
•CULTIVATION•

The Newsletter for The Southwest Center for Agricultural Health, Injury Prevention and Education

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From the Director...

Agricultural Workers At Risk for West Nile Virus

West Nile virus (WNV) is a potentially serious illness that is most often spread by the bite of an infected mosquito. It is generally believed to be a seasonal epidemic that begins in the summer and continues into the fall. As of October 2, 2012, 48 states have reported West Nile virus infections in people, birds or mosquitos. There have been a total of 3,969 human cases of WNV disease, including 163 deaths. The portion of those cases from the Southwest region is staggering. Almost half of the total human cases (1,900) and the deaths (81) have occurred in Arkansas, Louisiana, New Mexico, Oklahoma and Texas. Texas alone has reported 1,438 cases in people. (http://www.cdc.gov/ncidod/dvbid/westnile/wnv_factSheet.htm)

As scientists and educators in the agricultural safety and health field, we should be concerned. Agricultural workers frequently perform tasks outside at dawn and dusk to avoid the heat of midday. However, these are prime mosquito feeding times. In addition, many farms and ranches are perfect breeding grounds for mosquitos. Ponds, tanks, water troughs, old tires, barrels, fuel cells, and empty feed buckets frequently hold stagnant water that offer ideal conditions for mosquito breeding sites. People over 50 are at higher risk of severe illness with WNV and the average age of a farm operator in the United States is 57 (NASS, 2007).

In order to be responsive to this public health crisis, professionals should educate agricultural communities about how to minimize the risk of a mosquito bite. For example, agricultural workers should use insect repellent, avoid dawn and dusk if possible, eliminate unnecessary pools of standing water and change the water in troughs at least weekly. In addition, concerned organizations can inform city and county decisions to use aerial pesticide spraying for mosquito control. The Southwest Center for Pediatric Environmental Health gathered data from their national network and provided a comprehensive recommendation to Dallas County during the peak in WNV cases. There are numerous resources available for educating others about WNV. See page 3 of this newsletter for weblinks to WNV statistics, facts, and recommendations.



Meet the Principal Investigators

Featured PI: Eva Shipp, Ph.D.

Eva Shipp, Ph.D. is an Assistant Professor in the Department of Epidemiology and Biostatistics at Texas A&M University System Health Science Center School of Rural Public Health. She received her Master's and Doctorate degrees from the University of Texas Health Science Center at Houston School of Public Health. Dr. Shipp has a long history of research with farmworkers, organization of research teams, the collection of primary data and field epidemiology, data management and

analysis, and dissemination of findings to the scientific and study community. She served as the project director for a cohort study entitled, "Migrant Adolescent Health Research Study," a SW Ag Center project. Her current research will examine whether chronic, low-level exposure to pesticides is a major contributor to injury among adolescent farmworkers. This objective will be addressed over a five year period by engaging migrant adolescent farmworkers in the research process and through strategic partnerships with academia and the community.



Fall 2012

SW Ag Center Board Meeting Held in Houston, TX

On September 13-14, the Principal Investigators, External and Internal Advisory Committees and Center staff met in Houston, Texas to convene a board meeting focused on partnership development. Guest speaker, Joel Cowley, Executive Director for Agricultural Exhibits at the Houston Livestock Show and Rodeo, kicked off the meeting with a presentation over his organization's history and growth. Perhaps, the most impressive demonstration of the Show's expansion is within their volunteer network, now 27,000 people strong including one of our External Advisors.

The Center strives to expand its network and sphere of influence by capitalizing on its existing partners. Attendees reflected on how they became involved with the SW Ag Center and shared potential opportunities for growth within their own professional and personal connections in the agricultural safety and health industry.

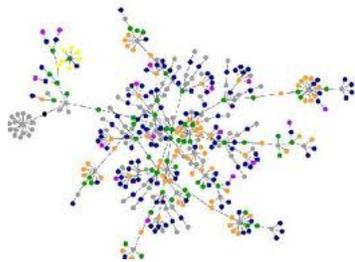
Principal Investigators delivered presentations on their projects' progress and challenges. In one short year,

PIs have assembled advisory groups, held stakeholder meetings, created survey instruments, learned new data collection techniques and tools (postural sway), performed environmental sampling, conducted lab experiments, and identified opportunities for pilot projects. In addition, a fifth project from the original submission has been funded for year 2. We welcome Jan Johnston, Ph.D. from Oklahoma State University to the Center. She is working with Center leadership to revise her scope of work and timeline. More information on her project will be shared in the next issue of Cultivation.

The meeting wrapped up with an interactive discussion on initial strategic plan revisions and guidance from the External Advisory Committee. The Center was fortunate to host three new EAC members (or first time attendees) to the meeting. The PIs and staff will consider and respond to the wise counsel from the EAC over the coming months.

PIs and Staff Learn Social Networking Analysis

Prior to the board meeting, Principal Investigators and Center staff attended a training for InFlow, a Social Network Analysis (SNA) software. SNA will be used in conjunction with the Center evaluation program to record the growth of the Center network.



By definition, a network is a collection of entities that are connected by a common thread. SNA is a visual and mathematical analysis of how people interact, exchange information, learn and influence one another. Now for some terminology. The 'nodes' are the people or organizations that are in the network. Nodes are described by attributes or properties. 'Links' represent the relationships among the nodes and can be assigned certain strengths or topics.

SNA can be used to measure prominence, prestige, small-world networks, structural equivalence, cluster analysis, and external/internal ratios. What does that mean? It means we can map and measure the network to understand:

- Who has access to others in the network?
- Where do people obtain information/guidance?
- Who has the furthest reach in the network?
- Which partners serve similar roles?
- Are there emergent groups (clusters)?
- How do clusters interact with each other?

The Center is making final revisions to its network survey. The survey will be disseminated multiple times throughout the 5 year funding cycle in order to answer one of the most important questions: how is the network growing? **You may receive a copy of the survey. Please take a few minutes to help us capture our network by telling us about your network.**

Calendar

October 21-26, 2012

National Association of Extension 4-H Agents
Orlando, FL
www.nae4ha2012.com

October 24-25, 2012

South Texas Farm & Ranch Show
Victoria, TX
<http://www.southtexasfarmandranchshow.com>
[rel="external"](#)

October 24-27, 2012

Evaluation in Complex Ecologies
Minneapolis, MN
www.eval.org

October 28-November 1, 2012

Lessons Learned: Contributions of Exposure Science to Environmental and Occupational Health
Seattle, WA
<http://ises2012.org/index.html>

October 29-November 2, 2012

Certified Safety Professional (CSP) Review Course
Chapel Hill, NC
https://osherc.sph.unc.edu/forms/csp_rev_reg.htm

November 8-10, 2012

Midwest Stream Farmworker Health Forum
San Antonio, TX
<http://www.ncfh.org/?pid=47>

November 14-16, 2012

Midwest Rural Agricultural Safety and Health Conference-Reaping the Rewards
Cedar Rapids, IA
www.public-health.uiowa.edu/icash

November 29-30, 2012

International Symposium on the Challenges of Workplace Injury Prevention Through Financial Incentives
Toronto, Canada
<http://www.iwh.on.ca/prevention-incentives-2012>

December 5-7, 2012

Rural Multiracial & Multicultural Health Conference
Asheville, NC
<http://www.ruralhealthweb.org>

March 17-20, 2013

2013 MAFO National Farmworker Conference
San Antonio, TX

May 20-23, 2013

American Industrial Hygiene Association Conference
Montreal, Canada
<http://aihce2013.org/call-for-presentations/>

September 25-27, 2013

2013 North American Agricultural Safety Summit
Minneapolis, MN

West Nile Virus Resources



West Nile Virus Data and Maps 2012:

<http://www.cdc.gov/ncidod/dvbid/westnile/index.htm>

WNV CDC Fact Sheet: http://www.cdc.gov/ncidod/dvbid/westnile/wnv_factSheet.htm

West Nile Virus in Texas: <http://www.dshs.state.tx.us/idcu/disease/arboviral/westnile/>

West Nile Virus Symptoms: <http://www.mayoclinic.com/health/west-nile-virus/DS00438/DSECTION=symptoms>

West Nile Virus and Horses: http://www.cdc.gov/ncidod/dvbid/westnile/qa/wnv_horses.htm

What's West Nile Virus? (for Kids): http://kidshealth.org/kid/ill_injure/aches/west_nile.html