SECTION I: PRACTICE OVERVIEW

Name of the Practice:
Illinois Oral Health Surveillance System (IOHSS)

Public Health Functions:
Assessment – Acquiring Data
Assessment – Use of Data

Healthy People 2010 Objectives:
21-16 Increase the number of states with State-based surveillance system

State: Illinois
Region: Midwest
Region V

Key Words for Searches:
Surveillance, surveillance system, assessment, oral health data, oral health surveillance

Summary:
The framework for action to promote oral health put forth by the U.S. Surgeon General forms the basis for the Illinois Oral Health Plan (IOHP). One of the priorities of the Illinois Oral Health Plan is to develop an oral health surveillance system. This priority and the collective wisdom of citizens, stakeholders and policy makers have provided a vision and guided the development of a state oral health surveillance system. Since 2000, the Illinois Department of Public Health (IDPH), Division of Oral Health (DOH) has been developing the Illinois Oral Health Surveillance System (IOHSS). A surveillance advisory committee of key stakeholders and experts in oral health and epidemiology has guided the development of the IOHSS, assured that the IOHSS is addressing the needs of the communities and promoted the use of surveillance information by the communities. The goal of the IOHSS is to monitor Illinois specific, population-based oral disease burden and trends, measure changes in oral health program capacity, and monitor and report community water fluoridation quality. The IOHSS is funded by Illinois’ cooperative agreement with the Centers for Disease Control and Prevention (CDC). The IOHSS is modeled after the National Oral Health Surveillance System (NOHSS). The IOHSS indicators include eight indicators specified in the NOHSS (related to dental visits, teeth cleaning, edentulism, oral cancer, fluoridation status, history of decay, untreated decay, and sealants), and additional Illinois specific indicators (related to Medicaid utilization, dental workforce, safety net dental clinics, oral health of pregnant women, Craniofacial Anomaly Program and BRFSS). It is too early to demonstrate the impact of the IOHSS but important achievements have been made. The IOHSS has produced and disseminated surveillance information such as a burden document that highlights oral health status and needs in Illinois. Also, the IOHSS has contributed data at the national level to the NOHSS and the ASTDD Synopses. Furthermore, the IOHSS has helped communities report oral health needs in the grant applications, prioritize their programs, and expanded services to the high-risk populations.

Contact Persons for Inquiries:

History of the Practice:

Illinois has placed a priority in developing a state-based oral health surveillance system. This priority is captured in one of the policy goals of the state’s oral health improvement plan developed by stakeholders and partners. Policy Goal # 4 of the Illinois Oral Health Plan (IOHP) states: “Develop an oral health surveillance system or a common set of data that can be used to define the scope of oral health needs and access to oral health services, to monitor community water fluoridation status, and to measure the utilization of dental services by the entire population in Illinois.”

The Illinois Department of Public Health (IDPH), Division of Oral Health (DOH), responding to the Illinois Oral Health Plan, initiated the planning of the oral health surveillance system in 2000. The DOH successfully applied for funding from the Centers for Disease Control (CDC) to build infrastructure, which included develop an oral health surveillance system called the Illinois Oral Health Surveillance System (IOHSS). With funding from the cooperative agreement with CDC, the DOH hired a full-time epidemiologist to lead the development of the IOHSS and a fluoridation manager to manage the Illinois Fluoridation Reporting System (IFRS).

Justification of the Practice:

The Surgeon General’s Report on Oral Health, ASTDD’s Building Infrastructure and Capacity in State and Territorial Oral Health Programs report, the CDC, and the Illinois Oral Health Plan recommend a state oral health surveillance system as an essential element in building the infrastructure for the improvement of oral health in a state. Healthy People 2010’s oral health objective 21-16 also sets a target to have all states develop an oral health surveillance system.

Before 2002, Illinois did not have a state oral health surveillance system in place that produced uniform, agreed upon data that was collected routinely and allowed the assessment of the state’s oral health status and oral health service delivery trends. The data collected by the communities and the state health department’s oral health unit was sporadic. The last major open mouth screening survey of schoolchildren, called Project Smile, was completed ten years ago.

Three key aspects of a surveillance system highlight its importance: data collection, timely dissemination of findings, and putting data to action. The IOHSS will help monitor the progress towards reducing oral health disparities and disease. In addition, The IOHSS will gather evaluation data for program improvement, decision-making, and policy development/enhancement. Surveillance data will serve as a tool to help target scarce resources. With the IOHSS, Illinois will be able to identify high-risk populations, allocate the limited resources to most needed populations, and develop policies. The IOHSS will provide a sentinel device to recognize new areas of disparities. For example, the Healthy Smile Healthy Growth Survey, collecting data for the IOHSS, shows that 3rd graders who do not speak English at home carry a larger portion of the burden of dental caries. As the surveillance system matures, more disparities and gaps will be identified.

Inputs, Activities, Outputs and Outcomes of the Practice:

Purpose, Goal and Objectives of the IOHSS

Attachments A and B provide models for the development and administration of the Illinois Oral Health Surveillance System (IOHSS). Establishing the purpose, goal and objective of the IOHSS has guided its development:

Purpose of the IOHSS:
- To measure the burden of oral diseases, including changes in related factors.
- To monitor trends in the burden of oral disease.
- To identify populations at high-risk and the identification of emerging oral health concerns.
• To provide a guide for the planning, implementation, and evaluation of programs to prevent and control oral disease.
• To provide information to assist with public policy development.
• To detect changes in oral health related practices and the effects of these changes.
• To provide information that help prioritize the allocation of health resources.
• To provide a basis for epidemiological research.
• To capture system’s capacity to improve oral health.
• To provide information for action.

Goal of the IOHSS:
To monitor Illinois specific, population-based oral disease burden and trends, measure changes in oral health program capacity, and monitor and report community water fluoridation quality.

Objectives of the IOHSS:
• To develop a database that serves as a central repository for all the oral health related data.
• To collect data (primary & secondary data).
• To identify gaps in the data.
• To analyze & interpret data and ensure the quality of the data.
• To develop the surveillance reports.
• To disseminate the reports to the communities.
• To tell stories by the interpretation of the data.
• To feed data into national surveillance efforts.

Staffing
The Illinois Department of Public Health, Division of Oral Health (DOH) is leading the effort in developing the IOHSS. The DOH, through a cooperative agreement with the CDC’s Division of Oral Health received funding to hire a full time epidemiologist to lead the IOHSS and a fluoridation manager to manage the IFRS. Due to state restrictions on hiring the fluoridation manager was brought on board but the epidemiologist hire was put on hold. The epidemiologist was brought on board through a unique collaboration between the DOH and the University of Illinois at Chicago (UIC), College of Dentistry. The epidemiologist received a faculty appointment at the College and then, through a contractual arrangement with the DOH, was assigned to serve as the oral health epidemiologist for the state program.

The job description of the Oral Health Epidemiologist is as follows:
Under the general direction of the Division of Oral Health Program Administrator, organize, manage and control a statewide oral health surveillance program; develop, design and conduct technical planning and analytical studies and research projects. Compile, coordinate and analyze oral health data and research findings for use in planning, implementation, policy development, and evaluation. Using epidemiologic methods perform and coordinate scientific investigations and specialized surveillance activities. Exercise originality to adapt and expand existing techniques to develop solutions to important questions.

The duties of the Oral Health Epidemiologist in managing the IOHSS include:
1. Organize, manage and control a statewide oral health surveillance system and program. Develop protocols, budgets, methods and systems. Evaluate Illinois Project for Local Assessment of Needs (IPLAN), Behavioral Risk Factor Surveillance System (BRFSS), Youth Behavioral Risk Survey (YBRS), Pregnancy Risk Assessment Monitoring System (PRAMS), hospital discharge data, Illinois State Cancer Registry (ISCR), Medicaid and other sources for health indicators and incorporates such into a surveillance system as appropriate. Collaborate with CDC and the DOH in system development and management to assure compatibility with NOHSS.
2. Supervise the Methods and Procedures Advisor III (who manages fluoridation databases in collaboration with Division Program Administrator), collaborate with the Illinois Environmental Protection Agency (IEPA), CDC and oral health staff to complete development of Illinois Fluoridation Reporting System (IFRS), and support integration with other data systems.
3. Conduct oral health epidemiological studies/surveys and develop their respective timelines, protocols and budgets. For example: the Basic Screening Survey (BSS) of 3rd graders, Dental
Workforce Survey of all the licensed dentists and hygienists, Fluoride Awareness Survey of dental professionals.

4. Develop, design, implement and independently conduct analytical epidemiological studies and research projects. For example: manage information collection, develop and maintain the IOHSS and other databases, develop BSS surveys and/or interviews, and utilize descriptive and/or analytic study techniques such as crude data analysis, stratified analysis, regression analysis, risk analysis, data compilation, and presentation.

5. Assure that project reports like BSS, IOHSS and others are presented in a professional, scientific form that can be understood by management. Make presentations of project status and final reports to management.

Stakeholders and Partners

Surveillance Advisory Committee – The IOHSS is guided by an advisory committee. Key stakeholders and experts in the field of oral health and epidemiology in Illinois were invited to join the advisory committee. Members include faculties of dental and hygiene schools as well as representatives from Illinois Department of Healthcare and Family Services (HFS), Behavioral Risk factor Surveillance System (BRFSS), Pregnancy Risk Assessment Monitoring System (PRAMS), Illinois Cancer Registry, Illinois State Dental Society, local health departments, IFLOSS Coalition (the state oral health coalition), and the Illinois Fluoridation Reporting System (IFRS). The advisory committee guides the development of the IOHSS, assures that the IOHSS is addressing the needs of the communities, and promotes the use of surveillance information by the communities.

Partners – The IOHSS partners include dental Schools, dental hygiene Schools, IFLOSS Coalition, the state dental society and dental hygiene associations, Illinois Department of Financial and Professional Regulations (IDFPR), Illinois State Board of Education (ISBE), BRFSS, Cancer Registry, IFRS, local health departments, CDC and ASTDD.

Action Steps in the development of the IOHSS

The following action steps by the DOH show the initial development and establishment of the IOHSS:

1. Responded to the Illinois Oral Health Plan and initiated efforts to develop an oral health surveillance system.
2. Secured funding from CDC to develop the IOHSS.
3. Hired a full time epidemiologist to develop the IOHSS.
4. Created a list of programs/departments/agencies that collect oral health related data (secondary data). These included BRFSS, PRAMS, Cancer Registry, Medicaid, IFRS, Craniofacial Anomaly Program (CFA Program), etc. These are the partners in the IOHSS.
5. Developed the IOHSS advisory committee to establish a partnership among community stakeholders who will help guide the design of the IOHSS and to ensure that the IOHSS is built upon the community needs.
6. Participated in various committees and coalitions to show support for other programs’ efforts in surveillance and data collection and to integrate oral health in a variety of health issues. Committees and coalitions include: BRFSS, PRAMS, Illinois Injury Prevention Coalition, and HFS.
7. Prioritized oral health indicators to be monitored under the IOHSS. These included eight specified by the NOHSS and additional Illinois specific indicators.
8. Identified data gaps such as the need to collect data to assess 3rd graders’ oral health status, the dental workforce, and the dental professional’s awareness of the benefits of fluoride.
9. Implemented the Basic Screening Survey called the Healthy Smiles Healthy Growth (HSHG) Survey in 2003-2004. Collaboration was developed between the Division of Oral Health, Division of Chronic Disease, and the Illinois State Board of Education, which led to assessing 3rd graders’ oral health and obesity status in Illinois. The IOHSS plans to conduct the Healthy Smiles Healthy Growth Survey every 5 years.
10. Conducted a dental workforce survey in 2003-2004. Collaboration between the DOH and Illinois Department of Financial and Professional Regulations, led to having a dental workforce survey sent with the license renewal applications for all the dentists and registered dental hygienists in the state. The IOHSS plans to collect dental workforce information regularly with license renewals and to monitor the trends related to workforce issues.
12. Developed a Burden Document. The IOHSS led to the production and dissemination of a report on the current status of oral health in Illinois and will disseminate a similar oral health status report every three years.

Surveillance Indicators

The IOHSS is modeled after the National Oral Health Surveillance System (NOHSS) and includes the eight indicators also being monitored nationally. The IOHSS also tracks additional indicators for the state. The IOHSS indicators are:

**NOHSS Indicators:**
- **Dental Visits.** Percentage of people who visited the dentist or dental clinic within the past year. Routine dental visits aid in the prevention, early detection and treatment of tooth decay, oral soft tissue disease, and periodontal diseases.
- **Teeth Cleaning.** Percentage of people who had their teeth cleaned in the past year. Having one's teeth cleaned by a dentist or dental hygienist is indicative of preventive behavior.
- **Complete Tooth Loss.** Percentage of people aged 65 years and older who have lost all natural permanent teeth. Loss of all natural permanent teeth (complete tooth loss) may substantially reduce quality of life, self-image, and daily functioning.
- **Fluoridation Status.** Percentage of people served by public water systems who receive fluoridated water. Water fluoridation plays an important role in reducing tooth decay and tooth loss.
- **Caries Experience.** Percentage of 3rd grade students with caries experience, including treated and untreated tooth decay. Dental caries is the single most common chronic disease of childhood, occurring five to eight times as frequently as asthma, the second most common chronic disease in children.
- **Untreated Tooth Decay.** Percentage of 3rd grade students with untreated tooth decay.
- **Dental Sealants.** Percentage of 3rd grade students with dental sealants on at least one permanent molar tooth.
- **Cancer of the Oral Cavity and Pharynx.** Oral and pharyngeal cancer death rate, percent of oral and pharyngeal cancers detected at the earliest stages, and percent of oral and pharyngeal cancer exam within past 12 months for persons age 40+.

**Additional Illinois Specific Indicators:**
- **Medicaid Providers & Utilization.** Number of dentists enrolled as Medicaid providers; Number of dentists with at least one paid claim; Number of dentists with paid claims > $10,000; Percent of counties in IL without an enrolled Medicaid dentist with paid claims > $10,000; Percent of Illinois counties without a Medicaid dentist; Number of children (0-18 years) enrolled in Title XIX Medicaid for at least one month of the year; Number of children enrolled in Title XXI SCHIP for at least one month of the year; Percent children enrolled in Title XIX Medicaid for at least one month (0-18 years) with dental visit; Percent children (0-18 years) enrolled in Title XIX Medicaid for six consecutive months with dental visit; Percent of adults (18-65 years) with dental visits; Percent of seniors (65+ years) with dental visits. Illinois Department of Healthcare and Family Services (IDHFS) provides data on Medicaid providers & utilization upon request from IDPH/DOH.
- **Dental Workforce.** Number of dentists and dental hygienists licensed in Illinois by county. The data will be provided by IDFPR upon request from IDPH/DOH.
- **Safety Net Dental Clinics.** Number and location of safety net dental clinics in Illinois by county. The database is maintained and updated by the DOH.
- **Oral Health of Pregnant Women.** Oral health indicators relate to: if there is a need to see a dentist for a problem, if a dental/health care provider spoke about care of gums and teeth, and if there was a visit to a dentist/dental clinic during the pregnancy. Data is from the Pregnancy Risk Assessment and Monitoring System (PRAMS), an ongoing population-based self reported survey of women who have delivered a live born infant in Illinois.
- **Craniofacial Anomaly Program (CFA Program).** Number of newborns referred by IDPH/DOH and served by the CFA Program in Illinois.
- **Behavioral Risk factor Surveillance System (BRFSS).** Percent of dentate adults with diabetes who had a dental visit within the past year.
The indicators required by the NOHSS are very helpful in tracking the state’s progress for the national objectives. The additional Illinois specific indicators will monitor oral health programs and services for improvement.

**Assessment and Data Gaps**

One of the objectives of the IOHSS is to identify the gaps in the data. The first step in the process of developing the IOHSS was to establish a list of potential data sources available to the DOH. This included listing all the departments or agencies that collect or can collect oral health related data that can be of use for the DOH. From this list and along with the HP 2010 Objectives, the data gaps were identified to help focus the IOHSS activities.

An example about the importance of the IOHSS in identifying data gaps and therefore creating more programs/projects is for Early Childhood Caries (ECC). The IOHSS identified a gap in the data on outpatient surgery for ECC treatment and its economic burden to the families and the state. The epidemiologist tried to find a way to access the data. The DOH was first informed that the state does not collect such data but with persistence in seeking a data source, the IDPH recently started collecting this data. IOHSS now has data from all hospitals in the state on outpatient surgery for ECC treatment.

**Data Sharing**

Partners are sharing their data with the IOHSS. These secondary data sources for the IOHSS include:

- Illinois Fluoridation Reporting System (IFRS)
- Dental Sealant Grant Program
- BRFSS
- PRAMS
- Illinois Cancer Registry
- Dental Professional Licensure
- Illinois State Board of Education (ISBE)
- Illinois Department of Healthcare and Family Services (IDHFS)
- Outpatient Surgery
- Head Start/Early Head Start
- Vital Statistics
- Dental Schools
- Dental Hygiene Schools
- CMS 416 (Medicaid data)

**Primary Data Collection**

The IOHSS has a simple timeline to guide data collection. Since most of the data collected by the IOHSS is secondary, the epidemiologist follows a reminder system to send requests to the agencies for sending the data to be included and updated into the IOHSS. Most of the secondary data shared from other partners is in the report format.

Primary data collection is scheduled to allow time to concentrate on one major data collection activity every year. For example, the 3rd graders open mouth screening survey is conducted every 5 years. During alternate years, the open mouth screening survey for preschool children (Head Start and WIC children) is implemented and the survey of this population will also be repeated every 5 years. *Attachment C* provides a detailed timeline for the IOHSS data collection and *Attachment D* provides a data flow chart.

**Data Management**

IOHSS is in the process of developing an ACCESS database that will serve as a central repository at the DOH for the oral health data.

**Progress Made**

Information from the IOHSS has been disseminated and shared at the national, state and local levels. The IOHSS has contributed data to the NOHSS and ASTDD Synopses. Surveillance
information has also been shared at the National Oral Health Conference (NOHC) and disseminated within the state (e.g., distributing the Burden Document).

The IOHSS has established collaborations for data sharing with BRFSS, Illinois Injury Prevention Coalition, ISBE, Illinois Cancer Registry, PRAMS, Dental Schools and Dental Hygiene Schools, IDFPR.

Achievements and Outcomes

The IOHSS has been very successful in using a majority of existing oral health related databases. In addition, the IOHSS has developed a network to share the data and reported on Illinois oral health needs. The IOHSS has shared reports on Healthy Smiles Healthy Growth Survey of 3rd graders to schools and has provided a burden document to all stakeholders in the state. The governmental affairs committee of the Illinois State Dental Society is reviewing the dental workforce data collected by the IOHSS and plans are underway to mandate workforce data collection for licensed dental providers in Illinois.

Furthermore, the IOHSS serves as a sentinel device to recognize new areas of disparities. For example, the Healthy Smile Healthy Growth Survey data showed a larger burden of dental caries among 3rd graders who do not speak English at home.

Multiple communities have informed the DOH that they have utilized the Burden Document to support their grant applications. Some of the early benefits of the IOHSS include the following:
- IFLOSS Coalition has included more funding for the Dental Sealant Grant Program into their legislative agenda, after reviewing the Healthy Smiles Healthy Growth Survey (Basic Screening Survey) data.
- A dental workforce survey will be mandated and sent to the dentist and dental hygienists along with their license renewal applications. The methodology used in the dental workforce survey will also be adopted for the medical professional licensure survey.
- Southern Illinois University at Carbondale conducted a Basic Screening Survey of the Migrant farm workers’ children using the same methodology IDPH used in Healthy Smile Healthy Growth Survey.
- The Consortium to Lower Obesity in Chicago Children (CLOCC) has invited the division chief to present the Healthy Smiles Healthy Growth Survey data. This has strengthened the validity and efficiency of such collaborations.

Future Plans

Plans for future activities for the IOHSS include:
- Creating an ACCESS database that will serve as a central repository of all the data collected on oral health.
- Developing a website modeling after the NOHSS website to provide Illinois specific oral health data to the communities.
- Updating the state and local level oral health status annually and providing county specific information where applicable.

Budget Estimates and Formulas of the Practice:

The Centers for Disease Control and Prevention (CDC) funds the IOHSS under a cooperative agreement. The cost supporting the IOHSS involves staff, equipment and tools for data management and analysis, and data collection. The cost varies depending upon the stage of the surveillance system development and maturity, and the planned annual activities. Since IOHSS involves collaboration and networking from various agencies at the state and local level and most of the datasets are secondary data, resources to support IOHSS will include contributed staff time and efforts from the data partners.

The following are the major cost components of the IOHSS:

1. Staffing:
   - Oral Health Epidemiologist
   - Fluoridation Manager
• Travel for the fluoridation manager and the epidemiologist for data collection, meetings with data partners, state and national conferences

2. Equipment and Tools:
   • Computer, IT, software, and hardware

3. Data Collection:
   • Basic Survey Screenings for 3rd graders and preschoolers (early childhood caries)

Lessons Learned and/or Plans for Improvement:

1. The epidemiologist could not be hired directly by the state due to a hiring freeze. The DOH collaborated with the University of Illinois at Chicago to hire the epidemiologist through a contract agreement. The partnership with the education institution provided a solution.

2. The IOHSS created opportunities for the DOH to partner with other agencies that are not directly involved with the oral health issues. Collaboration was established with partners such as the Injury Prevention Coalition and the Program on Child Obesity.

Available Information Resources:

• The Illinois Oral Health Surveillance System Model (see Attachment A)
• The Illinois Oral Health Surveillance System Logic Model (see Attachment B)
• The Illinois Oral Health Surveillance System Data Collection Timeline (see Attachment C)
• The Illinois Oral Health Surveillance System Data Flow Chart (see Attachment D)
• The Illinois Oral Health Surveillance System Indicators and Data sources (see Attachment E)
• The Illinois Oral Health Surveillance System Plan (available by request)
• The Illinois Oral Health Surveillance System Evaluation Tool (available by request)
• Healthy Smiles Healthy Growth Survey 2003-04 – a basic screening survey report on 3rd graders in Illinois (available by request)
**SECTION III: PRACTICE EVALUATION INFORMATION**

**Impact/Effectiveness**

*How has the practice demonstrated impact, applicability, and benefits to the oral health care and well-being of certain populations or communities (i.e., reference scientific evidence, outcomes of the practice and/or evaluation results)?*

In its initial stages, the IOHSS has demonstrated benefits and applicability to the oral health programs at the state and local levels:

- The IOHSS has established collaborations for sharing data with various agencies including BRFSS, PRAMS, Illinois Injury Prevention Coalition, ISBE, Illinois Cancer Registry, Dental Schools and Dental Hygiene Schools and IDFPR. The IOHSS advisory committee is a source of a strong collaboration of the key stakeholders.
- The IOHSS has built the infrastructure with the hiring of an oral health epidemiologist and the fluoridation manager.
- The IOHSS has established ongoing surveillance data collection that included conducting a basic screening survey of 3rd graders, a dental workforce survey, and a fluoride awareness survey.
- The IOHSS has produced and disseminated documents such as a burden document that highlights oral health status of Illinois.
- The IOHSS has contributed data at the national level to the NOHSS and ASTDD Synopses.
- The IOHSS has also enabled the DOH to make several presentations to highlight the oral health status of Illinois at the state and national levels.
- The IOHSS has made it easier for the communities to document oral health status in their grants and have helped prioritize their programs.
- The 3rd graders basic screening survey led to further oral health assessment of migrant farm workers’ children.

**Efficiency**

*How has the practice demonstrated cost and resource efficiency where expenses are appropriate to benefits? How has the practice demonstrated realistic and reasonable staffing and time requirements? Provide unit cost analysis or cost-benefit analysis if appropriate.*

The majority of the data used by the IOHSS is secondary data; therefore, no additional cost is place on the IOHSS when partners share their data. This demonstrates the cost effectiveness of the IOHSS by leveraging resources from other agencies and makes the best use of the limited resources by collecting only data not available through existing data sources.

Partnership in data collection also leveraged resources. For the 3rd graders open mouth screening survey, the IOHSS partnered with the Division of Chronic Disease to collaborate and collect Body Mass Index (height and weight) data along with oral health data, using staff resources and time efficiently. The IOHSS is always willing to partner and collaborate with other agencies and organizations.

**Demonstrated Sustainability**

*How has the practice showed sustainable benefits and/or how has the practice been sustainable within populations/communities and between states/territories? What mechanisms have been built into the practice to assure sustainability?*

The IOHSS is in its early stages of development and will need time to demonstrate its sustainability. DOH and the surveillance advisory committee initiated the planning and development of the IOHSS in 2000 and have continued to invest in the development of the surveillance system for more than four years. Timelines have been set to repeat data collection and dissemination of surveillance information through 2013.
Collaboration/Integration
How has the practice built effective partnerships/collaborations among various organizations and integrated oral health with other health projects and issues? What are the traditional, non-traditional, public and private partnerships/collaborations established by the practice for integration, effectiveness, efficiency and sustainability?

Several partnerships have been formed through the collaborative effort of designing and implementing the IOHSS, which included data sharing, data collection and data dissemination. Examples of partnerships include:

- The IOHSS advisory committee links key agencies for data sharing.
- The Division of Oral Health has partnered with the Division of Chronic Disease and Prevention to collect data on oral health status and Body Mass Index on 3rd graders statewide.
- The DOH is working with Injury Prevention Coalition to address mouthguards and abuse prevention (PANDA program).

Objectives/Rationale
How has the practice addressed HP 2010 objectives, met the call to action by the Surgeon General’s Report on Oral Health, and/or built basic infrastructure and capacity for state/territorial oral health programs?

Building the IOHSS contributes to achieving the Healthy People 2010 objective 21-16: Increase the number of states with State-based oral health surveillance system. This objective targets to have all states to have an oral health surveillance system by 2010.

The monitoring of HP 2010 oral health objectives is an integral part of IOHSS. The IOHSS data collection is influenced by the HP 2010 objectives. The Surgeon General’s Report on Oral Health has led to developing the Illinois Oral Health Plan, which is another essential document that drives the objectives and activities of the IOHSS as well as addressing of the community needs.

Extent of Use Among States
Describe the extent of the practice or aspects of the practice used in other states?

Illinois is one of a number of states developing an oral health surveillance system. These states include the CDC grantees building infrastructure for state oral health programs and HRSA grantees building state collaborative oral health systems. Examples of these states include: NY, CO, NC, SC, AK, NV, MI, OH, RI, TX and NM.
Attachment A

Illinois Oral Health Surveillance System (IOHSS) Model

Communities

Primary Data Collection
Assessment
Reporting

DOH

Technical Assistance
Primary & Secondary Data Collection
Assessment

Data Analysis
Reporting

Surveys

Valid Sample
Quality Assurance

IPLAN

IEPA

DDS/RDH
Schools

IDPH

BRFSS

PRAMS

ISCR

Private Labs

NOHSS
ASTDD

HFS
EPSDT

IDPR

DHS
Attachment B

Illinois Oral Health Surveillance System (IOHSS)
Logic Model

**INPUTS**
- Staff Needed
  - Oral Health Epidemiologist
  - Fluoridation Data Manager
  - Program Administrator
  - IT Support
  - Data entry/ Support Staff
- Data Sources
  - National, State & Local level data sources
  - New Data collection to fill the gaps, Workforce, BSS (3rd graders, ECC, Seniors, Disabled population)
- Equipment
  - Hardware/ Software
  - Optiform software
  - SAS / SPSS / ACCESS
- Other
  - Community support
  - Funding
  - Key Stakeholders/Partners
  - MOA for data

**ACTIVITIES**
- Plan regular meetings with advisory committee
- Plan, implement & enhance a surveillance Plan
- Develop & maintain surveillance database - ACCESS
- Link existing data sources
- Identify gaps in data
- Collect data to fulfill the gaps in data
- Routine dissemination of surveillance reports
- Develop quality assurance methods to assure accuracy
- Develop and test methods for data analysis
- Analyze data and interpret findings
- Develop and write surveillance reports
- Disseminate surveillance results
- Ensure data security and confidentiality
- Develop strategies to sustain the surveillance system
- Review, update & expand IFRS
- Maintain linkage to WFRS
- Evaluate surveillance system and its reporting system

**INTERMEDIATE OUTCOMES**
- Ongoing monitoring of trends in oral health in IL
- Increase in evidence-based interventions, planning and evaluation
- Increase in programs for populations most in need

**DISTAL OUTCOMES**
- Documentation of changes in oral health indicators
- Improved oral health in IL
## Illinois Oral Health Surveillance System (IOHSS)
### Data Collection Timeline

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### Illinois Oral Health Surveillance System (IOHSS) Data Flow-Chart

**DOH Data**
- Dental Sealant Grant Program (DSGP)
- Oral Health Needs Assessment Program (OHNAP)
- Craniofacial Anomaly Program (CFA)
- Surveys - BSS - Workforce - Fluoride - ECC
- Fluoridation IFRS*
  - PWWTP**
  - FI Mouthrinse

**External Data**
- BRFSS; PRAMS; HFS; IL Cancer Registry; IDFPR; ISBE; IEPA; Safety Net Clinics; DDS & RDH Schools; Vital Statistics Center for Rural Health

### Illinois Oral Health Surveillance System Data Elements

### Various Reports & Systems
- National Oral Health Surveillance System, IPLAN, ASTDD State Synopsis, MCH Block Grant, Burden Document, State Oral Health Plan, Grant Applications, OHNAP Data Summary, WFRS***, FL Annual Reports
Attachment E

IOHSS Indicators and Data Sources

Behavioral Risk factor Surveillance System (BRFSS)  Interval – 2 years
- Percent of adults with dental visit in the past year
- Percent of adults, aged 65 years and older, who are edentulous
- Percent of adults who have had teeth cleaning within the past year
- Percent of dentate adults with diabetes who had a dental visit within the past year

Statewide 3rd Grade Basic Screening Survey  Interval – 5 years
- Percent of children with caries experience
- Percent of children with untreated decay
- Percent of children in need of urgent treatment
- Percent of children with sealants

Pregnancy Risk Assessment and Monitoring System (PRAMS)  Interval – 1 year
- Percent of pregnant women needed to see a dentist for a problem
- Percent of pregnant women visited dentist or dental clinic
- Percent of pregnant women had a dental/health care worker spoke about care of gums and teeth

Dental Workforce  Interval – 1 year
- Number of licensed dentists by county
- Number of licensed hygienists by county

Illinois Cancer Registry  Interval – 1 year
- Oral and Pharyngeal cancer death rate
- Percent of oral and pharyngeal cancers detected at the earliest stages
- Percent of oral and pharyngeal cancer exam within past 12 months, age 40+

Illinois Department of Health and Family Services (IDHFS)  Interval – 1 year
- Number of dentists enrolled as Medicaid providers
- Number of dentists with at least one paid claim
- Number of dentists with paid claims > $10,000
- Percent of counties in IL without an enrolled Medicaid dentist with paid claims > $10,000
- Percent of Illinois counties without a Medicaid dentist
- Number of children (0-18 years) enrolled in Title XIX Medicaid for at least one month of the year
- Number of children enrolled in Title XXI SCHIP for at least one month of the year
- Percent children enrolled in Title XIX Medicaid for at least one month (0-18 years) with dental visit
- Percent children (0-18 years) enrolled in Title XIX Medicaid for six consecutive months with dental visit
- Percent of adults (18-65 & 65+years) with dental visits

Division of Oral Health (DOH)  Interval – 1 year
- Number of Safety Net Clinics by county
- Number of newborns referred by Craniofacial Anomaly Program
- Number of children receiving sealants

Illinois Fluoridation Reporting System (IFRS)  Interval – 1 year
- Percentage of people served by public water systems who receive fluoridated water
- Percent of community water systems compliance with community water fluoridation standards