

When infections go viral – Ebola, Zika and Zoonotic Diseases

Zoonotic Diseases

- > over 60% of all communicable diseases causing illness in humans
- > 75% of recently emerging infectious diseases

Zoonotic Diseases: Outline

What are they?

Where do they come from?

How can I prevent getting them?

Zoonotic Infectious Diseases



<http://www.farmatika.com/feature/roshu-ark-kevin-middleton.html>

Images from Twitter

Zoonotic Diseases: Outline

What are they?

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Zoonotic Infectious Diseases

Which of the following are zoonotic diseases?

a. Lyme



c. Rabies



e. West Nile



Images from the CDC, my lab

Well Known Zoonotic Diseases



Image from <http://libby.com/academy/news/what-is-bacterial-definition-guest-348.html>

Zoonotic Diseases

- over 60% of all communicable diseases causing illness in humans
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“The most exciting phrase to hear in science, the one that heralds new discoveries, is not 'Eureka!' (I've found it!), but 'That's funny...’”

- Isaac Asimov



Image from http://www.goodreads.com/author/author/15657_isaac_asimov

"Funny" Things that Might Indicate Emergence of a Zoonotic Disease

NEWLY discovered
Lyme

RAPID amplification of cases ("outbreak" or "epidemic")
Bird Flu

EXPANSION from animals to humans, or in geography
West Nile, Lyme, Bird Flu

Zoonotic Infectious Diseases

Which of the following are zoonotic diseases?

a. Lyme



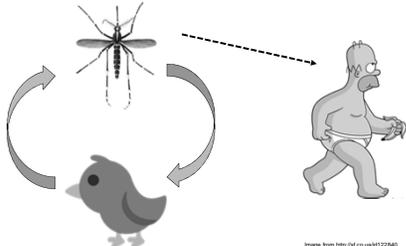
c. Rabies

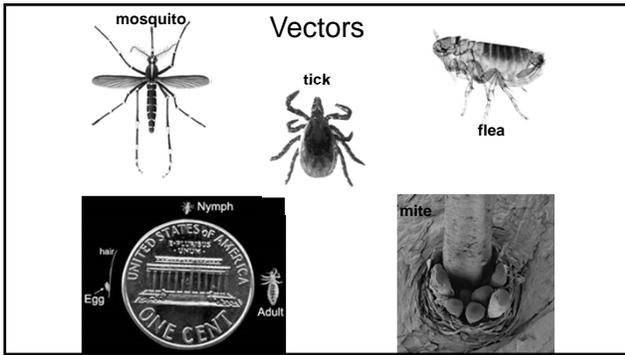


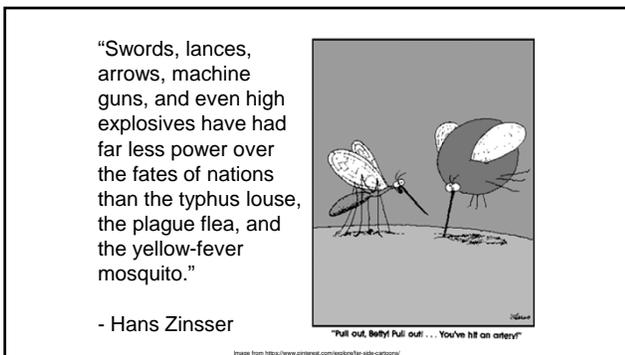
e. West Nile

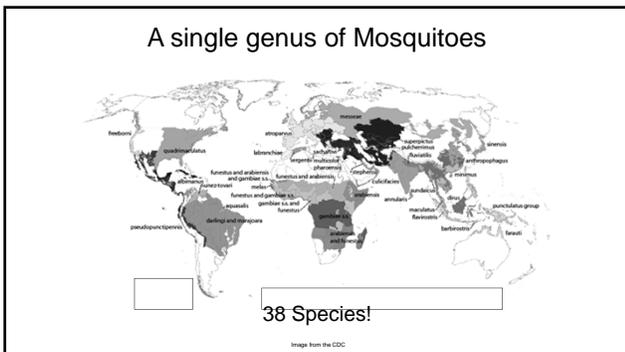
West Nile Transmission Cycle

Wisconsin is home to 56 species of mosquitoes.
-Susan Paskevitz, PhD, UW Madison









...and just a few ticks...



Image from Goodman et al., Tick-Borne Diseases of Humans ©2005 ASM Press

...and fleas, mites, lice...



Image from <http://www.outline-world-map.com>

Zoonotic Diseases: Outline

What are they?

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How can I prevent getting them?

Prevention of Zoonotic Diseases

➤ Always wash hands, especially after contact with any animal (pets too!)



➤ Handle food safely: cooking, storing



➤ Prevent bites from mosquitoes and ticks (avoidance, repellants), check for ticks



Images from <http://www.epiupdate.com/beat/beat09aug07/>, <http://www.cdc.gov/nczod/diseases/zoonotic/diseases/food-safety/guidelines.html>, http://www.123rf.com/photo_28024732_stock-vector.html#query=mosquito+sign+with+injury+vector+message&from_view=detail

Remember: Zoonotic Diseases

Be aware of zoonotic diseases at home and when you travel



We get them from animals

Directly or vector-borne

Often Preventable

Resources

<http://www.cdc.gov/ncezid/index.html>

<http://www.cdc.gov/healthypets/>



