

## ABSTRACT

The purpose of this project was to evaluate the electronic laboratory reporting (ELR) system between the Alaska Native Medical Center and the State of Alaska Department of Health and Social Services Division of Public Health Section of Epidemiology (SOE). Several disease conditions are required by law to be reported to the State, including the six conditions used as a sample in this analysis: Chlamydia, gonorrhea, Hepatitis A, B, and C, and Salmonella. These conditions made up 94% of the infectious disease reports made to SOE in 2004. Evaluation followed Centers for Disease Control and Prevention (CDC) guidelines and included analysis of several attributes: simplicity, flexibility, data quality, acceptability, sensitivity, predictive value positive, representativeness, timeliness, and stability. The system was found to be very effective and efficient, with high degrees of simplicity, data quality, acceptability, sensitivity (generally), predictive values positive, and stability. However, it was found not to be very flexible to new demands, sensitivity was low for Salmonella, and timeliness and some characteristics of representativeness were not tracked; all of which need to be improved in the future. In addition to the system analysis, a nationwide survey was conducted to determine the progress toward implementing ELR in each state. Approximately 62% of the surveys were returned, and the responses revealed that most of the respondents are or will be implementing ELR in the near future.