

ESRI on the Road

Public Health Preparedness Summit

February 18–20, San Diego, CA, USA
www.phprep.org/

ESRI Federal User Conference

February 18–20, Washington, D.C., USA
www.esri.com/feduc

HIMSS AsiaPac09

Health Information

Management Systems Society

February 24–27, Kuala Lumpur, Malaysia
www.himssasiapac.org/

ESRI Worldwide Business Partner Conference

March 22–24, Palm Springs, CA, USA
www.esri.com/bpc

ESRI Developer Summit

March 23–26, Palm Springs, CA, USA
www.esri.com/devsummit

HIMSS09

Health Information

Management Systems Society

April 4–8, Chicago, IL, USA
www.himssconference.org

Netsmart CONNECTIONS2009

May 18–21, Nashville, TN, USA
www.netsmartconnections.com/

2009 ESRI International User Conference

July 13–17, San Diego, CA, USA
www.esri.com/uc

2009 ESRI Health GIS Conference

September 21–23, Nashville, TN, USA
www.esri.com/healthgis

Submit Your Article to *HealthyGIS*

If you are using GIS to improve health and human services research, analysis, or delivery, then your experience might be just what our subscribers want to read about in this newsletter. Submit an article to *HealthyGIS* to share your innovative ideas and stimulate discussion among your peers. For more information, visit www.esri.com/health and click on *HealthyGIS* or contact the editors, Peggy Harper (pharper@esri.com) or Susan Harp (sharp@esri.com).

continued from page 5

Spatial Analysis Supports Successful Infection Control Policies for Ontario Hospital

test, monitor, and refine infection control policy; and improve operational and outbreak response. It is a dynamic drill-down hospital risk profile assessment and operational management application.

The IIC application identifies physical variables that directly impact the likelihood of CDAD. Tracking may be conducted on patients, objects, and discrete locations within the hospital. Risk factors for each category are weighted and used to create an overall risk profile for every tracked object within the hospital. The application then applies GIS technology to determine the spatial relationships and contacts between the risk-profiled people, places, and things. The risk profile is dynamically generated: as people and assets interact with each other, associated risks change to reflect new inputs.

The IIC tracking system uses Real-Time Location System (RTLS) tag technology. Existing hospital systems provide baseline patient and asset data, which is linked to the RTLS tags. The tags broadcast to local receivers that, in turn, transmit the tag's unique identifier, time, and specific location to the GIS for calculating movement and spatial intersections. By layering risk attributes on top of object tracking, the IIC system is capable of continual improvement as understanding of CDAD control grows.

For more information, contact Hugh Williams at hwilliams@infonaut.ca or Paul Beach at pbeach@ssmic.com. You can also learn more about Infonaut at www.infonaut.ca and SSMIC at www.ssmic.com.

About the Sault Ste. Marie Innovation Centre and Community Geomatics Centre

The Sault Ste. Marie Innovation Centre (SSMIC) is a nonprofit organization formed in 1999 to stimulate economic development in the Sault Ste. Marie community in Ontario, Canada. SSMIC's Community Geomatics Centre (CGC) promotes geospatial technologies and local partnerships to efficiently share GIS data and knowledge. CGC successfully built a community-wide GIS by first partnering with city and public utility companies, then expanding partnership to other local businesses and organizations. The community GIS includes utilities, wastewater, transportation, building, administrative, and land base datasets.

Benefits of the CGC business model include the elimination of duplicate efforts and the cumulative value of creating an integrated information system. From an initial investment of \$1 million, SSMIC attracted \$10 million in new revenues to the region through GIS projects.

The added value of information integration was evident when the local power company began a GIS project to review assets that might pose potential tripping hazards for pedestrians. It was discovered that one potential hazard, underground boxes that house power transformer equipment, also provided a perfect breeding environment for mosquitoes carrying West Nile virus. As a result, the public health department used the utility's GIS to quickly locate all existing boxes and send out mosquito eradication crews.

For more information, visit the SSMIC Web site at www.ssmic.com.



Mapped locations of electric utility underground transformer boxes helped Sault Ste. Marie public health teams respond quickly when disease-carrying mosquitoes were found in the boxes.