Vector-Borne Diseases Regional Centers for Excellence – proposal status

Elmer Gray

University of Georgia

Department of Entomology

FOA – Funding Opportunity Announcement

- Early August CDC releases an FOA
- The stated purpose to -
  - Build effective collaboration between academic communities and public health organizations at federal, state and local levels for surveillance, prevention and response
  - Train public health entomologists in the knowledge and skills required to address vector-borne disease concerns
  - Conduct applied research to develop and validate effective prevention and control tools and methods and to anticipate and respond to disease outbreaks

Significant Interest

- From the FOA
  - Estimated Number of Awards: 5
  - Estimated Total Program Funding: $50,000,000
    - Looking at $10,000,000/center, spread over 5 years
- Initial meetings organized by the UGA office of the Vice President for Research
- Early lead participants: Julie Moore, Mike Strand, Danny Mead, Dave Stallknecht, Courtney Murdock, John Drake, Michael Yabsley, Pejman Rohani, Jose Cordero, Mark Brown, Ray Noblet, Chris Rustin, Nancy Hinkle…..
- September 12th – final RFA with a due date of 10/13

Known Partners Include

- From this group, we have secured the commitment of regional participants: Georgia, South Carolina, Alabama, Florida, and Puerto Rico

- Georgia Southern College of Public Health

- Georgia Dept. of Public Health

- South Carolina DHEC

- Alabama Dept. of Public Health

- Florida Medical Entomology Laboratory

- GA, FL, AL, SC and Puerto Rico's Extension Services

- Chatham Co., DeKalb Co. Valdosta State….

- Alabama Vector Management Society and City of Huntsville and Mobile and Baldwin Co.

- And many more……

SPECIFIC AIMS

- Aim 1 - Develop and implement region-wide best practices in training and education for public health practitioners that will ensure a strong cadre of vector control specialists with the expertise to manage Vector-borne Disease programs at the local, state, regional and national level.

SPECIFIC AIMS cont.

- Aim 2 - Develop best practices in vector surveillance and conduct applied research that produces timely data on vector abundance and distribution, pathogen prevalence, and insecticide resistance at the local, state and regional level.

SPECIFIC AIMS cont.

- Aim 3 - Conduct applied research on novel approaches for vector control and disease agent identification.

Aim 1 - Training

- Multilayered approach – in Best Management Practices
  - Training for front-line vector control, public works and public health personnel with local surveillance and intervention responsibilities
    - Fundamental and advanced training for front-line vector control, public works and public health personnel
    - Train-the-trainer – Focus on Cooperative Extension Agents and Public Health Practitioners, provide knowledge to offer educational programs to local clientele
    - Specialty Training – Focusing on field practitioners in any areas of need as warranted by conditions and events
    - Continuing Education – through meetings like this
  - Public education and relations, Extension agents, public health practitioners and local governmental workers in leadership positions will be trained in public relations and vector biology educational techniques. Children and young adults we be an area of focus in a graduated manner to teach the concepts of vector biology and habitat reduction
  - Graduate and post-doctorial training for specialists

Aim 2 – Surveillance and applied research

- Web platform development to improve data collection and analytics

- Enhance adult mosquito surveillance capacity
  - Proposing a hybrid approach that includes a combination of high-resolution surveillance in urban focal centers and lower resolution sampling in rural areas

- Insecticide resistance assessments – will focus on pyrethroid, malathion and naled

- Trap evaluation – will compare a variety of traps to validate and potentially improve vector surveillance in the region

Aim 3 – Novel Approaches

- Entomophagous fungi and ovitraps

- Arbovirus surveillance
  - SECWD will conduct a region wide survey of vector-associated viruses using latest technologies and techniques

Summary

- Center will generate the knowledge and capacity that is necessary to enable appropriate and timely local public health action for VBDs by fully taking into account vector ecology, disease transmission dynamics and resources

- Accomplished through a strong collaborative framework academic institutions and public health organizations

- Enhance training, surveillance and control efforts

- Generate data that guides risk assessment and intervention decisions