

The many pieces of the puzzle: Enhancing Public Health Surveillance of Arboviral illness through collaborations:

Orion McCotter, MPH

Border Infectious Disease Surveillance Epidemiologist
Arizona Department of Health Services
Office of Border Health



Health and Wellness for all Arizonans



azdhs.gov

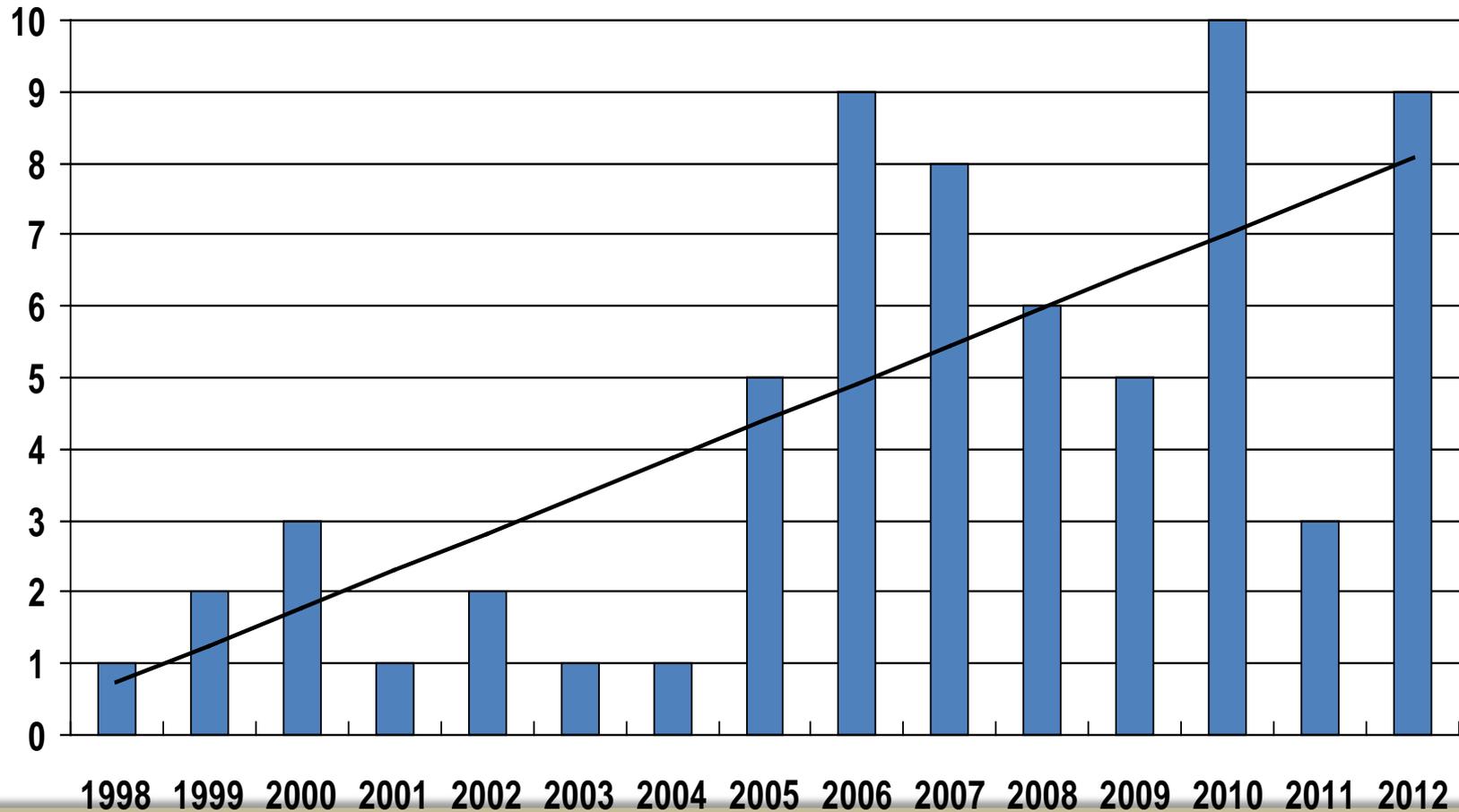


Disclosures

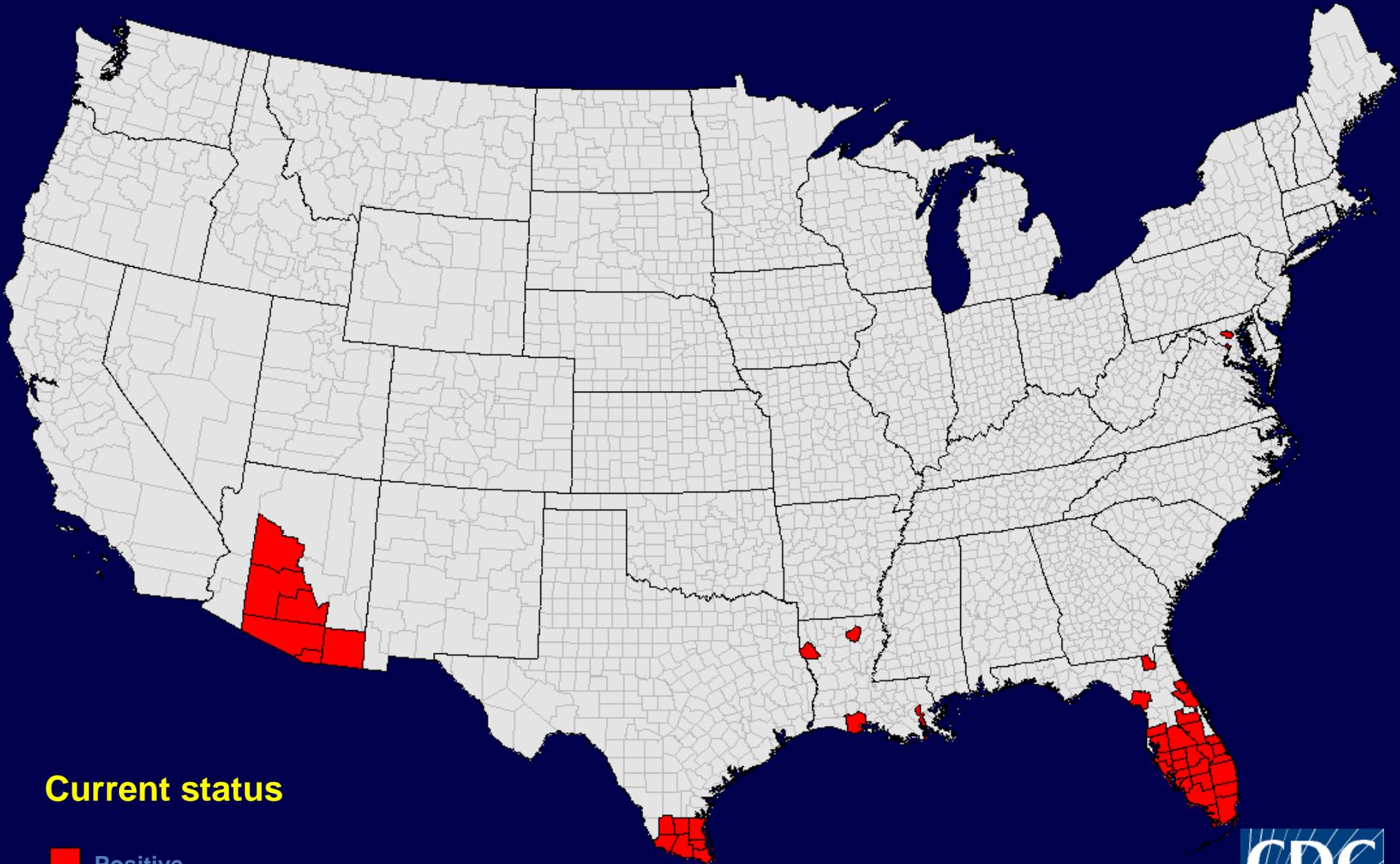
No financial or commercial interests relevant to this presentation exist.

The findings and conclusions in this presentation are those of the author(s) and do not necessarily represent the views of the Arizona Department of Health Services.

Imported Cases of Dengue Reported, Arizona Total Confirmed and Probable, 1998-2012



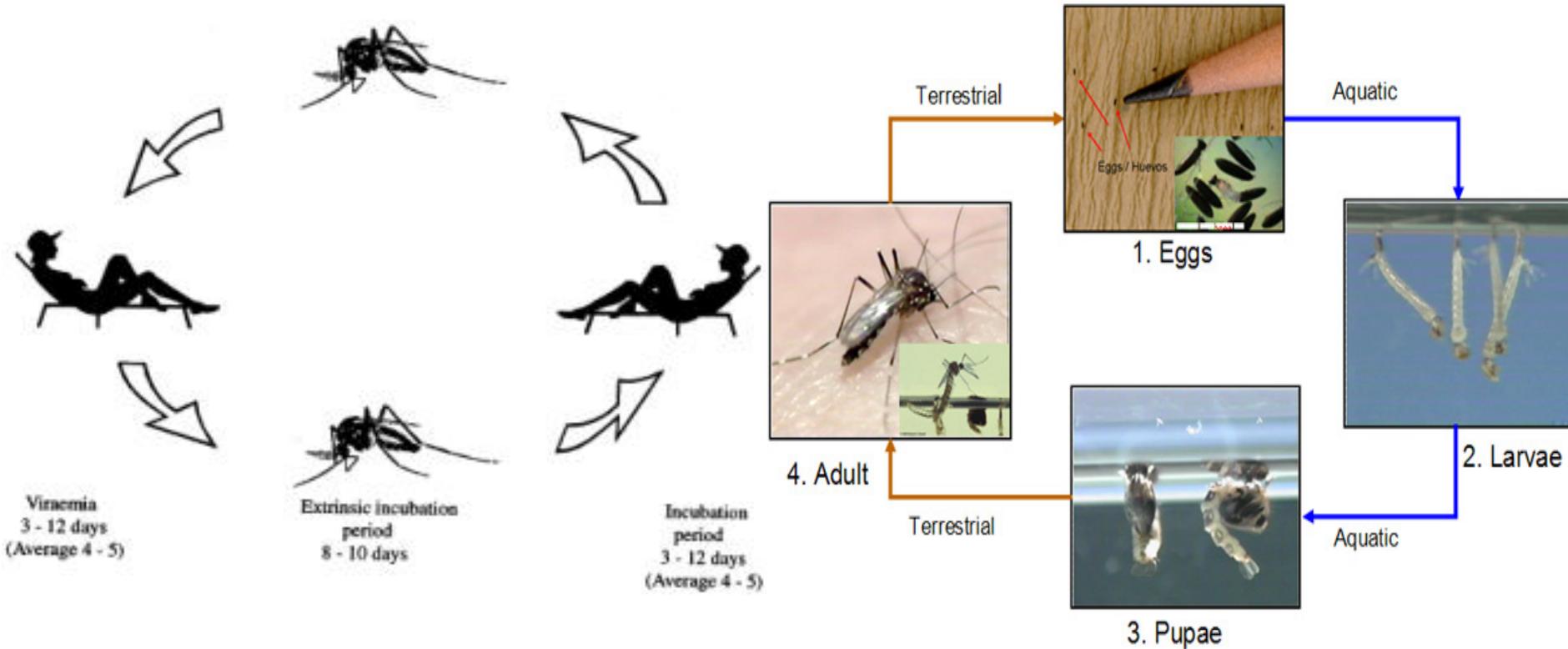
Distribution of *Aedes aegypti* in the United States, 2001



Current status

■ Positive

Dengue Potential in Arizona?



UA Vector Collaborations

- Use BG-sentinel adult traps and oviposition traps for monitoring presence/ absence and collecting *Ae. aegypti* eggs.
- University of Arizona Entomology will conduct:
 - Age-related gene expression analyses
 - Estimate the age structure of the wild caught *Ae. aegypti* populations in Border sites.

Rational

- If longevity is the limiting factor, understanding more about the conditions that increase longevity would allow public health professionals to monitor and control *Ae. aegypti* activity in those habitats
- A baseline survey to determine which parameters are limiting emergence in these areas will allow public health officials to refine their vector surveillance program to monitor for changes in that parameter.

Lessons learned during Dengue Outbreaks in the US, 2001-2011

- **3 Key Recommendations**
- **Involve Clinical and Laboratory Community Promptly**
- **Provide Accurate Information**
- **Engage Affected Community in Vector Control, Case Identification, and Case Reporting**

Adalja AA, Sell TK, Bouri N, Franco C. Emerg Infect Dis 2012 Apr

<http://dx.doi.org/10.3201/eid1804.110968>

DOI: 10.3201/eid1804.110968

Acknowledgements

CDC Dengue Branch

- Kay Tomashek
- Jorge Munoz
- Liz Hunsperger

Univ. of Arizona

- Kacey Ernst
- Anne Wertheimer
- Teresa Joy

NCAR

- Mary Hayden

ADHS Vector / Epi

- Mike Fink
- Christine Wampler
- Selam Tecle
- Jessica Rigler

ADHS OBH

- Robert Guerrero
- Frank Vanskike

ASPHL

- Bill Slanta

Texas Department of Health

Sonora Secretariat de Salud

Pima County

Glenda Aguirre

Babs Johnson