ESRI Honors GIS Innovators in Health and Human Services

Several awards for contributions in applying GIS in health and human services were announced during the 2008 ESRI Health GIS Conference held in Washington, D.C., September 28–October 1. Bill Davenhall, global manager for health and human services, ESRI, explained the significance of the award winners’ work, saying, “These exemplary people and organizations set the bar and inspire all of us to do better in our daily work.”

Alabama Department of Children’s Affairs (ADCA) received the Vision Award for demonstrating foresight in the implementation of GIS to enhance communication, collaboration, and data sharing through the development of its Alabama Resource Management System. The Web-based system uses GIS to integrate data from more than 20 health and human services agencies. As a result, it connects decision makers in agencies, programs, and communities with the information they need to evaluate community needs and plan and implement solutions that improve the lives of children in the state.

The Service Award recognized Pat Libbey, executive director of the National Association of County and City Health Officials (NACCHO), who, over the years, provided leadership for more than 3,000 local health departments across the United States. “To move a community like that forward takes strong and dedicated leadership,” said Davenhall when he presented the award.

“In tracking, mapping, and identifying the social determinants of health, I think we all recognize that the practice of public health has as its core the spatial distribution of elements
that contribute to our health as well as take away from it,” commented Libbey.

ESRI bestowed the Making a Difference Award posthumously on Bruce Ripley, who was a strong advocate of the use of GIS technology in the Veterans Health Administration (VHA) hospital system for more than 15 years. An early adopter of health GIS in the federal government, Ripley was willing to take an organizational risk to implement spatial analysis technology at VHA. Duane Flemming, VHA director, accepted the honor on Ripley’s behalf.

The Sault Ste. Marie Innovation Centre, Canada, received the Communication Award for excellence in map presentation, visualization, and communication.

ESRI Health Conference Explores How GIS Is Shaping Global Health

Attendees from more than 21 nations and 45 U.S. states gathered September 28–October 1, 2008, to discuss how they are using GIS in innovative ways, from spatial analysis used to measure health disparities to embedding GIS into organizational information technology.

Keynote speaker Christopher Murray, M.D., director, Institute for Health Metrics and Evaluation, reviewed how GIS contributes to improving health metrics and evaluation. “For each investment in health, we need to demonstrate that the money has been well spent. GIS plays a role in understanding spatial inequalities in health outcomes and coverage by providing spatial analysis tools for quantification, communication, and hypothesis generation.”

Tom Vair, executive director, Sault Ste. Marie Innovation Centre (SSMIC), Ontario, Canada, related the center’s successful use of data sharing through innovative GIS technology to stimulate economic development in the Sault Ste. Marie community. SSMIC attracted $10 million in new revenues to the region through GIS projects with an approximate $1 million investment.

Stephen Corbett, M.D., Ph.D., chief medical informatics officer, Loma Linda University Adventist Health Sciences Center, Loma Linda, California, described how the center’s advanced emergency GIS (AEGIS) uses GIS to run a Web-based hospital emergency situational awareness system. “Users should be able to talk to each other through the map, in that they can edit the map, exchange text messages, identify the command structure, draw perimeters, and add cell phone photographs with the correct location information already built in,” said Corbett.

Yasushi Ohkusa, Ph.D., chief researcher, Infectious Diseases Surveillance Center, National Institute of Infectious Diseases, Tokyo, Japan, described how the center is using GIS for spatial analysis and to model health scenarios in Japan such as tracking the geographic diffusion of virulent influenza through a crowded transportation system in Tokyo. Ohkusa added, “GIS allows visualization of very complex human interaction events and thus provides added understanding for policy makers and public health workers.”

Carlos Castillo-Salgado, M.D., Ph.D., senior advisor for the Forum for Public Health in the Americas, Pan American Health Organization, said that the adoption of new knowledge is essential for success in improving human health. Castillo-Salgado also called for using GIS methods to quantify the results of health programs. “GIS can help do this by combining multiple data layers and providing spatial statistics tools that close the gap between what we know and what we do with that information,” he stated.

W. Ed Hammond, Ph.D., chair, Health Level Seven (HL7), and professor emeritus, Duke University, stated, “The strength of health information systems depends on supportive data standards that enable the linking of information from different sources.” Hammond also suggested that more collaborative participation between the HL7 and GIS communities is necessary to develop additional spatial data standards that have the capacity to inform the electronic patient record.

Other highlights of the conference included preconference seminars and workshops on spatial statistics (Lauren Scott, Ph.D., ESRI), using GIS in health organizations (Kristin Kurland, Ph.D., Carnegie Mellon University), and new GIS tools for health authorities (Alan Fremont, M.D., Ph.D., and Nicole Laurie, M.D., Ph.D., Rand Corporation) 80 professional scientific paper presentations; a hands-on GIS software learning center; a technical plenary that addressed ESRI software innovations; and the annual meeting of the ESRI Health and Human Services User Group.