

PMI 214 Notes

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1 Review

- What are the components of vector-borne disease?
- extrinsic vs intrinsic incubation?
- of the pathogens, know who vectors what and generally where they occur, also, who is the vertebrate reservoir. Do Zika and Chikun have avian reservoirs?
- both invertebrate and vertebrate a host. a reservoir is conventionally the vertebrate and a vector is conventionally the invertebrate. both are hosts.
- learn about heartworm
- infections start earlier when temperature warms earlier.
- transmission of heartworm lasts one month because of intrinsic biology of the worm
- HDU is a temperature index
- surprise - the worm appears where the mosquito lives
- sampling bias tells us its easier to predict risky areas than to predict safe areas
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- West Nile and Zika - many people are asymptomatic - really good to check blood banks for disease
- humans are dead end hosts for West Nile (not for Zika and Chikun) because of low viremia (lab studies)
- every horse in the US gets the West Nile vaccine
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- human demography affects vectorborne diseases
- increasing temperature decreases time till viremic in disease (main case for why climate change will increase human diseases)
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- the challenge of having two flaviviruses (DENV and ZIKV) in the same area
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- bluetongue is extremely easily transmitted by midges - via dust storms