

NEO-APIC: Give back to the chapter presentation

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Personal background (why I chose this presentation)

- MPH
 - International Health
- CCF project on childhood obesity in Kingdom of Saudi Arabia (KSA)
 - Multiple trips to KSA, during the MERS outbreak
 - Spent time in Riyadh, Jeddah
 - Saw camels!



Navigating the Uncharted: Emerging Diseases and Hardships Faced in Other Countries

Presenter: Mazin Barry MD, FRCPC, FACP, DTM&H



Themes

- Great intro including the first pandemic in recorded history
 - 430 BCE
 - Killed 30,000
 - Started in Ethiopia, traveled to Libya, Egypt, Greece (Athens)
 - Bubonic plague
 - The Great Influenza (Spanish Flu)
- Severe acute respiratory syndrome coronavirus 1 (SARS-CoV-1)
 - November 2002 – July 2003
- Middle East Respiratory Syndrome (MERS)
 - April 2012 – April 2024 (last case reported 4/16/24)
- Past experience influenced response to COVID-19
- Role of IP in all outbreaks
- Incorporated multiple studies

Middle East Respiratory Syndrome (MERS-CoV)

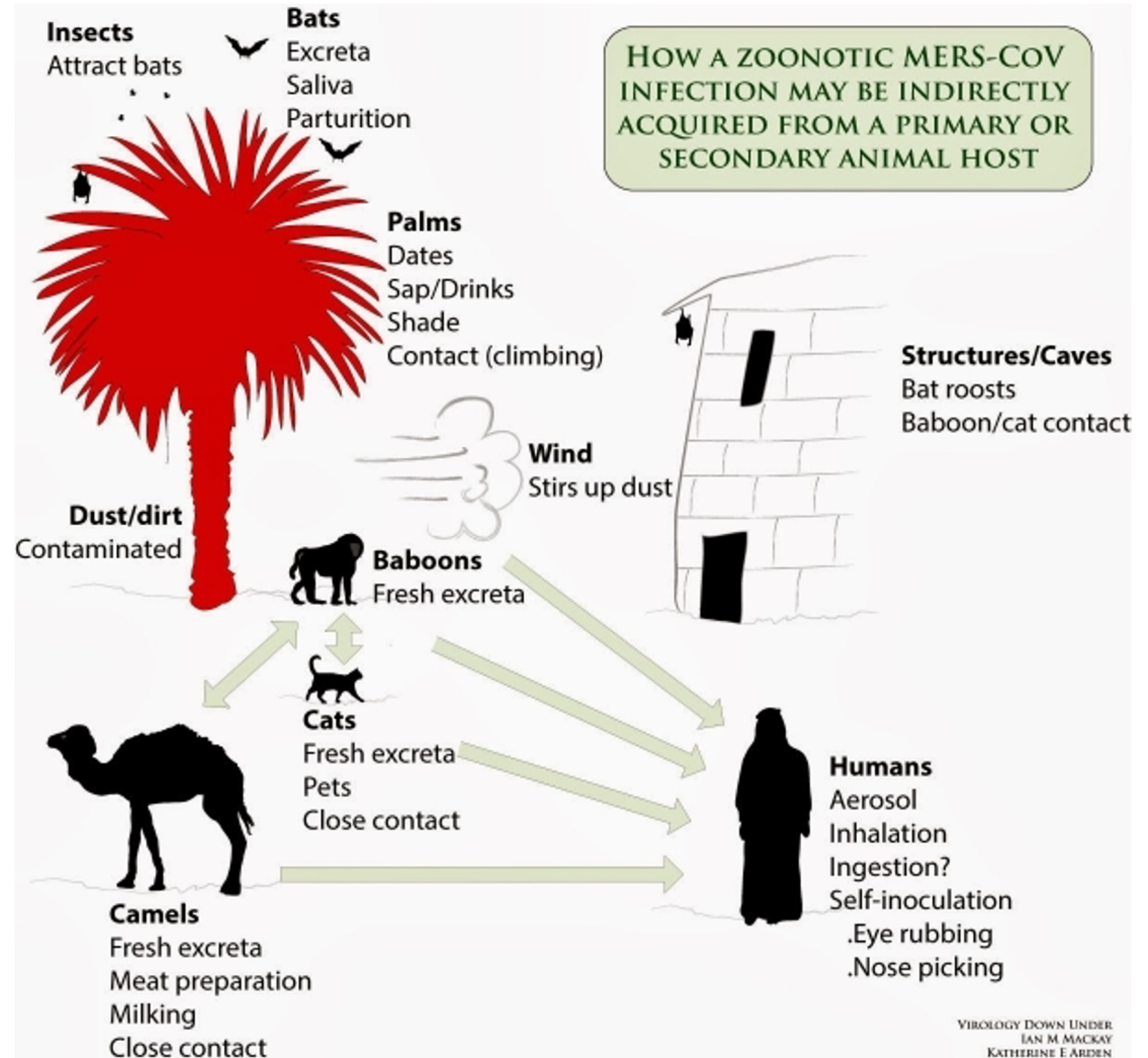
Evaluated livestock,
specifically camels

Found that 90% of
dromedary camels
(n=310) tested
positive for MERS-
CoV antibodies

Camels determined
to be the main
reservoir and animal
source of MERS-
CoV

Zoonotic illness

- Coronaviruses have been infecting bats/birds for over 300 million years
- More “recent” infection of mammals



Human transmission of MERS-CoV

Person-to-person transmission

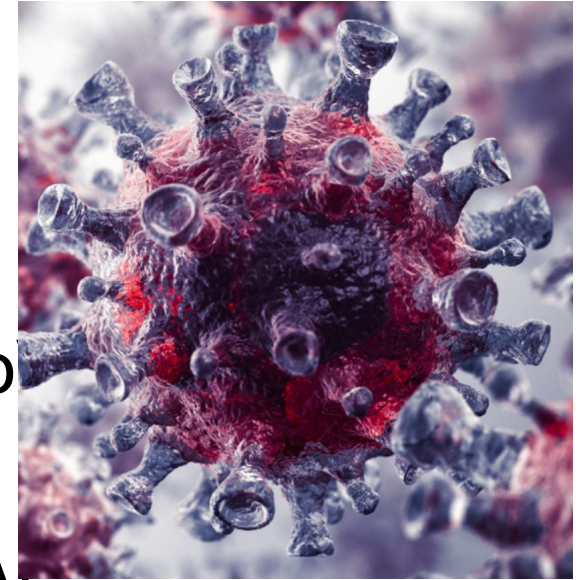
Hospital outbreaks

Healthcare facilities: overcrowding in EDs

IP considerations: suboptimal IP/IC, compliance issues

Current COVID outbreak

- COVID genome had a 50% similarity to MERS-CoV
- March 2, 2020 = first COVID+ in KSA
- Patients did test + for both COVID and MERS-CoV
- Very quick roll-out of vaccine once available
 - Strong support of government leaders
 - Televised leaders being vaccinated
- HCWs with vaccine hesitancy
 - Surprising given the strong vaccination infrastructure in KSA



Conclusion



Lessons learned can be useful & should be applied



Impacts of social media on healthcare knowledge, vaccine acceptance



Interconnected world and disease spread

Thank you NEO-APIC!