

Human-Biting Ticks in NC and Their Pathogens: The Interface with the Public – Dr Marcia Herman-Giddens (UNC School of Public Health)

- a) www.tic-nc.org
- b) Private, non-profit organization
- c) Need to increase knowledge about ticks and tick-borne diseases
 - i) Not much publicity
 - ii) Lack of prevention knowledge
 - iii) Difficulty in finding informed medical care
 - iv) Lack of surveillance data
 - v) Lack of info in public areas
- d) Typical life cycle
 - i) Larvae & nymphs feed on small animals
 - ii) Adults feed on mid-size to large animals
 - iii) Cycle takes 2-3 years
- e) Ticks and pathogens
 - i) *Ixodes scapularis*
 - (1) Lyme
 - (2) Babesia
 - (3) HGA
 - (4) Bartonella
 - (5) Others
 - ii) *Rhipicephalus sanguineus*
 - (1) RMSF
 - (2) Others
 - iii) *Amblyomma americanum*
 - (1) HME
 - (2) *Borrelia lonestari* (STARI??)
 - (3) Tularemia
 - (4) Tick paralysis
 - (5) Others
 - iv) *Dermacentor variabilis*
 - (1) RMSF
 - (2) Others
- f) Tick-borne illness
 - i) Vary from person to person
 - ii) Seen up to 30 days after exposure
 - iii) “flu-like”
 - iv) May include:
 - (1) Rash
 - (2) Fever
 - (3) Headache
 - (4) Muscle aches and fatigue
 - (5) Joint aches and pain
 - v) Treatment needs to occur at system onset
 - vi) DO NOT WAIT FOR TEST RESULTS
- g) Disease transmission usually occurs when an infected nymph or adult bites - Lone star tick larvae CAN TRANSMIT disease
- h) Testing is problematic for many tick-borne diseases

- i) Tick-borne diseases are rising in most places
- j) Prevention is the key!
 - i) Use repellent
 - ii) Wear proper clothing
 - iii) Conduct tick checks
 - iv) Use correct tick removal
- k) Medical care
 - i) Providers uninformed about tick-borne disease symptoms
 - ii) Testing issues
 - iii) Confusing messages
 - iv) Lyme Disease controversy
- l) More surveillance is needed