



An Assessment of Governmental Mosquito Control Services in Georgia

Presentation to: **Georgia Mosquito Control Association**

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State Director, Environmental Health

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We Protect Lives.

Georgia Department of Public Health

EH Mission:

Inform the public of Environmental Health Hazards

-keep general public informed of the benefits of mosquito control and other public health pest control

Prevent illness and injury through monitoring, assessments, and education

- prevent illness by controlling mosquitos and public health pests and educating the public

Protect the public from Environmental Health risks

-protect the health and welfare of people and their environment

Georgia Southern University

- Jiann-Ping Hsu College of Public Health
 - Center for Public Health Practice and Research
- DPH contracted with the college to conduct the assessment
- Led by an EH Professor, a graduate assistant, and 5 undergraduate students



Why Conduct an Assessment

- 1st GMCA assessment of governmental mosquito control programs was in 2007
 - Last updated in 2009 by Dr. Kelly
- Previous assessment lacked detailed data
- Questions were limited
 - County, City/Town, basic contact, status

Benefits of Updated Assessment

- Assists state with planning purposes
- Detailed data available to DPH and GMCA
 - Type of program, equipment, staffing, education, awareness of GMCA
- Collaboration and mutual aid
- Emergency response to disease events

Methods and Time Line

January-February

- Developed survey tool and vetted it with Dr. Rosmarie Kelly, Joey Bland, and Jeff Heusel
- Established Contacts (County and City)
 - All counties
 - City is either county seat or
 - Any City greater than 20,000 population
 - Any city previously listed on GMCA document

February-March

- Hired students and provided JIT training on mosquito control, definitions, and conducting telephone surveys
- Divided the state amongst myself, graduate assistant, and students

March-June

- Started calling and documenting data in Google Document

Quality Control

- Rustin and his graduate assistant reviewed all responses
- All follow up calls made by Rustin and/or his graduate student
- Final document reviewed by Dr. Rustin and the Deputy Director of the Center for Public Health Practice and Research at GSU

Survey Document

- Do they offer mosquito control (yes/no?)
- Detailed contact information
 - Department, supervisor name and contact information
 - Email, mailing, and physical address
- Types of MC activities
 - Education (basic or enhanced)
 - Clean up programs
 - Responding to citizen complaints
 - Work with local media
 - Source reduction efforts (basic or enhanced)
 - Spray for adult mosquitoes and time of day
 - Larvicide or offer to public; biological controls
 - Type of chemicals used, where purchased
 - Equipment
 - Old style foggers or ULV mounted on trucks, ATVs, UTVs
 - Thermal foggers
 - Calibration
 - Other equipment

Survey Document

Surveillance activities

- Monitor and respond to complaints
- Conduct routine surveillance of adult mosquitoes (If Yes)
 - Types of traps used
 - Trap for counts only
 - Count & identify
 - Submit for disease testing
- Routine larvae surveillance
- Other monitoring programs
 - Landing counts
 - Use of historic data
- Use of GIS risk maps for hot spots
- Dedicated staff for mosquito control

Survey Document

- Are staff licensed to use chemicals
 - Familiar with NPDES requirements
- Are they aware of GMCA or a member
- Collaboration with the local public health department
- **Level 0**- No program
- **Level 1**-Public education, basic clean up programs, informs media
- **Level 2**- Level 1 plus enhanced education, basic source reduction, larviciding or adulticiding, basic mosquito monitoring
- **Level 3**-Level 2 plus, dedicated staff, routine surveillance and ID of species and other monitoring programs, may submit for disease testing, active inspections and enhanced source reduction, spraying and larviciding, risk maps, enhanced public education

Snapshot of Data

- 2017-**342** County/Cities identified vs. **255** locations in 2007
- We successfully contacted 335/342 locations: **98% response rate**
 - The 7 locations with no contact listed having a MC program on their website
 - No details of program
- 2017-Total # locations with a MC Program is **126** vs. **198** in 2007
- 2017-Total # locations with no program is **216** vs. **57** in 2007

Snapshot of Data

- Of the 126 MC programs:
 - **84** programs offer some form of education; **42** programs offer no education
 - **115** programs have a source reduction program; **7** programs do not
 - **15** programs don't spray for adults; **103** programs spray for adults
 - 10 programs larvicide only
 - 5 program provide education and source reduction

Spray Equipment

Of the 126 programs

- **54** programs have ULVs mounted on vehicles
- **17** programs have old foggers mounted on vehicles
- **8** programs are unsure what they have
- **18** program answered yes, but unsure what they have
- **4** programs have contracts with crop dusters only
- **2** programs use helicopters, airplanes specifically outfitted for MC
- **17** programs are educational only, so no sprayers
- **7** *programs were not successfully contacted, but state they have a program*

Thermal Foggers

- **98** programs answered no
- **2** programs were unsure
- **14** programs answered yes of which **1** is not working
- **5** programs did not answer the question
- **7** *programs not successfully contacted*

Calibration

- **78** answered yes, but the times between calibration varied
- **9** answered no
- **17** programs are educational only so no equipment
- **13** programs answered unsure/unknown
- **7** *programs were not successfully contacted*
- **2** programs didn't answer

Larvicide or provide to Public

- **10** programs are larvicide only
- **82** answered yes or sometimes
- **37** programs answered no
- **2** programs unsure
- **3** programs did not respond
- *7 programs not successfully contacted*

Complaint Response

- **105** programs respond to complaints in some form or fashion
 - Provide dunks
 - Spray
 - Inspect sites
- **16** programs don't respond to complaints
- **7** *programs not successfully contacted*

Adult Surveillance

- **89** programs offer no form of adult surveillance
- **7** programs trap for counts only
- **22** programs count and identify
- **14** programs count, identify, and submit for disease testing
- **7** programs were not successfully contacted
- **1** program is unsure

Larval Surveillance

- **88** programs don't conduct larval surveillance
- **1** program is unsure
- **29** programs conduct larval surveillance; **2** program ID larvae
- *7 programs not contacted successfully*

GMCA

- **64** programs were either aware of GMCA or a member
- **51** programs have never heard of GMCA
- **3** programs unsure
- *7 programs not contacted successfully*

Collaborate with the Health Department

- **183** counties/cities said they collaborate with the local PH Department
- **116** said they either do not collaborate, rarely talk, possibly
- **24** county/city are unsure
- **12** is a mixed bag of answers
- *7 counties/cities not contacted successfully*

Program by County or City

- **30** county mosquito control programs
(several combined county/city programs)
- **96** City mosquito control programs

Mosquito Control Status

- Level-0-**215** Counties/Cities have no programs
- Level-1-**37** County/City programs (7 programs could not be confirmed)
- Level 1-2-**27** County/City program in-between
- Level-2-**45** County/City
- Level-3-**18** Comprehensive county/city programs

Challenges

- **Funding**
- Crisis funding has become the norm
- CDC focus on clinical specimens and not arboviral surveillance
- Public complacency
- Fear of chemicals
- Loss of programs

Contact

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