



# IOWA PUBLIC HEALTH TRACKING

## PUBLIC HEALTH ACTION

### *The Iowa Immunization Program: Mapping Exemption Rates by School District*

The Iowa Immunization Program received multiple inquiries regarding vaccine coverage and exemptions among school age children, due to the national outbreak of measles that began in late 2014. Public school officials expressed concern about district vulnerability and risk of spread from a case of measles in the community. The Iowa Immunization program was interested in the location of school districts with high rates of children with vaccine exemptions. Iowa allows vaccine exemptions for medical and religious reasons.

#### **What was the Problem/Situation?**

The Immunization Program did not have an effective method to analyze and display vaccine exemption data at the school district level. The Immunization Program Bureau Chief concluded additional support was needed; and based on the previous success working with the Iowa Tracking program on previous projects, inquired about presenting data at a sub-county level.

#### **How was Iowa Public Health Tracking Involved?**

The Iowa Tracking program assisted the Iowa Immunization program with the review, evaluation, and analysis of vaccine exemption rates. School vaccine exemption rates were mapped in ArcGIS and displayed using a layer of school district boundaries.

Separate maps were developed for medical, religious, and combined exemptions. The maps that were generated allowed the Immunization program to determine which school districts had an immunization exemption rate greater than 10 percent.

#### **What Action was Taken to Solve the Problem/Situation?**

School districts that had exemptions rates greater than 10 percent were identified as high risk districts based on reduced herd immunity. High risk districts were targeted for education and outreach, and the Iowa Immunization program developed plans to respond rapidly with vaccine if a case of measles was identified.

