

ABSTRACT

Pertussis is an important respiratory disease afflicting both unvaccinated and previously vaccinated children and adults. Public Health Laboratories (SPHLs) recently began using a new test for detection, diagnosis and intervention for *Bordetella pertussis* using polymerase chain reaction (PCR). An exploratory and retrospective descriptive study was used to: 1) evaluate the use of PCR to diagnose pertussis among SPHLs in United States; 2) compare Alaska SPHL PCR with other assays; 3) evaluate and compare use of PCR in purposive sample of states similar to Alaska, geographically and logistically in the delivery of health care; 4) describe pertussis epidemiology in Alaska; and 5) describe results of an analysis of pertussis test data generated during the first seven-month period that PCR was performed in Alaska. Results show PCR is sensitive enough to detect disease not otherwise detected by culture. Health care providers are encouraged to use PCR on patients demonstrating pertussis symptoms.