Pennsylvania Oral Health Plan 2020-2030

I. Acronyms

Abbreviation	Explanation
ADA	American Dental Association
ASTDD	Association of State and Territorial Dental Directors
CDC	Centers for Disease Control and Prevention
CHIP	Children's Health Insurance Program
CWF	Community Water Fluoridation
DHPSA	Dental Health Professional Shortage Area
FQHC	Federally Qualified Health Center
HRSA	Health Resources and Services Administration
MCO	Managed Care Organization
Plan	Oral Health Plan
PADEP	Pennsylvania Department of Environmental Protection
PADHS	Pennsylvania Department of Human Services
PADOH	Pennsylvania Department of Health
PCOH	Pennsylvania Coalition for Oral Health
PDE	Pennsylvania Department of Education
RHC	Rural Health Clinic
SHIP	State Health Improvement Plan
SOHP	State Oral Health Program
SOHSS	State Oral Health Surveillance System
SSP	School Sealant Program

II. Message from the Department of Health

III. Acknowledgements

PA DOH thanks the Oral Health Core Stakeholder Team and PCOH for their vision, leadership and expertise in crafting this Plan in the fight against oral disease.

We also acknowledge the more than 100 individuals and organizations that participated in regional meetings in 2019 and those who completed online surveys, providing valuable input that is reflected in the document.

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IV. Executive Summary

The **2020-2030 Pennsylvania Oral Health Plan** (Plan) represents the combined effort of a diverse group of stakeholders including federal, state, and local government agencies; voluntary health organizations; academic institutions; health systems; and those professional associations, foundations, consumers, corporations, and communities with an interest in oral health. This document provides the blueprint of how efforts, resources and interests can be combined to strengthen the collective capacity in Pennsylvania to ultimately prevent oral disease and assist individuals in achieving a lifetime of good oral health and general health.

The three main oral health priority areas, defined by a stakeholder engagement process that included statewide surveys and meetings across Pennsylvania in the spring and fall of 2019, are:

A. Access, Prevention, and Education
B. Workforce
C. Infrastructure Improvement

This Plan outlines these priorities with measurable outcomes to address the needs of the population, as expressed by stakeholders during development. By building upon this input, the PA Department of Health (PADOH), Pennsylvania Coalition for Oral Health (PCOH), and other stakeholders believe that these are the areas most likely to maintain stakeholder collaboration during implementation and support for a more comprehensive Plan in the future. Commitment to the execution of this Plan from PADOH and contributing stakeholders will be the first step in moving Pennsylvanians toward better oral health and, thus, overall health.

The Plan will be reviewed annually to assess progress toward goals, consider emerging oral health needs and best practices, and determine annual work plans. The State Oral Health Program (SOHP) in the PADOH will leverage existing federal grants to jump start this work as it seeks sustainable funding through additional grants and intergovernmental collaborations.

Ongoing input and engagement are welcome and encouraged as the Plan is implemented. Together we can achieve the PADOH mission of a healthy Pennsylvania for all.

V. Introduction

The mission of the State Oral Health Program (SOHP) in the PA Department of Health (PADOH) is to promote oral health as an integral part of the well-being of all Pennsylvanians, reinforcing the concept that you cannot be truly healthy without good oral health. The SOPH puts special emphasis on populations that have limited access to preventive and treatment sources and information in oral health. The 2020-2030 Oral Health Plan (Plan) also includes an evaluation component and a strategy for sustainability. The Plan provides direction for action and collaboration to achieve better overall physical, mental, and social health through improved oral health.

VI. Background

Oral Health in America

Oral health is an essential part of everyday life and is a critical component of overall physical, mental, and social health and well-being, regardless of age, race, ethnicity, or other factors. Dental, oral, and craniofacial conditions are the result of a complex matrix of biological, behavioral, environmental and systems-level factors. In fact, a healthy mouth (defined as the teeth, gums, hard and soft palates, linings of the mouth and throat, tongue, lips, salivary glands, chewing muscles, and upper and lower jaws) reduces the risk of developing and/or exacerbating diseases such as diabetes, cardiovascular disease, and respiratory issues that can lead to chronic illness and undesirable outcomes. Some research even shows that inflammation caused by periodontal disease in pregnant women may result in pre-term birth and/or low birthweight infants.[1]

Oral disease, infection and pain hinder our daily functions such as speaking, chewing, swallowing, smiling, and making other facial expressions to show feelings and emotions at home, in the workplace and at school. Dental caries, the disease that causes cavities, is the most common chronic childhood disease and five times more prevalent than asthma.[2] It leads to missed school days and negatively impacts school performance, as well as nutritional intake. For some individuals, it leads to Emergency Department visits and even hospitalizations. It is noteworthy that non-dental providers are significantly more likely to write an opioid prescription for dental pain versus any other type of pain,[3] perhaps due to general lack of integrated training and/or interprofessional relationships with dental professionals. For many adults, the bad breath from gum disease and the inevitable tooth loss lowers their self-esteem and causes avoidance of eye contact and smiling, which can hinder social interactions. It can even impact an employer's perception of someone's capabilities based on outward appearance, which can curtail an individual's socioeconomic status.

While there has been significant progress in the oral health of Americans thanks to effective prevention and treatment efforts, these gains have not been shared by all. Oral diseases, which can include dental caries (cavities), periodontal (gum) disease, abscesses, oral and pharyngeal cancer and other maladies, cause acute and chronic pain, disability, and disfigurement for millions of Americans each year. Oral health disparities stem from persistent and pervasive

[1] (2000 Surgeon General's Report on Oral Health in America, 2000) Department of Health and Human Services (US) Oral health in America: a report of the Surgeon General. Rockville (MD): HHS, Office of the Surgeon General (US); 2000.
[2] Mulu, W., Demilie, T., Yimer, M., Meshesha, K., & Abera, B. (2014). Dental caries and associated factors among primary school children in Bahir Dar city: a cross-sectional study. BMC research notes, 7, 949. https://doi.org/10.1186/1756-0500-7-949
[3] Roberts, Rebecca M et al.Antibiotic and opioid prescribing for dental-related conditions in emergency departments. The Journal of the American Dental Association, Volume 151, Issue 3, 174 - 181.e1

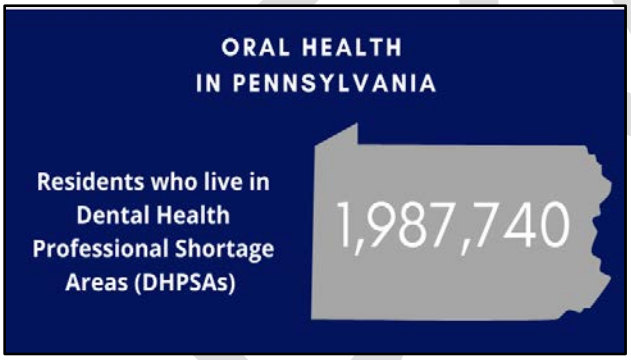
health inequities such as reduced access to prevention and treatment strategies, leading to higher rates of new and unmet oral health needs.[4]

A complex myriad of factors contributes to oral health inequities that result in fewer dental visits and lower receipt of clinical and preventive oral health services for many families and individuals. These factors include:

- Lack of integration between the medical and oral health delivery systems that includes financing of care, recordkeeping and electronic record systems, interprofessional education, and service delivery;
- high cost of oral health care;
- lack of adequate private and public dental insurance and plan benefits;
- low oral health literacy;
- inability to access or navigate available and convenient oral health services due to lack of transportation, work release and related issues;
- maldistribution and shortage of the private and public health dental workforce, including specialists, especially in remote and rural areas;
- chronic medical conditions that limit mobility and cause physical and cognitive impairment; and
- lack of awareness of the social implications of poor oral health and the impact of poor oral health on overall health.

Oral Health in PA

Access



Pennsylvania faces a dilemma with strong coverage for oral health care in certain markets and vast areas where residents remain underserved for oral health services. The actual number of dentists practicing in Pennsylvania would appear to provide a favorable dentist-to-patient ratio. However, most dentists practice in urban or suburban areas, resulting in a significant geographic maldistribution of the dental workforce. This leaves many rural Pennsylvanians without accessible care.[5] According to 2020 federal shortage designations, Pennsylvania has 149 individual Dental Health Professional Shortage Areas (DHPSAs), meeting only 47.86% of the oral health care needs in our state.[6] These designations document the maldistribution of the dental workforce and serious disparities in access to care for low-income populations. It is well-documented that individuals living in poverty have more oral health problems, and 1 in 5 Pennsylvanians are enrolled in Medical Assistance.[7] Transportation, language, geographic and cultural barriers all compound the difficulty these individuals have in accessing care.

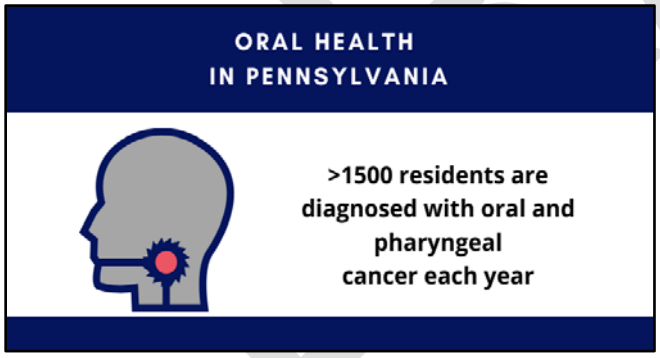
[4] Division of Oral Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention. Disparities in Oral Health 2016. https://www.cdc.gov/oralhealth/oral_health_disparities/index.htm.
[5] Pennsylvania Rural Health Association. Status Check VI: Pennsylvania Rural Health. Retrieved April 24, 2020, from https://paruralhealth.org/post/_docs/Status-Check-VI.Final.pdf
[6] Retrieved from https://data.hrsa.gov/topics/health-workforce/shortage-areas
[7] December 2018 Medicaid & CHIP Enrollment Data Highlights. Medicaid.gov. 12/2018. Retrieved April 24, 2020, from https://www.medicaid.gov/medicaid/program-information/medicaid-and-chip-enrollment-data/report-highlights/index.html

Pennsylvania's safety net system for oral health care consists of options such as Federally Qualified Health Centers (FQHCs), Rural Health Clinics (RHCs), and free and charitable clinics. In 2020, nearly 90% of FQHC dental sites were providing dental services in just over half the counties in PA.[8] Sixteen of the state's 70 RHCs offer some type of oral health education, oral health services, and/or a dental referral system. Rural Health Clinics serve the 48 rural counties with county-wide dental professional shortage designations.[9] Out of the 63 free and charitable clinics in the state, nearly 20 sites offer dental services.[10]

Workforce

Pennsylvania has a variety of dental providers in its licensed and certified workforce. In addition to the traditional workforce categories of dentist and dental hygienist, the Pennsylvania State Board of Dentistry has certified more than 2,000 Expanded Function Dental Assistants (EFDAs) who have restorative services in their scope of practice, and more than 800 certified Public Health Dental Hygiene Practitioners (PHDHPs) who are able to provide preventive treatment and education services without supervision in public health settings (with limitations). These providers are not distributed across PA in a manner that addresses the oral health needs of our population.

Head and Neck Cancer Incidence

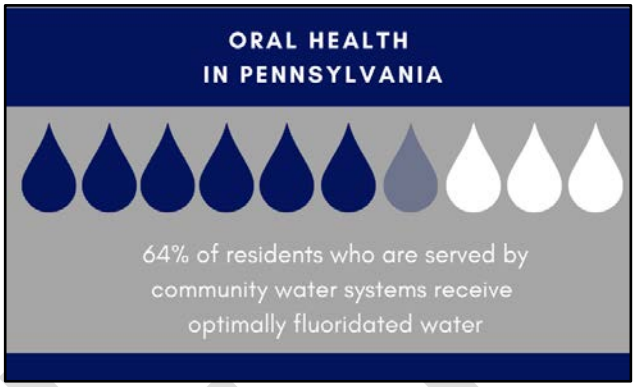


More than 1,500 Pennsylvanians are diagnosed with oral and pharyngeal cancers annually.[11] Utilizing the Pennsylvania Cancer Registry data, the incidence and mortality rates of oral and pharyngeal cancers, also known as head and neck cancers, are continually monitored in PA residents. Oral cavity cancers (lip, mouth, tongue, and hard palate) are most associated with tobacco and alcohol use, two high-risk and preventable behaviors. The Centers for Disease Control and Prevention (CDC) cites that 70% of oropharyngeal cancers (tonsils, tongue base, and soft palate) are linked directly to Human Papilloma Virus (HPV) infection, which has now surpassed

[8] Pennsylvania Association of Community Health Centers. Clinical & Quality. (n.d.). Retrieved from http://www.pachc.org/Clinical-Quality/Oral-Health on April 24. 2020
[9] MORE Care: Participating Rural Health Clinics: Medical Oral Expanded Care Collaborative. (n.d.). Retrieved April 24, 2020, from https://www.porh.psu.edu/oral-health/more-care/
[10] Free Clinic Association of Pennsylvania. (n.d.). Retrieved April 24, 2020, from https://freeclinicspa.org/free-charitable-clinics/free-clinics-in-pa/
[11] Cancer Statistics. (n.d.). Retrieved April 24, 2020, from https://www.health.pa.gov/topics/HealthStatistics/CancerStatistics/Pages/Cancer-Statistics.aspx

the incidence of HPV-related cervical cancers.[12] HPV infection also is preventable with the HPV vaccine that can be administered to children and adults.[13]

Community Water Fluoridation



Community Water Fluoridation (CWF) is the single most effective and efficient public health measure to prevent cavities in children and adults, regardless of race or income level. As of March 2019, 64% of Pennsylvanians (compared to 73% nationally) connected to community water systems receive drinking water with the optimal level of 0.7 mg/L of fluoride or 0.7 parts per million. Among all state residents, including those who receive their water from private wells, 57% are reached by optimally fluoridated water compared to the national average of 62%. According to the PA Department of Environmental Protection (PADEP), Bureau of Safe Drinking Water, just 193 of the state's more than 2,000 public water systems adjust the fluoride concentration to reach the optimal level. [14,16]

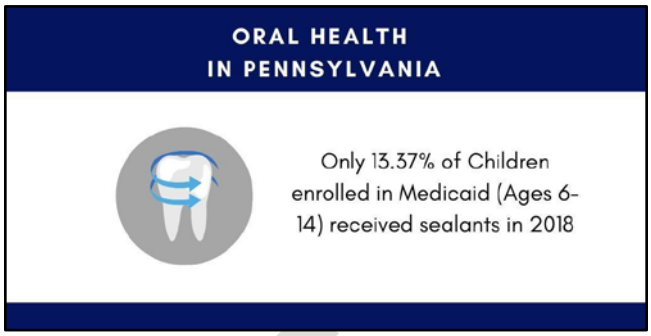
Underserved Populations

Pennsylvania has struggled to meet the oral health needs of low-income individuals and families that rely on Medicaid for their health plan coverage. Currently, adults enrolled in Medicaid have coverage for routine exams, basic cleanings, fillings and extractions. Medicaid does not cover emergency exams by a general dentist or any of the more advanced periodontal cleanings necessary for the treatment of gum disease. Treatment such as crowns, endodontic care (root canals), and more than one set of dentures/partials also are not covered. According to the 2015 Pulse of Pennsylvania's Dentist and Dental Hygienist Workforce report, only 23% of general dentists are currently accepting Medicaid.[15]

For those in rural areas, it is not uncommon for individuals to travel across counties and wait months to see a dental provider. When last analyzed in 2014 by the American Dental Association's (ADA) Health Policy Institute, Pennsylvania's Medicaid fee-for-serve program paid just 43.1% of commercial dental insurance charges for adult dental services.[16] Pennsylvania utilizes a predominately managed care model to improve the Medicaid program. Managed Care Organizations (MCO) are contracted through the Pennsylvania Department of Human Services

[12] HPV and Oropharyngeal Cancer. (2018, March 14). Retrieved April 24, 2020, from https://www.cdc.gov/cancer/hpv/basic_info/hpv_oropharyngeal.htm
[13] HPV Vaccine Information For Young Women. (2016, December 28). Retrieved April 24, 2020, from https://www.cdc.gov/std/hpv/stdfact-hpv-vaccine-young-women.htm
[14] Water Fluoridation Basics. (2020, January 24). Retrieved April 24, 2020, from https://www.cdc.gov/fluoridation/basics/index.htm
[15] Reports. (n.d.). Retrieved April 24, 2020, from https://www.health.pa.gov/topics/Health-Planning/Pages/Reports.aspx
[16] Research Briefs: A Ten-Year, State-by-State, Analysis of Medicaid Fee-for-Service Reimbursement Rates for Dental Care Services. (n.d.). Retrieved from https://www.ada.org/en/science-research/health-policy-institute/publications/research-briefs?utm_source=adaorg&utm_medium=hpifeaturedbox&utm_content=researchbriefs

to better serve member needs and must meet network adequacy requirements. Each MCO is able to adjust the state-recommended schedule as needed to meet the specific needs of the providers and to improve access. For individuals who are uninsured, underinsured, or not eligible for Medicaid coverage, access can be even more difficult.



Pennsylvania State Oral Health Program

The State Oral Health Program (SOHP) is housed within the Bureau of Health Promotion and Risk Reduction at the PADOH, and shares a Chief Dental Officer with the Bureau of Managed Care Organizations in the Department of Human Services (PADHS).The program was established in 1996 to focus on implementing dental health policies and programs throughout Pennsylvania. Like many states' programs, limited resources and insufficient infrastructure have been a challenge from its inception.

The SOHP works closely with the Pennsylvania Coalition for Oral Health (PCOH), to help administer federal funds and track implementation of the Plan. This SOHP is currently funded through a blended stream of federal grants from the CDC and Health Resources and Services Administration (HRSA).

In 2019, a State Oral Health Surveillance System (SOHSS) was initiated by the SOHP through the development of the Pennsylvania State Oral Health Surveillance Plan and a compilation of 42 data indicators (Appendix A). This system will provide a baseline of the oral disease burden in PA to better monitor and assess the oral health outcomes of PA residents.

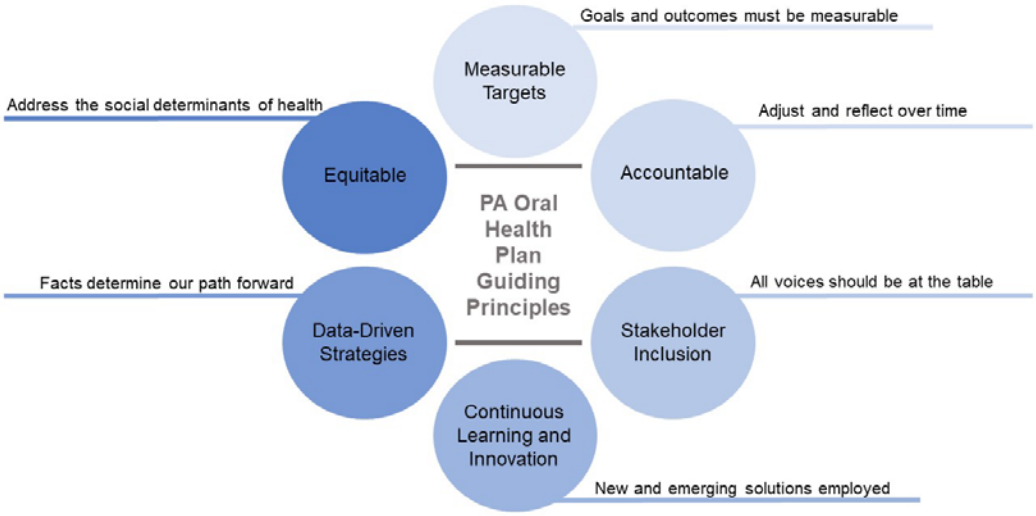
The SOHP currently implements two community programs in PA. One of these is School-Based Sealant Programs (SSP), which provide pit and fissure sealants to prevent dental cavities in children in low socioeconomic areas using portable equipment in school settings. The second is the Donated Dental Services (DDS) program in Pennsylvania which provides dental services for indigent residents of Pennsylvania who are either over age 65, or who have physical or mental disabilities, or who are otherwise medically compromised.

VII. Plan Development

The Plan is the result of a collaboration among the PADOH, PCOH and members of the public health, dental and medical communities. This Plan would not be possible without oral health stakeholders committed to advancing the oral health and general well-being of all Pennsylvanians. PCOH assisted in facilitating the Plan development and convening statewide stakeholders. PCOH is a diverse group of leaders advancing policies and practices that increase access to oral health services, education and prevention, especially for the most vulnerable Pennsylvanians.

Guiding principles for the Plan are depicted in Figure 1 and call for the Plan to be measurable, accountable, inclusive, innovative, data-driven, and equitable. The principles aim to ensure the Plan is actionable, responsive to existing and emerging data and best practices, and centered on the oral health needs of all Pennsylvanians.

Figure 1: PA Oral Health Plan Guiding Principles



The guiding principles for the Plan were developed in collaboration with the Public Health Dental Consultant (PHDC) upon completion of a comprehensive review of multiple resources that paired conceptually consistent themes across similar health plan frameworks and an evaluative self-reflection of the last Pennsylvania statewide oral health plan. These resources included the Association of State and Territorial Dental Directors (ASTDD) and the federal Department of Health and Human Services (DHHS) State Oral Health Plan frameworks, the Children's Dental Health Project (CDHP) State Oral Health Plan Comparison Tool, and the Healthy People 2020 oral health objectives (used in lieu of Healthy People 2030 oral health objectives that were not available as the Plan was being developed, but will inform future planning and implementation). In addition, the preparatory evaluation reviewed various existing state oral health plans with relevance to Pennsylvania.

Further, PCOH and the *Pennsylvania Oral Health Plan 2017-2020* Independent Evaluator conducted a qualitative survey of *Pennsylvania Oral Health Plan 2017-2020* stakeholders (OHP 1.0 Survey) in April 2019 (Appendix E). The survey yielded valuable information regarding suggested revisions of goals in the *Pennsylvania Oral Health Plan 2017-2020*, recommended goals for the next state oral health plan, and general comments. This information was then used to facilitate group discussions held at stakeholder meetings in May of 2019 in the eastern PA locations of Danville and Collegeville and in western PA locations of Butler and Altoona in September 2019. These stakeholder meetings had a total attendance of 108 individuals and organizations. A second survey (OHP 2.0 Survey) was conducted and sent electronically in October 2019 (Appendix F). Stakeholders were able to reflect on the identified priorities and their preferred action strategies. All input from both surveys and all stakeholder meetings was then quantitatively compiled to identify the biggest concerns and issues.

Finally, the evaluation of the *Pennsylvania Oral Health Plan 2017-2020* conducted by the PHDC also provided needed perspective as to what was successfully addressed in the current plan as well as identifying critical gaps; for example, inadequate infrastructure and irregular acquisition of surveillance data. This evaluation was shared with stakeholders at the fall 2019 stakeholder meetings for additional input.

VIII. The Pennsylvania State Oral Health Plan 2020-2030 Framework

Pennsylvania's priority areas, as determined by our oral health stakeholders, can be grouped into three priority areas:

A. Access, Prevention & Education
B. Oral Health Workforce
C. Infrastructure Improvement

The framework for the Plan was developed in collaboration with the PHDC upon completion of a comprehensive review of multiple resources that paired conceptually consistent themes across similar health plan frameworks and an evaluative self-reflection of the *Pennsylvania Oral Health Plan 2017-2020*. The Plan will use the same five overarching domains as a specified sphere of knowledge to view each priority and establish next steps to address it. It will be revisited annually by PADOH, PCOH, and the Plan Evaluator, with input from stakeholders, to determine the individual strategies that should be employed each year.

The Plan was developed with 22 measurable outcomes within the three priorities. It is understood that not all progress can be measured with data points, and the measurable outcomes are not meant to be inclusive of all the efforts under the Plan. Measurable outcomes are based on anticipated data sources available at the time of development.

Structural Domains

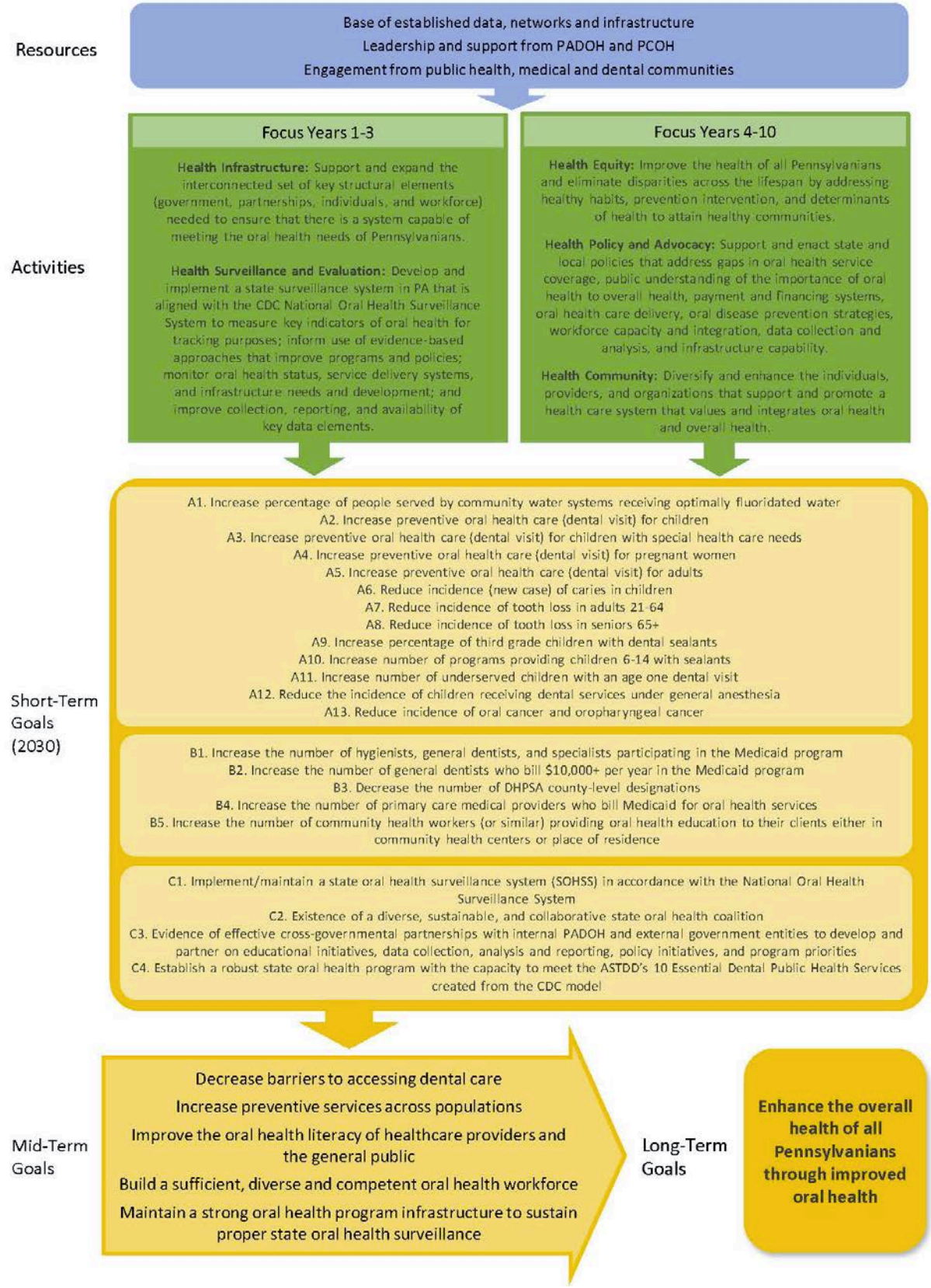
1. Health Systems - *support and expand the interconnected set of key structural elements (government, partnerships, individuals, and workforce) needed to ensure that there is a system capable of meeting the oral health needs of Pennsylvanians*.
2. Health Surveillance and Evaluation - *develop and implement a state surveillance system in PA that is aligned with the CDC National Oral Health Surveillance System to measure key indicators of oral health and oral health status; inform adoption and implementation of evidence-based approaches that improve programs and policies; monitor oral health, service delivery systems, and infrastructure needs and development; and improve collection, reporting, and availability of key data elements.*

Operational Domains

3. Health Equity - *improve the health of all Pennsylvanians and eliminate inequities across the lifespan by addressing healthy habits, prevention intervention, and determinants of health to attain healthy communities.*
4. Health Policy and Advocacy - *support and enact state and local policies that address gaps in oral health service coverage, public understanding of the importance of oral health to overall health, payment and financing systems, oral health care delivery, oral disease prevention strategies, workforce capacity and integration, data collection and analysis, and infrastructure capability.*
5. Health Community - *diversify and enhance the base of individuals, providers, and organizations that support and promote a health care system that values and integrates oral health and overall health.*

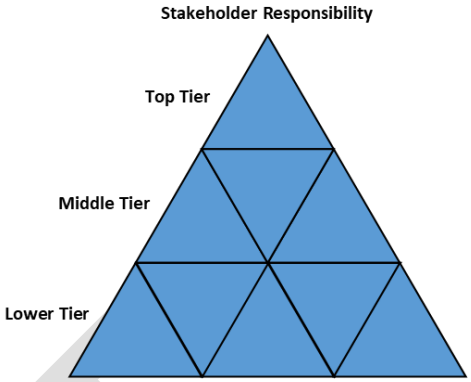
Though the overall priorities and domains will remain throughout the term of the Plan, the strategies employed to reach its goals will be determined annually. The first three years of the Plan will focus mainly on achieving the structural domains of Health Infrastructure and Health Surveillance and Evaluation. After year three, the focus of the Plan will turn to the achievement of oral health goals in Health Equity, Health Policy and Advocacy, and Health Community. By building on a base of sound data, networks, and infrastructure that communicate and function well, Pennsylvania will be well poised to undertake these later goals.

Oral Health Plan Logic Model Summary Graphic



Stakeholders

Pennsylvania needs all individuals, organizations, and entities to work together toward achieving unified oral health goals. At the same time, there are stakeholder groups that have more opportunity to influence certain actions and outcomes than others. Within each priority area and domain, the individuals or groups that may be best positioned to leverage the work in that area and domain have been identified. Though all residents in the Commonwealth can and should play a role in improving oral health, key stakeholders who will implement the Plan include, but are not limited to:



GP Government & Policymakers State government and legislature, state departments and agencies	CO Community Organizations Any group that values improving the quality of life for its community through bettering health outcomes	Ed Education Sector Primary and secondary schools, higher learning institutions, educators (pre-K through graduate school, medical/dental professions)
Ins Insurance Companies/ Managed Care Organizations Insurance and health plans who provide services to PA residents	AC Associations/Coalitions Groups of like-minded individuals and organizations who have similar missions to improve health	HP Health Providers Members of the medical and dental communities, including hospitals, safety net programs, and individual providers
F Funders Community foundations, corporate sponsors, federal grant-making entities, etc.	CS Community Support Systems Including home visitors, community health workers, etc.	Ind Individuals Self-advocates, affected individuals and families with a stake in PA, etc.

Sustainability

Through continued work with stakeholders, the SOHP will leverage federal grants awarded through CDC and HRSA in 2018 with funding through 2023 to complete the basic staffing needs of the program as well as implement strategies to measure oral disease burden and engage the oral health workforce. The success reached through the current federal grants will increase the likelihood of Pennsylvania being awarded future cycles of funding. There are also potential cross-cutting collaborations with other state government programs, including maternal and child health programs, in addition to the programs that focus on chronic disease including tobacco, diabetes, and cancer. Linking oral health to systemic disease and other public health programming bolsters recognition that good oral health is essential to overall health.

Within each priority area, potential work efforts are listed under each domain as bullet points. These are simply possibilities that can and should be explored as potential activities and proximal indicators to make progress under the Plan that map to the outcomes. Short- and long-term activities will be annually determined, as infrastructure and needs of the state can change. A logic model was developed to visualize these possibilities and can be found in Appendix C. The Plan will be revisited annually by PADOH, PCOH, and the Plan Evaluator, with input from stakeholders, to determine the individual strategies that should be employed each year.

PRIORITY A
Access, Prevention & Education

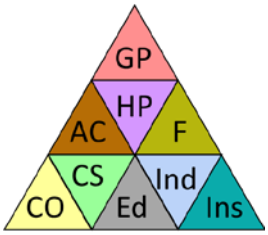
Many Pennsylvanians are unable to seek regular oral health care for a variety of reasons. The Plan goals must focus on removing barriers to accessing dental care, adding preventive services for more of the population, and raising the oral health literacy of healthcare providers and the general public. Access to dental care includes affordability as well as availability, and accessibility of providers who can offer quality care. The Plan can improve the health of Pennsylvanians by addressing the social? determinants of poor oral health and promoting healthy habits and other prevention interventions and education to attain healthier communities.

Measurable Outcomes:

- A1. Increase percentage of people served by community water systems receiving optimally fluoridated water
- A2. Increase preventive oral health care (dental visit) for children
- A3. Increase preventive oral health care (dental visit) for children with special health care needs
- A4. Increase preventive oral health care (dental visit) for pregnant women
- A5. Increase preventive oral health care (dental visit) for adults
- A6. Reduce incidence (new case) of dental caries in children
- A7. Reduce incidence of tooth loss in adults 21-64
- A8. Reduce incidence of tooth loss in seniors 65+
- A9. Increase the percentage of third grade children with dental sealants
- A10 Increase the number of programs providing children ages 6-14 with dental sealants
- A11. Increase the number of underserved children with an age one dental visit
- A12. Reduce the incidence of children receiving dental services under general anesthesia
- A13. Reduce incidence of oral cancer and oropharyngeal cancer

Domain 1: Health Infrastructure

- Develop and maintain an accessible list of communities that receive optimally fluoridated water from a CWS
- Replicate best practice models for school-based and school-linked sealant programs
- Expand the provision of oral health services at FQHCs and RHCs
- Assess the status of teledentistry programs
- Support and promote oral health literacy campaigns and programs that educate the public about oral health care and prevention of tooth decay



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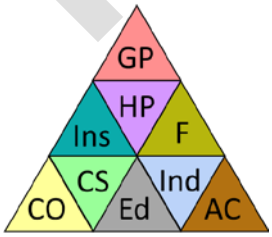
- Track the number of long-term care facilities that have annual dental treatment provided by an oral health professional
- Expand accessibility of dental homes to children and adults with special health care needs
- Develop a patient-centered dental access database

Domain 2: Health Surveillance and Evaluation

- Identify and assemble the appropriate data sources and methods to assess oral health trends for access, prevention and education
- Collect appropriate data to track access, prevention and education needs across all age groups
- Report reconciled CWF state data to the CDC Water Fluoridation Reporting System to track the percentage of people on community water systems that provide optimally fluoridated water



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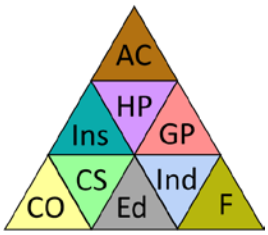
- Determine data set to track baseline and changes to percentage of people served by community water systems that provide optimally fluoridated water
- Implement recommendations of the State Fluoridation Plan
- Develop a database of medical and dental providers who offer oral health services to the underserved

Domain 3: Health Equity

- Develop culturally literate and sensitive messages for target populations
- Reduce oral health disparities according to income, race, ethnicity, age, geographic residence, disability status, and education levels
- Increase access to oral health services for people residing in dental health professional shortage areas
- Increase access to optimally fluoridated water for people residing in dental health professional shortage areas



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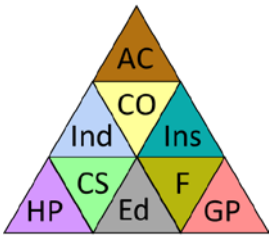
- Explore alternative means of providing preventive benefits of fluoride to Pennsylvanians served by water systems that do not provide optimally fluoridated water
- Find or develop oral health literacy courses or resources to train dental and medical providers in cultural competency while interacting with their patients

Domain 4: Health Policy and Advocacy



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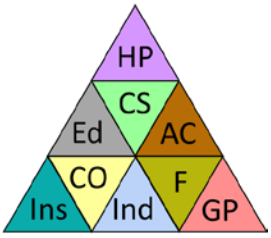
- Initiate and adopt policy around teledentistry
- Reduce total health care costs through policies and advocacy that enhance access to oral disease prevention and treatment services
- Initiate policy(ies) to expand the oral health workforce in venues serving underserved populations to provide more opportunities for access to treatment, prevention, and education services
- Initiate a policy where Medicaid reimburses community health workers (and similar groups) for home visiting, education services and appropriate referral to dental homes.
- Advocate for the use of an oral health curriculum and training program for certified community health workers to assist them in assessing oral disease risk and appropriate referrals
- Support policies that recommend an excise tax on tobacco and sugar-sweetened beverages
- Support policies that increase access to healthy beverage choices
- Remove payment barriers for providers who treat individuals with intellectual and developmental disabilities

Domain 5: Health Community



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- Increase oral disease screenings, risk assessments, preventive treatments, and referrals by medical primary care providers
- Expand oral health preventive care, risk assessment, and connection with dental homes for communities through health fairs, pharmacies, food pantries, and other local events and locations
- Encourage bi-directional referrals between dental and medical offices
- Incorporate chronic medical disease prevention in dental provider practice
- Increase the number of dental professionals who recommend the HPV vaccine
- Support dental providers assessment of diabetes and prediabetes risk
- Incorporate tobacco/nicotine cessation or reduction services into dental provider practices
- Incorporate oral disease prevention messaging into other health fields, including physical, mental, and behavioral health
- Integrate information on oral disease prevention into health field undergraduate and residency curricula
- Promote oral health, basic oral hygiene, and access to dental services for long-term care facility residents
- Promote dental provider use of silver diamine fluoride for dental caries control for at-risk children who cannot receive traditional restorative treatment
- Support programs that reduce pediatric hospitalizations due to dental disease

PRIORITY B
Oral Health Workforce

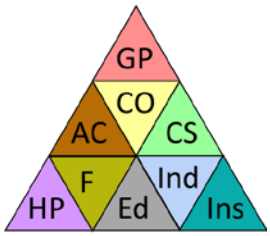
A sufficient, diverse and competent public and private oral health workforce is needed to ensure oral health needs are met. Our health workforce includes not only dental providers, but medical providers and non-clinical support such as community health workers. The dental workforce refers to the number, distribution, and characteristics of dental providers and support staff involved in the provision of oral health care. Pennsylvania has an aging workforce of predominantly White, dentists in urban and suburban areas. Practice design is evolving from a solo provider, entrepreneurial family practice to corporate and group practices where providers are not the business owners. Workforce planning must be linked to a philosophy of health promotion that embraces quality care and prevention, rather than simply treatment of disease, and addresses oral health needs and demands.

Measurable Outcomes:

- B1. Increase the number of hygienists, general dentists, and specialists participating in the Medicaid program
- B2. Increase the number of general dentists who bill $10,000+ per year in the Medicaid program
- B3. Decrease the number of DHPSA county-level designations
- B4. Increase the number of primary care medical providers who bill Medicaid for oral health services
- B5. Increase the number of community health workers (or similar) providing oral health education to their clients either in community health centers or place of residence

Domain 1: Health Infrastructure and Capacity

- Support programs that increase the number of dental providers in designated health professional shortage areas
- Explore new workforce models while fully utilizing the current dental workforce
- Facilitate medical and dental service integration with Head Start programs and other early learning services
- Increase the number of community health workers providing oral health education and referrals



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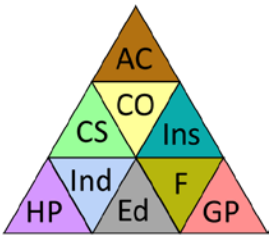
Domain 2: Health Surveillance and Evaluation

- Support the development and maintenance of an accurate and current central workforce database which includes professionals listed by specialty and practice location
- Establish a system for assessing oral health workforce capacity
- Facilitate bi-annual access to Medicaid-participating workforce data
- Coordinate the development of a community health worker database
- Identify gaps in the oral health workforce and develop strategies to address them



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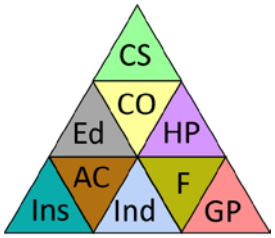
Domain 3: Health Equity



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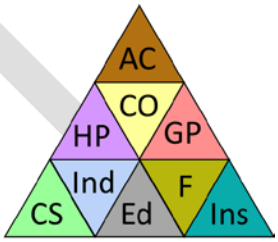
- Promote and support the use of community health workers/navigators in traditionally underserved communities
- Incorporate underserved/rural community practice recruitment into dental and dental hygiene curricula
- Develop and support a diverse and well-qualified workforce to provide evidence-based dental care to all populations, including those with intellectual and developmental disabilities
- Identify and support pipeline program development to ensure a competent and diverse future oral health workforce
- Provide guidance and education to dental and medical health professionals and staff to better understand social determinants of health that impact oral disease risk

Domain 4: Health Policy and Advocacy



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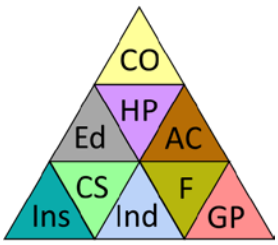
- Advocate for mandated and increased base level funding for the Medicaid dental fee schedule
- Revise current programs to allow for oral health services to be provided in school settings
- Develop or revise financial assistance programs for dental professionals who practice in rural areas and/or dental health professional shortage areas
- Develop recruitment and retention activities for retaining oral health professionals in FQHCs and similar centers
- Redefine and expand roles of dental and medical professionals through revisions to state medical and dental practice acts to meet needs effectively and equitably
- Identify key decision makers and public champions who can advocate and promote oral health from a health equity perspective

Domain 5: Health Community



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- Increase interdisciplinary clinical and professional collaboration between the medical, behavioral, and oral health workforce communities
- Promote education and training of medical primary care practitioners in the assessment and provision of basic oral health services
- In dental health professional shortage areas, utilize hospital personnel to provide oral health referrals
- Collaborate with external partners such as primary care associations, home visiting programs, advocacy organizations, philanthropic foundations and others to promote oral health programs, activities, strategies, and policies
- Develop programs to reduce the use of emergency departments for non-traumatic dental care
- Increase the number/percentage of medical providers who conduct oral cancer screenings/exams

PRIORITY C
Infrastructure Improvement

In order to ensure that progress is being made, regular surveillance of specific oral health indicators must be tracked. According to the CDC, an oral health surveillance system is designed to monitor the burden of oral disease, use of the oral health care delivery system, and status of community water fluoridation on the state level. To maintain proper state oral health surveillance, a strong oral health program infrastructure, consisting of the appropriate systems, people, relationships and resources, must exist to provide a framework for support.

Measurable Outcomes:

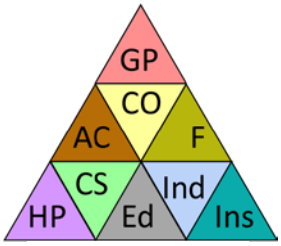
C1. Implement/maintain a comprehensive state oral health surveillance system (SOHSS) in accordance with the National Oral Health Surveillance System

C2. Existence of a diverse, sustainable, and collaborative state oral health coalition

C3. Evidence of effective cross-governmental partnerships with internal PADOH and external government entities (e.g., PADEP, PADHS, PA Department of Education) to develop and partner on educational initiatives, data collection, analysis, and reporting, policy initiatives, and program priorities

C4. Establish a robust state oral health program with the capacity to meet the ASTDD's 10 Essential Dental Public Health Services created from the CDC model (Appendix D)

Domain 1: Health Infrastructure and Capacity



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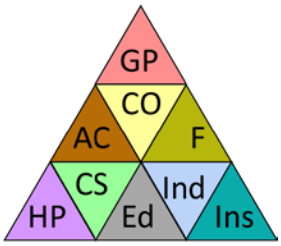
- Recommend that the SOHP have the capacity and influence (staffing, funding, etc.) to effectively carry out the 10 Essential Dental Public Health Services including a state oral health surveillance system, ideally consisting of an epidemiologist, sealant coordinator, CWF coordinator, and health educator
- Secure state and federal funding for adequate oral health infrastructure in the SOHP at PADOH according to CDC and ASTDD infrastructure criteria
- Diversify the funding sources for state and local oral health programs
- Maintain funding and support to the state oral health coalition to adequately accomplish its mission and vision to improve the oral health of all Pennsylvanians through its many partners and collaborators
- Maintain the state Dental Director position to guide oral health priorities for PADOH in collaboration with pertinent government agencies and external partners.
- Advocate for programs that will increase broadband internet access into rural areas to support (increased dental office infrastructure for connected community telehealth/EHRs/Interoperability)
- Assist the SOHP in working with other PADOH agencies (e.g., Maternal and Child Health, Chronic Disease, Cancer Prevention, Tobacco Prevention, Health Innovation, WIC) to develop shared program strategies and break down health information silos

Domain 2: Health Surveillance and Evaluation



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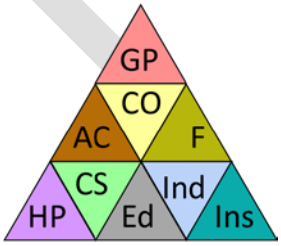
- Provide funding and support for a sustainable SOHSS that is in accordance with Council of State and Territorial Epidemiologists criteria, aligned with the National Oral Health Surveillance System, and overseen and administered by a state-recruited epidemiologist
- Recruit and hire a state epidemiologist dedicated to oral health and all related activities to monitor the SOHSS
- Utilize annual surveillance data to maintain periodically disseminated burden reports
- Utilize the SOHSS to monitor oral health-related trends and to evaluate and develop new programs, priorities, and policies
- Develop an evaluation plan to assess the relevance, progress, efficiency, effectiveness and impact of the SOHP
- Assure timely data is available for the SOHSS

Domain 3: Health Equity



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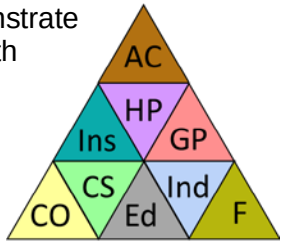
- Secure state and federal funding to implement, administer and operate statewide dental public health programs designed to enhance oral health equity
- Improve the SOHSS to oversample those most vulnerable populations who are at risk for oral diseases
- Conduct surveillance of oral diseases to develop key oral health indicators in the state oral health surveillance system that addresses the magnitude of oral health disparities among certain underserved population groups

Domain 4: Health Policy and Advocacy



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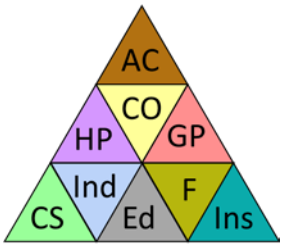
- Share surveillance data reports with partners and funders to demonstrate the need for increased and continued funding of the state oral health program and the state oral health surveillance system
- Monitor all public policies that address oral health to evaluate the possible impact of policy changes
- Adopt, promote, enforce, and evaluate laws and regulations that promote oral health and educate stakeholders to ensure safe oral health practices
- Collect data and stories to educate and build support among decision makers and consumers for expanding oral health coverage
- Ensure payment models that allow providers to be reimbursed for value-based care

Domain 5: Health Community



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- Use qualitative and quantitative data to inform medical professionals and their associations about the links between oral and systemic disease across populations
- Share evidence-based data and information to promote collaboration and awareness among dental and non-dental providers as well as the public

X. Future Considerations

As the first long-term oral health plan in Pennsylvania, the Plan will serve as a guide to assist all stakeholders in collective efforts to improve oral health across the Commonwealth. The Plan seeks to improve population health and health equity while continuing to build on the significant progress in infrastructure and capacity previously made. The successful implementation of this Plan will require ongoing collaboration and collective intention from all partners.

Beginning in 2020, annual Plan Core Team meetings will be held to review action plans for the upcoming year. A focus on surveillance and infrastructure will be the highest priority for the first three years of the Plan, to ensure a solid foundation for improvements in equity, policy and health outcomes. The Plan Core Team will use these meetings, as well as continual communication with stakeholders throughout each year, to monitor accountability.

Moving forward, it will require flexibility from stakeholders to achieve the goals of the Plan. A ten-year plan, though helpful in long-range planning, will need to be adaptable to the changing political, corporate, and health environments of Pennsylvania. Regular evaluations will be conducted to measure success. Funding will be directed first toward meeting the priorities of the Plan, but with the acknowledgement that there is room for new and innovative ideas that may be revealed years after publishing. Progress will be revisited annually and commitment to an ongoing continuous review and evaluation process will ensure that objectives and action steps remain in alignment with public health goals.

In summary, oral health contributes significantly to overall general health and better social outcomes. Pennsylvania is now poised to focus on and prioritize oral health for all. Over the last ten years, significant attention and efforts have been directed toward the integration of oral health into primary care practice and increasing access to quality oral health services. This Plan and foundation will lead us to better population health, and more efficient health systems in pursuit of the PADOH mission of “a healthy Pennsylvania for all.”

XI. Appendices

A. Surveillance Indicators for Pennsylvania
B. Healthy People 2020 Oral Health Objectives
C. Pennsylvania Oral Health Plan Logic Model
D. ASTDD Essential Dental Public Health Services
E. Spring 2019 Stakeholder Survey
F. Fall 2019 Stakeholder Survey

Appendix A

Oral Health Surveillance Indicators for Pennsylvania

ACCESS

Target Population	Indicator (related HP2020 Objective)	Data Collection Timeline	Data Source	Data Source Availability	Baseline Data - May 2019	Year
Children 0-20 years enrolled in Medicaid (90 Continuous Days)	Dental visit (OH 7) - any dental services, preventive services, or dental sealants	Annual	CMS-416 Annual EPSDT Report	Annually in June (when DHS submits to CMS, not publicly available)	**Any dental services:** 49.56% (646,462 recipients) **Preventive services:** 45.45% (592,908 recipients) **Sealants:** 13.37% (77,038 recipients) **Oral health services:** 3.23% (42,174 recipients) **Any dental or oral health services:** 51.45% (671,102 recipients)	2018
Children 1-17 years	Preventive dental visit (OH 7 and 8)	Annual	National Survey of Children's Health	Annually in October (based on that 2017 data was released in October 2018)	82.7% (79.2% saw a dentist and 3.5% saw other oral health provider)	2017
Adolescents in grades 9-12	Never saw a dentist	Every 2 years, beginning in 2019	Youth Risk Behavior Surveillance System (YRBSS)	3rd Quarter of Even Calendar Years (i.e. 2019 released 3rd Quarter of 2020)	1.07%	2017
Adults 18 years and older	Dental visit (OH 7)	Every 2 years, beginning in 2018	BRFSS	3rd Quarter of the Following Calendar Year	65.97% (within the past year)	2016
Adults 18 years and older with diabetes	Dental visit (OH 7)	Every 2 years, beginning in 2018	BRFSS	3rd Quarter of the Following Calendar Year	57.51%	2016
Pregnant Women	Preventive dental visit before pregnancy	Annual	Pregnancy Risk Assessment Monitoring System (PRAMS)	Annually in January	63.50%	2017
	Preventive dental visit during pregnancy				48.80%	2017
	Dental insurance coverage during pregnancy				83.30%	2017
Children & Adults enrolled in Medicaid	Received oral health services	Annual	Medicaid Claims	Annually in July	Dental services: 38.57% (1,100,912 recipients) Oral health services: 2.12% (60,476 recipients)	2018
	Dental providers who participate in Medicaid	Every 2 years	Health Care Workforce Report (Pulse Report)	May of each Odd Year (Raw Data Only) Report Released 3rd Year After Data Collected	23% - general dentists 25% - all dental providers	2015

INTERVENTIONS

Target Population	Indicator (related HP2020 Objective)	Data Collection Timeline	Data Source	Data Source Availability	Baseline Data - May 2019	Year
School Children	Children served by CDC-qualified school-based sealant programs	Annual	DOH School Sealant Programs	Annually in August	996	2017-2018
	Molars with sealant placed by school-based sealant programs	Annual			Not collected yet	N/A
All state population	Population served by community water systems	Annual	Pennsylvania Drinking Water Information System (PADWIS) *pulled by DEP	Annually in June	89.26% (11,431,687 people served by 1,940 community water systems)	2019
	Population served by community water systems that are fluoridated	Annual			64.24% (7,343,621 people served by community water systems that are fluoridated) 57.34% of the entire state population receives fluoridated water	2019

RISK FACTORS

Target Population	Indicator (related HP2020 Objective)	Data Collection Timeline	Data Source	Data Source Availability	Baseline Data - May 2019	Year
Children 0-17 years	Poverty	Annual	American Community Survey (ACS)	Annually Beginning in September	17%	2017
Children 0-18 years	Medical insurance				96%	2017
Adolescents in grades 9-12	Smokeless tobacco use	Every 2 years, beginning in 2019	YRBSS	3rd Quarter of Even Calendar Years	5.97%	2017
Adults 18 years and older	Diabetes prevalence	Annual	BRFSS	3rd Quarter of the Following Calendar Year	11.17%	2016
	Tobacco use				17.49%	2016
	Alcohol use				56.60%	2016
	Poverty	Annual	ACS	Annually Beginning in September	11.29%	2017
	Education				Less than high school: 4.19% High school: 40.38% College: 23.04% Graduate: 11.04%	2017
	Employment				5.3% unemployment rate for those 16 years and older	2017
	Race/Ethnicity				White: 80.74% Black: 11.22% American Indian: 0.18% Asian: 3.47% Native Hawaiian: 0.05% Other: 4.34%	2017
	Disability				16.41%	2017
	Medical insurance				94.19%	2017

OUTCOMES

Target Population	Indicator (related HP2020 Objective)	Data Collection Timeline	Data Source	Data Source Availability	Baseline Data - May 2019	Year
Newborns	Cleft lip with & without cleft palate (OH 15)	Annual	Birth Certificates; Birth Defects Registry	4th Quarter of the Following Calendar Year	5.0 per 10,000	2013-2017
	Cleft palate (OH 15)				2.3 per 10,000	2013-2017
Public elementary school children in grade 3	Dental caries experience (OH 1.2)	Every 5 years, beginning in 2020	Basic Screening Survey	1st Quarter of the Following Calendar Year	Not Available	
	Untreated dental caries (OH 2.2)				Not Available	
	Urgent dental treatment needed				Not Available	
	Dental sealants (OH 12.2)				Not Available	
Adults 18-64 years	Any tooth loss (OH 4.1)	Every 2 years, beginning in 2018	Behavioral Risk Factor Surveillance System (BRFSS)	3rd Quarter of the Following Calendar Year	29.09%	2016
	No tooth loss				46.84%	2016
	1-5 permanent teeth lost				20.56%	2016
	6 or more teeth lost				6.33%	2016
	All permanent teeth lost (OH 4.2)				2.20%	2016
Adults 65 years and older	No tooth loss	Every 2 years, beginning in 2018	BRFSS	3rd Quarter of the Following Calendar Year	5.22%	2016
	1-5 permanent teeth lost				7.48%	2016
	6 or more teeth lost				5.14%	2016
	All permanent teeth lost (OH 4.2)				3.57%	2016
All state population	Oral cavity & pharyngeal cancers; incidence and mortality	Annual	Cancer Registry	1st Quarter of the Following Calendar Year	**Incidence:** 12.2 per 100,000 age-adjusted **Mortality:** 2.3 per 100,000 age-adjusted	2016
	Oral cavity & pharyngeal cancers detected at early stages (OH 6)				3.8 per 100,000 age-adjusted	2016
Children 1-17 years	Oral Health Problems	Annual	National Survey of Children's Health	Annually in October (based on that 2017 data was released in October 2018)	One or More Problems: 12.2% No Problems: 87.8%	2017
	Condition of teeth				Excellent or Very Good: 80.2% Good: 13.7% Fair or Poor: 6.1%	2017
	Tooth decay/cavities				11.60%	2017

WORKFORCE

Target Population	Indicator (related HP2020 Objective)	Data Collection Timeline	Data Source	Data Source Availability	Baseline Data - May 2019	Year
All state population	State oral health plan	Annual	PA Oral Health Program Data & ASTDD Synopses Report	Annually in the Summer	Yes	2018
	State oral health coalition	Annual			Yes	2018
	State oral health surveillance system	Annual			No	2018
	Number of dental professionals	Every 2 years, beginning in 2019	Health Care Workforce Report (Pulse Report)	May of each Odd Year (Raw Data Only) Report Released 3rd Year After Data Collected (i.e. 2019 Report will be Released in 2022)	Dentist: 9,479 Dental Hygienist: 8,829 Total: 18,308	2015
	Number of dental professionals that work in PA (of those that returned the survey)				Providing Direct Patient Care: Dentist: 5,993 Dental Hygienist: 5,937 Total: 11,930	2015
	Number of dental professionals that live in PA (of those that returned the survey)				Dentist: 6,300 Dental Hygienist: 6,572 Total: 12,872	2015
	Number of full time equivalent (FTE) licensed practicing dentists (of those that returned the survey)				4,348	2015
	Number of FTE licensed dental hygienists (of those that returned the survey)				3,024	2015
	Percentage of practicing dentists who work part time				27%	2015
	Percentage of practicing dentists who plan to retire in one to five years (among those that provide direct patient care)				19%	2015
	Percentage of practicing dentists who accept any and all Medicaid patients (among those that provide direct patient care)				25%	2015
	Dental Health Professional Shortage Areas	Annual	HRSA Data Warehouse	Annually in June	Facility: 108 Geographic: 2 Low Income Population: 56 Total: 166	2018

Appendix B

For the purposes of this report, the 2020 Healthy People objectives are listed below. When 2030 objectives are published, work efforts may be adjusted to stay in alignment.

Oral Health of Children and Adolescents

OH-1 Reduce the proportion of children and adolescents who have dental caries experience in their primary or permanent teeth
OH-1.1 Reduce the proportion of children aged 3 to 5 years with dental caries experience in their primary teeth
OH-1.2 Reduce the proportion of children aged 6 to 9 years with dental caries experience in their primary or permanent teeth
OH-1.3 Reduce the proportion of adolescents aged 13 to 15 years with dental caries experience in their permanent teeth
OH-2 Reduce the proportion of children and adolescents with untreated dental decay
OH-2.1 Reduce the proportion of children aged 3 to 5 years with untreated dental decay in their primary teeth
OH-2.2 Reduce the proportion of children aged 6 to 9 years with untreated dental decay in their primary or permanent teeth
OH-2.3 Reduce the proportion of adolescents aged 13 to 15 years with untreated dental decay in their permanent teeth

Oral Health of Adults

OH-3 Reduce the proportion of adults with untreated dental decay
OH-3.1 Reduce the proportion of adults aged 35 to 44 years with untreated dental decay
OH-3.2 Reduce the proportion of adults aged 65 to 74 years with untreated coronal caries
OH-3.3 Reduce the proportion of adults aged 75 years and older with untreated root surface caries
OH-4 Reduce the proportion of adults who have ever had a permanent tooth extracted because of dental caries or periodontal disease
OH-4.1 Reduce the proportion of adults aged 45 to 64 years who have ever had a permanent tooth extracted because of dental caries or periodontal disease
OH-4.2 Reduce the proportion of adults aged 65 to 74 years who have lost all of their natural teeth
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

Access to Preventive Services

OH-7 Increase the proportion of children, adolescents, and adults who used the oral health care system in the past year
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-9.1 Increase the proportion of school-based health centers with an oral health component that includes dental sealants
OH-9.2 Increase the proportion of school-based health centers with an oral health component that includes dental care
OH-9.3 Increase the proportion of school-based health centers with an oral health component that includes topical fluoride

OH-10 Increase the proportion of local health departments and Federally Qualified Health Centers (FQHCs) that have an oral health program
OH-10.1 Increase the proportion of Federally Qualified Health Centers (FQHCs) that have an oral health care program
OH-10.2 Increase the proportion of local health departments that have oral health prevention or care programs
OH-11 Increase the proportion of patients who receive oral health services at Federally Qualified Health Centers (FQHCs) each year

Oral Health Interventions

OH-12 Increase the proportion of children and adolescents who have received dental sealants on their molar teeth
OH-12.1 Increase the proportion of children aged 3 to 5 years who have received dental sealants on one or more of their primary molar teeth
OH-12.2 Increase the proportion of children aged 6 to 9 years who have received dental sealants on one or more of their permanent first molar teeth
OH-12.3 Increase the proportion of adolescents aged 13 to 15 years who have received dental sealants on one or more of their permanent molar teeth
OH-13 Increase the proportion of the U.S. population served by community water systems with optimally fluoridated water
OH-14 Increase the proportion of adults who receive preventive interventions in dental offices
OH-14.1 Increase the proportion of adults who received information from a dentist or dental hygienist focusing on reducing tobacco use or on smoking cessation in the past year
OH-14.2 Increase the proportion of adults who received an oral and pharyngeal cancer screening from a dentist or dental hygienist in the past year
OH-14.3 Increase the proportion of adults who were tested or referred for glycemic control from a dentist or dental hygienist in the past year

Monitoring, Surveillance Systems

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-15.1 Increase the number of States and the District of Columbia that have a system for recording cleft lips and cleft palates
OH-15.2 Increase the number of States and the District of Columbia that have a system for referral for cleft lips and cleft palates to rehabilitative teams
OH-16 Increase the number of States and the District of Columbia that have an oral and craniofacial health surveillance system

Public Health Infrastructure

OH-17 Increase health agencies that have a dental public health program directed by a dental professional with public health training
OH-17.1 Increase the proportion of States (including the District of Columbia) and local health agencies that serve jurisdictions of 250,000 or more persons with a dental public health program directed by a dental professional with public health training
OH-17.2 Increase the number of Indian Health Service Areas and Tribal health programs that serve jurisdictions of 30,000 or more persons with a dental public health program directed by a dental professional with public health training

Appendix C

Pennsylvania Oral Health Plan 2020-2030 Logic Model (will be linked online in final document)

RESOURCES	ACTIVITIES					SHORT-TERM GOALS	MIDTERM GOALS	LONG-TERM GOALS
	Health Infrastructure	Health Surveillance and Evaluation	Health Equity	Health Policy and Advocacy	Health Community			
	FOCUS YEARS 1-4		FOCUS YEARS 4-10			BY 2030		
Base of established data, networks and infrastructure Leadership and support from PADOH and PCOH Engagement from public health, medical and dental communities	Develop and maintain an accessible list of communities that receive optimally fluoridated water from a CWS Replicate best practice models for school-based and school-linked sealant programs Expand the provision of oral health services at federally qualified health centers and rural health clinics Assess the status of teledentistry programs Support and promote oral health literacy campaigns and programs that educate the public about oral health care and prevention of tooth decay Track the number/percentage of long-term care facilities that have annual dental treatment provided by an oral health professional Expand accessibility of dental homes to children and adults with special healthcare needs Develop a patient-centered dental access database	Identify and assemble the appropriate data sources and methods to assess oral health trends for access, prevention and education Collect appropriate data to track access, prevention and education needs across all age groups Report reconciled CWF state data to the CDC Water Fluoridation Reportin System to track the percentage of people on community water systems that provide optimally fluoridated water Determine data set to track baseline and changes to percentage of people served by CWS that provide optimally fluoridated water Implement recommendations of the State Fluoridation Plan Develop a database of medical and dental providers who offer oral health services to the underserved	Target populations with culturally literate and sensitive messages Reduce oral health disparities according to income, race, ethnicity, age, geographic residence, disability status, and education levels Increase access to oral health services for people residing in dental health professional shortage areas Increase access to optimally fluoridated water for people residing in dental health professional shortage areas Explore alternative means of providing preventive benefits of fluoride to Pennsylvanians served by water systems that do not provide optimally fluoridated water Find or develop oral health literacy courses or resources to train dental and medical providers in cultural competency while interacting with their patients	Initiate/adopt policy around teledentistry Reduce combined health care costs through policies and advocacy that enhance access to oral disease prevention and treatment services Initiate policy(ies) to expand the oral health workforce in venues serving underserved populations to provide more opportunities for access to treatment, prevention, and education services Initiate a policy where Medicaid reimburses community health workers (and similar groups) for home visiting, education services and appropriate referral to dental homes Advocate for the use of an oral health curriculum and training program for certified community health workers to assist them in assessing oral disease risk and appropriate referrals Support policies that recommend an excise tax on tobacco and sugar-sweetened beverages Support policies that increase access to healthy beverage choices Remove payment barriers for providers who treat individuals with intellectual and developmental disabilities	Increase oral disease screenings, risk assessments, preventive treatments and referrals by medical primary care providers Expand oral health preventive care, risk assessment, and connection with dental homes for communities through health fairs, pharmacies, food pantries, and other local events/locations Encourage bi-directional referrals between dental and medical offices Incorporate chronic medical disease prevention in dental provider practice Increase the number of dental professionals who recommend the HPV vaccine Support dental providers assessment of diabetes & prediabetes risk Incorporate tobacco/nicotine cessation or reduction services into dental provider practices Incorporate oral disease prevention messaging into other health fields, including physical, mental and behavioral health Integrate information on oral disease prevention into health field undergraduate and residency curricula Promote oral health, basic oral hygiene, and access to dental services for long-term care facility residents Promote dental provider use of silver diamine fluoride for dental caries control for at-risk children who cannot receive traditional restorative treatment Decrease pediatric hospitalizations due to dental disease	1. Increase percentage of people served by community water systems receiving optimally fluoridated water 2. Increase preventive oral health care (dental visit) for children 3. Increase preventive oral health care (dental visit) for children with special health care needs 4. Increase preventive oral health care (dental visit) for pregnant women 5. Increase preventive oral health care (dental visit) for adults 6. Reduce incidence (new case) of caries - children 7. Reduce incidence of tooth loss in adults 21-64 8. Reduce incidence of tooth loss in seniors 65+ 9. Increase the percentage of third grade children with dental sealants 10. Increase the number of program providing children 6-14 with dental sealants 11. Increase the number of underserved children with an age one dental visit 12. Reduce the number/percentage of children receiving dental services under general anesthesia 13. Reduce incidence of oral cavity and pharyngeal cancers oropharyngeal cancer	Decrease barriers to accessing dental care Increase preventive services across populations Improve the oral health literacy of healthcare providers and the general public	Enhance the overall health of all Pennsylvanians through improved oral health
	Support programs that increase the number of dental providers in DHPSAs Explore new workforce models while fully utilizing the workforce currently working in PA Facilitate medical and dental service integration with Head Start programs and other early learning services Increase the number of community health workers providing oral health education and referrals	Support the development and maintenance of an accurate and current central workforce database which includes professionals listed by specialty and practice location Establish a system for assessing oral health workforce capacity Facilitate bi-annual access to Medicaid-participating workforce data Coordinate the development of a community health worker database Identify gaps in the oral health workforce and develop strategies to address them	Promote and support the use of community health workers/navigators in traditionally underserved communities Incorporate underserved/rural community practice recruitment into dental and dental hygiene students' curricula Develop and support a diverse and well-qualified workforce to provide evidence-based dental care to all populations, including those with intellectual and developmental disabilities Identify and support pipeline program development to ensure a competent and diverse future oral health workforce Provide guidance and education to dental and medical health professionals and staff to better understand social determinants of health that impact oral disease risk	Advocate for mandated and increased base level funding for the Medicaid dental fee schedule Revise current programs to allow for oral health services to be provided in school settings Develop or revise financial assistance programs for dental professionals who practice in rural or dental health professional shortage areas Develop recruitment and retention activities for retaining oral health professionals in FQHCs Redefine and expand roles of dental and medical professionals through revisions to state medical and dental practice acts to meet needs effectively and equitably Identify key decision makers and public champions who can advocate and promote oral health from a health equity perspective	Increase interdisciplinary clinical and professional collaboration between the medical, behavioral, and oral health workforce communities Promote education and training of medical primary care practitioners in the assessment and provision of basic oral health services In dental health professional shortage areas, utilize hospital personnel to provide basic oral health referrals Collaborate with external partners such as primary care associations, home visiting programs, advocacy organizations, philanthropic foundations and others to promote oral health programs, activities, strategies, and policies Develop programs to reduce the use of Emergency Departments for non-traumatic dental care Increase the number/percentage of medical providers who conduct oral cancer screenings/exams	1. Increase the percentage of hygienists, general dentists, and specialists participating in the Medicaid program 2. Increase the number/percentage of dentists who bill $10,000+ per year in the Medicaid program 3. Decrease the number of DHPSA county-level designatiaons 4. Increase the number of primary care medical providers who bill Medicaid for oral health services 5. Increase the number of community health workers (or similar) providing oral health education to their clients either in the community health centers or place of residence	Build a sufficient, diverse and competent oral health workforce	

	Require that the SOHP have the capability to effectively carry out the 10 Essential Dental Public Health Services including a state oral health surveillance system, ideally an epidemiologist, sealant coordinator, CWF coordinator, and health educator Secure state and federal funding for adequate oral health infrastructure in the SOHP at PADOH according to CDC and ASTDD infrastructure criteria Diversify the funding sources for state and local oral health programs Maintain funding and support to the state oral health coalition to adequately accomplish its mission and vision to improve the oral health of all Pennsylvanians through its many partners and collaborators Maintain a state dental director with appropriate support staff directing the SOHP and the Medical Assistance dental program at PADHS Position the SOHP and PADHS Medical Assistance dental program in a prominent position within each respective government agency Advocate for programs which will increase broadband internet access into PA rural areas Assist the SOHP in working with other PADOH agencies (e.g., Maternal and Child Health, Chronic Disease, Cancer Prevention, Tobacco Prevention, Health Innovation, WIC) to develop shared program strategies and health information silos	Provide funding and support for a sustainable SOHSS that is in accordance with Council of State and Territorial Epidemiologists criteria and overseen and administered by a state-recruited epidemiologist Recruit and hire a state epidemiologist dedicated to oral health and all related activities to monitor the SOHSS Utilize annual surveillance data to maintain periodically disseminated burden reports Utilize the SOHSS to monitor oral health-related trends and to evaluate and develop new programs, priorities, and policies Develop an evaluation plan to assess the relevance, progress, efficiency, effectiveness and impact of the SOHP Assure timelly data is available for the SOHSS	Secure state and federal funding to implement, administer and operate statewide dental public health programs designed to enhance oral health equity Improve the SOHSS to oversample those most vulnerable populations who are at risk for oral diseases Conduct surveillance of oral diseases to develop key oral health indicators in the state oral health surveillance system that addresses the magnitude of oral health disparities among certain underserved population groups	Share surveillance data reports with partners and funders to demonstrate the need for increased and continued funding of the state oral health program and the state oral health surveillance system Monitor all public policies that address oral health to evaluate the possible impact of policy changes Adopt, promote, enforce, and evaluate laws and regulations that promote oral health and educate stakeholders to ensure safe oral health practices Collect data and stories to educate and build support among decision makers and consumers for expanding oral health coverage Ensure payment models that allow providers to be reimbursed for value-based care	Use qualitative and quantitative data to inform medical professionals and their associations about the links between oral disease and somatic disease across populations Share evidence-based data and information to promote collaboration and awareness among dental and non-dental providers as well as the public	1. Implement/maintain a state oral health surveillance system (SOHSS) in accordance with the NOHSS to collect and store data that includes mechanisms to communicate findings to policy makers and the public, and ensures data are used to inform and evaluate public health measures to prevent and control oral diseases and conditions 2. Existence of a diverse, sustainable, and collaborative state oral health coalition 3. Evidence of effective cross-governmental partnerships with internal PADOH and external government entities to develop and partner on educational initiatives, data collection, analysis, and reporting, policy initiatives, and program priorities 4. Establish a robust state oral health program with the capacity to meet the ASTDD 10 Essential Dental Public Health Services created from the CDC model	Maintain a strong oral health program infrastructure to sustain proper state oral health surveillance	

Appendix D

The 10 Essential Dental Public Health Services
https://www.astdd.org/docs/essential-public-health-services-to-promote-health-and-oh.pdf

Essential Public Health Services to Promote Health and Oral Health in the United States

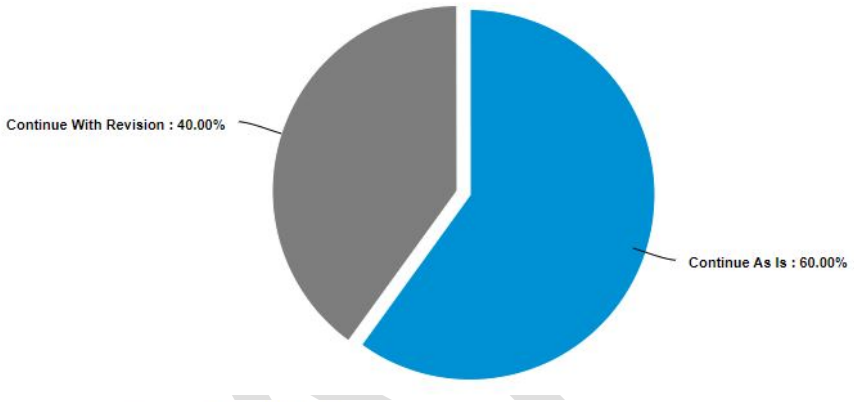
The 10 Essential Public Health Services provide the framework for many national programs, including the National Public Health Performance Standards Program, the PHAB National Voluntary Accreditation Program for health departments, and the Model Framework for Community Oral Health Programs. The corresponding 10 Essential Public Health Services to Promote Oral Health provide a framework for State Roles, Activities and Resources that comprise ASTDD's *Guidelines* and for ASTDD's State Oral Health Program Review process.

10 Essential Public Health Services[4]	10 Essential PH Services to Promote Oral Health in the US*
Assessment	***Assessment***
1. Monitor health status to identify and solve community health problems	1. Assess oral health status and implement an oral health surveillance system
2. Diagnose and investigate health problems and health hazards in the community	2. Analyze determinants of oral health and respond to health hazards in the community
3. Inform, educate and empower people about health issues	3. Assess public perceptions about oral health issues and educate/empower them to achieve and maintain optimal oral health**
Policy Development	***Policy Development***
4. Mobilize community partnerships and action to identify and solve health problems	4. Mobilize community partners to leverage resources and advocate for/act on oral health issues
5. Develop policies and plans that support individual and community health efforts	5. Develop and implement policies and systematic plans that support state and community oral health efforts
Assurance	***Assurance***
6. Enforce laws and regulations that protect health and ensure safety	6. Review, educate about and enforce laws and regulations that promote oral health and ensure safe oral health practices
7. Link people to needed personal health services and assure the provision of health care when otherwise unavailable	7. Reduce barriers to care and assure utilization of personal and population-based oral health services
8. Assure competent public and personal health care workforce	8. Assure an adequate and competent public and private oral health workforce
9. Evaluate effectiveness, accessibility and quality of personal and population-based health services	9. Evaluate effectiveness, accessibility and quality of personal and population-based oral health promotion activities and oral health services
10. Research for new insights and innovative solutions to health problems	10. Conduct and review research for new insights and innovative solutions to oral health problems

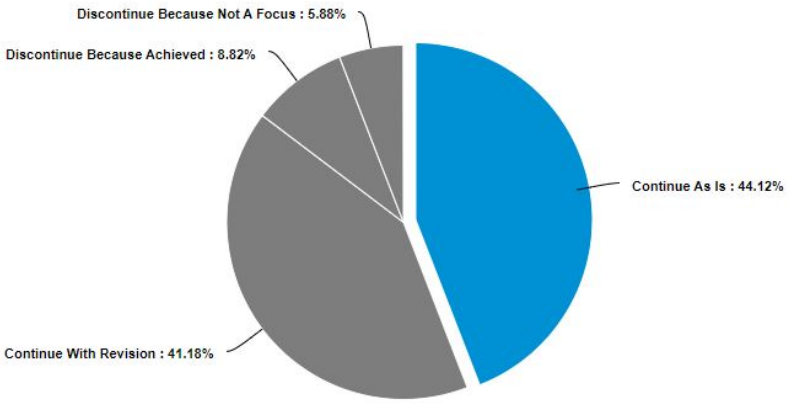
Appendix E

Spring 2019 Stakeholder Survey – This survey was distributed electronically to 756 individuals; 37 responses received. The survey listed the priorities and objectives from the *Pennsylvania Oral Health Plan 2017-2020* and asked if the same topics should be continued in the next Plan.

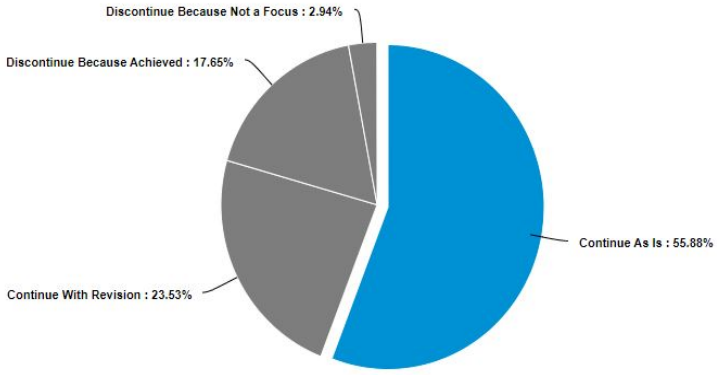
1.1 Increase oral health prevention or care delivery programs.Objective: Increase the proportion of rural health clinics, or local health departments that have an oral health prevention or care delivery programs.Current Status - 13/70 Rural Health Clinics participating in oral health programs; 5/10 County and Municipal Health Departments have oral health programs



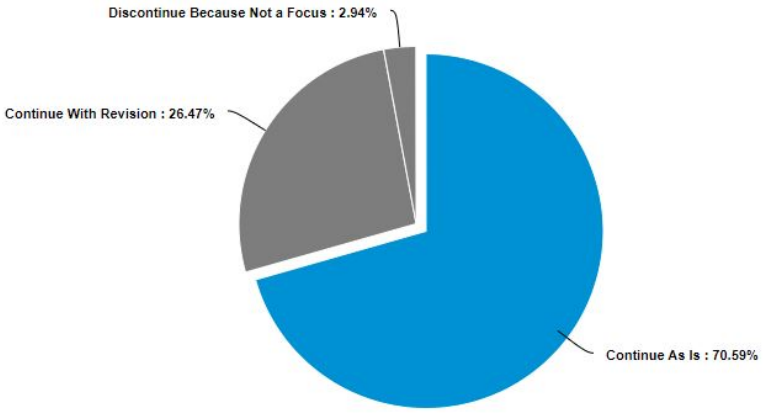
1.2 Increase sealant programs.Objective: Establish 3 best practice pilot sealant programs throughout the state.Current Status - Programs currently exist in 3 County and Municipal Health Departments; all programs are being shifted to best practice based on national standards



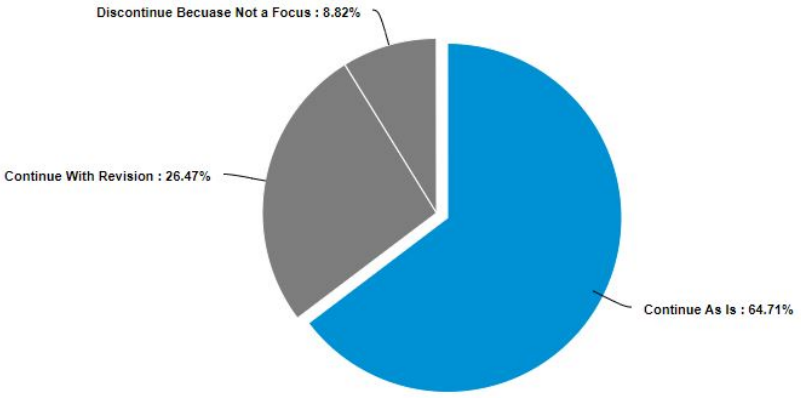
1.3 Increase oral health educational programs.Objective: Increase number of school-sponsored and community-sponsored educational programs.Current Status - Oral Health Story Kit for Public Libraries distributed to 98.4% of PA libraries.



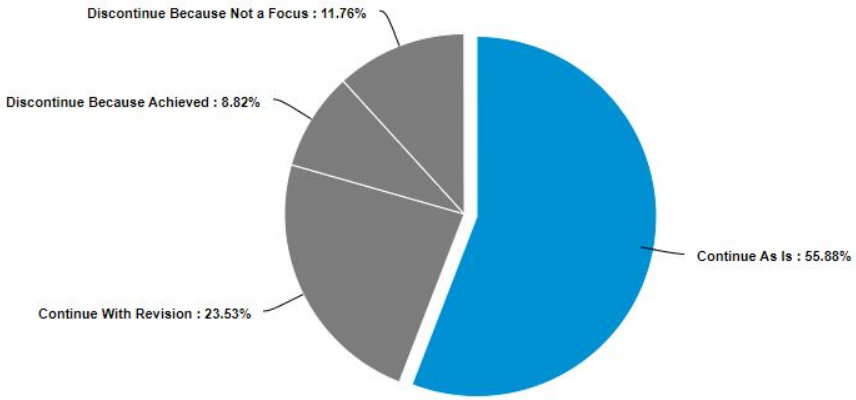
1.4 Encourage access to community water fluoridation. Objective: Support statewide and/or community-based efforts to sustain and increase the proportion of the PA population served by community systems with optimally fluoridated water.Current Status - 58% of PA population served by water systems with optimally adjusted fluoride



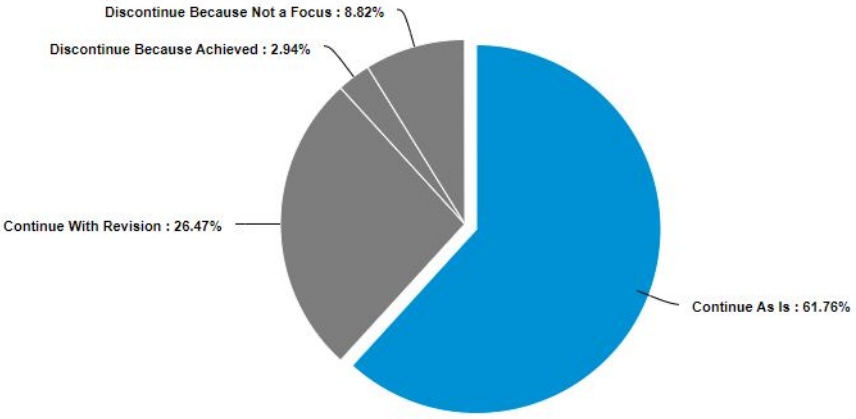
2.1 Increase ratio of oral health care professionals to population.Objective: Decrease the number of oral health designated health professional shortage areas.Current Status - 166 total DHPSAs



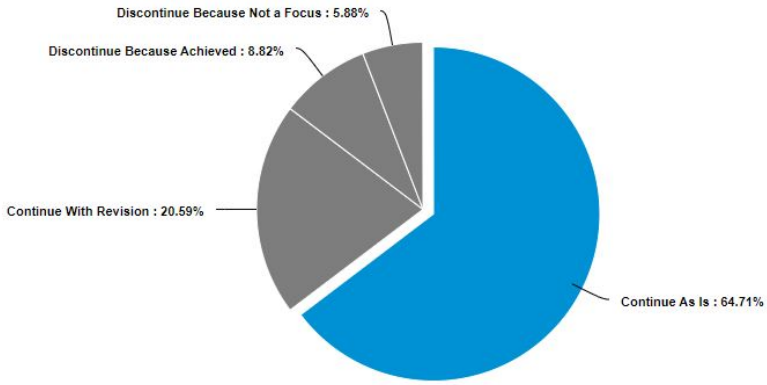
2.2 Promote policy that expands the use of dental paraprofessionals and auxiliaries.Objective: Initiate policy changes to support the utilization of dental paraprofessionals and auxiliaries by working with and educating regulatory agencies and health professionals and professional organizations.Current Status - Addition of Public Health Dental Hygiene Practitioners (PHDHPs) to Medicaid provider list in 2017.



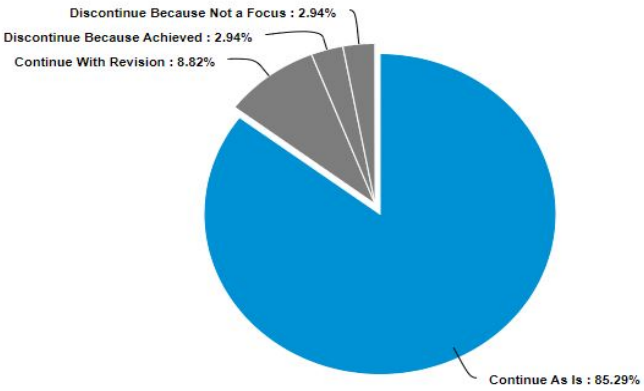
2.3 Develop programs that promote and support oral health careers.Objective: Create a comprehensive plan to improve the number of oral health professionals graduating and remaining in Pennsylvania.Current Status - 3 (4) full-time dental schools in PA, 12 dental hygiene programs, numerous EFDA programs. Need for process to assess the number who remain to practice in PA.



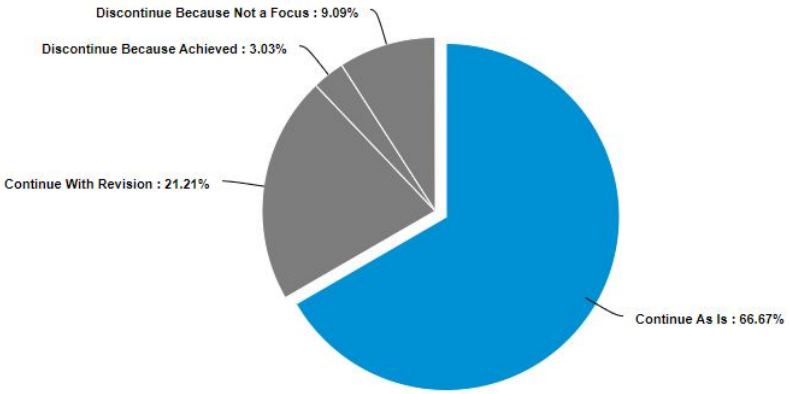
3.1 Increase statewide leadership of Pennsylvania's Department of Health's Oral Health Program.Objective: PADOH Oral Health Program will assess its staff and organizational needs and fill the position of dental director.Current Status - Added Oral Health program staff; dental director position pending



3.2 Create a plan to develop an oral health surveillance system for Pennsylvania.Objective: PADOH Oral Health Program and oral health stakeholders will develop a plan to create an oral health population-based surveillance system that meets CDC recommendations.Current Status - PA Oral Health Surveillance System (PaOHSS) in development



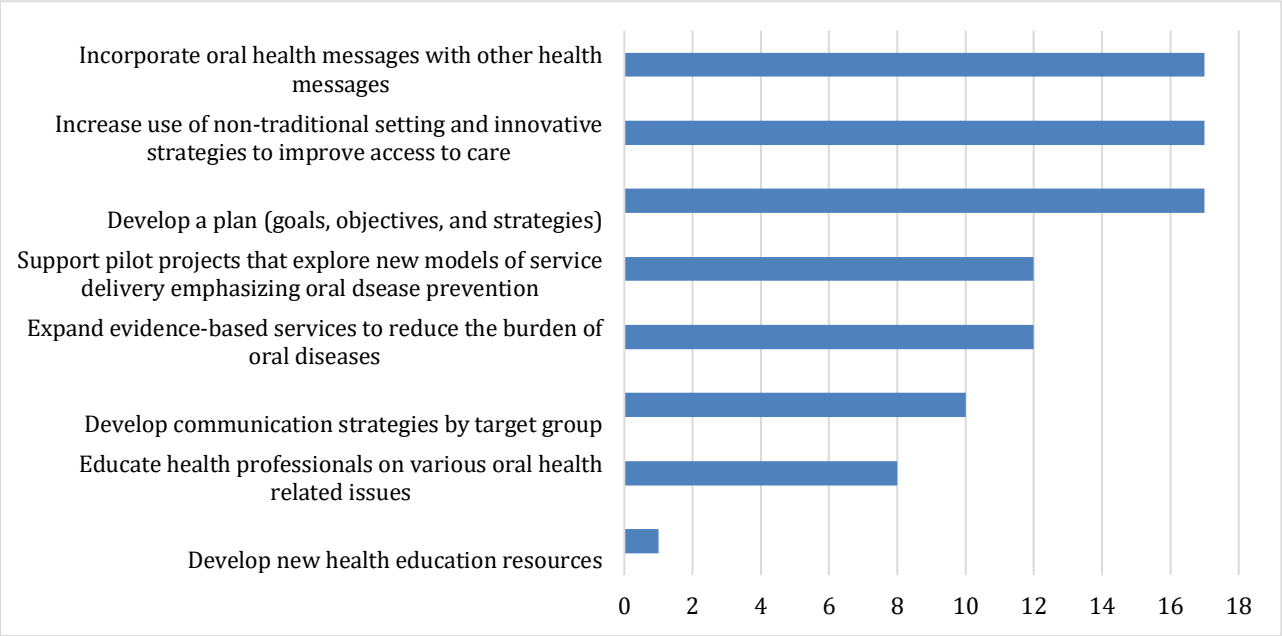
3.3 Utilize LiveHealthyPa.com as an online information hub.Objective: PA oral health stakeholders will adopt for use the LIVE HEALTHY PA online communications tool.Current Status - Many resources listed on site; requesting analytics



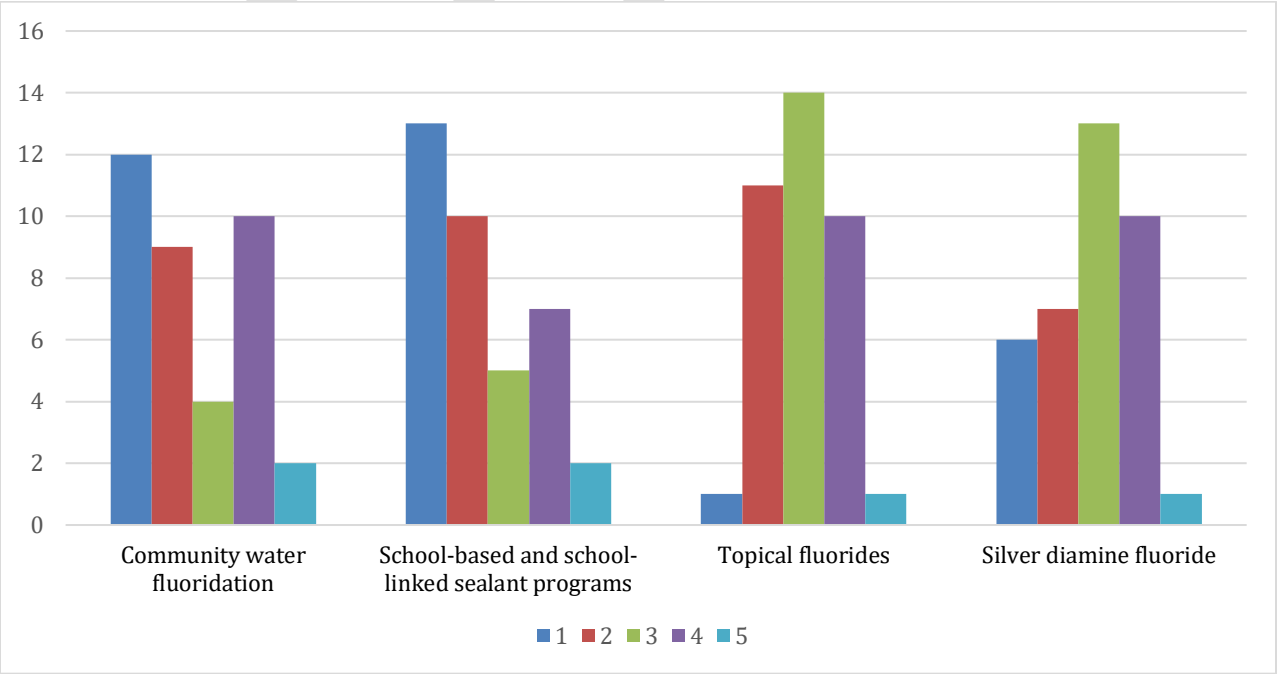
Appendix F

Fall 2019 Stakeholder Survey – Distributed electronically to 780 individuals; 37 responses received.

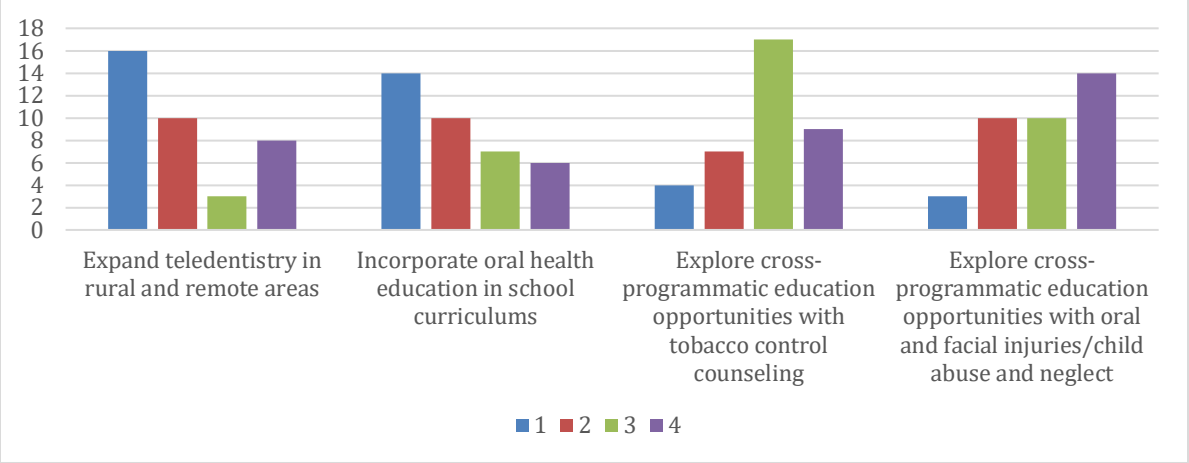
Question 1: Identify your top 3 areas of focus for the priority "Align for Healthy Communities" (Care and Prevention): (Please only choose 3)



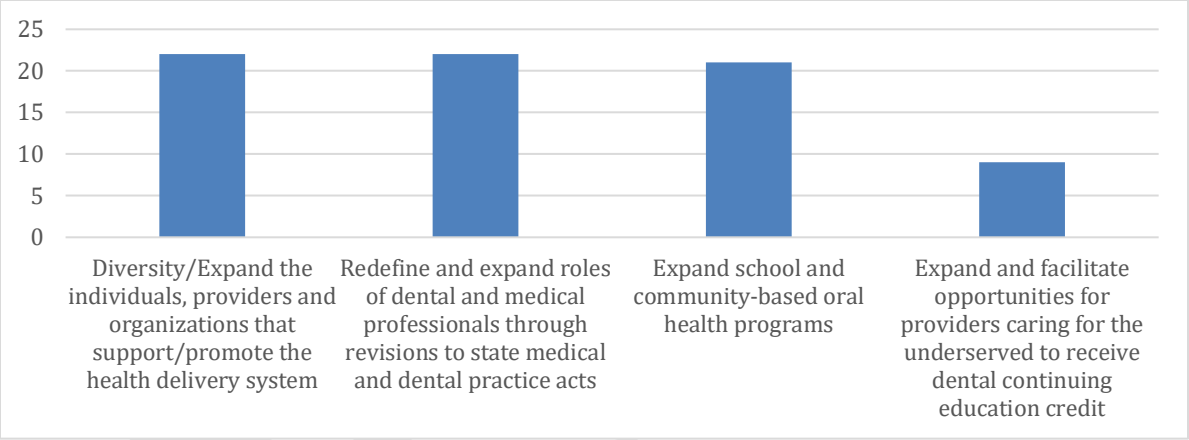
Question 2: If it is decided to include "expand evidence-based services to reduce the burden of oral diseases," please rank the following by priority: (1=highest priority, 5=lowest priority)



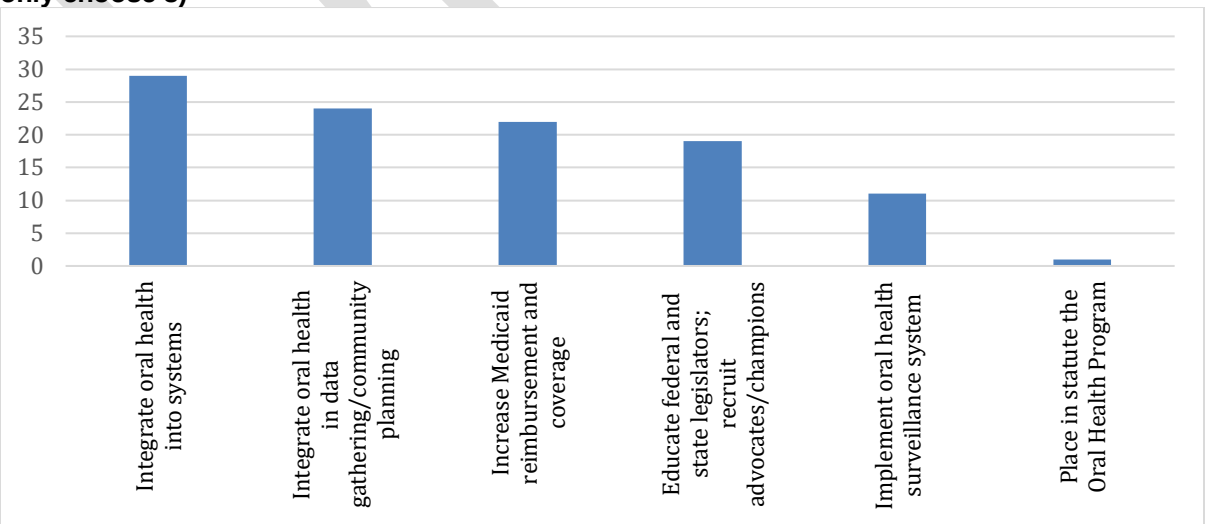
Question 3: If it is decided to include "increasing use of non-traditional settings and innovative strategies to improve access to care," please rank the following by priority (1=highest priority, 4=lowest priority)



Question 4: Identify your top 2 areas of focus for the priority "Develop Workforce": (please only choose 2)



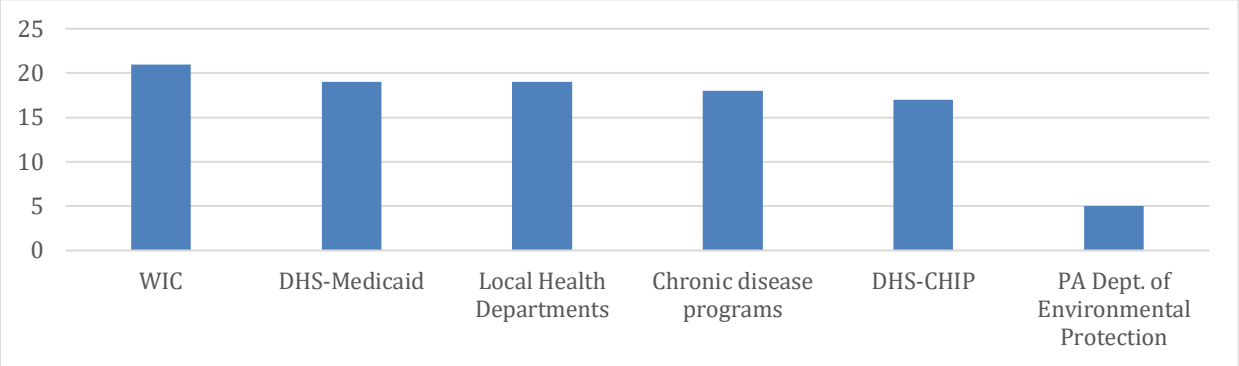
Question 5: Identify your top 3 areas of focus for the priority "Support Infrastructure": (please only choose 3)



Question 6: Please identify one area that you believe needs prioritized in 2020-2030 in order to make the greatest impact on improving the oral health for Pennsylvanians. (open answer)

- → Water fluoridation (2 responses)
- → Nutrition (SAD-Standard American Diet=poor health/oral health)
- → Integrating oral health services in medical settings
- → Dental Sealants and Oral Health Education in Schools
- → Reform around increased access to dental hygienists in schools (3 responses)
- → Better medical dental collaboration and allowing PHDHPs into medical offices to provide screenings and Fl varnish application.
- → Digital data collection on oral health/Oral health surveillance system (3 responses)
- → Teledentistry
- → Support for infrastructure
- → Educating the public on the link between oral health and overall health
- → Increasing access to care (2 responses)
- → For dental hygienists to be able to practice independently of dentists
- → Education on oral health (2 responses)

Question 7: Which areas would you like to see increased integration/partnership? (check all that apply)



Question 8: Is there anything else you would like to share for consideration in the *Pennsylvania Oral Health Plan 2020-2030*?

- → Nutrition
- → Development of innovative oral health prevention education in non-traditional settings
- → Placement of RDHs in the Pennsylvania Department of Education
- → Attack maternal oral health illiteracy
- → I think it is imperative to develop a working OH statewide surveillance system where all OH programs can be accounted for and data collected.
- → Knowing that there are way more dental hygienists in the state compared to dentists and that number keeps getting higher, I feel that dental hygienists need to practice individually from dentists and work more on a referral basis. prevention is key and dentists don't do prevention
- → There is a need to expand the ways in which the public is educated on the importance of oral health