

# Mass Bat Exposure Investigation

2013 ERRT Conference

May 7, 2013

T.J. Sugg, MPH



**Kentucky Public Health**

Prevent. Promote. Protect.

# Mass Bat Exposure – Summer 2012

- Bats routinely seen in and around facility used as sleeping quarters for volunteers for a charitable organization, 1999-2012
- Viewed as “part of nature”
- Bat sightings inside and outside of the center in June/July 2012
- Pest control removes bats in late July
- Voluntary closure of facility until inspection
- CDC Epi-Aid called



# Interview and Site Inspection

- Revealed a history of possibly 200-300 bats previously living above the ceiling tiles
- Demonstrated that remediation efforts adequate
- Revealed no bats were available for testing
- Showed no evidence of current infestation
- Resulted in a recommendation to reopen the facility and rely on regular control efforts to keep facility bat-free



# Investigation into Potential Rabies Exposure

- Bats: most common reservoir of rabies in KY
- Less than 1% of bats carry rabies
- But only about 10% of human rabies cases have a documented history of bite
- 273 persons slept in the facility in 2012
- Most sightings occurred during bat remediation efforts in June and July



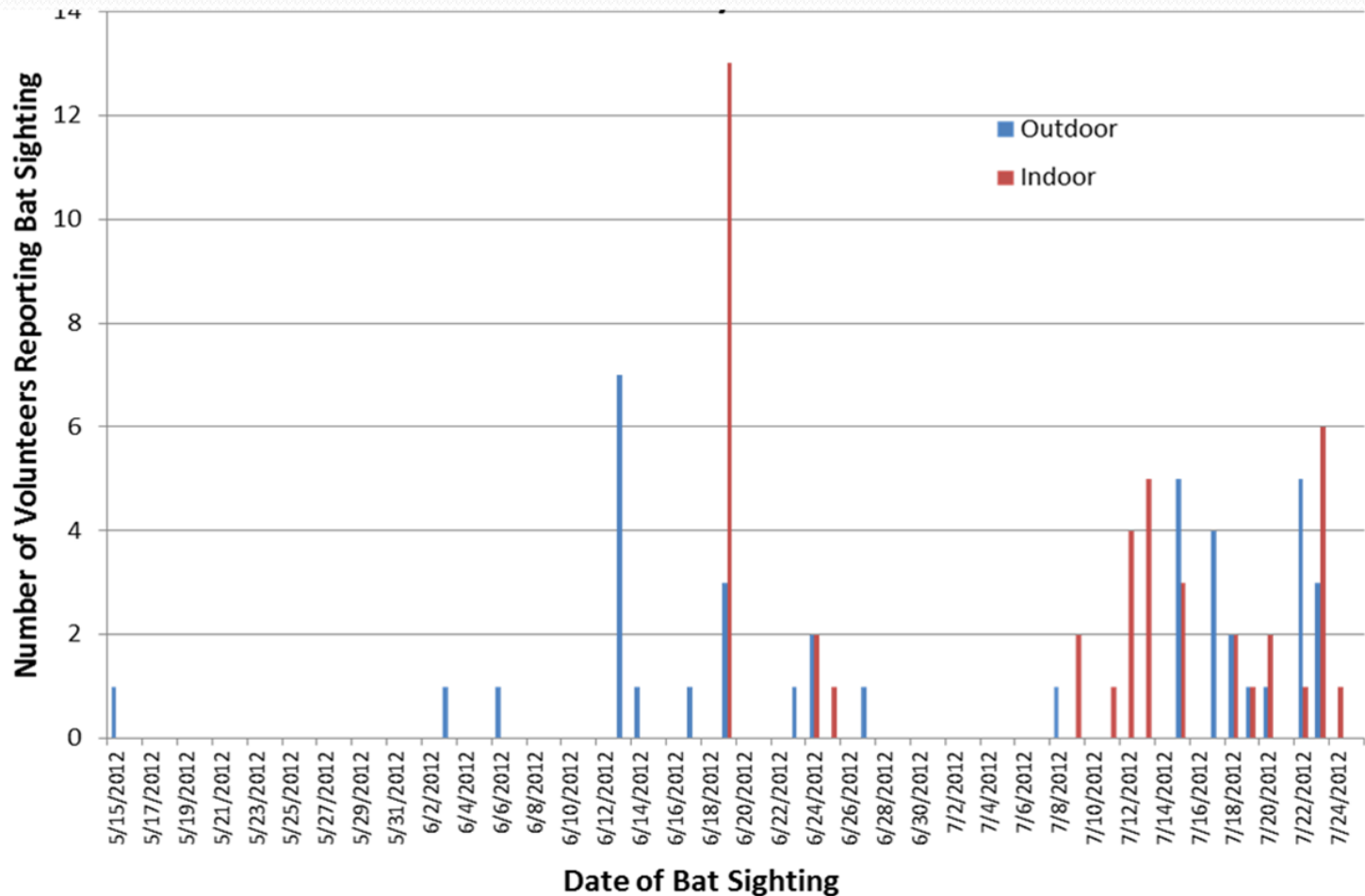
# Questionnaire Information

- Dates slept at facility
- Bat sightings
- Bat Contact
- Risk Factors
  - Alcohol / Drug Use
  - Medications causing drowsiness
  - Deep sleeper
  - Developmental delays

Opened DOC and used ICS to manage incident



# Timeline of Bat Sightings at a Facility in Kentucky, 2012



# Pest Control and Bat Sightings

- Nets designed to let ADULT bats out, but not back in
  - Juveniles often cannot get out
- Females give birth in June – July
  - Young begin to fly at 21 days
- Netting placed July 10 – July 16
  - Adults leave roost to feed
  - Young trapped
  - Adults cannot get back in
  - Juveniles begin to explore other exits



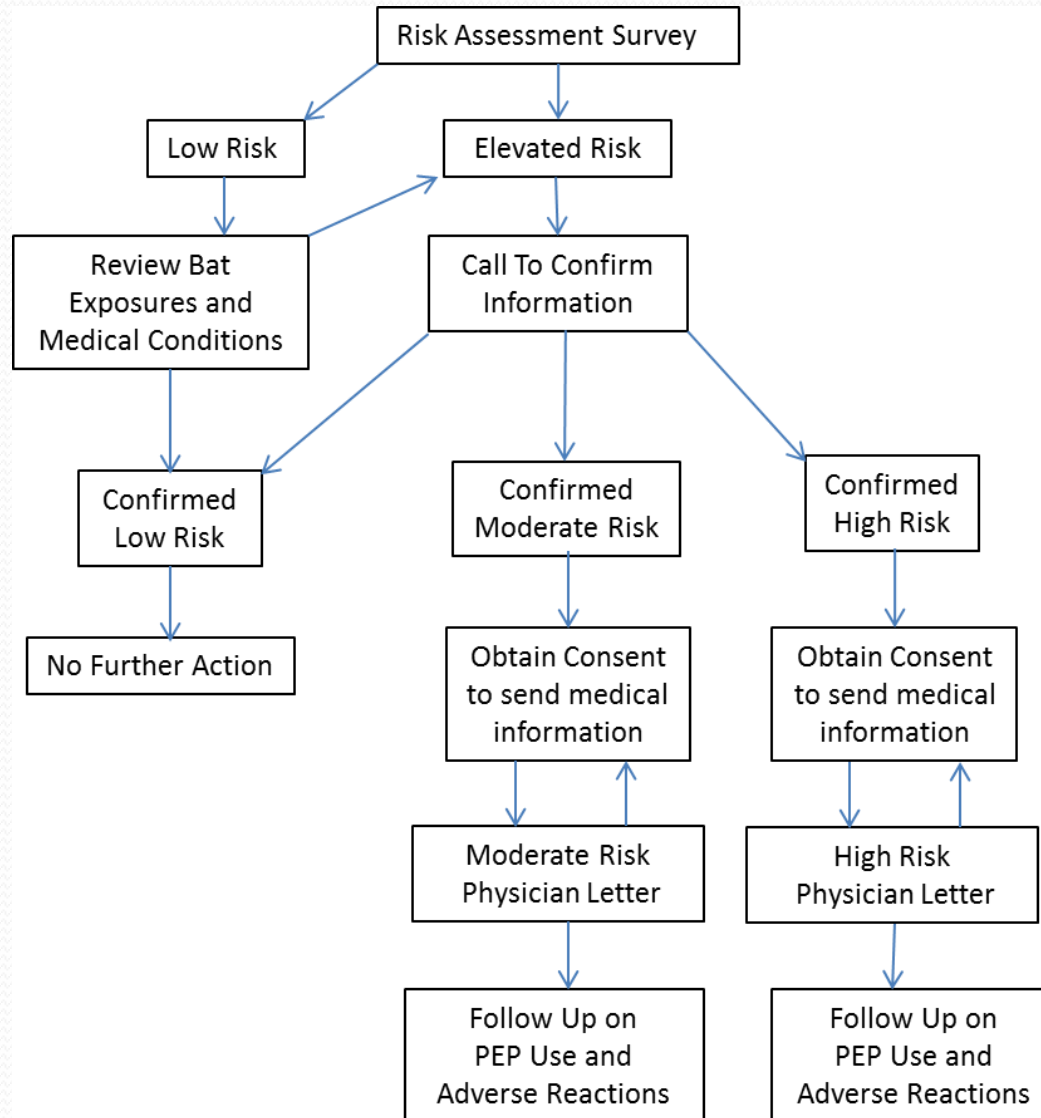
# Exposure Risk Assessment

- Low Risk
  - No bat contact reported
  - Did not sleep in a room where a bat was seen at night
- Moderate Risk
  - Slept in a room with a bat AND had a risk-condition
  - Touched a bat, away from the head
- High Risk
  - Woke to a bat in bed
  - Had direct contact with the head or claws of a bat





# Post Exposure Prophylaxis Algorithm



# Results of Contact Investigation

- 257 of 273 volunteers contacted (94%)
- 71% of bat sightings were seen during remediation efforts
- Bats sighted in a sleeping room on 13 nights in 2012
- 48 volunteers potentially exposed while sleeping
- 16 persons at elevated risk
  - 3 high risk
  - 13 moderate risk
- 4 handled a bat
- 1 rolled over on a bat in his bed



# Post-Exposure Prophylaxis

- High Risk (3)
  - All 3 discussed rabies with physician
  - All 3 received PEP
- Moderate Risk (13)
  - 10 / 13 discussed rabies with physician
  - 4 / 13 received PEP
- Low Risk (241)
  - 32 randomly chosen for follow up
  - 1 received PEP (~3%)
  - 3% of 241 = 7 received PEP (estimated)



# Recommendations

- Education needed on bats and risk of rabies for:
  - Facility Staff and Management
  - Facility Volunteers
  - Public at large
- Contact with bats should be reported to the local and state health departments
- Closure of facilities when bat remediation is underway



# Acknowledgements

- Local Health Departments
  - Thursa Sloan
  - Lesia Smith
  - Regional Epidemiologists
  - Teresa Gamsky
  - Dori Livy
- Kentucky Department for Public Health
  - Dr. Kraig Humbaugh
  - Dr. Doug Thoroughman
  - Dr. John Poe
  - Dr. Liz Russell
  - Sara Robeson
  - Alex Freiman
  - Dr. Rob Brawley
  - Infectious Disease Branch
  - Preparedness Branch and Regional Preparedness Coordinators
- CDC
  - Dr. Ryan Wallace
  - Jesse Blanton
  - Lisa Sappenfield



# Additional Slides



# Site Investigation





# Site Investigation

