Ohio Oral Health Surveillance System

In 2007, the Oral Health program developed the Ohio Oral Health Surveillance System (OOHSS), an on-going, Web-based data collection and dissemination system that provides a comprehensive, one-page oral health profile for each of Ohio’s 88 counties and for the state. The profile provides data on: 1) demographic information, including the percentage of the county population in poverty; 2) Medicaid eligibility; 3) the oral health status of 3rd grade students from the latest statewide survey; 4) indicators of oral health access to dental care for children and adults; 5) community-based dental disease prevention programs; and 6) local resources for dental care (e.g., dentists, HPSAs and safety net programs). Links on the profile take the user to a map of the HPSAs and safety net clinics in their county and a table of the fluoride status of public water systems in the county. The data are collected from a variety of sources; some are collected directly by the Oral Health program (e.g. the oral health status of 3rd graders), but most are collected from secondary data sources at the state and national level. Notes are provided as a link on the profiles which explain the sources of data, definitions and other details.

A Web application was developed in-house by IT staff for displaying the data. Oral Health program staff identified the data elements to be displayed and designed the layout with input from an in-house graphic artist.

The county and statewide profiles are updated approximately once per year. Oral Health program staff collect and compile new information and provide it to IT staff who, in turn, load it into the database. Testing is done by Oral Health program staff to ensure that the data have been loaded correctly.

Costs associated with the OOHSS are staff time. Portions of two positions in the Oral Health program (Researcher and Oral Health Information Specialist) spend approximately 10% of their time to maintain the OOHSS, although considerably more time is spent when primary data collection (e.g., the statewide survey of 3rd graders) is being conducted about every five years. It is unknown how many hours were needed to develop the Web-based system, but far less time is needed to update the data once per year now that the system is operational.

The OOHSS includes data that are timely, systematically collected and widely disseminated. The benefits of the OOHSS are that both the Oral Health program and local partners have data that can be used in planning, implementing, funding and evaluating oral health initiatives. Data from the OOHSS are being used by local programs in grant applications to the state and to other funders. The Oral Health program has also used data from the OOHSS in its successful grant applications to HRSA in recent years. Data compiled for the OOHSS served as the basis for the Oral Health program’s most recent report, "Oral Health Isn’t Optional! A Report on the Oral Health of Ohioans and Their Access to Dental Care”. The simple and concise design of the county profiles makes it easy to share oral health information with non-dental colleagues.

Lessons Learned:

Considerable time must be spent up front to identify the desired data elements of a surveillance system and to analyze whether data are already available and or to what extent resources will be needed to obtain them. Having clarity on these questions is necessary before engaging IT staff to develop a Web-based application. It’s critical to test the system before it goes live to make sure the data make sense and are accurately presented. A graphic designer’s expertise was helpful in
developing a visually appealing and consumer-friendly layout. Developing a surveillance system that includes a Web-based application takes a long-term commitment of personnel and resources to maintain it.

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