

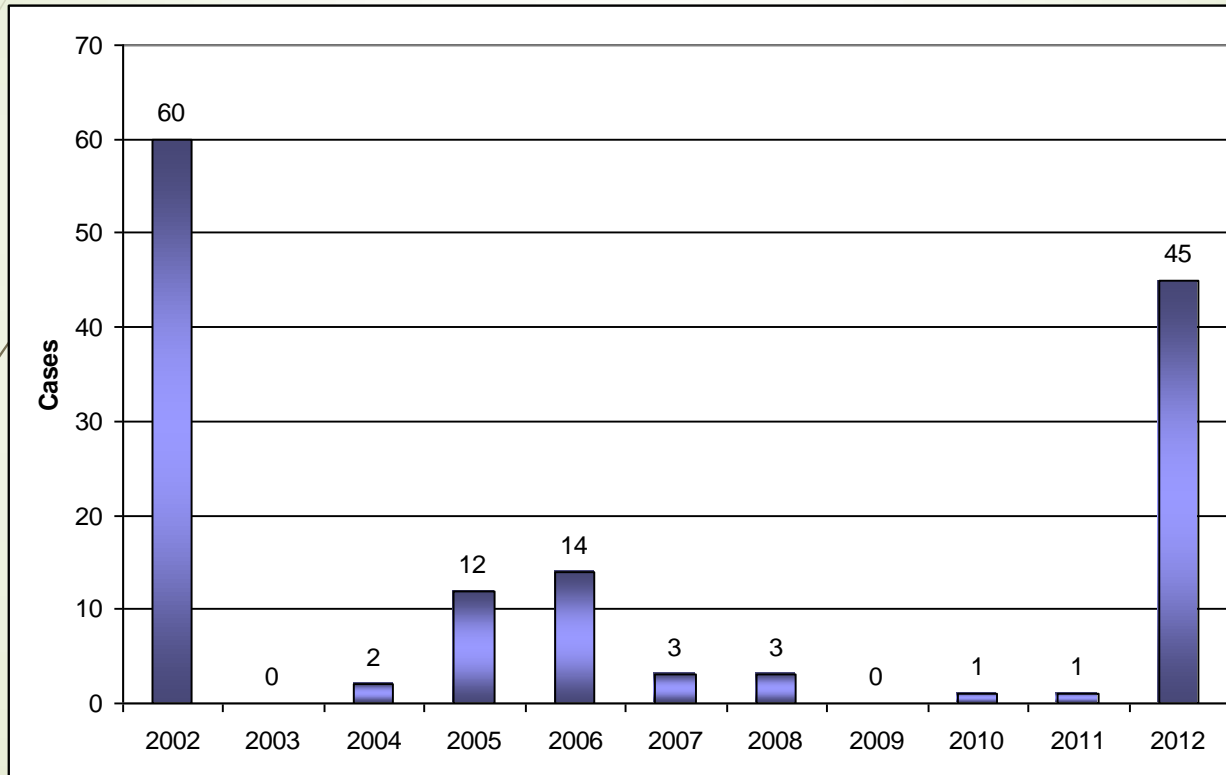


Mosquitoes and the Local Health Department Experience

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When it all began...2013

Kent County Cases 2002-2012
Deaths – Four in 2002 and two in 2012





Concerns

- Lack of real time Arbovirus surveillance data
 - Unable to assess the public health need
 - Community Apathy toward WNV
 - WNV was unfunded and institutional knowledge was limited
 - Reduction through education
 - Perfect Storm – staffing shortage & housing boom
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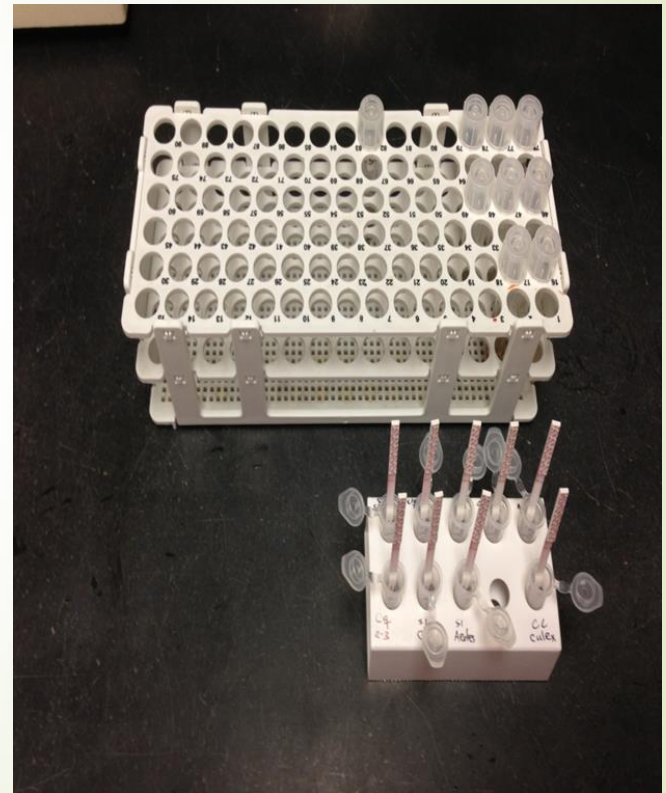


Project Design

- Proposal for funding to the Kent County Health Department
- Finding the right people
 - Kent County Health Department Staff
 - Kent County Health Department Public Health Laboratory
 - City of Grand Rapids
 - Grand Valley State University Interns
 - Michigan Department of Health and Human Services
 - Michigan State University
- 9 test sites – 4 employees and 5 Kent County residents
- Mosquito Identification
- Geoprocessing data for site selection

Implementation

- Collecting
 - Sites
 - 4x per week
- Sorted using a dissecting stereoscope
- Testing with the Trivalent Vec Test
 - Weekly
- Mosquito collection took place from June 16 through August 30.
- Data being provided to CDC ArboNet by MDCH





Positive West Nile Mosquito Pool

- ▶ August 16th, 2013
- ▶ Detection in southwest Grand Rapids
- ▶ Partnered with the City of Grand Rapids for a joint press release
- ▶ City of Grand Rapids treated all catch basins within a one mile radius of the site
- ▶ Sample was sent to MSU for confirmation for QPCR confirmation

Lessons Learned 2013

- A lot of trial and error
- Interns are awesome.
- The power of relationships and social media
- Quality improvement and flexibility is critical.
- Surveillance must be on going.
- A sense of humor is critical.





Fast forward to
2015

Where are we now?



- Changes in testing strategy
- Received funding from MDHHS for WNV surveillance
- Academic Health Department
- Formal training provided by MDHHS
- Learned new reporting methods
- Integrated Public Health Laboratory into the program

Current Positive Test Process-

- Contact home owner and provide information about WNV and prevention strategies.
- Contact the City of Grand Rapids for larvacide pellet treatment of catch basins.
- Press release issued



MEDIA COVERAGE

2013

2 press releases

9 interviews for either TV, radio or newspaper

2014

2 press releases

5 interviews for either TV, radio or newspaper

MDHHS PSA's on 2 local radio stations

2015

1 press release,

5 TV, radio or newspaper interviews

3 PSA's ran on three stations including a Spanish speaking stations



Outcomes...

- Geographic patterns are being identified
- Human Cases since 2013 in Kent
 - Zero in 2014
 - One in 2015
- Sustained internship opportunity through the Academic Health Department model
- AND.... After three years, we have a surveillance system in fact that can adapt to emerging mosquito borne diseases.



So why continue?

- ▶ To build capacity within our agency to handle emerging disease.
- ▶ To prevent community apathy or complacency
- ▶ To educate and encourage interest in the public health sciences
- ▶ We don't know what is coming next.

▶ Because it is **PUBLIC HEALTH** at work!



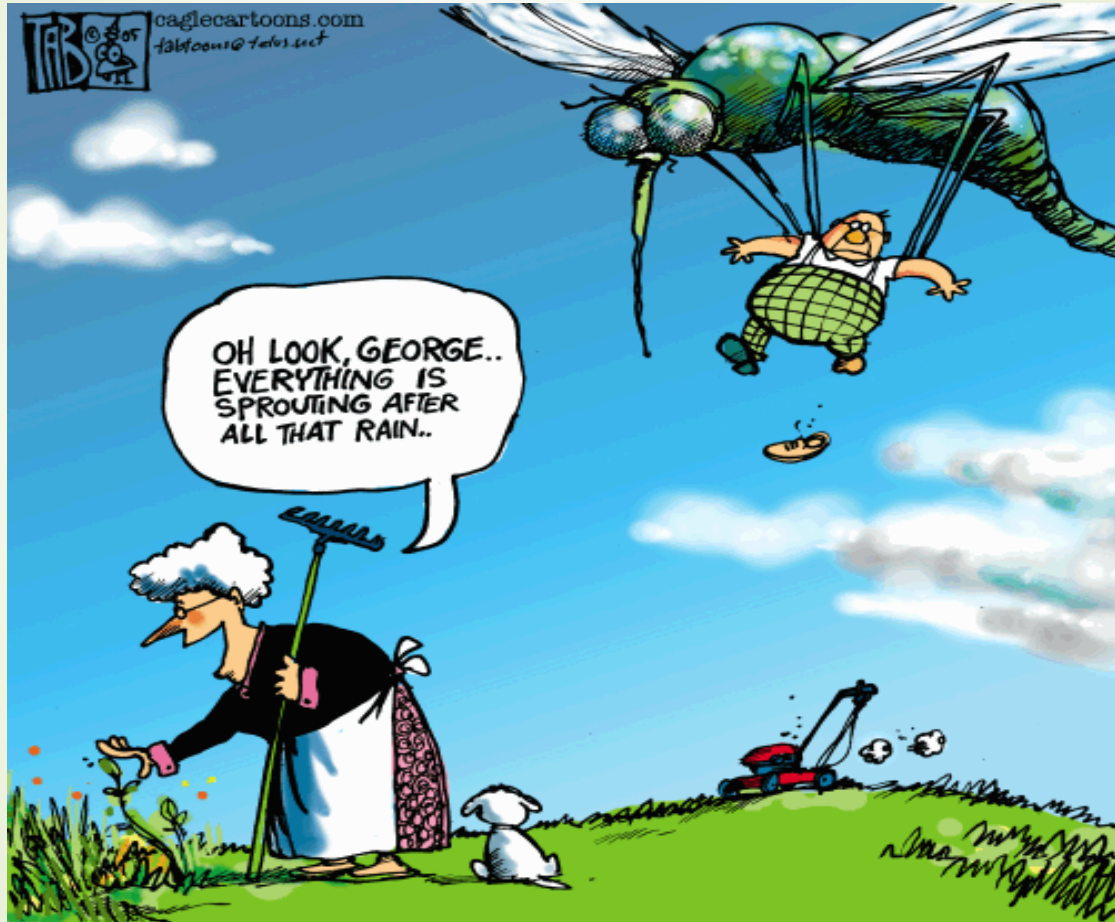
Public Health
Prevent. Promote. Protect.



Final Thought

If you think you are too small to be effective, you have never been in the dark with a mosquito. ~ Author Unknown

Questions?



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