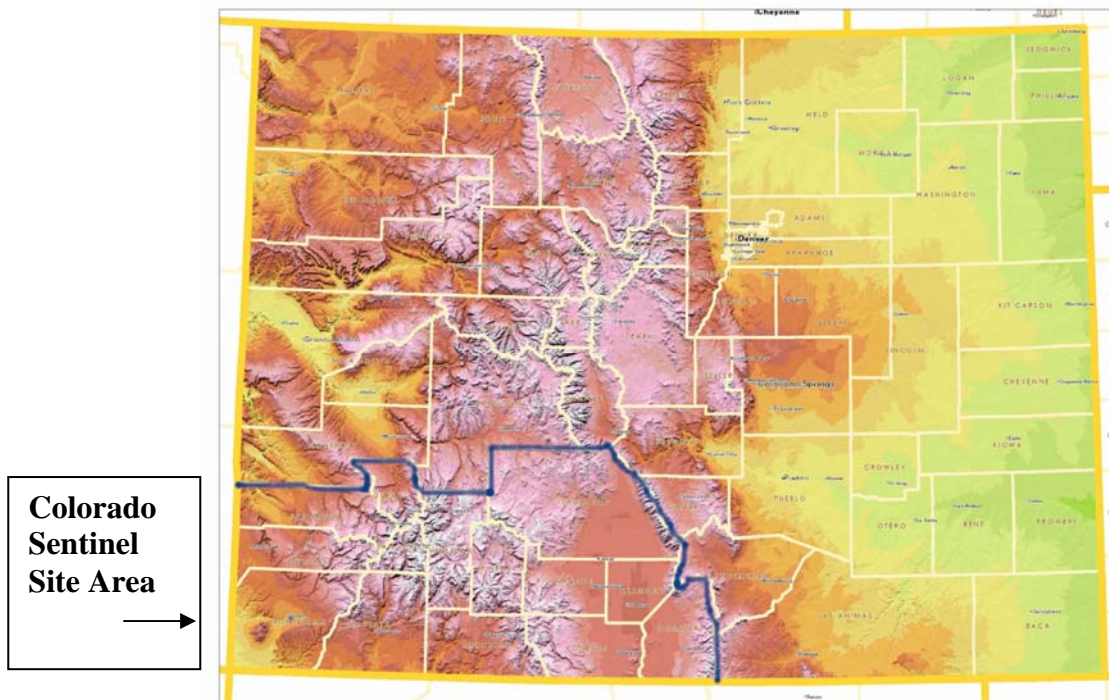


Colorado Sentinel Site

Capacity Building Project Summary

March 2008

The population centers in Colorado are located along the eastern edge of the Rocky Mountains in an area known as the Front Range, from Ft. Collins on the north, through the Denver Metro area and south to Pueblo. The Colorado Sentinel Site consists of 14 contiguous counties in the southwest corner of Colorado—see the area outlined in blue on the map below. Much of the area is rural and includes several of Colorado’s tallest mountain ranges. The eastern part of the Sentinel Site is a high plateau nestled between the Sangre de Cristo mountain range and the San Juan mountain range. The San Juan mountain range is in the middle of the Sentinel Site. The San Juans are the home to several outstanding ski resorts: Telluride, Silverton, Wolf Creek and Purgatory. Durango, in the southwest corner, is the largest city in the Colorado Sentinel Site (population of 15,500). The entire population of the Colorado Sentinel Site is 148,000, 3% of the total Colorado population.



The 2005 race/ethnicity figures show a similar percentage of White population in the Colorado Sentinel Site vs the State as a whole (73% vs 72%) and Hispanic population (17% vs 20%). The Colorado Sentinel Site has a lower Asian (0% vs 3%) and African American (1% vs 4%) population than the State as a whole. The American Indian/Alaska Native population of the Colorado Sentinel Site is higher than the state average (5% vs 1%) reflecting the fact that the

Colorado Sentinel Site contains both American Indian reservations in Colorado (Ute Mountain and Southern Ute).

The average income in the Sentinel Site is 30% lower than the remainder of Colorado. The Sentinel Site also has a higher poverty level, higher rate of uninsured and is of a more rural nature than the remainder of the State, indicating that it is more economically challenged than the State as a whole.

The Colorado Immunization Information System (CIIS) is the statewide life-long immunization system for Colorado. Participation in CIIS in the Colorado Sentinel Site is excellent--- Ninety-eight percent of childhood vaccine sites in the Colorado Sentinel Site are enrolled in CIIS. CIIS enrollment in the Colorado Sentinel Site includes one hundred percent of local public health sites (14 sites), community health centers (9 sites), rural health centers (2 sites), and pediatric practices (3 sites) and 92% of the family practice sites (12 of the 13 sites). Approximately 36,560 children less than 19 years of age live in the Colorado Sentinel Site area. CIIS contains a record of at least two vaccine doses for 90% of those children (32,900).

CIIS currently receives data for 81% of vaccination events within 31 days of administration, with 11% received over 60 days after administration. One of the goals of the project is to improve timeliness of vaccination receipt.

CIIS has in place automated data quality measures. In addition, CIIS uses a manual data quality protocol. CIIS manually abstracts demographic and immunization event information from the site's immunization medical record and compares it to the information in CIIS. Results of data quality reviews in 2005 showed error rates at the vaccine level ranging from 0% to 13%. Approximately 20% of the provider sites in the Colorado Sentinel Site consider CIIS to be the medical record for immunizations; therefore, it is not possible to have "error rates" for those clinics. CIIS is the gold standard. Using data improves data quality. In addition to improving the timeliness and completion of immunizations, recall activities result in better CIIS data quality and will be performed as a part of the Sentinel Site project.

The Sentinel Site project will focus on:

- Obtain ethnicity data through the weekly download of data from the Colorado electronic birth certificate to allow calculation of immunization rates for targeted interventions
- Develop the capacity to send and receive real time HL7 messages and export batch HL7 messages to share immunization data with the Southern Ute and Ute Mountain IHSs and other electronic medical records
- Improve the timeliness of receipt of vaccine information
- Perform geographic recall in each of the 14 counties included in the Colorado Sentinel Site area. The recall effort will be used to improve data quality, timeliness of receipt of vaccine information and immunization rates. CIIS will develop and implement functionality to determine and record patient status designations at the geographic level.

This document can be found on the CDC website at:

<http://www.cdc.gov/vaccines/programs/iis/activities/downloads/CO-sentinel-508.pdf>