Dental Public Health Project/Activity Descriptive Report Form

Please provide a detailed description of your **successful dental public health project/activity** by fully completing this form. Expand the submission form as needed but within any limitations noted. Please return completed form to: lcofano@astdd.org

NOTE: Please use Arial 10 pt. font.

CONTACT PERSON PREPARING THE SUBMISSION AND TO ANSWER QUESTIONS

Name: Genelle R. S. Lamont, Ph.D., M.P.H.

Title: Oral Health Surveillance Coordinator

Agency/Organization: Minnesota Department of Health

Address: 85 East Seventh Place, Suite 220, Saint Paul, Minnesota 55164

Phone: 651-201-5974 (office) and 651-262-6908 (mobile)

Email Address: genelle.lamont@state.mn.us

PROVIDE CONTACT INFORMATION FOR ONE ADDITIONAL PERSON WHO COULD ANSWER QUESTIONS REGARDING THIS PROGRAM

Name: Bilquis Khan, M.S. (Epi/Stats), M.B.A.

Title: Contract Evaluator/Epidemiologist

Agency/Organization: Minnesota Department of Health

Address: 85 East Seventh Place, Suite 220, Saint Paul, Minnesota 55164

Phone: 630-776-6233

Email Address: bilquis.khan@state.mn.us

SECTION I: ACTIVITY OVERVIEW

Title of the dental public health activity:

Minnesota Oral Health Statistics System (MNOHSS)

Public Health Functions* and the 10 Essential Public Health Services to Promote Oral Health:
Check one or more categories related to the activity.

"X"	Assessment
X	1. Assess oral health status and implement an oral health surveillance system.
X	2. Analyze determinants of oral health and respond to health hazards in the community
	3. Assess public perceptions about oral health issues and educate/empower them to achieve and maintain optimal oral health
	Policy Development
	4. Mobilize community partners to leverage resources and advocate for/act on oral health issues
	5. Develop and implement policies and systematic plans that support state and community oral health efforts
	Assurance
	6. Review, educate about and enforce laws and regulations that promote oral health and ensure safe oral health practices
	7. Reduce barriers to care and assure utilization of personal and population-based oral health services
	8. Assure an adequate and competent public and private oral health workforce
	9. Evaluate effectiveness, accessibility and quality of personal and population-based oral health promotion activities and oral health services
	10. Conduct and review research for new insights and innovative solutions to oral health problems

***ASTDD Guidelines for State and Territorial Oral Health Programs that includes 10 Essential Public Health Services to Promote Oral Health**

Healthy People 2030 Objectives: Please list HP 2030 objectives related to the activity described in this submission. If there are any state-level objectives the activity addresses, please include those as well.

OH-D01. Increase the number of states and DC that have an oral and craniofacial health surveillance system.

Provide 3-5 Key Words (e.g. fluoride, sealants, access to care, coalitions, policy, Medicaid, etc.) These will assist those looking for information on this topic:
Acquiring oral health data, Use of oral health data, Surveillance, Determinants of oral health, Medicaid, Basic Screening Survey, Dental Health Professional Shortage Areas

Executive Summary: Complete after Section II: Detailed Activity Description. Please limit to 300 words in one or two paragraphs.

Provide a brief description of the dental public health activity. Include information on: (1) what is being done; (2) who is doing it and why; (3) associated costs; (4) outcomes achieved (5) lessons learned, both positive and negative.

Oral health data is scattered throughout national, state, and local entities and is not readily available. The data often requires a lengthy legal process to acquire and a specialized expertise to analyze and interpret. To meet the demand for timely, accurate, easy-to-use and understand oral health data, the Minnesota Department of Health (MDH)'s Oral Health Program developed an oral health surveillance system known as the **Minnesota Oral Health Statistics System (MNOHSS)**. This project is funded by Delta Dental of Minnesota Foundation and the Centers for Disease Control and Prevention and is

housed on the publicly accessible MN Public Health Data Access Portal. MNOHSS is a one-stop source for state and county oral health data. Educators, researchers, policymakers, funders, oral health advocates and dental professionals alike can use MNOHSS to assess population oral health, identify trends and oral health disparities, inform programs and policies, and prioritize and target resources and develop research hypotheses. Currently, MNOHSS has 40 indicators from nine datasets, and includes mobile-responsive technology, data queries, oral health data report, dynamic charts, downloadable data, and interactive maps. Funding, existing infrastructure, staff expertise/innovation, and a collaborative partnership composed of the MDH Oral Health Program, the MN Tracking Program, MN.IT Services and data stewards helped make MNOHSS a success. With an estimated annual budget of $150K, costs associated with this system include staffing, software/platform, office equipment/supplies and data reporting/dissemination.

Since 2017, use of MNOHSS increased 60% with 10,672 new and 3,892 returning visitors annually. Yearly outcome measures using google analytics, CDC results-based accountability and Oral Health Program Tracking databases, assess online traffic, personal data requests, and awareness/reach at conferences, workshops, and other events. Intermediate/long-term outcomes assess use/reach via data cited in news, journal articles, reports, and success stories. Challenges include funding, developing agreed upon protocols and procedures when working in a large collaborative team and acquiring datasets from external organizations. Lessons learned are (1) develop an Operations Plan, (2) build strong collaborative partnerships and (3) invest in communications and outreach.

SECTION II: DETAILED ACTIVITY DESCRIPTION

Provide detailed narrative about the dental public health activity using the headings provided and answering the questions. Include specifics to help readers understand what you are doing and how it's being done. References and links to information may be included.

Complete using **Arial 10 pt.

Rationale and History of the Activity:

1. What were the key issues that led to the initiation of this activity?

The Minnesota Oral Health Program was established in 2009 with a focus on supporting school-based sealant programs, community water fluoridation and collection of the first Basic Screening Survey for Third Grade. During the 2012 Oral Health Summit, community partners provided a strategic direction for the Oral Health Program emphasizing the development of the first State Oral Health Plan. Included in the discussions were the need for an oral health data and a surveillance system to track state and county level population oral health. Partner organizations wanted oral health data so they could determine the scope of oral disease, oral health disparities, and geographically where the highest needs were. This information would help them in their grant applications, needs assessments, and decisions on where to place additional dental safety-net clinics and resources. Not only did partners want critical oral health data, but they wanted a central location where they could access it.

Also in 2012, the Minnesota Department of Health's (MDH) Environmental Public Health Tracking (MN Tracking) Program launched its Governor Award Winning publicly accessible online data portal funded through a cooperative agreement with the Centers for Disease Control and Prevention (i.e., grantee of the National Environmental Public Health Tracking Network). Being involved in the Oral Health Summit, the MDH Health Promotion and Chronic Disease Division (HPCD) saw an opportunity to use this existing infrastructure (Minnesota Public Health Data Access Portal) to house oral health data and make linkages with other data portal topics, including diabetes, heart disease and birth defects. This led to the planning and development of the Minnesota Oral Health Statistics System (MNOHSS), a collaborative project of the Minnesota Oral Health Program, the MN Tracking Program, the Minnesota Information Technology (MN.IT) Services, and funder Delta Dental of Minnesota Foundation.

2. What rationale/evidence (may be anecdotal) did you use to support the implementation of this activity?

Oral health data is collected by different national, state, and local entities, but generally not publicly accessible or easily attained. This creates equity issues, as organizations that work directly with vulnerable populations need timely access to oral health data to inform their work. MNOHSS solves this problem by providing a one-stop source for state and county oral health data. Although not specifically measured, it is also anticipated to save costs associated with multiple data requests, as data users can query, download and view data on MNOHSS.

3. What month and year did the activity begin and what milestones have occurred along the way? (May include a timeline.)

- **Planning Phase (2012-2013)**: Oral Health Summit convened several oral health partners to participate in needs and strategic direction of the oral health program, including development of the first State Oral Health Plan and Oral Health Surveillance Plan. The Oral Health Program applied for grant funding through Delta Dental of Minnesota Foundation to develop an online oral health data portal in collaboration with the MN Tracking Program and MN.IT Services.
- **Development Phase (2013-2015)**: The Oral Health Program hired a full-time oral health surveillance coordinator. Development of the portal included prioritization of key datasets and indicators for the portal, determining the content and architecture of the landing page, including key messages, images, and drop-down menu topics. Data sharing agreements with

data stewards were established during this time. Data was analyzed and content for the portal developed. Content for each data topic includes an About the Data page, A View Charts page, and a data query for county data.

- **Launch Phase (February 2015)**: The MN Data Access Portal launched the Minnesota Oral Health Statistics System (MNOHSS).
- **July 2017**: MNOHSS was presented at an Association of State and Territorial Dental Directors (ASTDD) webinar showcasing state oral health surveillance systems.
- **Enhancement Phase (2015-2018)**: Delta Dental of Minnesota Foundation funded additional enhancements to MNOHSS. Additional indicators/datasets were added, more icon arrays (infographics) were added to view charts pages, MDH branding was implemented and we created the Oral Health Data Report (state and county summary of major indicators). Also, MN.IT Services installed a new LifeRay platform upgrade, MN Tracking conducted user testing and overhauled the look and format of the MN Data Access Portal.
- **February 2018**: The Oral Health Program hosted the event, *Advancing Oral Health in Minnesota's Aging Communities* at Walker Methodist in Minneapolis. MNOHSS Coordinator presented the results of Minnesota's first Basic Screening Survey for Older Adults (2016) and promoted use of MNOHSS. Fifty-three participants from aging/older adult organizations, dental non-profits, coalitions, dental safety net clinics, colleges/universities and state government attended the event.
- **April 2018**: MNOHSS Coordinator held a workshop with Colorado and Texas on building state oral health surveillance systems at the National Oral Health Conference.
- **July-September 2018**: The Oral Health Program collaborated with the MN Tracking Program to develop and implement the *MDH Land of Healthy Kids Campaign*, which promoted dental sealant data from the BSS for Third Graders and Medicaid recipient non-dentist oral health service use to drive traffic to MOHSS. The campaign resulted in a total of 4,256 sessions, of which 989 were to MNOHSS pages. Social media posts reached a total of 64,532 unique users, of which 4,370 were oral health posts.
- **August 2018**: Minnesota held its first *Health Literacy Conference*, a collaboration between the Oral Health Program and the Minnesota Health Literacy Partnership. Over 100 public health and other health professionals were in attendance. We featured MNOHSS as an example of how data literacy principles can be applied to an online data portal.
- **Maintenance Phase (2018-Present)**: MNOHSS has fully developed 40 indicators from nine datasets, and includes features such as mobile-responsive technology, data queries, oral health data report, dynamic charts, downloadable static maps and data in .csv format and interactive maps.
- **June 2019:** The Oral Health Program hosted the *Minnesota Oral Health Policy Forum* at the Minnesota Humanities Center in Saint Paul. We invited diverse leadership from the Minnesota Oral Health Coalition, MDH, DHS, the Olmstead Plan Implementation Office, the Councils on Disability, Latino Affairs, American Indian Affairs and Ascian Pacific Minnesotans, the Minnesota Dental Association, Delta Dental of Minnesota Foundation, the Minnesota Board of Dentistry, Schools of Dentistry and Dental Hygiene, dental safety net clinics and federally qualified health centers, tribal health services and non-profit and advocacy organizations, and policymakers. This historic event drew over 90 participants, including Representatives Lisa Demuth (District 13A) and Tina Liebling (District 26A) and staff from the Office of Congressman Jim Hagedorn (MN-01) and the Office of Senator Amy Klobuchar. The MNOHSS Coordinator presented on the state of oral health in Minnesota and oral health disparities, showcasing MNOHSS. Policymakers met with participants during table events to discuss unmet needs and strategies for improving the oral health of all Minnesotans.
- **November 2019:** BSS for Third Graders data from MNOHSS was featured in the Kids Count data book during an event hosted by the Minnesota Children's Defense Fund and attended by Minnesota Governor Tim Walz and Lieutenant Governor Peggy Flanagan.

The sections below follow a logic model format. For more information on logic models go to: W.K. Kellogg Foundation: Logic Model Development Guide

INPUTS	PROGRAM ACTIVITIES	OUTPUTS	OUTCOMES

4. **What resources were needed to carry out the activity? (e.g., staffing, volunteers, funding, partnerships, collaborations with various organizations, etc.)**
   See Appendix A.

5. **Please provide a detailed description the key aspects of the activity, including the following aspects: administration, operations, and services.**
   See Appendix A.

6. **What outputs or direct products resulted from program activities? (e.g., number of clients served, number of service units delivered, products developed, accomplishments, etc.)**
   See Appendix A.

7. **What outcomes did the program achieve? (e.g., health statuses, knowledge, behavior, care delivery system, impact on target population, etc.) Please include the following aspects:**

   a. **How are outcomes measured?**

      Use of oral health data is measured using Google Analytics/Site Improvement Reports on traffic to MNOHSS and specific pages on the oral health topic. Number of content/products on MNOHSS (i.e., About the Data Page, View Charts Pages, Queries, Interactive Maps, charts, static maps and icon arrays), number of events/presentations/demonstrations, and number of collaborations/partnerships are measured/tracked in excel spreadsheets (Oral Health Program Tracking Database), and number of data requests are measured/tracked using the CDC Results-Based Accountability spreadsheet.

   b. **How often they are/were measured?**

      Annually (Evaluation Report) and Every 3-5 years (user/audience testing).

   c. **Data sources used?**

      Google Analytics/Site Improvement Reports, CDC Results-Based Accountability for tracking data requests, Oral Health Program Tracking Database for tracking events, presentations and demonstrations, and collaborations/partnerships of MNOHSS. Information for quality improvement is done through user/audience testing.

   d. **Whether intended to be short-term (attainable within 1-3 years), intermediate (achievable within 4-6 years), or long-term (impact achieved in 7-10 years):**
      These outcomes are short-term measures and tracked over time. Intermediate and long-term impacts of MNOHSS are captured in media/press releases and reports (i.e., news articles, press releases, or reports that cite oral health data from MNOHSS) and success stories that show how oral health data from MNOHSS was applied or used for an intervention. For example: Case Study: Service Gap Filled with New Dental Clinic. Data from MNOHSS has also been featured on informational handouts from the Minnesota Council on Hispanic/Latino Affairs, Delta Dental of Minnesota Foundation, and the Minnesota Children's Defense Fund's KIDS COUNT Data Book.

Budgetary Information:
NOTE: Charts and tables may be used to provide clarity.

1. **What is the annual budget for this activity?**

   Estimated $150K. Costs are generally higher during phases of development versus maintenance.

2. **What are the costs associated with the activity? (Including staffing, materials, equipment, etc.)**

Costs associated with this activity include:

- Staffing
  - ***Oral Health Program Director***: ensures hiring of skilled staff, manages grants, staff, contracts, and inter and intra-agency memorandum of understanding (MOU)s.
  - ***Oral Health Surveillance Coordinator***: develops and manages the oral health surveillance system, develops and implements a state oral health surveillance plan, writes grants to support the work, writes and implements data use agreements, develops and implements data and work flow protocols and procedures, plans and implements studies such as the Basic Screening Survey, develops all oral health content for the portal (i.e., charts, infographics, maps, excel data files, tables, query and map elements, written narratives, glossary terms, and background information about the data), develops and fosters relationships with the data stewards and staff involved on the project, seeks and develops new sources of data and makes recommendations for the collection of oral health data.
  - ***Evaluator & Epidemiology Support***: develops and manages an oral health surveillance system evaluation plan, tracks evaluation metrics, writes evaluation reports, and provides epidemiology support on oral health studies, including data collection and methodology.
  - ***Data Portal Coordinator***: develops the web architecture, protocols, procedures, and workflows of the data portal, develops language, citation, and branding standards (unless agency already has a standard), coordinates work flow between the data stewards, content experts/developers, and information technology staff, assists with budget management and payments to information technology staff, designs and implements usability testing, tracks web traffic via online analytics, and assists with data dissemination/portal promotion through social media campaigns, social media posts, and conference attendance.
  - ***Information Technology Staff***: data programmers ensure all content (i.e., charts, maps, tables, data queries, and written narratives) are added to the data portal using LifeRay and Bootleaf platforms, and ensures content meets WGA 2.0 accessibility and security standards.
  - ***Communications Specialist***: develops and implements the oral health data and surveillance communications plan, works with content experts to develop messaging based on data, ensures continual data dissemination and surveillance/data portal promotion through social media channels, data briefs, and other web content, seeks opportunities to share data and promote the data portal through conferences, web and in-person demonstrations, and other events, works with contracts to develop graphic designs for data brief templates, social media posts, flyers, and other dissemination products.
- Vendor contracts for graphic design work on major reports and collection of population-based data such as the Basic Screening Survey (i.e. licensed dental hygienists to screen children).
- Software licenses and platforms (i.e., SAS, ArcGIS, Adobe Creative Suite, Google Analytics, EndNote, LifeRay and Bootleaf).
- Equipment and supplies (i.e. staff laptop and docking station, monitor, keyboard and mouse, earbuds, desk, office chair, and photocopy/printing).
- Travel support (i.e. gas mileage, airfare, ground transport, hotel stay and per diem).
- Outreach events (i.e. meeting location, video and sound equipment, guest speaker honorariums and supplies such as folders, pens and photocopy/printing).

3. **How is the activity funded?**

Development and maintenance of the Minnesota Oral Health Statistics System (MNOHSS) was generously funded primarily through Delta Dental of Minnesota Foundation (DDMF). In recent years,

MNOHSS is supported through a cooperative agreement with the Centers for Disease Control and Prevention (CDC).

4. **What is the plan for sustainability?**

Program sustainability is contingent on demand for robust accurate oral health data and a robust surveillance system. Without demand, it is difficult to justify continued funding. The Program must demonstrate how oral health data is useful – how it can be used to make policy and programmatic decisions such as intervention design and resource allocation. To do this, the Minnesota Oral health Program (OHP) targeted policymakers, funding agencies, colleges and universities, safety-net clinics and oral health professionals and organizations. The OHP held outreach events to communicate the state of oral health, including oral health disparities in Minnesota. We advertised MNOHSS through social media, the MDH website, community events and presentations at national and state conferences. And the OHP showed how to search for oral health data on MNOHSS and how it can be used to develop grant applications and needs assessments through public demonstrations.

As an example, the Minnesota Oral Health Program co-hosted an Oral Health Policy Forum with the Minnesota Oral Health Coalition in June 2019. We invited diverse leadership from the Coalition, state agencies, state councils, dental net clinics and federally qualified health centers, tribal health services, non-profit and advocacy organizations and policymakers. The Oral Health Surveillance Coordinator presented on the state of oral health in Minnesota and oral health disparities, showcasing the Minnesota Oral Health Statistics System (MNOHSS). She communicated the importance of having data to make public health decisions and where gaps exist. Clear plastic table tents were placed on each of the tables in the gathering room. One side displayed a map found on MNOHSS, i.e., dental health professional shortage areas and Medicaid dental service use by county. The other side held a social media poster encouraging participants to take pictures and tweet about the events for the day. This was captured using a custom hashtag for the event. The table tents proved to be very popular.

A photographer took pictures throughout the day and these photos were used to develop an Event Summary document, which was distributed to participants and others upon demand. The event was a forum for the oral health community to discuss with each other and policymakers the main barriers to improving oral health that they see every day working in the trenches and what they view as solutions. As a result of the forum, there were at least 3 state representatives that were very interested and engaged and have since helped to author/support oral health legislation. See Attachment. Oral Health Forum 6-13-2019 Event Summary.

Lessons Learned and/or Plans for Addressing Challenges:

1. **What important lessons were learned that would be useful for others looking to implement a similar activity? Was there anything you would do differently?**

<u>Develop a long-range Operations Plan</u>
Programs considering the development of an oral health surveillance system should plan beyond the start-up phase, which includes the surveillance, evaluation, communication, and sustainability plans. This comprehensive plan should be built in partnership with the areas of your agency that intersect with oral health and data and surveillance systems.
Here is a list of our recommendations:

1. Develop a list of core staff positions. For our program, this includes the positions listed under staffing in question #2.
2. Collaborating partners
3. Data users
4. Other stakeholders

It is imperative that the Plan define roles, expectations, and have the support of all the necessary stakeholders. The Operations Plan should be a living document so that changes can be made as necessary.

Engage the team in regularly scheduled meetings to discuss the surveillance system. This serves as built in evaluation, maintenance, planning, and adjustments. Staff changes have less impact because the core team meets on an on-going basis. New staff additions are brought alongside the core team to get plugged in to the operations of the surveillance system.

It is critical for the Operations Plan to define roles and responsibilities and check in on the completion of tasks at regularly scheduled meetings. The Oral Health Program should develop and use standardized processes during all phases of data collection, analysis, interpretation, and review. Staff should be assigned to fulfill the following:

- Data collection
- Data analysis
- Data interpretation
- Data review
- Communication of the data
- Project oversight
- Trouble shooting plan of action
- Other tasks that come up

Invest in Communication and Outreach

The finest surveillance system falls short when it is not used or lacks sustainability funding. A communications specialist is crucial to the success of your surveillance system. This specialist will add oral health data and surveillance messaging into the overall communications plan. This provides consistency with approach and delivery of messaging across your program. In addition, the communications team member maintains relationships with key audiences, targeted groups, and the public at large. This includes community events, outreach activities, collaboration with oral health organizations, and funders. Another essential function of the Communications Specialist is to establish widely the existence of the surveillance system and create demand for oral health data. This creation of demand sparks interest in data and informs users about its use. In turn, users consider ways to leverage the information for local action.

Invest in Building Relationships

A surveillance coordinator is focused on data collection, analysis, and reporting. However, this is only part of their role. Surveillance coordinators must be involved in outward facing oral health program activities. The surveillance coordinator is encouraged to engage in outreach activities and building partnerships. This supports the collection of data because it generates mutual benefits. Once the Surveillance Coordinator is a known, trusted member of the Oral Health Team, working in data collection and analysis with partners becomes much more natural. Collecting existing data outside of the agency, developing new initiatives for data collection, or funding such endeavors cannot be done in siloes.

The Oral Health Program is a leader at the agency for engaging in outreach activities, including joint projects with chronic disease and maternal/child health programs. Through previous HRSA grants and CDC cooperative agreements, the Oral Health Program worked with the heart disease and diabetes programs to integrate oral health knowledge, disease prevention strategies, and data collection within heart disease and diabetes programs and vice versa. The challenge has been to sustain these initiatives. In terms of surveillance, oral health indicators from the Behavioral Risk Factor Surveillance System are analyzed with chronic disease indicators such as diabetes, heart disease, chronic kidney disease, smoking and disability status, and disseminated on the Minnesota Oral Health Statistics System. Without the umbrella of joint funding, cross-program integration is very difficult. It is our experience that it doesn't readily occur. The Oral Health Program has found successful bidirectional initiatives working with entities outside of the agency, including Indian Health Service, tribal epidemiology centers and tribal health facilities, safety net dental clinics and oral health non-profit organizations, the Minnesota Oral Health Coalition, and state councils. We are constantly exploring ways to collaborate/partner with local public health agencies, e.g., oral health education in family home visiting programs and oral health data collection via the 5-year community health assessments.

2. What challenges did the activity encounter and how were those addressed?

Funding

Compared to all other major chronic diseases in the United States, oral health is severely underfunded. Federal grants from the Centers for Disease Control and Prevention (CDC) and the Health Resources and Services Administration (HRSA) are the main funding streams for oral health programs. Limited funding from these two agencies have become highly competitive in recent years making it difficult for state programs to become sustainable. Additionally, more stringent grant requirements (i.e., matching

funds, smaller percentages of the overall budget allotted to fund the staff necessary to implement programs) has posed additional challenges.

To stay competitive with federal grant applications, the MDH Oral Health Program develops innovative initiatives through dynamic team and partner collaboration. We also hold strategic meetings to guide future direction of our programs and how they can align with other MDH programs, partner organizations and current grant opportunities. For example, collaborating on projects that integrate oral health activities with the work and activities of the Cancer Control Section, Diabetes Program, Cardiovascular Health Program, Maternal and Child Health Section, the Statewide Health Improvement Initiative Program that works in schools and the tribal epidemiology center. Building relationships with public and private organizations and event-based outreach has been key to grant opportunities funded by the Delta Dental of Minnesota Foundation and state government.

Acquisition of datasets

The second major challenge has been gaining access to non-public oral health data outside of the agency. This required building and maintaining relationships and trust among the data stewards and working closely with outside agency data stewards and their legal teams to develop data sharing agreements that include data suppression rules, transfer, security, and product review/approval standards. Data stewards want to know that their data is being analyzed, interpreted, and communicated accurately. Data stewards are *the* experts of their data and therefore should have the right to be involved throughout the process. Using the example of gaining access to Medicaid data, we held quarterly meetings with key staff from the Minnesota Department of Human Services (DHS) to keep each other updated with agency activities on oral health and any upcoming data or legislative activities. We identified lead staff at DHS that work with the Minnesota Health Care Programs (MHCP) and data collection and their supervisors to include in the data agreement. We added a specific clause within the data agreement that requires the MDH Oral Health Program to send any communication materials development from Medicaid data, including data summaries on the Minnesota Oral Health Statistics System (MNOHSS) online data portal to be reviewed and approved by the data stewards before publication. Having this clause included in the data sharing agreement was a major step towards building trust.

Developing protocols and procedures

The third major challenge was developing mutually agreed upon protocols and procedures for working with multiple entities within the agency. We discovered that issues arose when there was staff turnover, including differences in project scope, oversight, and future direction. MNOHSS is a collaboration between the Oral Health Program, the Minnesota Environmental Health Tracking (MN Tracking) Program, and the Minnesota Information Technology (MN.IT) Services. The MN Tracking Program and MN.IT Services developed the core infrastructure (MN Public Health Data Access Portal) where MNOHSS houses its data. In the early stages of MNOHSS, the Oral Health Program had more control over the formatting and display of data and content on the portal, including access to the software platform LifeRay and direct communication with MN.IT Services. The Oral Health Surveillance Coordinator ensured MNOHSS data and content displayed on the MN Public Health Access Portal was readable, usable, and actionable based on a thorough literature review of best practices for health literacy and data visualization for the web, coupled with audience usability testing.

About three years after the launch of MNOHSS, new staff came on board in the MN Tracking Program and MN.IT Services, and new CDC requirements were given to MN Tracking Program as part of their CDC cooperative agreement for grantees of the national Environmental Health Tracking Network. As a result, the MN Tracking Program needed to ensure all topics on the portal had the same language, formatting, branding and other CDC web requirements. The MN Tracking Program required more oversight of the content and display of data. However, the MNOHSS coordinator was concerned that these changes would affect the readability and accessibility of the oral health content and wanted assurances that plain language, health literacy and accessibility principles would be included. It was a challenge to come to agreement on protocols and procedures moving forward, however we were able to resolve some of the issues by developing a Memorandum of Understanding (MOU) with the MN Tracking Program. Maintaining an MOU reduces misunderstandings and creates a consistent mode of operation that prevents major disruptions due to staff turnover.

Available Information Resources:

Share any models, tools, and/or guidelines developed by the program specifically for this activity that may be useful to others seeking additional information. Hyperlink resources if possible.

Note: See Appendix A next page

TO BE COMPLETED BY ASTDD	
Descriptive Report Number:	26012
Associated BPAR:	Dissemination of Data from State-Based Surveillance Systems
Submitted by:	Minnesota Department of Health
Submission filename:	DES26012MN-oral-health-surveillance-system-2021
Submission date:	August 2021
Last reviewed:	August 2021
Last updated:	August 2021

ACTIVITIES	INPUTS	OUTPUTS	OUTCOMES
Surveillance Plan: -Guidance documents, internal and external partners and Oral Health staff collaborate on datasets, data indicators and their priorities. -MNOHSS Coordinator writes surveillance plan -Surveillance Plan submitted to CDC **Review Process/Work Flow:** -MNOHSS Coordinator drafts content -Oral Health Program reviews as-needed -MN Tracking Program reviews content for consistency with CDC/portal standards -Data Steward reviews/approves content -MNOHSS Coordinator rewrites content based on review -MNOHSS Coordinator submits all content and files to MN Tracking and MN.IT Services -MN Tracking schedules portal deliverables with MN.IT Services -MN.IT Services submits development link to MNOHSS Coordinator and Portal Coordinator for review -Edits submitted to MN.IT Services -MN.IT Services makes final changes and submits .test link for last looks to MNOHSS Coordinator and Portal Coordinator	**Guidance:** -Centers for Disease Control and Prevention (CDC) -Indian Health Service -Council of State and Territorial Dental Directors (CSTE) -Association of State and Territorial Dental Directors (ASTDD) **Staffing:** -Oral Health Program Director -Oral Health Surveillance Coordinator -Evaluator/Epi Support -Communications Specialist -Data Portal Coordinator -Information Technology staff (i.e., developers and supervisor) **Funding:** -Staff salaries/benefits -Vendor contracts (i.e., graphic design for major reports and licensed dental hygienists to screen children for BSS) -Software licenses and platforms (i.e., SAS, ArcGIS, Adobe Cloud Suite, Google Analytics, EndNote, Liferay, and Bootleaf) -Equipment and supplies (i.e., staff laptop and docking station, monitor, keyboard, mouse, earbuds, desk, office chair, photocopy/printing)	-1 Surveillance Plan -1 Evaluation Plan -1 Communications Plan -1 Sustainability Plan -1 Oral Health Topic on MN Data Access Portal (Online Oral Health Surveillance System called MNOHSS) -1 Landing Page -3 Data Queries - 9 About the Data pages -23 View Charts pages • 68 charts • 8 static maps • 21 icon arrays (infographics) -1 Interactive Map -1 Oral Health Data Report page -Google Analytics/Site Improvement Reports: Users: **14,564** (**60% increase** from 2017) -New visitors: 10,672 -Returning visitors: 3,892 Total sessions: 10,920 (**50% increase** from 2017) -Percent new sessions: **65.0%**	-Increased knowledge of oral health data -Increased use of oral health data (in grant applications, community health assessments, needs assessments, reports, etc.…) -Ability to track oral health indicators over time -Ability to identify oral health disparities

-Final changes; content submitted to production			

-Travel support (i.e., gas mileage, airfare/ground transport, hotel stay and per diem). -Outreach events (i.e., meeting location rental, video and sound equipment, guest speaker honorarium, and participant supplies such as folders, pens and photocopy/printing) **<u>Collaborations/Partnerships</u>** -Internal agency partners (i.e., MN Tracking Program, Cancer Control Section, Diabetes Program, Cardiovascular Health Program, Maternal and Child Health Section, Health Promotion and Chronic Disease Division, Statewide Health Improvement Program, Safe Drinking Water Section and Office of Rural Health and Primary Care) -External agency partners (e.g., local public health, Minnesota Department of Human Services, Minnesota Department of Education, Board of Dentistry, Great Lakes Inter-Tribal Council Epidemiology Center, Indian Health Services, MN Council on Disability, MN Area Agency on Aging) -Foundations and Organizations (e.g., Delta Dental of Minnesota	-Content goes live on MN Data Access Portal **Data Portal (oral health topic):** -Architecture/layout -Develop subtopic **Landing page:** -Write/review/rewrite content -Select images -Add glossary terms and links **Acquire datasets:** -Identify sources of oral health data -Build relationship with data stewards -Develop/sign data sharing agreements -Collect data -Analyze data -Interpret data -Data presentation **About the Data:** -Develop main headers -For each dataset write/review/rewrite content -Add to online portal using LifeRay **View Charts:** -Develop charts -Develop static maps -Develop icon arrays (infographics) -Develop accessibility tables -Develop chart notes -Write/review/rewrite content -Add anchors, glossary terms and links	-Pages per session: **3.00** (compared to 2.28 in SFY 2017) -Pageviews: **28,110** (n = +10,938 or **58% increase** from 2017) -Unique pageviews: 22,288 (n = +9,407 or **64% increase** from 2017) -Bounce rate: **59.03%** (higher than average, though down from 64.59% in 2017) -Popular views by pageview: *Free and reduced-price lunch: 10,924 (38.9%) *Landing page: 4,107 (14.3%) *Oral Health Report: 2,913 (10.4%) *Medicaid Dental Service Use: 2,809 (10.0%) *Child and Teen Checkups: 1,972 (7.0%) *Dental Health Professional Shortage Areas: 1,557 (5.5%) *BSS for Third Graders: 1,141 (4.1%)	

Foundation, Minnesota Oral Health Coalition, dental safe-net clinics and other oral health organizations)	-Add to online portal using LifeRay **Queries:** -Develop flow chart -Format data -Create labels -Define each label -Write notes section **Oral Health Data Report:** -Architecture/layout developed -Tables created with headers, notes and content -MN.IT Services programs into data portal **Interactive Map:** -Develop map requirements and specifications -Format data into .csv file -Geocode data -Add base map/layers -Create labels -Define labels -Create accessibility tables -Add interactive map to data portal using BootLeaf **Track traffic to portal:** -Specify data measures -Create unique reports -Use Google Analytics to track unique visits, bounce rate, etc.… **Develop evaluation measures and Plan** **Develop Communications Plan** **Develop Sustainability Plan**	*Minnesota Health Access Survey: 864 (3.1%) *Behavioral Risk Factor Surveillance System: 712 (2.5%) *National Survey of Children's Health: 511 (1.8%) *BSS for Older Adults: 411 (1.5%)	