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Where oral health lives

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.

NOTE: Please use Verdana 9 font.

CONTACT PERSON PREPARING THE SUBMISSION AND TO ANSWER QUESTIONS
Name: Denise Muesch Helm **Title: Professor** **Agency/Organization: Northern Arizona University Department of Dental Hygiene** **Address: Po Box 15065, Flagstaff AZ, 86325** **Phone: 928-607-2309** **Email Address: denise.helm@nau.edu** **Name: Alejandra Figueroa** **Title: Evaluator** **Agency/Organization: Northern Arizona University Department of Dental Hygiene** **Address: Po Box 15065, Flagstaff AZ, 86325** **Email Address: alejandra.figueroa@nau.edu** **Name: Marissa Leslie Adams** **Title: Program Manager** **Agency/Organization: Northern Arizona University Department of Dental Hygiene** **Address: Po Box 15065, Flagstaff AZ, 86325** **Email Address: Marissa.adams@nau.edu**

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

Revised December 2018

Name: Marissa Adams

Title: Program Manager

Agency/Organization: Northern Arizona University Project Zero—Women & Infants

Address: Po Box 15065, Flagstaff AZ, 86011

Phone: 928-523-9449

Email Address: Marissa.adams@nau.edu

SECTION I: ACTIVITY OVERVIEW

Title of the dental public health activity:

Data Analysis and Reporting to Improve Oral Health Access

Public Health Functions*: 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
X	7. Reduce barriers to care and assure utilization of personal and population-based oral health services
X	8. Assure an adequate and competent public and private oral health workforce
X	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 2020 Objectives: Check one or more key objectives related to the activity. If appropriate, add other national or state HP 2020 Objectives, such as tobacco use or injury.

"X"	Healthy People 2020 Oral Health Objectives	
X	OH-1	Reduce the proportion of children and adolescents who have dental caries experience in their primary or permanent teeth
X	OH-2	Reduce the proportion of children and adolescents with untreated dental decay
X	OH-3	Reduce the proportion of adults with untreated dental decay
	OH-4	Reduce the proportion of adults who have ever had a permanent tooth extracted because of dental caries or periodontal disease
	OH-5	Reduce the proportion of adults aged 45 to 74 years with moderate or severe periodontitis
	OH-6	Increase the proportion of oral and pharyngeal cancers detected at the earliest stage
X	OH-7	Increase the proportion of children, adolescents, and adults who used the oral health care system in the past year
X	OH-8	Increase the proportion of low-income children and adolescents who received any preventive dental service during the past year
	OH-9	Increase the proportion of school-based health centers with an oral health component
	OH-10	Increase the proportion of local health departments and Federally Qualified Health Centers (FQHCs) that have an oral health component
	OH-11	Increase the proportion of patients who receive oral health services at Federally Qualified Health Centers each year
X	OH-12	Increase the proportion of children and adolescents who have received dental sealants on their molar teeth

	OH-13	Increase the proportion of the U.S. population served by community water systems with optimally fluoridated water
X	OH-14	Increase the proportion of adults who receive preventive interventions in dental offices
	OH-15	Increase the number of States and the District of Columbia that have a system for recording and referring infants and children with cleft lips and cleft palates to craniofacial anomaly rehabilitative teams
	OH-16	Increase the number of States and the District of Columbia that have an oral and craniofacial health surveillance system
	OH-17	Increase health agencies that have a dental public health program directed by a dental professional with public health training

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:
health provider capacity, health provider billing, Medicaid, preventive services, restorative services, partnerships, policy, acquiring oral health data, use of oral health data, policies access to carePro

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.

Project Zero—Women & Infants (PZWI), a Perinatal Infant Oral Health Quality Improvement (PIOHQI) grant project has analyzed Arizona Medicaid (Arizona Health Care Cost Containment System—AHCCCS) 2016 and 2017 dental claims data to better understand the state's oral health workforce capacity. Anecdotal evidence in Arizona suggested a shortage of AHCCCS oral health providers to meet the needs of the population. However, there was no hard evidence to support the claim. As such, there was a critical need to quantify and verify the data in order to better assess provider capacity.

As part of this process, our evaluation expert analyzed AHCCCS claims data, our community liaison formed partnerships and networked, our principal investigator verified the results of the data analysis, and our program manager assisted with communication, administrative duties, and coordination. This project would not have resulted in as many positive outcomes without collaboration with AHCCCS, Arizona State University Center for Health Information and Research, the Children's Action Alliance and the Arizona Public Health Association. Because PZWI's parent institution prohibits lobbying activities, we relied on these partners to work with state lawmakers; we also had to depend on others who possessed the data. Associated costs were covered by the PIOHQI grant.

Data analysis resulted in an established data pull, a database, charts, graphs and heat maps. These graphics were used by our partners to advocate for legislative change including the addition of an adult emergency dental benefit, passed in 2018 and the promotion of a pregnant women's benefit, reintroduced in 2019. Our team learned the importance of asking the right questions about the data of our partners at the right time and having the flexibility to explore the data from many perspectives. Additionally, this project re-affirmed the need to have everyone that is impacted by a project be a part of the planning.

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 **Verdana 9 font.

Rationale and History of the Activity:

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

Oral health data tells a story about the health of our state. Important legislative decisions, project implementation, care delivery systems, and grant funding are supported by data stories. Yet in Arizona, information on oral health is either not available, analyzed, or disseminated to the public. Although the state Medicaid program, Arizona Health Care Cost Containment System (AHCCCS), collects data on patients and providers, little analysis of the data has been conducted. No one institution, organization or agency in Arizona has the capacity to analyze and disseminate the information.

Prior to the work of the Project Zero—Women & Infants (PZWI) it was not clear how many AHCCCS approved oral health providers were actually providing care for patients each year. A previously published report stated that there was an adequate workforce to meet the oral health needs of the population. This report examined the number of AHCCCS approved providers within a specific drive time for patients, finding that there was an adequate workforce across the state; yet, many patients said this was not the case. Arizona oral health advocates have heard countless stories about patients driving for several hours to an AHCCCS dental provider or waiting two to three months for an appointment, particularly in the rural parts of the state. After examining that report, we found the analysis only looked at the number of approved providers, not whether those providers were, in fact, providing care that patients needed.

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

According to the Health Resources and Services Administration (HRSA), there are 196 areas in Arizona designated as dental Health Professional Shortage Areas (HPSAs) (HRSA, 2018). An estimated three million Arizonans live in these areas as of December 31, 2018. Anecdotal evidence suggested that it was difficult for AHCCCS eligible patients to schedule an appointment within a reasonable amount of time at a location close to home. These real-life stories begged the question of where the AHCCCS providers were located geographically and if they were meeting the needs of the surrounding population.

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

This project started in August of 2016 to address gaps in data/information about AHCCCS. Our questions and this project were put on temporary hold because we were involved with partners who were working on increasing oral health utilization. Our first milestone occurred a year and a half after our first conversation when we signed a data use agreement with Arizona State University Center for Health Information and Research (CHiR) and they agreed to provide claims data to us for a nominal fee. Six months after our initial conversation and a year and a half after our initial questions were raised, we met our second milestone when we received the first data set from CHiR. The following year, we requested claims data from CHiR and AHCCCS to compare to the previous year.

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

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

To complete the data analysis and reporting three PZWI staff were needed: a) a data analyst with experience analyzing large data sets b) a staff member who understood statistics to verify data results and who served as the community liaison; c) and a program manager. Additionally, staff from CHiR, AHCCCS, Children's Action Alliance (CAA), and 4) the Arizona Public Health Association (AzPHA) were deeply involved in making this project a success.

INPUTS	**PROGRAM ACTIVITIES**	OUTPUTS	OUTCOMES

2. Please provide a detailed description the key aspects of the activity, including the following aspects: administration, operations, and services.

The PZWI team wanted to know what the State AHCCCS dental claims data could tell us about oral health workforce adequacy. To address this, the following questions were raised:

- Are the AHCCCS enrolled providers providing care for patients in geographic areas where the care is needed?
- How many providers were providing care in each county of the state?
- How much was being spent in each county?
- How much was being spent per AHCCCS eligible child (AHCCCS only covers care for children up to the age of 21 years and aged and long-term care adults)?
- How many dollars are being spent on preventive care compared to restorative?

To better understand the AHCCCS available services for Arizona patients, our team began compiling data related to access and utilization of dental services in the state to help organizations and communities understand barriers in order to advocate for positive change to improve oral health and services. We contacted the dental manager at AHCCCS to better understand how billing was conducted and to determine if there was a change in utilization. The PZWI team quickly learned that it was necessary to network with others who had access to data sets, including CHiR, CHiR, AHCCCS, CAA, and AzPHA.

It was almost a year after our initial investigation that the project was reignited. The delay was due, in part, to the difficulty of obtaining the data. At this time a health advocate from the Children Action Alliance (CAA) expressed a desire to obtain additional data about the adequacy of oral health providers in Arizona to support policy change. The policy advocate had also heard many stories about how AHCCCS patients were unable to access the oral healthcare they needed. However, because the stories were anecdotal, the advocate needed quantitative data to present to lawmakers and other policy people to advocate for changes. Our team, employed by a state university was not able to engage in policy-related activities, saw this as a perfect partnership to obtain the data from AHCCCS. We had the data analysis capability and CAA had the ability to engage in policy activities. At this point, we contacted CHiR to learn how we could get claims data that would answer our questions.

Prior to signing the data use agreement, we had several discussions with CHiR to discuss what data would best answer our questions. After multiple conversations, we narrowed down the specific details and our data request was entered into the queue. CHiR would prepare the 2016 AHCCCS dental claims data for our use.

After we received the first data set from CHiR, our data analyst began preparing the data for analysis. During this initial analysis, it was clear that more data was needed to verify the results, which only could be obtained directly from AHCCCS, which was provided upon request., from which our data analyst produced charts, tables and heat maps that answered our questions about workforce adequacy and capacity. The following year, data was requested from CHiR and AHCCCS to compare to the previous year, which was shared.

INPUTS	PROGRAM ACTIVITIES	**OUTPUTS**	OUTCOMES

3. What outputs or direct products resulted from program activities? (e.g., number of clients served, number of services units delivered, products developed, accomplishments, etc.)

   Data Tools: The establishment of a data pull and database led to the graphic representation of the oral health provider capacity in Arizona. Having these tools in place facilitates future acquisition of the dental claims data.

   Charts, Tables, and Maps: Data obtained through collaborations and partnerships have helped create graphic representations of the oral health picture in Arizona. These materials were sent to CAA so that they could create an infographic to be used for legislative activities for the year.

   Policy: Bills that were introduced for the year included, adding an adult emergency benefit and a benefit for pregnant women. The first year, the adult dental benefit was approved with a $1,000 cap per patient per year, but the pregnant women's benefit is being reintroduced this legislative session. At this time, our data results are being used to remove the cap from the adult dental benefit and re-introduce the pregnant women's benefit without a cap. It is also being used to lobby AHCCCS to increase the number of providers they credential.

   New Partnerships: By sharing the process of data analysis and preparation of materials we hope to continue a dialogue on the relevance of partnerships between academic and applied settings as a way to leverage resources and propose data-based strategies to improve health.

INPUTS	PROGRAM ACTIVITIES	OUTPUTS	**OUTCOMES**

4. 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 outcomes are measured

   An intermediate outcome of this project is the ability to quantify and assess dental workforce capacity in Arizona. This information will help monitor trends and develop and prioritize future policy, and programs. The state now has quantifiable data by which to make decisions.

   While PZWI cannot take credit for the passing of the AHCCCS adult emergency benefit or progress on the pregnant women's benefit, this work contributed to those positive outcomes. Outcomes for this project were measured annually by the completion of the data analysis and creation of the charts, graphs and heat maps. As previously mentioned, AHCCCCS claims data for 2016 and 2017 were used. To be beneficial for long-term oral health in Arizona, this project should be ongoing. Multiple year analysis will result in significant AHCCCS utilization trends.

   Another outcome is the development of partnerships that can assist in strategies to improve oral health access and oral health status. These partnerships can serve Arizona in the future to better oral health services and access to care.

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

1. What is the annual budget for this activity?

   The budget for the project is estimated at $9,025. As previously mentioned, partnerships with AHCCCS, CHiR, CAA, and AzPHA were critical in the success of this project associated cost are not included in the budget.

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

   The cost for the first year was estimated as the following: data analysts, community liaison, program manager purchase of the data. The second-year cost was slightly less because both the data analyst and the CHiR team had the data pull written and were familiar with the data. Remaining grant funds were spent on utilization, outreach and implementation projects.

ROLE	*ESTIMATED SALARY AND BENEFITS
**Data Analysist	$2,826
Data Confirmation	$3,631
Community Liaison	$1,815
Project Management	$250
	$8,525
Data Fee	$500.00
TOTAL YEAR ONE	**$9,025**

*Salary and benefits are based on the estimated number of hours worked on this project.
**Our existing evaluation expert had the skills necessary to complete the data analysis. Her salary was based on that of an evaluator, not a data analysist. Typically, data analyst's salaries are higher than an evaluator.

3. How is the activity funded?

   Funds were part of Project Zero—Women & Infants a Perinatal and Infant Oral Health Quality Improvement (PIOHQI) project funded by the US Department of Health, Health Resources Services Administration Grant #*H47MC2918.*

4. What is the plan for sustainability?

   The PZWI team is in conversation with the Arizona Department of Health, Office of Oral Health to continue this work on an on-going basis. Our hope is to partner with them to support the analysis as part of the Office of Oral Health's annual data reporting activities. In the event that PZWI can partner with the Department of Health, our staff will continue the data analysis.

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?

   The most significant lesson learned was the importance of engaging the right partners at the right time. Without the support of collaborators, the resulting positive outcomes would not be possible.

   Another lesson learned was to have a good working relationship with partners. Through teleconference meetings, we developed good communication with CHiR staff to ensure that the available data would tell a story that addressed our questions. We also nurtured relationships with AHCCCS, CAA, and AzPHA.

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

   The greatest barrier to the project was finding someone with the skills and time to analyze the data and someone else who to review the findings to support the veracity of the analysis. Data analysis, when done correctly, takes a lot of time and a highly skilled staff.

Reference:

Health Resources and Services Administration. (2018). Designated HPSA Quarterly Summary.

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.

Links to related materials are below.

Graphics, and heat maps: https://in.nau.edu/project-zero/oral-health-resources/

Links to the CAA infographic: https://in.nau.edu/project-zero/oral-health-resources/

TO BE COMPLETED BY ASTDD	
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