1860 Florence Nightingale advocated for small pets for chronic invalids
- 1933 Sigmund Freud used one of his Chows in therapy sessions
- Major policy changes in Red Cross procedures altered when people refused to leave pets behind after Hurricane Katrina
- Therapy animals now widespread from hospitals to senior residence to schools, universities and offices
• Health of people directly connected to and dependent on the health of animals

• Raising of cattle, sheep, pigs, chickens, and other animals
• Drugs tested on animals first
• Veterinarians key players
• Vaccinations
  • Zoonotic diseases
  • Proper administration of antibiotics
• Use of alternatives – e.g. oregano in water (Perdue advertisement)
• Health of people directly connected to and dependent on the health of the environment and its ecosystems

• Agricultural and manufacturing practices
  • Animal waste and chemical contamination
  • Most food-borne disease traced to manure contamination
  • Emerging vectors of disease due to habitat loss by humans
Poll question:

What percent of human disease arises from animal reservoirs?

- 20%
- 30%
- 70%
- 90%
Nature affects emotional human health

- Humans innate need to connect with other living things – E.O. Wilson’s “Biophilia” (1984)

Antibiotics and Resistance key theme

- Unregulated in many countries – available OTC
- Less focus on developing new antibiotics so resistance mounts
- No system yet in place to track globally
- Modern medicines becoming obsolete
- Overprescribing and patients not taking properly
- Unnecessary use in agriculture
- Poor infection control and poor hygiene
• Exhibit at the Health Sciences Library, University at Buffalo is at https://library.buffalo.edu/PDFs/onehealth.pdf (also linked from our Exhibits page https://library.buffalo.edu/exhibitions/)

• Major focus: antibiotic resistance and the Microbiome

• Microbiome extends to plants as well (2017 article by Posey)
• VERY exciting article just appeared yesterday in Medscape: “Harvard Zoo Experiment: animals Educating Future Doctors” – Harvard medical students rotating through the Franklin Park Zoo treating animals

• Cultural competence applies in non-human arenas as well

• Librarians can facilitate through collection development, research, LibGuides, events, data management and recognizing possible connections