

Dental Public Health Activity Descriptive Summary

Practice Number: 07006
Submitted By: Colorado School of Public Health, University of Colorado Denver
Submission Date: February 2013
Last Updated: March 2014
Last Reviewed: March 2014

Cost Study of Colorado School-based Dental Sealant Programs

The Cost Study of Colorado School-based Sealant Programs (SBSP) was designed to analyze existing SBSP utilization data, recorded in the using the Sealant Efficiency Assessment for Locals and States (SEALS) software, collect and analyze SBSP cost information, and use the SEALS and cost data to develop an economic model to estimate potential cost savings associated with SBSP implementation during the 2010-2011 academic year. Researchers from the Colorado School of Public Health at the University of Colorado Denver conducted the work.

The project totaled \$97,855 and the work was conducted over a 20.5 month period (4/15/2010 - 12/31/2011). The funding included indirect costs billed as part of the university contract.

Benefits and Achievements: This project provided the first detailed analysis of SBSP enrollment, utilization, and cost data for SBSP in Colorado. In addition, the findings included an analysis of the oral health status of second grade children enrolled in the program and screened for sealant placement. Using Colorado SBSP program data, information on dental treatment patterns for first molars in Colorado, and other information, an economic model was developed to estimate cost savings associated with the SBSP. The Cost Study findings were disseminated through written reports and multiple presentations to oral health experts and SBSP providers in Colorado. This work led to other related work during the following years.

During the past two years, work was conducted to develop educational materials on the benefits of school dental sealant programs to positively influence program enrollment. A two-page flyer was developed for school personnel and an oral health booklet was developed for children, parents, and other family members. In addition, work was initiated to create a data application that would improve the ability of school dental sealant providers to report program data efficiently and with improved accuracy. Finally, each year available SEALS data are analyzed.

Lessons Learned:

The report on SBSP utilization and costs included information for 10 programs that provided SEALS data to CDPHE. Two large urban programs that provided services to the majority of children served by SBSP were included. However, data for all SBSP in Colorado were not available and not included in this report. Since that time, CDPHE has worked with the Colorado School of Public Health and others to develop a statewide list of SBSP in Colorado and the schools they serve.

The SEALS data for the 10 Colorado SBSP during the year reported did not include information on sealant retention, types of referrals for follow-up care, and which children had a dental home. Such data could potentially be collected in future efforts.

Efforts are underway in Colorado to increase the ability of SBSP to report their utilization data to CDPHE and CDC. This includes the development of a data application for program entry to reduce time spent by SBSP personnel on administrative tasks. In addition, the data application will provide for more detailed data entry for some measures (e.g., retention by specific molar) in the future.

The SBSP report documented how program services were provided (e.g., two-handed versus four-handed) and which services were provided (e.g., fluoride varnish application). The project was not

designed to assess 1) SBSP best practices, 2) whether or not evidence based practices were being followed by SBSP, 3) SBSP length of program/track record, 4) SBSP collaborative relationships or program goals, or 5) SBSP enrollment forms. Nor was the project designed to assess the effectiveness of two-handed versus four-handed approaches. These issues could be addressed in future work. For example, CDPHE is currently in the process of reviewing SBSP enrollment forms.

The cost of SBSP follow-up activities related to tracking the provision of treatment for children with identified dental needs, nor how such follow-up was conducted by schools, were assessed in the project. These issues could be addressed in future work.

Contact Person(s) for Inquiries:

Joan O'Connell, PhD, Associate Professor, 13001 E. 17th Place, Aurora, CO 80045
Phone: 303-724-1459, Email: Joan.OConnell@ucdenver.edu

Katya Mauritson, DMD, MPH(c), Oral Health Unit Director, Colorado Department of Public Health & Environment, 4300 Cherry Creek Drive South, Denver, CO 80246-1530
Phone: 303-692-2569, Email: katya.mauritson@state.co.us