

A Best Practice Approach Report describes a public health strategy, assesses the strength of evidence on the effectiveness of the strategy, and uses practice examples to illustrate successful/innovative implementation.

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Best Practice Approach Developing Workforce Capacity in State Oral Health Programs

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**Summary of Evidence Supporting
Improving Oral Health through State Oral
Health Program Capacity Development**

Research	++
Expert Opinion	+++
Field Lessons	+++
Theoretical Rationale	+++

See **Attachment A** for details.

I. Description

A. Rationale and Overview of State Oral Health Infrastructure and Workforce

This Best Practice Approach Report (BPAR) focuses on how State Oral Health Programs (oral health programs in state health agencies) can increase their capacity to carry out the core public health functions of assessment, policy development, assurance, and the 10 Essential Public Health Services to Promote Oral Health.¹

Having a strong infrastructure enables public health agencies to perform core functions and essential services. The fundamentals of “infrastructure” include the systems, personnel, frameworks, relationships, and resources needed for planning, delivering, and evaluating dental public health (DPH) activities and services. Infrastructure encompasses human, organizational, informational, legal, policy, and fiscal resources. Public health infrastructure relies upon many diverse stakeholders including the public and private sectors, academic institutions, non-profits, and political institutions. These stakeholders support and enhance the work of State Oral Health Programs (SOHPs).

Federal, state and local governments are an important part of the dental public health (DPH) infrastructure; however, SOHPs have the potential to make a significant impact on a population's oral health. SOHPs do this by coordinating resources, conducting oral health surveillance, assuring access to oral health services, and providing expertise and advice in DPH policy development. A report by the Association of State and Territorial Dental Directors (ASTDD), [State Oral Health Infrastructure and Capacity: Reflecting on Progress and Charting the Future](#) (IEP Report)² emphasized how SOHPs address the core public health functions and 10 Essential Public Health Services (EPHS) and are an integral component of public health.

SOHPs vary in size, structure, funding, staffing, focus, and location within the public health agency's hierarchy. A successful SOHP needs a complement of staff, in addition to consultants and partners to achieve an adequate and competent workforce. These professionals may or may not have formal training or credentials in public health or DPH, or be dentists, dental hygienists or other oral health care professionals. An inter-professional approach, incorporating professionals from multiple disciplines, is needed to attain the diverse skill sets required to provide the essential services to promote and improve oral health.

People are the foundation of the public health infrastructure. For a public health system to be effective, adequacy is needed both in numbers and skills to ensure an optimal supply of new and seasoned, well-prepared public health professionals.³ The ideal infrastructure should also use personnel in an effective and efficient manner. To be most effective, that workforce should be appropriately educated, represent the diversity of the U.S., and be sustainable for the foreseeable future.⁴

To meet this challenge, SOHPs must develop and utilize best practices. Most SOHPs have few employees and relatively small budgets, yet are able to conduct a remarkable number of activities with support from other public and private health programs and community partners.⁴ Currently, there are few incentives to entice professionals to work in SOHPs and few opportunities for career advancement within the SOHPs.

The IEP Report identified five key components that relate to workforce capacity development and sustainable infrastructure.²

State oral health programs make an essential contribution to public health and must be continued and enhanced. A successful state oral health program must have:

- Diversified funding that includes funding for state and local evidence-based programs
- A continuous, strong, credible, forward-thinking leader
- A complement of staff, consultants and partners with proficiency in the *ASTDD Competencies for State Oral Health Programs*
- One or more broad-based coalitions that include partners with fiscal and political clout
- Valid data (oral health status and other) to use for evaluation, high quality oral health surveillance, a state oral health plan with implementation strategies, and evidence-based programs and policies

B. Review of the Core Public Health Functions and 10 Essential Public Health Services

The three core functions³ and corresponding 10 EPHS⁵ are the framework for a successful public health system. ASTDD has adapted the 10 EPHS to the context of oral health (Figure 1). These services are needed to: 1) assess the oral health of the community, 2) promote evidenced-based policies and practices that are in the public's interest, and 3) assure the availability of community and personal oral health services that are viewed by constituents as appropriate and necessary.

Figure 1. 10 Essential Public Health Services to Promote Oral Health in the U.S.

Assessment

1. Assess oral health status and implement an oral health surveillance system
2. Analyze determinants of oral health and respond to health hazards in the community
3. Assess public perceptions about oral health issues and educate/empower them to achieve and maintain optimal oral health

Policy Development

4. Mobilize community partners to leverage resources and advocate for/act on oral health issues
5. Develop and implement policies and systematic plans that support state and community oral health efforts

Assurance

6. Review, educate about and enforce laws and regulations that promote oral health and ensure safe oral health practices
7. Reduce barriers to care and assure utilization of personal and population-based oral health services
8. Assure an adequate and competent public and private oral health workforce
9. Evaluate effectiveness, accessibility and quality of personal and population-based oral health promotion activities and oral health services
10. Conduct and review research for new insights

Source: [ASTDD State Guidelines: Section II¹](#)

SOHPs play an important role in identifying, supporting, tracking, and evaluating community level interventions, including disease prevention, health promotion, and surveillance. These roles may include promoting and enforcing laws and regulations that protect and improve oral health, ensure safety, and assure accountability for the public's oral health and well-being. SOHPs may also conduct research in oral epidemiology, oral health disparities, oral health services and oral health promotion/disease prevention.

The ASTDD conducted a SOHP assessment in 2013 wherein states self-assessed their strengths and weaknesses on a five-point scale in addressing each of the 10 EPHS.⁶

The highest average ratings (strengths) on a 5-point scale were:

- #1 (assessing oral health status and implementing a surveillance system—3.48)
- #4 (mobilizing community partners—3.66)

The lowest ranking EPHS (needing the most improvement) were:

- #10 (conducting and reviewing research--2.66)
- #3 (assessing public perceptions and educating and empowering people—2.84)
- #9 (evaluation—2.87)

Few SOHPs rated themselves as a 1 or a 5 on any individual EPHS. This assessment helped states identify gaps in training, resources and workforce expertise.

The *ASTDD Guidelines*¹ provide a clear description of SOHP roles for each of the essential services, examples of specific activities for each role, and links to selected resources to help states accomplish these roles. Additionally, the *ASTDD Competencies*⁷ describe eight guiding principles and 78 competencies in seven domains that represent skill sets needed for a SOHP to successfully provide these essential services. Figure 2 lists the guiding principles and competency domains. An

adequate and competent SOHP workforce must ensure access to expertise that reflects the competencies.

Figure 2. ASTDD Competencies for State Oral Health Programs

Guiding Principles

State Oral Health Program Competencies should reflect the following principles throughout the program rather than devoting a single competency to each concept:

1. Integrating oral health and general health
2. Programming for all life stages (lifespan approach)
3. Recognizing and reducing oral health disparities
4. Identifying, leveraging and using resources
5. Social responsibility to advocate for/serve underserved populations
6. Demonstrating an understanding and respect for other professions, their goals and roles
7. Respecting diversity and attaining cultural competency, including fostering health literacy
8. Dedication to lifelong learning and quality improvement

Competency Domains

Domain 1. Build Support: State oral health programs establish strong working relationships with stakeholders to build support for oral health through promotion, disease prevention and control.

Domain 2. Plan and Evaluate Programs: State oral health programs develop and implement evidence-based interventions and conduct evaluations to ensure ongoing feedback and program effectiveness.

Domain 3. Influence Policies and Systems Change: State oral health programs promote and implement strategies to inform, enhance or change the health-related policies of organizations or governmental entities capable of affecting the health of populations.

Domain 4. Manage People: State oral health programs oversee and support the optimal performance and growth of team members.

Domain 5. Manage Programs and Resources: State oral health programs ensure the administrative, financial and staff support necessary to sustain activities and to build opportunities.

Domain 6. Use Public Health Science: State oral health programs gather, analyze, interpret and disseminate data and research findings to assure that oral disease prevention and control approaches are evidence-based.

Domain 7. Lead Strategically: State oral health programs create strategic vision, serve as a catalyst for change and demonstrate program accomplishments.

Source: [ASTDD Competencies](#)⁷

C. Issues Affecting State Oral Health Program Capacity

1. Overview

The SOHP workforce must be sufficient, competent, efficient and effective to meet the oral health needs of a diverse population. In February 2009, the Institute of Medicine (IOM) held a workshop on *The U.S. Oral Health Workforce in the Coming Decade*. Several participants commented that

“more attention is needed on the public health dental workforce instead of focusing just on clinical providers of oral health care services.”⁸

Current and future personnel shortages in the public health workforce are well documented. As the U.S. becomes increasingly diverse and the segment of older adults continues to expand, the demand for public health services grows in quantity and complexity. The escalating demand for services and increasing shortages of personnel have made assuring a qualified workforce one of the biggest challenges faced by state and local public health agencies.⁹

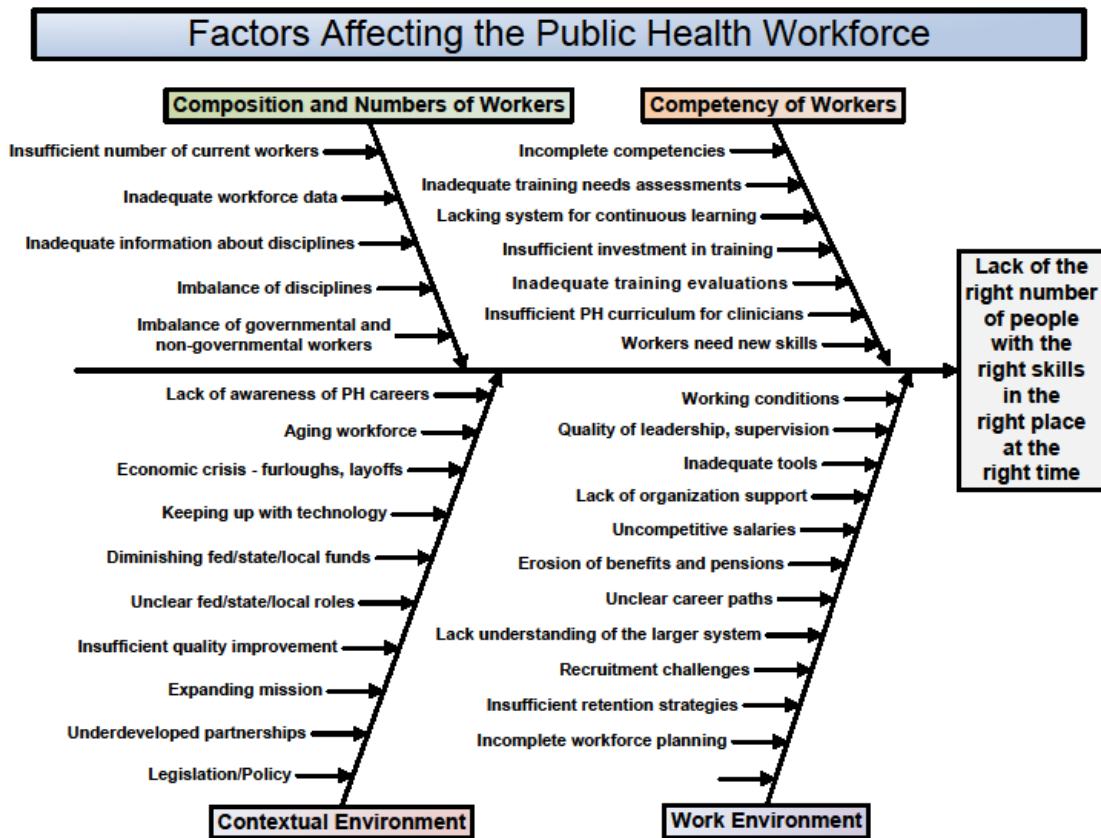
SOHPs must recruit and retain employees to maintain an adequate number of personnel and prevent positions from remaining vacant or being eliminated. SOHPs are challenged by overall state public health worker trends:

- (1) A rapidly aging workforce and shrinking labor pool;⁹
- (2) A high percentage of workforce eligible for retirement (~45-50%) without adequate replacements in the pipeline;^{9, 10}
- (3) Chronic shortages (with a vacancy rate as high as 20% in several state systems) in professional areas such as epidemiology, laboratory science and environmental health related to public-sector budget restraints and competition with other sectors of the economy;^{9, 10}
- (4) A high turnover rate (14% average annual turnover).⁹

Additionally, SOHPs must ensure employees maintain competence to respond to changing environments and evolving technologies. Credentials alone are not sufficient. Competencies matched to job roles would seem to be the most effective and efficient approach.² The Health Resources and Services Administration (HRSA), Bureau of Health Professions has estimated that only 20% of the nation’s approximately 500,000 current public health professionals have the education and training needed to do their jobs effectively.¹¹ Relying on experience and on-the-job trial and error is inefficient and ineffective at preparing workers for public health jobs. Inadequate workplace and work organization incentives for skill enhancement and demonstrated high performance contribute to the lack of necessary public health skills.¹⁰

In 2010, the Centers for Disease Control and Prevention (CDC) developed a fishbone diagram, Factors Affecting the Public Health.¹² The diagram is displayed as Figure 3 and is directly applicable to SOHPs.

Figure 3. [Factors Affecting the Public Health Workforce](#)¹²



2. Workforce Assessment

Workforce assessment evaluates the composition of the workforce, its availability, functions and adequacy of preparation to carry out required duties. However, the public health workforce is not easily defined or measured, even when restricted to the subfield of “dental public health.”¹³⁻¹⁸

The ASTDD was funded by the CDC and the HRSA to convene a national workshop in 2004 to address DPH workforce issues in a coordinated, multi-disciplinary, collaborative fashion, including workforce for SOHPs.¹⁹ Four workgroups held teleconferences after the workshop to finish the process of developing action plans for the areas of Education, Practice, Research and Advocacy. The final action plan was shared with all groups who were then asked to commit to furthering activities in the action plan.

During the 2004 workshop and subsequent discussions and publications, professionals have struggled with the definition of DPH, some tying it to the American Board of Dental Public Health (ABDPH) specialty and others taking a broader view. There still is no clear definition. Although beyond the scope of this best practice approach report, the lack of consensus of a definition has significantly impacted discussions about credentials and job categories for the SOHP workforce.

Attempts to assess SOHP workforce mainly come from the annual ASTDD State Synopsis survey.²⁰ Since it began in the early 1990s, the ASTDD Data Committee has developed the

annual State Synopsis into a structured questionnaire that is now distributed and completed electronically via e-mail to state dental directors in all 50 states and the District of Columbia. SOHPs are asked to provide data for the most recently completed fiscal year. Although most directors participate every year, they do not always provide data for every item. Despite completeness and consistency issues, the ASTDD State Synopses still provides the best national data for SOHP workforce assessment, and more workforce related questions have been added in recent years. Some findings include:

- From 2004 to 2010 states with a state dental director (SDD) increased from 39 to 45
- From 2000 to 2010 the number of states with a full-time SDD increased from 30 to 47
- In 2010, 16 SDDs had other responsibilities outside the SOHP
- In 2010, only 36 states required the SDD to have public health experience
- In 2010, 16 states had statutory requirements for an SDD and 19 had statutory requirements for an SOHP

In September 2013, ASTDD posted a short, informal query for SOHP directors via the ASTDD dental directors' listserv to assess the number of dental hygienists employed or contracted by SOHPs and their roles within the programs.²¹ The survey requested information on job titles, roles and responsibilities. Thirty-nine states responded to the query. Responses clearly demonstrated that dental hygienists employed by SOHPs had primarily non-clinical or a combination of clinical and non-clinical duties and responsibilities. Contracted dental hygienists performed mainly clinical duties, most often in community-based dental sealant programs.

The same breadth and diversity of the public health workforce that contributes to the effective delivery of public health services makes it challenging to evaluate.¹⁴ Classifying, counting, and tracking SOHP personnel is complicated by the fact that functions and responsibilities are often shared within different levels of government and agencies. Additionally, major state-by-state and within-state variations in position categories and scopes of practice exist among state and local governments.¹⁵

3. SOHP Leadership

Leadership with a full-time state dental director has been clearly identified as a key infrastructure element to address oral health problems.² The presence of more activities related to the EPHS was found in states with full-time dental directors compared to those states with part-time directors, no directors, or no oral health program in the state health agency.²² One of the Healthy People 2020 Objectives (OH-17) is to "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 DPH program directed by a dental professional with public health training."²³ For FY 2013-14, 45 of the 50 states and the District of Columbia reported that the dental director is a full-time position, with one vacancy reported. Twelve had been in their position less than a year and only eight had served ten years or more. Forty-seven percent of responding states had no state or local dental health programs managed by a DPH professional.²⁴

To be successful dental directors must be able to:

- Lead in many areas
- Work within and understand the political climate of the state
- Manage budgets
- Manage programs that address sometimes emotionally sensitive issues such as community water fluoridation
- Work in a collaborative manner with state and local health departments, federal agencies, community health centers and other community- based programs, schools, etc.
- Respond rapidly to changing and emergency situations

They must do all this while still meeting the expectations and the needs of the public.²⁵ Dental directors without previous experience in state government administration or public health leadership need to learn quickly to succeed.

Lack of continuity in SOHP leadership is a serious problem and can interfere with long-term strategic planning and evaluation. High turnover represents a potentially huge loss of institutional knowledge, leadership, and experience.⁹ Hiring freezes and shortages make it difficult to fill vacant positions. Turnover in state dental directors has been high, especially among new directors. Reasons for dental director turnover include inadequate understanding of and frustration with bureaucracies, compensation, support, and funding from state public health administrators or the legislature; better opportunities and retirement.² As more experienced dental directors retire, there is a need for better succession planning as qualified full-time dental directors can be difficult to recruit. Also, states may require that the director position be filled by a dentist rather than a dental hygienist, yet salaries and benefits may not be competitive enough to hire a dentist or the scope of work may be more suitable for the skills of a dental hygienist. In addition, the position may require an active dental license or intent to pursue a license from the hiring state, which often requires retaking a clinical board exam that focuses on clinical skills not related to the dental director position.² Some states have attempted to overcome these restrictions by hiring a dentist consultant to provide expertise and hiring a dental hygienist as the oral health program manager.

4. SOHP Staff

Staffing depends on factors such as state population, size and organization of the health agency, level of integration with other programs, and state health agency relationship to local or district health jurisdictions. Staffing patterns for SOHPs vary substantially in numbers of personnel, job categories, responsibilities, level and type of education, lines of supervision, employee vs. contractor status, and job location. Most staff who work directly in the state office function in non-clinical roles such as managers, coordinators, regional consultants, public health educators, program planners or evaluators. No single staffing model is appropriate for all states.² In FY 2013-14, 59% of programs had five or fewer full-time employees (FTE) employees, while 4% had more than 20, primarily those who administer local clinical programs. In a similar vein, 61% of states had fewer than two funded contractors and 12% had more than 10.²⁴ Programs that administer community clinics, mobile clinics or prevention programs such as school-based sealant programs often hire or contract with clinicians as well as clerical and administrative personnel. Some programs may also hire, contract with or share with other state programs an epidemiologist, statistician, evaluator, fluoridation engineer or other staff with special expertise.² The 2015 State Synopsis found that states reported “adequate” (in their own opinion) support for the following areas of expertise: health education (84%), communication (78%), dental public health (78%), grant writing (69%), epidemiology (68%), surveillance (66%), and evaluation (54%).²⁴

Recruitment efforts to attract qualified potential workers and those in the pipeline are necessary to ensure an adequate number of SOHP personnel and to prevent positions from remaining vacant. General shortages of qualified workers, non-competitive salaries, state licensing requirements, budget freezes, and lengthy processing time for new hires can hinder recruitment efforts. The American Public Health Association (APHA) emphasizes that while it is important to have initiatives that ensure the recruitment of future public health workers through tuition and loan repayment programs, solutions that target those already working in the field are also important.²⁶ Retention of current SOHP workforce prevents the loss of long-term experience, maintains community connectedness, and keeps the institutional memory of highly trained staff. The most important incentives for recruiting and retaining an adequate public health workforce have been identified as: access to advanced education, competitive pay and benefits, flexible work schedules, telecommuting opportunities and early succession planning.⁹

Numbers of staff aren't as meaningful as the competencies possessed by the staff. CDC-recommended positions to meet ASTDD competencies include a program manager, epidemiologist, evaluator, health educator, sealant program manager, policy analyst, and fluoridation manager. Some of these positions could be shared with other public health programs.²⁷ State dental directors and SOHP employees have varying backgrounds in both oral health and public health. Professionals being hired into SOHPs may not have the public

health experience or skills needed in today's complex public health environment. Even for those who have an oral health or/and public health background, lifelong learning and sustainable workforce development programs are critical. The greatest unmet need for training of the public health workforce in general is in core public health concepts.⁹ Additionally, lack of access to advanced education can be a significant barrier to upgrading existing staff in public health. Increased collaboration with schools of public health can improve recruitment, retention, and staff skills. Difficulties training staff have been shown to lower capacity of a public health agency to effectively deliver essential services.²⁸

5. Funding

Assuring sustainability through adequate and long-term funding for SOHPs is essential. The single biggest barrier throughout the past decade to adequate staffing of governmental public health agencies is budget constraints.¹⁵ Increased workload, reductions in employee hours and compensation, wage freezes and job insecurity all present a substantial challenge to the recruitment and retention of SOHP staff.

In the fiscal year (FY) 2013-14 State Synopsis, the budget of responding state programs ranged from \$80,000 to \$5,917,625. The mean budget for reporting states was \$1,661,810, with the median being \$1,135,023. Of the 49 states that provided information on source of funding, 19 (39%) reported receiving 75-100% of their funding from just one of the sources listed (Medicaid, Other State, HRSA, CDC, Other). Fifteen states (30%) had an overall budget decrease, 23 (45%) increased, and 12 (24%) stayed the same compared to the prior year.²⁴

The public and policymakers are key stakeholders to ensure support for SOHPs. An understanding of public health and oral health literacy is important to increase awareness of the importance of a robust public health system and how DPH fits into that system. Successful attempts to improve funding, development, and scholarship will require the commitment of diverse stakeholders including the private sector, academic institutions, non-profits, political institutions, and the public sector.

II. Guidelines & Recommendations

A. Strategies for Developing the State Oral Health Program Workforce

The ASTDD has identified four strategies for developing the SOHP workforce:

- (1) Define the state DPH workforce
- (2) Recruit qualified SOHP staff
- (3) Retain highly experienced staff
- (4) Dual strategies: succession planning and redefine retirement

1. Define the State Dental Public Health Workforce

As previously mentioned, inconsistent or interchangeable use of terms has created long-standing debate about who is considered a "public health professional" or a "DPH professional." Until there are clearer definitions around credentials, work settings, or the skills needed to perform specific scopes of work, confusion and disagreement will continue to interfere with high quality evaluation studies or other public health research pertaining to the public health workforce and the SOHP workforce.²¹

Dental Public Health and Public Health Dentistry

The specialty of dentistry that is known as Dental Public Health includes approximately 160 dentists in 2015 with advanced education in both public health and dental public health. These individuals received *Diplomate* status by the American Board of Dental Public Health after successfully challenging a certifying examination. Along with board certified dental public health specialists, a number of board eligible dentists, trained in the specialty of dental public health, practice the art and science of dental public health.

The practice of public health dentistry includes those aforementioned dental public health members, as well as a broader group of professionals who address the oral health needs of the public. Dental hygienists, dental assistants, public health practitioners, epidemiologists, behavioral scientists, engineers, physicians, sociologists and others have been an integral component of the public health dentistry workforce, improving the oral health of the public through community efforts. Such individuals contribute to the state oral health workforce and collaborate to improve the nation's oral health to achieve optimal oral health across the U.S. While one may attempt to seek a distinction, the reality is that the specialists and non-specialist professional practitioners, as well as those who support them, are seeking the same objective: to improve the oral health of individuals and communities.

At the present time, the specialty of Dental Public Health is in the process of reviewing its competencies. The last draft of the competencies for the specialty was developed in 1998. The American Association of Public Health Dentistry and the American Board of Dental Public Health are jointly revising the competency statements in light of the current evidence-based practice of dental public health. Key stakeholders that are engaged in public health dental practice will have the opportunity to review and comment on the revised competency statements. The overall goal is to educate a dental public health professional, who is competent through education and training, to serve the dental public health needs of all people living in the U.S. Through the process of revising the competencies, an updated of the definition of the specialty will most likely arise.²⁹

As of June 2015

The ASTDD Competencies for SOHP enumerate skill sets that should be included in any staffing arrangement that hopes to provide the core public health functions and 10 essential services.⁷ ASTDD provides technical assistance to states on the Competencies and uses specific assessment tools to emphasize the importance of all team members' skills to program success.

Workforce Enumeration and Forecasting

Establishing an institutionalized, periodic enumeration of the public health workforce will allow for more accurate identification of current and future workforce needs.³⁰ Basic workforce statistics usually identify where the organization is currently and what is likely to happen over the coming years. Forecasting is important for predicting SOHP needs.

- It is important to monitor the size and composition of the personnel, with a focus on "functional" enumeration--the roles and responsibilities of SOHP personnel--and designing the assessment to best reflect these functions.¹⁵
- To account for the challenges brought by the breadth of the field, its multidisciplinary nature, and the diverse settings and arrangements for employment, studies need to use estimates that show the level of confidence whenever possible.¹⁷ For example, if uncertain whether a staff member should be included in a specific category, provide a range that both includes and excludes the staff member to show the difference.
- Continually evaluate enumeration methods to improve data sources and further develop a standardized methodology for collection.

- SOHPs must identify priority positions and competencies that are essential to achieving their mission, goals and the 10 EPHS, and determine the gaps, plan strategies to close those gaps and plan for future needs.
 - The ASTDD State Synopsis can continue to collect some of these data and possibly refine or add questions.²⁰ ASTDD also conducts a confidential salary survey of state dental director and oral health program manager positions every two years.
 - ASTDD Competency Assessment Tools and Technical Assistance help states identify strengths and gaps and ways to fill the gaps.³¹ States should be encouraged to use these tools.
- Combining the enumeration data with competencies and career profiling data can enhance the agency's ability to match employees with development opportunities and organizational needs. Examples of valuable workforce data include retirement projections; turnover statistics and trends; current vacancies; age and length of service for current employees; authorized salary and wage complement; workforce demographics; workforce trend information; and entrance, transfer, promotion, and exit information.¹⁴
- In addition to enumerating the workforce, it is also crucial to track workforce related activities such as loan forgiveness programs. The HRSA Bureau of Health Professions lists 13 performance measures for grantees receiving funds through their State Oral Health Workforce Program; most of these relate directly to workforce strategies noted in this Best Practice Approach Report.³²

2. Recruit Qualified State Oral Health Program Staff

Recruitment efforts to attract qualified potential workers and those in the pipeline are necessary to ensure an adequate number of SOHP personnel and prevent positions from remaining vacant or being eliminated.

General

- Researchers should study the SOHP pipeline to learn more about what attracts potential workers to SOHP jobs and to public service and what are detractors, and then use this information to develop innovative recruitment and marketing strategies for SOHP careers.¹⁵
- Monetary incentives such as recruitment bonuses are strategies currently used by some state health department programs but not generally by SOHPs.⁹ Incentives are particularly useful for recruiting professionals to fill service gaps and diversify the workforce.¹⁶
- Make use of existing recruitment resources. SOHPs often implement recruitment strategies working with other health department programs, other state organizations such as Primary Care or Rural Health Associations, through dental professions schools or through national organizations such as ASTDD, AAPHD, the Oral Health Section of APHA or the National Network for Oral Health Access (NNOHA).
- ASTDD could develop specific recruitment tools that illustrate the benefits of working in SOHPs and the impact professionals can have on the public's oral health.

Oral Health Professionals

Currently there are few incentives or certification programs to entice dentists or dental hygienists into public health.

- Identify dentists and dental hygienists who have completed clinical service-obligation programs such as the National Health Service Corps, and create a transitional learning program for non-clinical services that can be useful for working in a SOHP or a local health department program.³³
- SOHPs can incentivize employees to pursue formal public health training by providing compensation (such as additional salary or bonus) for having completed a public health course or program or even a DPH residency to increase the number of certified public health dentists who might seek employment in SOHPs.
- An informal query of sixteen DPH Residency Programs in 2014 showed that of the thirteen programs that responded, 46% offered a stipend and 38% of DPH programs required

- tuition.²⁹ Stipend availability and tuition costs, may impact the program that the resident chooses to attend.
- For the most part, residency programs are sustained through the income generated from clinic fees. With the exception of one program, DPH programs do not have a clinical component and, therefore, do not generate clinical revenue. In most cases, DPH programs are sustained by support from federal grants or other resources. Therefore, one challenge faced by DPH programs may be long-term sustainability.
 - Currently dental hygienists have no way to become “certified” in public health other than through earning a Master of Public Health (MPH) or Doctor of Public Health (DrPH) degree. Develop a certification program along with mentored public health internships or fellowships for dental hygienists.²¹
 - Provide DPH training to more dentists and dental hygienists to work in local public health departments to run comprehensive preventive dental programs; this could serve as a career ladder to working in administrative or management positions in the SOHP or in other health department programs.¹⁵
 - Create a career ladder for oral health professionals already working in public health and public health career paths for individuals from the for-profit sector.³³
 - Create service obligated scholarship or loan repayment programs for oral health professionals that require commitment to work in an SOHP for a specified period of time.¹⁵

Academic Partnerships/Public Health Students

Traditional education in public health has been primarily at the master’s or doctoral degree level, yet in 2003 the IOM emphasized the need for all undergraduate college students to have access to education in public health.³⁴ Many undergraduate public health programs have been created and accredited since then, with less than 1,000 degrees in 1992 to more than 5,000 per year since 2010³⁴, with a potential to soon outnumber public health graduate students. Data are not available to determine what proportion of these graduates go on to higher degrees or even work in public health, but some emerging data suggests that few go on to graduate study, at least right away. These students are a potential source of workers for health departments or to entice to seek further education in public health or a dental profession.

More collaboration is needed with dental, allied health, and public health academic institutions. Most public health degree programs do not include much if any content specific to DPH or working in state agencies.

- SOHPs can provide expertise and experiences for students to explore public health activities and provide training and expertise to faculty who teach public health courses at all educational levels.
- National dental and public health organizations could advocate with administrators and faculty in schools of public health and undergraduate public health or community health programs to include oral health and DPH concepts as an integral part of their courses as well as information about job settings in federal, state and local agencies.
- Identify and describe models of collaboration or ‘best practices’ between academia and public health practice. Successful collaborations that have been documented occur around oral health surveillance, community-based preventive services, coalitions and forums for state planning and advocacy, classroom and extramural teaching, student projects and research.³⁵
- Provide incentives to encourage collaboration between relevant educational programs and local public health agencies.¹⁵
- Take advantage of CDC’s Public Health Associate Program (PHAP), a two-year fellowship in state, local tribal or territorial health departments.³⁶
- Take advantage of opportunities to work with DrPH students who are required to develop proposals and complete a project, and to collaborate with practitioners, researchers and community leaders. Programs are expected to provide students opportunities to achieve competencies in the full range of academic roles, including research, teaching and service.³⁷

High School, College or Dental Professions Students

Students of all levels are essential to the future pool of SOHP workers.

- Work with career counselors in high schools, colleges, and universities to increase awareness of DPH educational opportunities and SOHP careers.⁹
- Participate in “career days” at local schools.³³
- Offer opportunities for high school community service requirements.³³
- Develop and advertise summer jobs/internships in SOHPs.³³
- Establish internships with graduate programs in dentistry, dental hygiene, public health, business, law, etc to help workers develop skills identified in SOHP competencies.³³

Career Change or Expansion

A number of people have entered dental and dental hygiene professions and public health as a second career. Their prior experiences can help provide a different and valuable perspective to a public health or DPH career.

- Attract talent from other sectors by targeting recruitment efforts towards workers in sectors where job security and or availability are poor.³³
- Strengthen DPH career paths and develop a career guide for students and professionals from other fields.³³
- Create mid-life career change programs to attract professionals leaving other career paths.⁹
- Encourage lateral position transfers or job sharing in health departments to provide oral health expertise to those wishing to broaden their experience and skills.

Information Technology

Advances in information technology, the Internet and social media can be used to expand and optimize outreach.

- Post positions through AAPHD, ASTDD, NNOHA, the American Association for Community Dental Programs (AACDP), DPH listserv and other listservs to reach potential qualified candidates nationwide.
- Share sample job descriptions and interview questions with states that are looking to create and fill positions. ASTDD is increasing its database of these items.
- Take advantage of commercial partnerships offered by web-based job search engines to advertise vacancies while augmenting recruitment capabilities and shortening the hiring process.⁹
- Although many health departments restrict use of social media, and posting of positions is through the office of human resources, use of LinkedIn® or Facebook® may be useful to SOHP (if allowed) for recruiting hard to fill positions.³⁸

Personnel Issues

As noted in Figure 3, many factors in the work environment, especially those related to personnel/human resources decisions, affect professionals’ decisions to seek or continue in government agency positions.

- ASTDD could work closely with the Association of State and Territorial Health Officials (ASTHO), the Association of Maternal and Child Health Programs (AMCHP) and the National Association of Chronic Disease Directors (NACDD) to educate health officials and administrators about appropriate scopes of work and competencies for positions, desired experience/background of potential workers, and appropriate position classifications, pay scales, benefits and career advancement opportunities for SOHP staffing in health agencies.
- Encourage and support coordination of recruitment efforts, simplify hiring processes, and streamline job application process.³³

- Improve image of SOHPs as a career choice and a way to acquire valuable public health experience.
- Ensure that recruitment materials appear professional, accurate, and well-written but also that they outline the realities and challenges of public service sector jobs.
- Develop the right jobs to attract the right people by crafting job titles and descriptions to match SOHP needs and competencies.
- Offer salaries and benefits that are adequate to make SOHP jobs a likely career choice.³³
- Create positions that are shared between the SOHP and other programs, e.g., epidemiologist, health communication specialist, or evaluator, to take advantage of cross-cutting skills and reduce programmatic silos.

3. Retain Highly Experienced Staff

Retention of current SOHP workforce prevents the loss of long-term experience, maintains community connectedness, and keeps the institutional memory of highly experienced staff.

Pay

A variety of compensation issues arise in relation to state health agency positions, and they differ across states. SOHP directors often do not have the ability to negotiate new position titles or compensation rates.

- Ensuring competitive salaries is important to prevent the loss of staff to other sectors.¹⁶SOHPs need to emphasize the value of fringe benefits or non-monetary benefits when recruiting professionals from the private sector.
- When increasing pay is not possible, bonuses or merit increases can be used as a monetary incentive. A 2014 query of state dental directors revealed, however, that of the 21 respondents, only three of the states offered bonuses or merit increases while four noted occasional cost of living increases or cash prizes.³⁹
- Offering flexible work schedules is one of the most commonly used strategies by state programs. Flexible schedules improve organizational resilience, lower absenteeism, and reduce the desire to seek alternate positions.⁹
- The option to telecommute is becoming more widespread and allows for the SOHP to retain the skills of those who have long commutes, child care or elder care responsibilities or other considerations. Nine of the 21 states responding to the 2014 survey were allowed some form of telecommuting.³⁹
- Job sharing can also be considered.⁹
- Other types of compensation reported by SOHP include paid continuing education for some courses, comp time or overtime pay, personal or administrative time off, license renewal payment, and partial tuition for enrolling in a public health degree program.³⁹

Promotion

Workers are more likely to stay in jobs that offer the potential for promotion and opportunities for career advancement.¹⁶ Career development is one of the most common incentives for state programs, yet there are few career ladders for SOHP staff who want to continue to focus on oral health issues.⁹

- State health agencies need to create and publicize opportunities for people who begin at entry level to advance in the health agency and in the SOHP.³³
- Managers need to know the state health agency standards for workplace performance, make sure SOHP employees are familiar with the standards, and use the standards as the basis of employee performance appraisals.¹⁶
- SOHP staff can strive to learn crosscutting skills and knowledge to be able to take on greater responsibilities in management of broader areas such as maternal and child health, chronic disease, or rural health. Some health departments already have recognized dental directors' skills and promoted them to higher management positions.

Job Satisfaction

Health agencies and SOHPs that generate high levels of job satisfaction are important to the effective delivery of services.¹⁶

- State health agencies, and in particular SOHP directors/managers, should regularly assess working conditions within the program, identify if there are any morale issues or other frustrations, and work with administrators and staff to try to improve job satisfaction. This might include alleviating modifiable stresses in the work environment such as a lack of administrative support, poor physical facilities, ineffective managerial practices or too much of an emphasis on politics.³³
- Make sure job descriptions match job functions and expectations.
- Foster an organizational culture and climate that allows for the free flow of information, support of innovation, and an orientation toward learning.⁴⁰

Leadership Capacity

Effective SOHP leadership is needed to address oral health problems.⁴ Leadership training institutes have been shown to be effective but may be costly for SOHP staff who also may not be allowed to participate due to travel restrictions. ASTDD held a formal in-person National Oral Health Leadership Institute (NOHLI) from 2007-09 but funding is no longer available. In an evaluation of NOHLI completed by 21 individuals, 85% noted their NOHLI participation contributed to taking on new leadership responsibilities, and they had seen benefits from putting their new knowledge and skills into practice; 40%, however, noted barriers to using their newly gained knowledge and skills to move projects forward.⁴¹

- Prioritize leadership development through training and support.^{3, 25} Health agency and SOHP staff can be referred to other leadership institutes or online leadership courses.⁹ ASTDD shares these opportunities through its Weekly Digest.
- Encourage the use of participatory decision-making.⁴⁰ ASTDD facilitates this by involving SOHP directors and staff on its Board of Directors, as committee chairs and members, and as presenters/representatives at meetings of national groups or on expert panels. SOHPs can facilitate this through assignments to lead initiatives, task forces or coalitions.

Professional Development

Providing continuing education opportunities for the current health agency and SOHP workforce is important to ensure the competency of the workforce and to increase staff engagement.¹⁵ On-the-job training may be used; however, it should not be relied on as the primary vehicle for knowledge transfer.

- Conduct ongoing individual competency assessments or other similar needs assessments, and create and update professional development plans. ASTDD provides tools and consultants who can facilitate this process.
- Professional development plans may also be used for building team knowledge and skills through in-service training or peer learning collaboratives.
- Offer training that allows workers to revisit/renew existing skills, learn new skills, and adapt to a changing environment.³³
- Emphasize the value and attainment of proper qualifications through higher education and continuing education.⁹
- Recommend and develop professional development programs focusing on analytic decision-making and competency-based education.³³
- Tuition assistance, salary incentives, and release time or paid time-off can be used to incentivize staff to seek additional educational opportunities. ASTDD provides face to face professional development and networking opportunities for SOHP during an annual conference co-sponsored with AAPHD.
- Promote opportunities such as online MPH programs or non-degree courses for SOHP workers to continue their education without leaving the workforce.³³ ASTDD and other national groups provide frequent webinars, conference calls, "coffee breaks," and "lunch and learns" on specific topics for SOHPs.

Hands-on Work Experience

Strategies that give employees a chance to try out new skills while completing actual tasks generally produce good results. Examples of “hands-on” development strategies include:

- Work assignments in current positions that help an employee “stretch” beyond day-to-day duties while building competence and confidence;
- Job rotation to try out new skills and increase organizational knowledge;
- Special work assignments such as task force leadership that encourage an employee to focus on developing competencies that are not part of his or her current job but are important for a future position.

The effectiveness of hands-on opportunities for leadership development depends on strong supervisory support and constructive feedback so the experience is positive and focuses on developing needed skills. A less-than-satisfactory stretch assignment, however, should be viewed as a learning experience rather than a failure to meet leadership development expectations.

Orientation, Mentoring and Coaching Programs

New SOHP staff are often expected to “hit the ground running” and may not be given adequate orientation to their job, the complex aspects of the health agency environment, or an overview of other health agency programs. Current managers and leaders are highly valuable resources for their knowledge of organizational history, culture, and strategy. A seasoned manager sometimes may not be conscious of critical aspects of the job, but a shrewd future leader may catch those nuances in a job shadowing experience.

- SOHPs should work with health agency administrators to create a comprehensive, meaningful orientation program for new staff.
- Create learning connections with experienced state personnel, such as through mentoring, coaching, and job shadowing.⁹
- ASTDD sponsors a mentoring program for new state dental directors that includes orientation webinars and peer support by other state dental directors. New staff should be encouraged to participate, and seasoned directors should volunteer to serve as mentors.

4. Dual-strategies: Succession Planning and Redefine Retirement

Succession Planning

Strategic workforce planning is an important human resource process to make sure agencies have the right number of people with the right competencies in the right jobs at the right time. Whether the process is called “developing a leadership pipeline,” “enhancing bench strength,” “talent management,” “retirement forecasting” or “succession planning,” anticipatory and deliberate attention to building leadership capacity is necessary.⁹ Benefits of succession planning include: improved retention and job satisfaction, improved preparation for leadership, enhanced commitment to work and the workplace, improved knowledge transfer, faster replacement of key leaders, reduced transition time, and decreased recruitment costs.

- Determine the skills, competencies, and abilities individuals might need in the next five years.³³
- Create job shadowing opportunities for staff to learn from directors or managers.
- Encourage active engagement in an oral health coalition to be abreast of oral health activities and issues within the state and in broader coalitions to see where oral health fits within broader health issues.
- Create team experiences to develop budgets, logic models, workplans, etc. so everyone understands the process.
- Encourage staff members to assume leadership roles in community organizations or on committees.

- Engage in “meet and greet” activities that allow staff to increase their familiarity with other programs as well as partner organizations.
- Develop mentoring programs to develop individuals with potential to become the next generation of program leaders.

Redefine Retirement

Retirees are valuable resources in today’s work environment as teachers for future leaders, returning workers to finish short-term projects, consultants, and new workers in second careers. One of the most common workforce strategies is rehiring retirees; many state programs actively seek to rehire retired employees on a part-time basis.⁹ Tapping the retired worker talent pool provides a significant opportunity to avoid the loss of institutional knowledge and retain highly-skilled employees while allowing more time for succession planning. ⁹ Of those states permitted to rehire, most continue retirement benefits to the rehired employees but may not provide additional benefits.⁹

- It is important to identify roles – including teaching and mentoring – that retired workers can play for SOHPs.³³
- Retired annuitants can be especially valuable on specific projects or tasks related to data, policy, strategic planning, grant writing or evaluation.
- Because of the limited time commitment, it is important to make the most productive use of retirees’ time and not involve them in unnecessary meetings or activities.

B. Strategies Reaching Beyond the Dental Public Health Workforce

It is important to acknowledge that DPH encompasses the work of all those who contribute to the oral health of the public. Categorical funding has created a very specialized public health workforce that lacks many foundational skills that are and will continue to be in demand.⁴² SOHPs must reach beyond their silos to assure the full complement of skill sets and competencies. Major groups that might not be SOHP employees but must be considered include statisticians, communication specialists, legal experts, epidemiologists, water engineers, evaluation specialists, grant writers, and volunteers. A recent mixed method study involving 31 public health organizations noted that systems thinking, communicating persuasively, change management, information and analytics, problem solving and working with diverse populations were priorities for cross cutting workforce development.⁴²

Resource Sharing

Resource sharing and collaborative partnerships can help SOHPs accomplish equal or greater health improvements without overburdening understaffed agencies.³³

- Promote stronger connections between SOHPs and other programs and departments.
- Base resource allocation on promoting the healthiest community rather than focusing only on health care.³³
- Cross train workers to be skilled in a range of public health settings and tasks to ensure the development of a responsive, competent, diverse, and "elastic" workforce.³³
- Provide more opportunities for public health training and education through the SOHP that are accessible to senior staff of district and local health offices, particularly those in leadership positions.¹⁵

Marketing and Assuring Sustainability

Assuring sustainability of SOHPs is essential. The public and policymakers are key stakeholders to ensure support of SOHPs. State oral health program staff and other oral health professionals must look to new partners to help them achieve their goals and outcomes.

- Outreach to new partners, institutes of higher learning, parents, elders and legislatures to increase their awareness of SOHPs using a variety of appropriate communication strategies.⁹

- Strong statewide oral health coalitions and collaborative partnerships are needed to create and maintain the political will.
- Develop a short- and long-term funding plan that creates a diversified funding stream of state, federal and private resources.
- Raise public awareness and increase public perception of SOHP careers and services.
- Develop short, targeted reports or fact sheets on current conditions in SOHP and the state to aid policymakers in determining future planning and funding.⁹
- Cultivate a culture of learning/continuing education by working with elected officials to assure funding for this training, addressing issues of time, money and staffing patterns.³³
- Emphasize the “common ground” benefits of a strong SOHP for both the public and private sectors, thus gaining collaborative advocacy strength from the state primary care association, the state dental association and other supporters.

Training for the Most Needed Knowledge, Skills and Attitudes

Along with the new skills needed, a 2014 study of emerging priorities in workforce development identified the following attitudes needed by public health workers: 1) openness, 2) participative leadership, 3) political sensitivity, 4) values differences and 5) learning spirit.⁴²

- Gear recruitment efforts towards individuals who already display the five attitudinal attributes.
- Create more opportunities for team experiences in learning cross cutting knowledge, skills and attitudes, especially appreciation for inter-professional cultural differences as well as cultural differences among populations.
- Rethink some of the disciplinary competencies to include more crosscutting and emerging skills.
- Provide more public health concepts in continuing education of the primary care workforce, and more primary care concepts in continuing education for the public health workforce.

III Resources

Association of State and Territorial Health Officials (ASTHO)

ASTHO recognizes the importance of workforce enumeration to assess current demographics, identify shortages and surpluses, track trends over time, forecast future needs, and advocate for resources. Leadership development and succession planning are also emphasized for a strong, well-staffed public health agency.

Profile of State Public Health: <http://www.astho/Profile/>

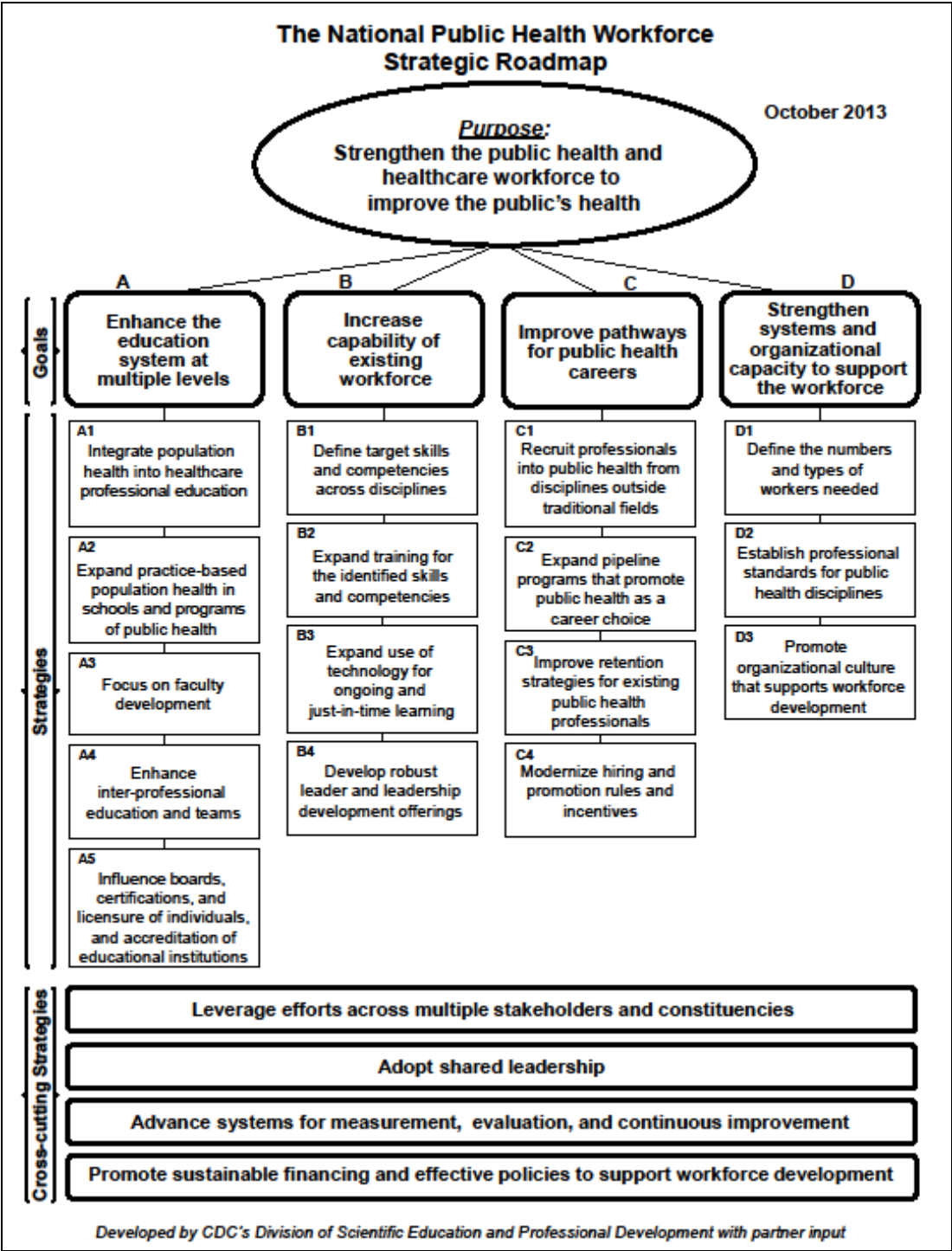
Centers for Disease Control and Prevention (CDC)

The CDC recommends hiring talented people and ensuring that workers are unobstructed and motivated to do their job. Whenever possible, extraordinary employees should be identified and promoted.

Basic Strategies for Collective Impact:
http://www.cdc.gov/oralhealth/state_programs/infrastructure/index.htm

The National Public Health Workforce Strategic Roadmap- October 2013:

This roadmap was conceptualized during a CDC summit on Modernizing the Workforce for the Public’s Health. The Roadmap includes four goals: 1) Enhance the education system at multiple levels, 2) Increase capacity of existing workforce, 3) Improve pathways for public health careers, and 4) Strengthen systems and organizational capacity to support the workforce.



Council on Linkages Between Academia and Public Health (Council on Linkages)

The Council on Linkages leverages input from 19 national organizations and others in the public health field to maintain the Core Competencies for Public Health Professionals. These Core Competencies are divided into three tiers based on seniority and outline the key skills needed by public health practitioners.

http://www.phf.org/resourcestools/pages/core_public_health_competencies.aspx

The Public Health Foundation developed a tool, the “3-Step Competency Prioritization Sequence,” to help public health organizations identify and address competencies that are most crucial to their success.

http://www.phf.org/resourcestools/pages/3step_competency_prioritization_sequence.aspx

Healthy People 2020

Healthy People 2020 (<http://www.healthypeople.gov/>) acknowledges that Public Health Infrastructure is key to all other topic areas in HP2020 and includes objectives aimed at improving the public health infrastructure. Within oral health, public health workforce objectives include:

OH 10.2 Increase the proportion of local health departments that have oral health prevention or care programs.

OH-16 Increase the number of States and the District of Columbia that have an oral and craniofacial health surveillance system.

OH-17 Increase health agencies that have a dental public health program directed by a dental professional with public health training.

Surgeon General’s Report on Oral Health

The [Report](#) recommends strengthening the public health capacity for addressing oral health and integrating dental public health with other public health programs. The need for adequate personnel, in particular the need for trained public health practitioners knowledgeable about oral health to ensure the oral health of the public, is recognized.

Training Resources:

HRSA National Public Health Training Centers (PHTC) Network
<http://bhpr.hrsa.gov/grants/publichealth/trainingcenters/>

Public Health Foundation, The TrainingFinder Real-Time Affiliate Integrated Network (TRAIN)
www.train.org

CDC Learning Portal
<http://www.cdc.gov/learning/>

APHA Continuing Professional Education Website
<http://www.apha.org/programs/education/>

Public Health Workforce Resource Centers:

CDC State, Tribal, Local, and Territorial Public Health Professionals Gateway
<http://www.cdc.gov/stltpublichealth/index.html>

National Association of County & City Health Officials (NACCHO) Workforce Resource Center
<http://www.naccho.org/topics/workforce/workforce-resource-center.cfm>

The National Center for Health Workforce Analysis
<http://bhpr.hrsa.gov/healthworkforce/>

Leadership:

E-Learning for New State Health Officials
<http://www.astho.org/Member-Services/State-Health-Leadership-Initiative/>

ASTHO Workforce and Leadership Development Website
<http://www.astho.org/Programs/Workforce-and-Leadership-Development/>

Center for Health Leadership and Practice
<http://www.healthleadership.org/>

Program Assessment:

Program Sustainability Assessment Tool (PSAT)

3 Step Competency Prioritization Sequence, Public Health Foundation, Council on Linkages
http://www.phf.org/resourcestools/Documents/3-Step_Competyency_Prioritization_Sequence.pdf

Association of State and Territorial Health Officials. Best practices for developing and deploying a competency-based training needs assessment. Environmental Scan Brief.
www.astho.org/.../Workforce-Needs-Assessment-Environmental-Scan/

Association of State and Territorial Dental Directors. ASTDD competencies and competency assessment tools for state oral health programs. <http://www.astdd.org/state-oral-health-program-competencies-and-competecy-tools/>

Succession Planning Resources:

ASTHO Succession Planning Guide. 2008.
http://www.astho.org/uploadedFiles/10_Programs/110_Workforce_Development/DownloadAsset.pdf

New York Department of Civil Service and Governor's Office of Employee Relations Workforce and Succession Planning Web site, www.cs.state.ny.us/successionplanning

Optimizing Your Leadership Pipeline, Development Dimensions International, Inc., 2007, available at www.ddiworld.com/leadershippipeline

Public Personnel Management Journal, IPMA-HR, Vol. 33, Number 4, 2004, Nancy Kiyonaga, special editor

"State of Georgia Merit System, Succession Planning Requirements," October 2006, and other resources available at www.spa.ga.gov/HRI/sccessionplanning

Succession Planning in the Legislative Workplace: A Guide for State Legislatures, National Conference of State Legislatures, 2005. Available at www.ncsl.org

Today is the Tomorrow You Worried About Yesterday: Meeting the Challenges of a Changing Workforce, Nancy B. Kiyonaga, available at www.cs.state.ny.us/successionplanning

12 Keys for Succession Planning, Stephen Moulton, 2007, available at: www.actioninsight.com/articlearchive.

IV. Research Evidence (or Critical Gaps)

1. Research evidence on the composition of the dental public health and state oral health program workforce

Current literature lacks a meaningful skill-based definition of a DPH worker, which is critical to estimate the size and composition of the workforce. Institutionalized, periodic functional enumeration of the DPH and SOHP workforce is needed to provide data for workforce analysis.

2. Research evidence on workforce strategies

There is a growing body of research focusing on the complex relationship between public health infrastructure and performance outcomes. In general, the literature lacks studies linking workforce strategies with an increased capacity to carry out core functions and essential services, and improve health outcomes.

3. Research evidence on financial resources

Evidence shows the critical need for sustainable financial resources to ensure an adequate and competent SOHP workforce.

V. Best Practice Criteria

The ASTDD Best Practices Project has selected five best practice criteria to guide state and community oral health programs in developing their best practices. The following **initial review standards** have been proposed for the best practice approach of **Improving Oral Health through State Oral Health Program Capacity Development**:

1. Impact/Effectiveness

- A SOHP uses the ASTDD Competencies to assess their program.
Example: Using the ASTDD Competencies to assess the current skills of people available will help to identify where there are gaps, how to build on strengths and identify areas for skill development.
- A SOHP identifies the gaps in program skills and looks for expertise in other state agency personnel or community partners.
Example: After a SOHP has identified gaps in program skills using the ASTDD Competencies, the SOHP actively enters into Memoranda of Understanding (MOUs) or subgrants with other entities to address skills needed to support program activities.

2. Efficiency

- A SOHP shows leveraging of federal, state, and public and private community resources to improve SOHP capacity.
Example: SOHP uses school of public health for evaluation and epidemiology expertise; oral health coalition for grant writing and policy development; dental/dental hygiene schools for help with BSS, advice on specific projects or translating research findings; federal grants for fluoride or sealant program coordinators, epi expertise, etc.
- A SOHP recognizes the value of advocacy through partnerships within both the public and private sectors to enhance program activities.
Example: A SOHP works with the state oral health coalition to develop a plan for improving some aspect of oral health in the state or a locality in the state through advocacy, education, or funding for targeted programs or services.
Example: A SOHP, through the state oral health coalition, effectively utilizes the collective advocacy strength of the state primary care association and the state dental association to advance its desired actions and outcomes.

3. Demonstrated Sustainability

- A successful SOHP must have diversified funding that includes funding for state and local evidence-based programs.
Example: A SOHP applies for federal grants and cooperative agreements as well as state funding from private and public non-profit organizations and other funding opportunities.
 - A SOHP needs continuous, strong, credible, forward thinking leaders.
 - A successful SOHP needs a complement of staff, consultants and partners with proficiency in the *ASTDD Competencies for SOHPs*.
Example: A SOHP conducts a Competency Assessment session with staff and identifies complementary, substitutionary and unique staff skills as well as identifying gaps in skills that could be filled through other health department programs or outside contractors.
- A SOHP needs one or more broad-based coalitions that include partners with fiscal and political clout.
- A successful SOHP must have valid data (oral health status and other) to use for evaluation, high quality oral health surveillance, a state oral health plan with implementation strategies, and evidence-based programs and policies.

4. Collaboration/Integration

- A SOHP will establish strong working relationships with stakeholders to build support for oral health.
Example: SOHP that wish to build programs around a specific target group, e.g., pregnant women, could involve private or health plan dental and medical practitioners and their respective professional societies, community health center medical and dental staff and support staff, state Medicaid and CHIP staff, WIC, Early Head Start, advocacy groups, other public health department programs, various coalitions for oral health or perinatal issues, and community based businesses.

5. Objectives/Rationale

- A SOHP aligns its objectives with the national and state overall health objectives to address state and local oral health needs.
Example: Develop a state HP 2020 plan that integrates oral health, and a more specific broad-based State Oral Health Plan.
- A SOHP gathers, analyzes, interprets, disseminates and promotes the use of state and local data and research findings to: [1] inform policy development and program development, implementation and evaluation; and, [2] assure that oral disease prevention and control approaches are based on best available evidence and address the highest needs, including specific sub-groups of the population
Example: Develop a state sponsored or coordinated school-based dental sealant program, targeting school districts with lowest socio-economic indicators and specific age groups.

VI. State Practice Examples

The following practice examples illustrate various elements or dimensions of the best practice approach **State Oral Health Program Workforce Capacity Development**. These reported success stories should be viewed in the context of the particular state, as well as the program's environment, infrastructure and resources. Readers are encouraged to review the practice descriptions (click on the links of the practice names) and adapt ideas for a better fit to their states and programs.

A. Summary Listing of Practice Examples

Table 1 provides a listing of programs and activities submitted by states. Each practice name is linked to a detailed description.

Table 1. State Practice Examples Illustrating Strategies and Interventions for State Oral Health Program Workforce Capacity Development			
#	Practice Name	State	Practice
1	State Oral Health Program Infrastructure	MD	23008
2	State Oral Health Program Leadership	MD	23009
3	Statewide Dental Coalition Support	MD	23010
4	Partnerships with Academia	MD	23011
5	Improving Oral Health through Collaboration, Integration and Systems Development to Increase Capacity	MI	25009
6	New York State Dental Public Health Residency Program	NY	35012
7	Sustainability of an Oral Health Program	ND	37004
8	Program Development, Collaboration, and Sustainability	WV	55005

B. Highlights of Practice Examples

Highlights of state practice examples are listed below.

MD [Oral Health Program Infrastructure](#) (Practice #23008)

Upon receipt of Centers for Disease Control and Prevention (CDC) grant funds, the Office of Oral Health (OOH) at the Maryland Department of Health and Mental Hygiene (DHMH) started working on building its infrastructure by assessing its resources and recruiting key individuals identified by the grant, which was an important factor in contributing to a sustainable, comprehensive and effective strong oral health program. The activities included in building State Oral Health Infrastructure included training and cross training of employees, written recruiting efforts, collaboration and sharing of resources with other CDC-funded programs, and performance appraisals. Collectively, these actions established appropriate infrastructure to ensure OOH functions remained sustainable, feasible, and efficient.

MD [State Oral Health Program Leadership](#) (Practice #23009)

The Office of Oral Health (OOH) at the Maryland Department of Health and Mental Hygiene (DHMH) has established itself as a leading public health division and is recognized as a best practice oral health program. It uses evidence-based information to serve as an exemplary oral health resource to its stakeholders.

MD [Statewide Dental Coalition Support](#) (Practice #23010)

The assistance and support of the Maryland Dental Action Coalition (MDAC) has been fundamental in creating an environment of success for oral health in Maryland. The Office of Oral Health (OOH) helped establish the coalition in 2010, and as a member of the America Network of Oral Health Coalitions (ANOHC), MDAC has supported OOH through collaborative opportunities and the sharing of key ideas and developments in oral health programs.

MD [Partnerships with Academia](#) (Practice #23011)

The Office of Oral Health (OOH), at the Maryland Department of Health and Mental Hygiene (DHMH) works in partnership with the University of Maryland, School of Dentistry (UMSD) and the University of Maryland, School of Public Health at College Park (UMSPH) to develop and implement strategies and initiatives that impact critical state oral health issues, including pediatric dental capacity. OOH partnered with UMSD on the Pediatric Dental Fellowship Program to increase the

number of dentists who participate in the state Medicaid program. OOH also partnered with UMSD to conduct the Oral Health Survey of Maryland School Children since 1995.

MI [Improving Oral Health through Collaboration, Integration and Systems Development to Increase Capacity](#) (Practice #25009)

The Michigan Oral Health Program has limited general fund dollars appropriated directly for staff and other activities. Multiple sources such as federal grants, other state general funds and private foundations aid in funding staff and programs. Matching state general funds with Medicaid funds at a 1:1 ratio helps increase the state general funds available and secure funds for more staff activities and programs. Reviewing the specific Infant Mortality general funds that support the perinatal oral health coordinator position and how it interacts with Medicaid will assist with sustainability.

NY [New York State Dental Public Health Residency Program](#) (Practice#35012)

The New York State Dental Public Health Residency Program (NYSDPHRP) trains dentists to assume critical roles in the practice of dental public health. The program is a collaboration between University at Albany (SUNY-A) School of Public Health and the New York State Department of Health (NYSDOH) and has formal affiliations with the Jacobi Medical Center, Bronx, and the University of Rochester's Eastman Institute for Oral Health. The program has full accreditation from the Council on Dental Accreditation, American Dental Association. It embodies the model of public health education advocated by the U.S. Public Health Service and integrates academic training with extensive exposure to the practice of public health.

ND [Sustainability of an Oral Health Program](#) (Practice #37004)

When vital program funding from federal sources was reduced in 2013, it created a daunting challenge; how could core public oral health functions be performed and North Dakota's oral health infrastructure be maintained without the expected resources? To minimize the damage from budget reductions, the North Dakota Oral Health Program employed two general strategies: 1) creating new staffing approaches for performing essential program functions; and 2) identifying and pursuing new funding sources and resources.

WV [Program Development, Collaboration and Sustainability](#) (Practice #55005)

The West Virginia Oral Health Program (OHP) in its present form is a young, diversified, and ambitious collection of staff, investors, and oral health champions. Even though the OHP has been in existence for years, it has not been until recently that the program has gained significant traction earning both positive state and national reputations. This recognition stems from promising outcomes achieved via the unique "business-model" approach to population based oral health. A new approach to seeking funding redefines traditional financial resources and looks to include funders that are "investors" in the promotion of oral health.

VII. Acknowledgements

This report is the result of efforts by the ASTDD Best Practices Committee to identify and provide information on developing successful practices that address developing workforce capacity in state oral health programs.

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Best Practice Approach: Developing Workforce Capacity in State Oral Health Programs

VIII. Attachments

ATTACHMENT A

Strength of Evidence Supporting Best Practice Approaches

The ASTDD Best Practices Committee takes a broad view of evidence to support best practice approaches for building effective state and community oral health programs. The Committee evaluated evidence in four categories: research, expert opinion, field lessons and theoretical rationale. Although all best practice approaches reported have a strong theoretical rationale, the strength of evidence from research, expert opinion and field lessons fall within a spectrum. On one end of the spectrum are promising best practice approaches, which may be supported by little research, a beginning of agreement in expert opinion, and very few field lessons evaluating effectiveness. On the other end of the spectrum are proven best practice approaches, ones that are supported by strong research, extensive expert opinion from multiple authoritative sources, and solid field lessons evaluating effectiveness.

<u>Promising</u>				<u>Proven</u>	
<u>Best Practice Approaches</u>				<u>Best Practice Approaches</u>	
Research	+			Research	+++
Expert Opinion	+	⇒	⇒	Expert Opinion	+++
Field Lessons	+			Field Lessons	+++
Theoretical Rationale	+++			Theoretical Rationale	+++

Research

- + The majority of available studies in dental public health or other disciplines reporting effectiveness.
- ++ The majority of descriptive reviews of scientific literature supporting effectiveness.
- +++ The majority of systematic reviews of scientific literature supporting effectiveness.

Expert Opinion

- + An expert group or general professional opinion supporting the practice.
- ++ One authoritative source (such as a national organization or agency) supporting the practice.
- +++ Multiple authoritative sources (including national organizations, agencies or initiatives) supporting the practice.

Field Lessons

- + Successes in state practices reported without evaluation documenting effectiveness.
- ++ Evaluation by a few states separately documenting effectiveness.
- +++ Cluster evaluation of several states (group evaluation) documenting effectiveness.

Theoretical Rationale

- +++ Only practices which are linked by strong causal reasoning to the desired outcome of improving oral health and total well-being of priority populations will be reported on this website.

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