California Department of Public Health

California Oral Health Plan 2018-2028

California Oral Health Program

California Department of PublicHealth

COHP California Department of PublicHealth Oral Health Program

January 2018

California Oral Health Plan 2018-2028

Inquiries regarding the California Oral Health Plan 2018-2028 may be directed to:

Jayanth Kumar, DDS, MPH
State Dental Director
California Department of Public Health
Chronic Disease Control Branch
P.O. Box 997377, MS 7208
Sacramento, CA 95899-7377
Jayanth.Kumar@cdph.ca.gov

Rosanna Jackson
Oral Health Program Manager
California Department of Public Health
Chronic Disease Control Branch
P.O. Box 997377, MS 7208
Sacramento, CA 95899-7377
Rosanna.Jackson@cdph.ca.gov

Content contained in California Oral Health Plan 2018-2028 is in the public domain and may be reproduced or copied without permission. Citation to sources contained within this document is appreciated.

Table of Contents

Executive Summary 1

Background 3

Burden of Oral Diseases 3

Key Facts about Oral Health in California 3

Need for Action 5

California's Commitment to Improve Oral Health 6

The California Oral Health Plan Development Process 6

Strategic Frameworks and Public Health Concepts that Shape the California Oral Health Plan 8

Addressing Common Risk Factors 8

Healthy People 2020 and Social Determinants of Health 8

Key National Reports and Frameworks 8

Health Impact Pyramid 9

Evidence Based Recommendations and Best Practice Approaches 10

Health in All Policies 11

Collaborations for Community-Clinical Linkages 11

Integration of Oral Health and Primary Care 12

Health Literacy and Cultural Sensitivity 12

Oral Health Care System and Era of Accountability 13

Need for Data for Planning and Evaluation of Policies and Programs 13

State and Local Oral Health Program Functions and Services 14

ASTDD Guidelines for State and Territorial Oral Health Programs 14

Conceptual Model of the State Oral Health Plan Process 16

Next Steps 17

Goals, Objectives, and Strategies 18

Children 21

Pregnant Women and Children <Age 6 22

People with Diabetes 23
Oral and Pharyngeal Cancer 23
Vulnerable Populations 24
Capacity 26
Payment System 27
Infrastructure 27
Objectives and Strategies Table 32
References 35
Healthy People 2020 Oral Health Indicators 38
Contributors to the California Oral Health Plan 40
Stakeholder Organizations 40
Advisory Committee and Work Group Members 41
California Department of Public Health – Oral Health Program 42
Maternal, Child, and Adolescent Health Program 42
California Department of Health Care Services – Medi-Cal Dental Program 42
California Department of Education 42

Message from the Director

January 23, 2018

I am pleased to share the thoughtful efforts of dedicated people from across the state in this new document, *California Oral Health Plan 2018-2028*. The California Department of Public Health (CDPH) supports the development of healthy communities through public health policy, guidelines, funding opportunities, technical assistance, and workforce development for realizing each community's unique vision.

CDPH affirms its commitment to improving the oral health of California residents by providing this roadmap. It presents a 10-year framework for addressing oral health disparities in local communities and statewide, built to align with the four focus areas of the California Wellness Plan: healthy communities; optimal health systems linked with community prevention; accessible and usable health information; and prevention sustainability and capacity. The strategies in the plan will be implemented by an expanded partnership using the California Healthcare, Research and Prevention Tobacco Tax Act of 2016 funds. This roadmap will lead to achieving the *Public Health 2035 Vision* of engaging communities through systems of prevention based on collaborative and science-based practices that reduce health care system dependence and improve health equity throughout California.

For advocates and providers, this is an exciting time to be collaborating with public health efforts. This plan is not the Department's plan but it is a plan for California. I encourage you to review the background information in the Plan that sets the context for the goals, objectives and strategies. Think about how you can personally promote this statewide effort and share your expertise and perspectives as we move the oral health agenda forward throughout the decade. We look forward to partnering with you in this transformational endeavor to improve oral health and the overall health of all Californians.

Sincerely,

Karen L. Smith, MD, MPH
Director and State Public Health Officer

Executive Summary

In 2014, the California State Legislature set forth a vision to assess and improve oral health in the state. The legislature requested that the California Department of Public Health (CDPH) prepare an assessment of the burden of oral diseases in California[1] and lead the development of an oral health plan based on the findings of the assessment.

In 2015, in collaboration with the Department of Health Care Services, CDPH convened an advisory committee including state and local governmental agencies, professional and advocacy organizations, foundations, academic institutions, and other partners to develop the California Oral Health Plan 2018-2028.

In developing the Plan, the advisory committee drew upon findings of the assessment and reviewed federal, state, and local studies to identify the major oral health issues in California. These issues include insufficient infrastructure to promote culturally sensitive community-based oral health programs; insufficient data to inform interventions; a range of barriers preventing access to care; a lack of implementation of evidence-based and demonstrable models of oral disease prevention and dental treatment; and a lack of consistent and effective messaging to encourage improvements in oral health, among other issues. The Plan provides a roadmap for improvements in oral health over the course of the next ten years in California.

Addressing these challenges, the California Oral Health Plan 2018-2028 identifies five key goals for improving oral health and achieving oral health equity for all Californians:

Goal 1: Improve the oral health of Californians by addressing determinants of health and promote healthy habits and population-based prevention interventions to attain healthier status in communities.

Goal 2: Align the dental health care delivery system, payment systems, and community programs to support and sustain community-clinical linkages for increasing utilization of dental services.

Goal 3: Collaborate with payers, public health programs, health care systems, foundations, professional organizations, and educational institutions to expand infrastructure, capacity, and payment systems for supporting prevention and early treatment services.

Goal 4: Develop and implement communication strategies to inform and educate the public, dental teams, and decision makers about oral health information, programs, and policies.

Goal 5: Develop and implement a surveillance system to measure key indicators of oral health and identify key performance measures for tracking progress.

[1] California Department of Public Health, Status of Oral Health in California: Oral Disease Burden and Prevention 2017, https://www.cdph.ca.gov/Programs/CCDPHP/DCDIC/CDCB/CDPH%20Document%20Library/Oral%20Health%20Program/Status%20of%20Oral%20Health%20in%20California_FINAL_04.20.2017_ADA.pdf

The California Oral Health Plan 2018-2028 also details corresponding strategies and activities for each of these five priority goals. While the Plan covers a 10-year timeframe, CDPH, and its partners, will use the California Oral Health Plan 2018-2028 as a basis to develop two-year action plans providing guidance to local and state entities on short-term priorities.

The Plan takes in to account recent fiscal developments, expanded coverage options, as well as innovations in program design, and lays a critical groundwork for the state. Notably, the California Healthcare, Research and Prevention Tobacco Tax Act of 2016 provides $30 million annually to activities that support the state oral health plan. Dental insurance coverage has also been expanded in both Medi-Cal, the state's Medicaid program, and Covered California, California's health insurance exchange. That expanded coverage will help many individuals and families access oral health care services. Additionally, in December 2015, the Centers for Medicare and Medicaid Services approved California's 1115 Waiver Renewal request, called Medi-Cal 2020. A component of the waiver is the Dental Transformation Initiative (DTI), which presents a unique opportunity to demonstrate innovative local solutions to increase preventive dental services to children who are enrolled in the Medi-Cal. The California Oral Health Plan 2018-2028 also provides information on several innovative programs designed to increase access to dental care, including school-based programs, Virtual Dental Homes (VDH), and partnerships with the Women, Infants, and Children (WIC) program.

The California Oral Health Plan 2018–2028 offers the structure for collective action to assess and monitor oral health status and oral health disparities, prevent oral diseases, increase access to dental services, promote best practices, and advance evidence-based policies.

Background

Burden of Oral Diseases

Oral health is an essential and integral component of overall health throughout life. It is about more than just healthy teeth: oral health refers to the health of the entire mouth, including the teeth, gums, hard and soft palates, linings of the mouth and throat, tongue, lips, salivary glands, chewing muscles, and upper and lower jaws. Good oral health means being free of tooth decay and gum disease, as well as being free of chronic oral pain, oral cancer, birth defects such as cleft lip and palate, and other conditions that affect the mouth and throat.

Key Facts about Oral Health in California

A previous CDPH report, *Status of Oral Health in California: Oral Disease Burden and Prevention 2017* as well as sources of state-specific data including the Behavioral Risk Factor Surveillance System (BRFSS), the California Health Interview Survey (CHIS), the National Survey of Children's Health (NSCH), the California Cancer Registry (CCR), the Maternal and Infant Health Assessment (MIHA), and data from the Office of Statewide Health Planning and Development (OSHPD) provide insight to establish key facts about oral health in California, including:

- Tooth decay is the most common chronic condition experienced by children—far more common than asthma or hay fever.
  - In California, 54 percent of kindergarteners and 70 percent of third graders have experienced dental caries (tooth decay), and nearly one-third of children have untreated tooth decay (2004 data – most recent available).(18)
  - In California, Latino children and low-income children experience more tooth decay and untreated tooth decay than other children.(18)
  - According to the 2011/12 National Survey of Children's Health, 22.1 percent of children aged 1-17 reported oral health problems in the past 12 months. The prevalence of oral health problems was 14.8, 19.1, 25.4 and 37.9 percent among White non-Hispanic, other non-Hispanic, Hispanic, and Black non-Hispanic children, respectively. Approximately, 10.4 percent of parents described the conditions of their children's teeth as fair or poor.(19)
  - It is estimated that California children miss 874,000 days of school each year due to dental problems.(20)

- Tooth loss is an important indicator of oral health. It affects one's ability to chew, speak, socialize, and obtain employment.
  - The prevalence of permanent tooth loss in 2012 ranged from 13 percent among 18-24 year-old group to 68 percent among adults aged 65 or older in California.(1)
  - The prevalence of total tooth loss among the 65-74 year-old group in California was 8.7 percent compared with 24 percent for the United States (U.S.) as a whole.(1)
  - African-American adults in California have a higher prevalence of tooth extraction due to decay or gum disease.(1)

- Oral and pharyngeal cancers are largely preventable. Tobacco, alcohol, and Human Papilloma Virus (HPV) infection are known risk factors. Excessive sun exposure is also a known risk factor for lip cancers.

- In 2012, 4,061 Californians were diagnosed with cancers of the oral cavity and pharynx, and 973 deaths occurred due to the disease.(21)
- Although these cancers are accessible for self-inspection or during medical and dental examinations, about 68.6 percent of oral and oropharyngeal cancers are diagnosed after the disease has advanced, in which the prognosis for both survival and quality of life is poor.(22)
- African-American adults in California have higher mortality rates from oral cancers than adults of other racial/ethnic groups.(21)

Tooth decay, gum infections, and tooth loss can be prevented in part with regular visits to the dentist. The proportion of children, adolescents, and adults who visited the dentist in the past year is one of the Leading Health Indicators (LHIs), a smaller set of Healthy People 2020 objectives. LHIs were selected to communicate high-priority health issues and actions that can be taken to address them. In 2007, however, only 44.5 percent (age adjusted) of people age two and older in the U.S. had a dental visit in the past 12 months, a rate that has remained essentially unchanged over the past decade.(23)

- According to the 2011/12 NSCH, 75.3 percent of children and adolescents aged 1-17 years in California had a dental visit for preventive care. The percent of children with a preventive dental visit varied from a low of 63.3 percent among the lowest income group (<99 percent of the Federal Poverty Level) to a high of 83.6 percent among the highest income group (>400 percent of the Federal Poverty Level).(19)
- In 2014, out of approximately 5.34 million California children (<20 years) enrolled in Medi-Cal (continuously for 90 days), 44.8 percent and 36.3 percent received any dental service and preventive dental service, respectively.(24)
- Fewer than half of pregnant women in California are receiving dental care during their pregnancies. Women whose health care providers recommended a dental visit during pregnancy are nearly twice as likely to have dental care as women who did not get this recommendation.(1)

- According to the 2014 BRFSS survey, 65.1 percent of persons aged 18 and older visited a dentist or a dental clinic within the past year. The percent of adults with a dental visit in the past year was 55 percent, 56.3 percent, 71 percent, and 72.5 percent among Black non-Hispanic, Hispanic, other non-Hispanic, and White non-Hispanic adults respectively.(25)
- Access to fluoridated water, use of tobacco products, insurance coverage and availability of services are important determinants of oral health.(1)
- The adverse effects of tobacco use on oral health are well established. There is a strong link between smoking and oral cancer, periodontal disease, tooth loss, and treatment outcomes. Nationally, about 45 percent of general practice dentists reported that they or their dental team usually or always personally counsel patients who use tobacco products about tobacco cessation.

  - Community water fluoridation is the single most important step a community can undertake to reduce tooth decay. In California, 64 percent of the population receives fluoridated water from their community drinking water system, far short of the

HP 2020 target of 79.6 percent.

- In 2016, 51 percent of the 11.1 million children in California had dental insurance coverage through Medi-Cal.
- In June 2014, according to the Dental Board of California, California had 36,165 active licensed dentists, 18,759 Registered Dental Hygienists (RDH), and 34,159 Registered Dental Assistants.
- Community Health Centers (CHCs) are major safety-net providers for uninsured residents and Medicaid enrollees in California. An analysis of the 886 CHCs in 2016 found that 602 (68 percent) had some capacity to provide dental services but only 292 (33 percent) reported having some level of full-time equivalent dentists and alternative practice hygienists on-site.
- There are 53 dental Health Professional Shortage Areas (HPSAs) in California. Approximately 5 percent of Californians (1,760,361 people) live in a dental HPSA.
- The use of hospital emergency rooms for preventable dental conditions is an indicator of lack of access to care. In 2012, emergency departments in California had approximately 113,000 visits for preventable dental conditions. Of California's 58 counties, Del Norte, Modoc, Siskiyou, Lake, and Shasta Counties have the highest age-adjusted rates of preventable emergency department dental visits. However, San Diego, Riverside, Sacramento, San Bernardino, and Los Angeles Counties have the greatest number of emergency department visits for preventable dental conditions.[2]

Need for Action

National reports consistently rank California in the lower quartile among states with respect to children's oral health status and receipt of preventive dental services.(3-5) A previous CDPH report, the *Status of Oral Health in California: Oral Disease Burden and Prevention 2017* found the state is not on track to achieve many of the Healthy People 2020 national goals and objectives.(1) There are marked oral health disparities with respect to race and ethnicity, income, and education. A large diverse population, low oral health literacy, lack of resources to scale up programs, uneven distribution of the workforce, and inadequate infrastructure and capacity in the public health system, have presented difficulties in delivering preventive and early treatment services.(6) The racial and ethnic diversity of the workforce is not congruent with that of the population, possibly affecting access to services and culturally appropriate delivery of dental care.(7) Numerous reports highlight the need to address barriers to accessing and receiving preventive and treatment services.(8-10) The cost of dental care and lack of dental insurance coverage often are cited as major reasons individuals and families do not seek needed dental care or not in a timely manner.(6, 11) Dental coverage for adults under the federal Medicaid program is not mandated, and the federal Medicare program for older and disabled adults does not include routine oral health services. Furthermore, employer-sponsored insurance coverage for dental services has declined. As a result, approximately 45 percent of the cost of dental care is paid out of pocket.(12)

According to the American Dental Association (ADA), several important structural changes have

[2] Data obtained through BRFSS, CHIS, NSCH, and MIHA are based on self-report of dental visits and utilization of dental services. Therefore, dental visits and utilization of preventive services in these surveys generally show much higher rates when compared with data based on claims and clinical examination as reported by Medicaid and the Medical Expenditure Panel Survey.

occurred in the dental care sector in recent years.(13, 14) While the percentage of children who lack dental benefits has declined due to the expansion of the Medicaid program, dental benefits for adults has steadily eroded in the past decade. Concomitantly, dental care utilization among children has increased steadily in the past decade while the utilization of dental care among working-age adults has declined.

California's Commitment to Improve Oral Health

California state and local governmental agencies, professional and advocacy organizations, foundations, academic institutions, and other groups have worked collaboratively and demonstrated a commitment to improving oral health in California. There have been several recent positive developments, including the re-establishment of CDPH's Oral Health Program (OHP); the strengthening of the dental services under Medi-Cal program, including the implementation of the DTI; and expanding dental insurance coverage under Covered California for children and families.

Additionally, the Department of Health Care Services' Child Health and Disability Prevention Program delivers periodic health assessments and services to low income children and youth in California including oral health assessments. The program provides care coordination to assist families with dental appointment scheduling, transportation, and access to diagnostic and treatment services. Health assessments are provided by enrolled private physicians, local health departments, community clinics, managed care plans, and some local school districts.

The First 5 California and County Commissions have also led efforts to build sustainable systems to address the oral health needs of young children in California.

Recent policies and programs have enabled California to move forward with the strategies that can address the burden of oral diseases. These include the requirement for oral health assessment in kindergarten, changes in the Medi-Cal program for dental examinations starting at age one versus age three, coverage of dental benefits for pregnant women, partial restoration of dental benefits for adults in the Medi-Cal program, support for Tele-dentistry services, expansion of the scope of practice for dental team members, and the development of the VDH model.

The California Oral Health Plan Development Process

Under the leadership of CDPH's OHP, an advisory committee was convened in 2015 to provide guidance for developing the California Oral Health Plan. The advisory committee reviewed state, local, and national reports, identifying the following major oral health issues facing California:

- Infrastructure and capacity are lacking to promote culturally sensitive community-based oral health programs.
- Strong effective policies, funding, leadership, and communication/understanding to implement both evidence-based and demonstrable models of prevention and treatment are not in place.
- Access and receipt of dental services is lacking for Californians with the worst oral health. The problem is heightened for persons or families with low incomes and certain subgroups based on age, geography [rural or urban], ethnicity, different abilities, health status, institutional status, immigration status, insurance coverage, and housing status.

- There is an absence of visible, consistent, effective messaging that motivates and activates key stakeholders to do what is necessary to improve oral health in California.
- Lack of current data on oral health status, unmet treatment needs, insurance coverage and utilization of dental preventive and treatment services has hampered the ability to assess the magnitude of the problems, inform decision makers and plan interventions.

CDPH, the advisory committee, and members of the workgroups developed goals, strategies and activities to accomplish the California Oral Health Plan, and prioritized a plan for action for the first two years. The California Oral Health Plan 2018-2028 provides a roadmap for building the infrastructure and improvements in population oral health over the course of the ten-year in California.

Strategic Frameworks and Public Health Concepts that Shape the California Oral Health Plan

Addressing Common Risk Factors

Oral diseases and other chronic diseases share many common risk factors such as poor dietary choices including soda and other sugar sweetened beverages, and tobacco and alcohol use.(23, 26) Tobacco use is associated with oral cancer, periodontal disease and tooth loss.(27) Tooth loss is linked to lower consumption of dietary fiber, fruits and vegetables, as well as with a high intake of cholesterol and saturated fatty foods.(28) This in turn could lead to heart disease, hypertension, stroke, cancer, and other chronic diseases. Multiple medications prescribed for chronic conditions also have profound adverse effects on oral health.(29)

Healthy People 2020 and Social Determinants of Health

Oral health promotion and disease prevention efforts at the national and state level are guided by HP 2020, a set of goals and objectives aimed at improving the health of all people. The overall goal of the oral health objectives is to prevent and control oral and craniofacial diseases, conditions, and injuries and improve access to related services. Achieving optimal oral health requires a commitment to self-care and preventive behaviors as well as ongoing professional care and use of evidence-based public health approaches. However, this is influenced by socioeconomic determinants of health and the environment in which one lives. Research shows that conditions in the community environment have a far greater effect on health outcomes than access to and quality of health care.(30)

Key National Reports and Frameworks

More than a decade ago, the Surgeon General of the U.S. Richard H. Carmona, called upon policymakers, community leaders, private industry and agencies, health professionals, the media, and the public to affirm that oral health is essential to general health and well-being and to take action to change perceptions, overcome barriers, build the science base, and increase oral health workforce diversity, capacity, and flexibility.(31) In 2011, the Institute of Medicine (IOM) issued its report, Advancing Oral Health in America, which encouraged the U.S. Department of Health and Human Services (HHS) to focus on prevention; improve oral health literacy; enhance delivery of care including interprofessional, team-based approaches to the prevention and treatment of oral diseases; expand research; and measure progress.(6) HHS created a Strategic Oral Health Framework (32) for 2014-17 with five overarching goals:

1. Integrate oral health and primary health care.
2. Prevent disease and promote oral health.
3. Increase access to oral health care and eliminate disparities.
4. Increase the dissemination of oral health information and improve health literacy.
5. Advance oral health in public policy and research.

In the COHP, strategies and actions follow each goal. Examples include training and technical assistance; evaluation, data, and policy; service delivery improvements; and opportunities for public and stakeholder engagement.

Health Impact Pyramid

Frieden's (33) conceptual framework for public health action, the Health Impact Pyramid (Figure 1), is readily applicable to improving oral health. In this pyramid, efforts such as improving dental insurance coverage and increasing oral health literacy to mitigate the effects of socioeconomic determinants of health are at the base of the pyramid, followed by public health interventions that change the context for health (e.g., community water fluoridation), protective interventions with long-term benefits (e.g., dental sealants), direct clinical care (e.g., dental restorations), and, at the top, counseling and education. According to this framework, public action and interventions represented by the base of the pyramid require less individual effort and have the greatest population impact. Figure 1 illustrates the Health Impact Pyramid and recommendations for public health programs to implement measures at each level of intervention and achieve synergy to improve oral health.

Figure 1. Frieden's Health Impact Pyramid

Examples
Chairside guide for counselling, motivational interviewing, and media campaigns
Evidence-based dental practices
School Dental Sealant Program
Fluoridation, mandated dental screenings in schools, and other settings
Insurance coverage and health literacy

Box 1: Evidence Based Recommendations and Best Practice Approaches

Box 1 lists evidence-based recommendations and best practice approaches that informed the development of the COHP.

The Guide to Community Preventive Services - Improving Oral Health:

- Community Water Fluoridation
- School-Based Dental Sealant Delivery Programs
  Community Guide - Caries

U.S. Preventive Services Task Force Recommendations

- Application of fluoride varnish to the primary teeth of all infants and children starting at the age of primary tooth eruption in primary care practices.
- Primary care clinicians prescribe oral fluoride supplementation starting at age six months for children whose water supply is fluoride deficient.
- Tobacco use counseling and interventions.
- Dental Caries In Children Birth to 5

The Association of State and Territorial Dental Directors (ASTDD) - Proven and Promising Best Practices for State and Community Oral Health Programs

ASTDD Best Practice Approach Reports: http://www.astdd.org/best-practices/

Evidence-Based Dentistry (EBD): http://ebd.ada.org/en/about/

Health in All Policies

The CDPH and the Public Health Institute describe Health in All Policies as "a collaborative approach to improving the health of all people by incorporating health considerations into decision making across sectors and policy areas."(34) Community water fluoridation demonstrates an example of collaboration across different sectors to promote a population-based intervention that reaches all segments of the society. To improve oral health, advocates have urged the adoption of a new model that uses a Health in All Policies (HiAP) approach to address oral health, integrates with both the health promotional aspects of HiAP and the medical care infrastructure, and manages oral diseases in a manner similar to that of other chronic diseases.

Collaborations for Community-Clinical Linkages

A key strategy in the prevention and control of chronic diseases is to establish linkages between clinicians and community resources to promote both clinical preventive services and healthy lifestyles. According to the Centers for Disease Control and Prevention (CDC), community-clinical linkages are collaborations between health care practitioners in clinical settings and programs in the community—both working to improve the health of people and the communities in which they live.(35) Developing strong community-clinical linkages connects health care providers, community organizations, and public health agencies so they can collectively improve access to preventive and treatment services. School-based and school-linked dental sealant programs are examples of a community-clinical linkage model where screening, counseling, provision of topical fluoride and sealants, referral and follow-up occur in a school setting. Children are linked to a source of oral care and a dental home where they can receive ongoing clinical services. Programs such as the VDH model expand the reach of the dental home to a variety of community settings and dental care providers. The Agency for Healthcare Research and Quality (AHRQ) framework(36) for community-clinical linkages describes programs that:

- Coordinate health care delivery, public health, and community-based activities to promote healthy behavior;
- Form partnerships and relationships among clinical, community, and public health organizations to fill gaps in needed services; and
- Promote patient, family, and community involvement in strategic planning and improvement activities.

The AHRQ model can be applied to improving oral health in California using several strategies already tested or identified as important. To promote healthy habits, population-based interventions and community-clinical linkage models, it is essential to provide guidance to communities, develop payment policies, build infrastructure and capacity, educate those providing services, and link people to services.

Integration of Oral Health and Primary Care

Reports note that the health care system is able to provide acute care but continues to struggle to address the need for ongoing care, especially for vulnerable populations such as those who are elderly and frail, disabled, mentally ill, or have other special needs.(37) To promote better oral health, the IOM recommended integrating oral health into primary care.(6, 38) In response, the Health Resources Services Administration (HRSA) developed the Integration of Oral Health and Primary Care Practice Initiative to create oral health core clinical competencies appropriate for primary care clinicians and promote implementation and adoption of the core competencies and its translation into primary care practice in safety net settings.(37) A national curriculum, Smiles for Life, trains primary care providers to screen for oral health problems, deliver preventive services, and refer to dental practitioners for follow-up care.(39)

The Children's Health and Disability Prevention (CHDP) has developed materials focused on children ages 0-20 including children with complex and special health care needs. These materials include provider trainings, provider guides, and brochures for distribution in the primary care office.(40-42)

Health Literacy and Cultural Sensitivity

Health literacy and cultural sensitivity are important concepts for addressing poor oral health. Health literacy is the ability to read, understand and act on health information; oral health literacy is defined as the degree to which individuals have the capacity to obtain, process and understand basic oral health information and services needed to make appropriate oral health decisions.(39) Health information should be: 1) Accurate, 2) Accessible, and 3) Actionable—the three A's. Based on numerous studies on oral health literacy, much of the general public and many health care providers do not have basic oral health literacy; dental care providers do not use recommended communication techniques with patients; health care and dental care systems are cultures unto themselves and are difficult to navigate.(43) Culture, education, language, age, and access to resources affect communication and understanding. A few significant national plans to improve health literacy have been created, and the National Institutes of Health funded a few oral health literacy studies, but there has never been a national study on oral health literacy of the public. (44, 45) Several resources and toolkits are available to use with different audiences for improving health literacy.

Cultural competency involves individuals and systems responding respectfully and effectively to people of all cultures in a manner that recognizes, affirms and values the worth of individuals, families and communities and protects and preserves the dignity of each.(46) It is a developmental process that evolves over time, with people and organizations at various levels of awareness, knowledge, and skills along the cultural competency continuum. Numerous training materials and opportunities are available to help health and service providers understand the needs and contributing circumstances that impact health.(47) Delivering services in a culturally sensitive manner is necessary for achieving health equity.

Oral Health Care System and Era of Accountability

As documented in the Kellogg Foundation 2011 report, Oral Health Quality Improvement in an Era of Accountability, the U.S. health care system has fully entered the Era of Accountability, and the oral health care system is following the same path.(48) Our health care systems spend far more money than other developed nations and produce significantly worse results. Part of the reason we spend so much and achieve so little is the fact that we significantly outspend other developed countries in medical care and significantly underspend in social services.(49) There is growing recognition that social determinants of health need greater attention during the education of health care professionals and in our approaches to achieving a healthy population.

A major strategy being pursued in our health care system was described by the Urban Institute as Moving Payment from Volume to Value.(50) This report describes the need to move payment systems from paying for providers and systems of care doing things (i.e., procedures or visits) to using payment systems to incentivize improving the health of the population. As indicated in the title of the Urban Institute's report, doing so requires developing and testing measures, establishing methods for collecting data related to those measures, and creating payment methodologies that provide incentives for health improvement and account for all the variability providers and health systems encounter in working in diverse settings and with differing populations.(47)

Many organizations in the oral health care industry are developing measures and testing their use in improving outcomes of dental care. As the oral health care industry moves further into the Era of Accountability, there will be additional development, testing, and application of care delivery systems that are capable of achieving the Triple Aim in oral health -- improving the patient experience of care (including quality and satisfaction); improving the health of populations; and reducing the per capita cost of health care.(51) This involves new payment systems that include incentives based on performance, particularly performance that is related to improved health of the population.

Need for Data for Planning and Evaluation of Policies and Programs

A core function of public health is assessment. Public health agencies accomplish this task through program and policy evaluation and public health surveillance. CDC notes that "effective program evaluation is a systematic way to improve and account for public health actions. Evaluation involves procedures that are useful, feasible, ethical, and accurate."(52) Surveillance is essential for planning, implementing, and evaluating public health practice. The overarching purpose of public health surveillance is to provide actionable health information to guide public health policy and programs. According to the Council of State and Territorial Epidemiologists (CSTE), a state Oral Health Surveillance System (OHSS) should provide information necessary for public health decision making by routinely collecting data on oral health outcomes, access to care, risk factors and intervention strategies for the whole population, representative samples of the population or priority subpopulations.(53) In addition, a state OHSS should consider collecting information on the oral health workforce, infrastructure, financing, and policies impacting oral health outcomes.

State and Local Oral Health Program Functions and Services

The Association of State and Territorial Dental Directors (ASTDD) developed a framework for state oral health programs, Guidelines for State and Territorial Oral Health Programs (Box 2), to implement the public health core functions of assessment, policy development and assurance, and the Ten Essential Public Health Services to Promote Oral Health.(54)

Box 2: ASTDD Guidelines for State and Territorial Oral Health Programs

Assessment

1. Assess oral health status and implement 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 people 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.
6. Review, educate, and enforce laws and regulations that promote oral health and ensure safe oral health practices.

Assurance

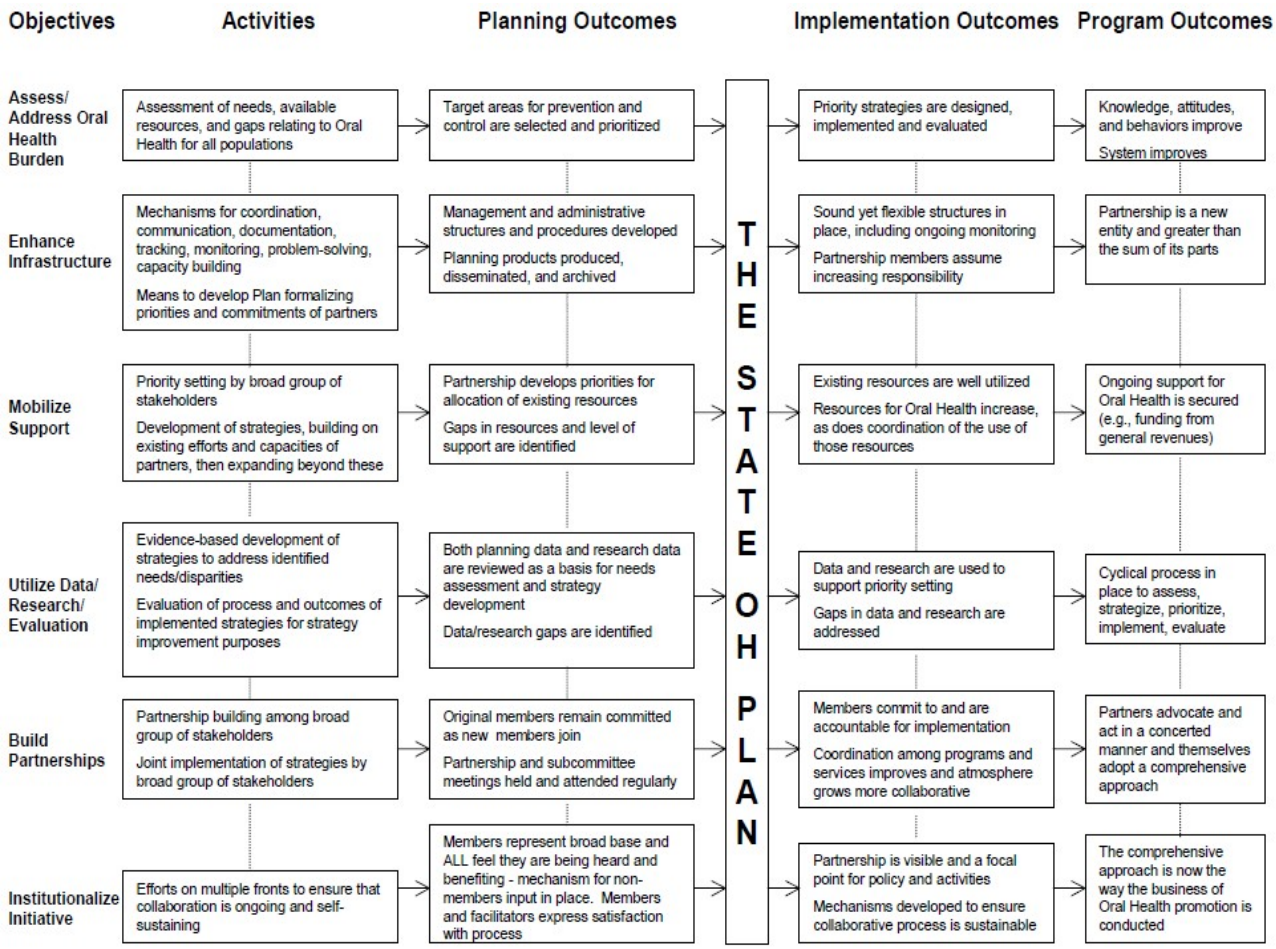
7. Reduce barriers to care and assure utilization of personal and population-based oral health services.
8. Assure an adequate and competent public and private oral health workforce.
9. Evaluate effectiveness, accessibility, and quality of personal and population-based oral health promotion activities and oral health services.
10. Conduct and review research for new insights and innovative solutions to oral health problems.

The American Association for Community Dental Programs also created a framework for local oral health programs, A Model Framework for Community Oral Health Programs Based Upon the Ten Essential Public Health Services.(55) The Chronic Disease Prevention Framework developed by the California Conference of Local Health Officers-County Health Executives Association of California also is well suited for promoting oral health policies and programs aimed at the community or population level in California.(56) Local Health Departments (LHD) are uniquely positioned to help forge alliances across jurisdictions, sectors, and disciplines to effectively address oral health problems. According to the Framework, LHDs "can convene local coalitions, help assess community health trends, facilitate access to data systems, consult on data collection methodology and analysis, provide forums for sharing evidence-based best practices, and assist with strategic planning and evaluation. LHDs also have a unique access to other government institutions that can be shared with community partners." Resources permitting, such a partnership between the state and LHDs offers a mechanism to implement the strategies proposed in the COHP.

Conceptual Model of the State Oral Health Plan Process

The Division of Oral Health, CDC and ASTDD provide guidance to state oral health programs for developing oral health plans. The following Conceptual Model of Comprehensive Oral Health State Plan Process reflects how CDPH and its partners will fulfill their commitment to implement the ASTDD Guidelines. It helps to achieve the objectives that result in a robust state oral health program. This model also outlines the mechanisms needed to be in place for directing the resources to reduce the oral disease burden.

Figure 2: Conceptual Model of Comprehensive Oral Health State Plan Process



Source: Centers for Disease Control and Prevention, Division of Oral Health

Next Steps

The following goals, objectives, strategies and activities provide a roadmap for achieving improvements in population oral health and health equity over the course of the ten-year COPH. Its implementation will require concerted efforts on the part of our partners. A list of specific, measurable, achievable, realistic, and time bound objectives is provided in the *Objectives and Strategies Table* (page 34).

As shown in Figure 2, the *Conceptual Model of Comprehensive Oral Health State Plan Process*, partnership building among a broad group of stakeholders and joint implementation strategies will lead to a comprehensive approach to addressing oral health needs in California. Partnership is a basic strategy to achieve collective impact. Towards that end, CDPH and DHCS are working closely with stakeholder groups to form a Partnership to advance the agenda. CDPH also worked with the advisory committee to develop a membership process, structure, and roles for a statewide Partnership to commit to coordinating implementation and evaluation of the COPH. The strategies and activities in the plan will be used to create an initial two-year plan of action, including communication and surveillance plans, to focus on those areas where immediate impact. Subsequent two-year plans of action will then be developed depending on the availability of additional resources.

Goals, Objectives, and Strategies

Goal 1: Improve the oral health of Californians by addressing determinants of health, and promoting healthy habits and population-based prevention interventions to attain healthier status in healthy communities.

Oral diseases such as tooth decay, gum infections, and cancer of the mouth and throat are attributable to a set of risk factors that are common to many chronic diseases and conditions. Social, economic, and physical environments influence health and risks, including oral diseases. Addressing these factors and taking steps to mitigate the effects require actions at the population level such as policies and environments that promote oral health and interventions to encourage timely dental assessments, preventive measures, and dental care. Programs such as community water fluoridation, school-based or linked programs that increase access to dental sealants and fluoride, and tobacco use prevention and control have the potential to reduce the burden of oral diseases. Individual-level interventions to encourage healthful habits and healthy choices are also essential.

Objective 1.A: Reduce the proportion of children with dental caries experience and untreated caries.

Objective 1.B: Reduce the proportion of adults who have ever had a permanent tooth extracted because of dental caries or periodontal disease.

Objective 1.C: Increase the proportion of the California population served by community water systems with optimally fluoridated water.

Objective 1.D: Increase the percentage of patients who receive evidenced-based tobacco cessation counseling and other cessation aids in dental care settings.

Strategy 1.1: Build community capacity to integrate oral health into the decision-making process for health policies and programs

a. Create a database of local oral health activities, policies, data, and resources to inform decisions.
b. Use data to identify and prioritize communities, population subgroups, and opportunities for promoting oral disease prevention and establishing programs and policies.
c. Provide guidance to communities for conducting oral health needs assessments, analyzing and prioritizing findings, developing and implementing action plans, building capacity, implementing programs, and policies and measuring progress.
d. Inventory oral health education resources on a variety of topics on a periodic basis and disseminate information to stakeholders.

e. Provide information and tools to different target groups about healthy choices for oral health such as including oral health lessons into school health curriculum and oral health policies into school wellness and safety policies.

Strategy 1.2: Address the determinants of oral health.

a. Provide dental health professionals with a protocol and tools to screen for relevant social determinants of health and link patients to community resources to mitigate their oral disease risk factors.
b. Provide dental health professionals with a protocol and tools to screen, counsel, refer, and follow up with patients who are affected by common risk factors for chronic diseases (tobacco use, alcohol use, consumption of soda and other sugar sweetened beverages, and low intake of fruits and vegetables).
c. Identify and promote community-clinical linkage programs such as school-based/linked dental sealant and referral programs to improve opportunities for oral disease prevention and early treatment management through community engagement.

Strategy 1.3: Identify, maintain and expand evidence-based programs and best practice approaches that promote oral health.

a. Encourage compliance with current oral health related guidelines, laws and regulations such as school entrance dental assessment, water fluoridation programs, dental-related requirements for Health Licensed Facilities, and infection control guidelines for safe dental practices.
b. Increase access to fluoride through maintaining/expanding state, local, and tribal community water fluoridation programs.
c. Recruit champions and provide training to build community support for community water fluoridation.
d. Support water operators through CDC resources to maintain compliance with reporting and to enhance performance.
e. Provide training and tools to dental offices/clinics to implement tobacco cessation counseling.
f. Explore funding for fluoridation.
g. Provide training and guidance to support development of evidence-based, community-based dental disease prevention and treatment programs.
h. Identify and promote policies and programs that support adoption of "daily mouth care" activities (tooth brushing) and "mouth healthy diets" in school, child care and congregate settings.

Goal 2: Align dental health care delivery systems, payment systems, and community programs to support and sustain community-clinical linkages for increasing utilization of dental services.

One of the HP 2020 LHI is the "proportion of children, adolescents, and adults who visited the dentist in the past year," while specific objectives relate to receipt of preventive services and settings where care is delivered in communities. The impact of oral diseases goes beyond pain and loss of function associated with the mouth and teeth to include quality of life. A growing body of evidence links periodontal disease to adverse pregnancy outcomes and to several chronic diseases, including diabetes, heart disease, and stroke. The complications of oral diseases may be prevented, in part, by regular dental visits. Although effective evidence-based clinical preventive and treatment services for oral diseases are available, they are underutilized, especially by certain population groups or individuals who experience substantial barriers to care. Screening, counseling, and preventive services are recommended in community settings but finding a regular source of dental care is often challenging. Therefore, it is important to establish linkages among people, providers, and community resources for facilitating cross referrals.

Objective 2.A: Increase the proportion of children who had a preventive dental visit in the past year and reduce disparities in utilization of preventive dental services.

Objective 2.B: Increase the percentage of Medi-Cal enrolled children ages 1 to 20 who receive a preventive dental service.

Objective 2.C: Increase the percentage of children, ages six to nine years, who have received dental sealants on one or more of their permanent first molar teeth.

Objective 2.D: Increase the proportion of pregnant women who report having been seen by a dentist.

Objective 2.E: Increase the number of Medi-Cal beneficiaries under six years of age receiving in any 12-month period a dental disease prevention protocol by primary care medical providers that includes an oral health assessment, fluoride varnish application, and dental referral or assurance the patient has received examination by a dentist in the last 12 months.

Objective 2.F: Increase the proportion of persons with diagnosed diabetes who have at least an annual dental examination.

Objective 2.G: Increase the engagement of dental providers in helping patients to quit using cigarettes and other tobacco products.

Objective 2.H: Decrease repeat emergency room visits for dental problems.

Objective 2.I: Improve the oral health status of institutionalized adults and increase the options for nursing home and other institutionalized adults to receive dental services.

Focus Area: Children

Strategy 2.1: Leverage each school district's Local Control Accountability Plan that is focused on equity, transparency, and performance to support kindergarten dental assessment.

a. Work with the California Department of Education (CDE) and others to provide information to every California school district that can be disseminated to parents and caregivers about available dental care resources.
b. Train dental practitioners to advocate for kindergarten dental assessment. Provide technical assistance to implement a kindergarten dental assessment protocol.
c. Track progress and improve performance of compliance with the kindergarten dental assessment.

Strategy 2.2: Identify, maintain, and expand community-clinical linkage programs in targeted sites such as WIC programs, Early Head Start/Head-Start, preschools, and schools.

a. Re-establish the California Children's Dental Disease Prevention Program with updated protocols and evaluation measures to facilitate oral health education preventive services and oral health surveillance in schools.
b. Provide guidance and training to dental practitioners in improving the performance of school-based and school-linked dental sealant and fluoride programs.
c. Establish within CDPH a state-organized approach to community-clinical linkage protocols/programs for preschool and school age children.
d. Establish a *Community of Practice* approach to promote community-clinical linkage programs including quality improvement methods for dental disease prevention for preschool and school age children.
e. Identify, engage, and train staff of community-based organizations that work with underserved populations, such as Early Head Start, WIC, Black Infant Health programs, home visiting programs, among others, to provide education, oral health assessment, counseling, appropriate referral, and follow up for oral health care.
f. Partner with the CHDP program to support local community partnerships and collaborative efforts to address children's dental health issues.
g. Expand programs such as the First 5 supported oral health initiatives, Alameda County Healthy Kids, Healthy Teeth (HKHT) Project and VDH for underserved populations. (See also strategy 2.4 k).
h. Engage and offer best practice approaches to support Community Health Centers (CHC), LHDs, and non- profit organizations for providing dental prevention services in community sites.
i. Provide technical assistance on dental billing practices and financial practices that support sustainability of programs.
j. Make use of resources provided by the National Center on Early Childhood Health and Wellness and other national programs.

Strategy 2.3: Capitalize on the Medi-Cal Dental Transformation Initiative and other program improvement efforts to increase the number of children receiving effective preventive interventions.

a. Continue to assess and improve the administration of the dental program under Medi-Cal.
b. Create incentives to increase utilization of preventive dental services.
c. Test innovative solutions in local pilot projects and scale up successful strategies to improve children's oral health.
d. Utilize performance measures to drive dental delivery system reform.
e. Use the contractual requirement for new dental administrative services organization (ASO) to increase the number of preventive dental services provided to children.
f. Require provider outreach plans in the contractual requirements with the dental ASO vendor. Report performance and track progress.
g. Assess the extent of preventive dental services provided by primary care providers.

Focus Area: Pregnant Women and Children <Age 6

Strategy 2.4: Integrate oral health and primary care by leveraging HRSA's Perinatal and Infant Oral Health Quality Improvement grant to identify and address barriers to care.

a. Promote and implement oral health standards of care/protocols for pregnant women to support primary care and obstetric medical providers that includes ascertaining whether a patient has received a dental examination during pregnancy, making a dental referral, and follow-up actions to facilitate care.
b. Promote and implement oral health standards of care/protocols for infants, 0-24 months of age to support primary care pediatric providers that includes ascertaining whether the infant has received a dental examination within the first 12 months of life, making a dental referral and follow-up actions to facilitate care.
c. Partner with the CHDP program to promote educational and training resources to participating health care providers.
d. Explore opportunities for medical managed care plans to adopt established oral health standards of care and protocols for pregnant women and infants and promote them to the medical providers within their networks.
e. Develop performance measures and track progress for the protocols/standards of care.
f. Identify curricula and provide training to medical and dental providers addressing the safety and benefits of dental care for pregnant women and infants, making successful referrals, and documenting completion of care and location of a dental home.
g. Train dental assistants and/or other dental and medical personnel to provide case management services for dental care.

h. Provide technical assistance and training to support the inclusion of oral health goals in Promotora/Community Health Worker (CHWs) programs and home visitation programs.
i. Engage and train home visiting program staff including Maternal, Child and Adolescent Health (MCAH) Home Visiting Programs to assess oral health, to counsel women and new mothers on good oral health practices for themselves and their infants and to make successful dental referrals.
j. Evaluate WIC-based program models that serve as an entry point for pregnant women to access education, preventive services and linkage to care in the community.
k. Expand programs such as the First 5 supported oral health initiatives, HKHT Project and VDH in WIC sites.

Focus Area: People with Diabetes

Strategy 2.5: Incorporate oral health into diabetes management protocols and include an annual dental examination as a recommendation.

a. Develop and disseminate guidelines for dental management of people with diabetes and identify the roles of providers (health, dental, CHWs, diabetes educators) in coordinating services.
b. Disseminate toolkits to train medical and dental providers on how to integrate oral health into diabetes management.
c. Provide evidence on effectiveness and cost savings to support changes needed in dental benefits under health plans and Denti-Cal to address the unique needs of people with diabetes.

Focus Area: Oral and Pharyngeal Cancer

Strategy 2.6: Integrate tobacco use cessation counseling and oral cancer assessment as part of dental and primary care visit protocols.

a. Provide protocols for dental and primary care providers to assess and document risk factors for oral and pharyngeal cancers (i.e., tobacco use, alcohol consumption, HPV exposure) and to conduct and document oral and pharyngeal cancer assessment for all patients age ≥12.
b. Provide protocols for dental providers to screen for all tobacco use (including cigarettes, smokeless tobacco, cigars, hookah, pipes, and electronic cigarettes) in all patients age ≥12, and provide tobacco cessation counseling.

Focus Area: Vulnerable Populations

Strategy 2.7: Explore support for a demonstration program to test methods for linking patients who present to hospital Emergency Departments (ED) to a dental provider.

a. Work with hospitals to ensure that patients who present to the ED with dental problems receive referrals for treatment for the underlying dental disease.
b. Link patients to a dental service location in the community, and provide an immediate and warm hand off.
c. Establish dentist rotations within the ED.

Strategy 2.8: Integrate dental services with educational, medical, and social service systems that serve vulnerable children and adults.

a. Partner with MCAH and CHDP programs to provide high quality dental care to children and youth with special health care needs.
b. Support LHDs to establish networks and connections among MCAH programs, primary care providers, FQHCs, Rural Health Clinics, DHCS's California Children Services, CHDPs, community clinics, and other pediatric providers to support linkage with dental care providers.
c. Provide training to staff and support integration of oral health systems such as "In-Home Dental Hygiene" systems, VDH systems, use of allied dental personnel, and other methods of keeping vulnerable populations healthy in community living facilities, day programs and at home.

Strategy 2.9: Provide information and guidance to facilities and dental practitioners regarding new and alternative care delivery models and the availability of training.

a. Provide guidance regarding programs such as the VDH model of care or other portable dental care systems in sites where vulnerable populations such as frail adults or persons with special health care needs live.
b. Disseminate information about training programs such as the ADA's *"Dentistry in Long-Term Care: Creating Pathways to Success,"* or other programs for dental health professionals to expand their practices to nursing homes, assisted living facilities, and senior centers.
c. Support improved daily oral health care training for long-term care facility staff via such programs as the University of the Pacific's "Overcoming Obstacles to Oral Health" or other programs.

d. Provide links to online resources that provide guidance and decision-making tools/tips for mobile and portable dental programs.
e. Promote learning experiences in dental and dental hygiene programs using a variety of dental care delivery models.

Goal 3: Collaborate with payers, public health programs, health care systems, foundations, professional organizations, and educational institutions to expand infrastructure, capacity, and payment systems for supporting prevention and early treatment services.

Adequate infrastructure, capacity, and payment systems are necessary to address the determinants of health and oral health, enhance protective factors, reduce risk factors, provide clinical services and achieve health outcomes. Developing resources to support such actions will require capitalizing on current opportunities, collaborating to align existing resources and generating innovative solutions. Strategies such as facilitating training of providers to enable them to assess and treat the special needs of patients, enhancing their competence to manage complex conditions, offering student loan repayment options to establish practices in geographically underserved areas, utilizing CHWs to enable patients to navigate payment and care systems, expanding the capacity of safety net clinics through contractual arrangements with local providers, and supporting dental services in LHDs have been successful.

Objective 3.A: Reduce the number of children whose dental disease severity necessitates dental treatment under general anesthesia.

Objective 3.B: Increase the number of dentists practicing in recognized dental professional shortage areas or providing a majority of their services to recognized underserved populations.

Objective 3.C: Increase the number of existing Promotora/CHWs/home visitation/CHDP programs that provide oral health counseling, dental referral assistance, and care coordination.

Objective 3.D: Increase the number of payers that implement dental benefit policies and payment strategies to support community-clinical linkage models.

Objective 3.E: Increase the percentage of payers that implement payment policies that reward positive oral health outcomes.

Objective 3.F: Increase the number and capacity of FQHCs that provide dental services.

Objective 3.G: Increase the number of counties from two to fifty-eight with scopes of work, oral health action plans, and budgets that include personnel and non-staff line items for performing essential dental public health functions.

Focus Area: Capacity

Strategy 3.1: Increase the capacity to manage dental problems in young children.

a. Provide training and support to general dentists for increasing their capacity to provide dental treatment for young children (e.g., Pediatric Oral Health Access program training).
b. Partner with local CHDP programs to make available training programs and educational resources to medical and dental providers.
c. Consider payment policies that support the provision of general anesthesia and sedation in ambulatory care settings based on specific protocols and criteria.
d. Explore opportunities to train dental students and dental residents for managing young children in dental offices by providing incentives to dental schools and residency training programs.

Strategy 3.2: Increase the capacity to manage dental problems in vulnerable adults.

a. Provide training and support to general dentists for increasing their capacity to provide dental treatment for people with developmental disabilities and dependent adults.
b. Develop payment policies that support community prevention and early intervention to reduce the need for the provision of general anesthesia and sedation for these groups.
c. Ensure dental students and dental residents receive optimal training in providing dental care for vulnerable adults by supporting payment policies that affect the delivery of services in dental school settings.

Strategy 3.3: Expand the loan repayment programs for students of dentistry and dental hygiene.

a. Identify and secure an ongoing source of funding for a loan repayment program that pays down student loan debt for dentists whose practice is located in a dental health professional shortage area or serves > 50 percent Medicaid beneficiaries, or other condition established to meet increasing capacity to provide dental treatment services.

Strategy 3.4: Encourage CHWs and Home Visitors to promote oral health and address barriers to care.

a. Provide and implement oral health curricula for CHWs and Home Visitors.
b. Identify resources to educate individuals about healthy oral health habits and connect individuals and families to care, as needed.

Focus Area: Payment System

Strategy 3.5: Explore insurance coverage and payment strategies to encourage preventive dental care and assure quality of care.

a. Review benefit programs' payment policies for supporting best practices that lead to sustainable community-clinical models.
b. Identify options for promoting and offering for purchase a wrap-around dental benefit plan for health-only coverage (adults and children).
c. Convene an advisory group to the state oral health program, to develop proposals and promote pilot testing concepts, that include, but are not limited to:

   - Paying programs for community-based prevention and early intervention.
   - Paying for care coordination (for coordination services provided within a clinical-community linkage system that meets the AHRQ definition of a "collaborating system").
   - Paying for dental and non-dental providers to emphasize prevention activities and include behavior support in dental care delivery systems.
   - Developing payment policies that provide incentives to providers based on positive oral health outcomes.

Focus Area: Infrastructure

Strategy 3.6: Increase the number of FQHCs that provide dental services in community sites.

a. Determine high-opportunity counties with FQHCs that could expand dental services by contracting with private dentists and provide LHDs with information on how to do so.
b. Provide technical assistance to help FQHCs use the workforce capacity that exists in the private practice sector via contracting consistent with Federal and State regulations.
c. Develop guidance and technical assistance for FQHCs who choose to add or expand dental services.
d. Encourage FQHCs to increase the number of dental programs providing services in community settings such as schools.
e. Provide assistance such as oral health needs assessment data for leveraging capital funding opportunities.
f. Develop a resource guide on best practices for community based dental services including billing practices in non-traditional sites.
g. Identify gaps in dental services offered by FQHCs such as specialty care, and provide recommendations to address the gaps.

Strategy 3.7: Develop a guide for funding non-clinical dental public health program activities and address building dental scopes of work language into county level agreements.

a. Develop and convene technical assistance/training or integrate with existing training and technical assistance for city/county public health program administrators and finance departments on program documentation requirements and program sustainability.
b. Pursue state and federal funding sources, including Federal Financial Participation Matching Funds Title XIX, Tobacco Tax Funds, First 5 Funds, and others as opportunity presents.

Goal 4: Implement communication strategies to inform and educate the public, dental care teams, general public and decision makers about oral health information, programs, and policies.

To be effective at either a population or individual level, communication needs to be strategic, timely, coordinated, targeted, and formatted appropriately for the intended audience. The key messages need to resonate, be understood, and not be misleading or contradictory. Disparities in access to information and ability to understand and use the information can result in missed opportunities for prevention and early treatment of oral diseases. Based on people's learning styles and how they access and process information, multiple communication pathways and formats are needed, including the use of social media and other health information technology. Communication planning and evaluation are as important as the strategies for delivering the information.

Objective 4.A: Institute a process for developing and implementing a communication plan for the COHP and related reports.

Objective 4.B: Increase the coordination, consistency, and reach of oral health messages targeted to different audiences in multiple languages and various formats.

Objective 4.C: Increase the number of LHDs (city/county) and FQHCs using social media to promote oral health.

Objective 4.D: Increase the proportion of patients who report their dental care teams (multidisciplinary teams which would include dental professionals and non-traditional members such as health care providers, community health workers, and home visitors) give them easy to understand instructions about what to do to take care of their oral health and prevent or treat oral diseases.

Strategy 4.1: Convene a Communication Workgroup to finalize and implement the California Oral Health Communication Plan.

a. Maintain and recruit Partnership participants to join the Communication Workgroup.
b. Ensure the Communication Plan addresses target audience(s) needs and leverage resources as needed.
c. Ensure that the Communication Plan addresses the needs by:

- increasing oral health awareness and visibility through innovative marketing approaches;
- identifying and sharing best-practices for in-person communication, online communication, and community outreach;
- streamlining provider and patient oral health resources through the standardized collection, evaluation, and promotion of best-practices, toolkits, resources, and oral health publications and products;
- increasing the coordination, consistency, and reach of oral health messages in multiple languages; and
- generating positive media coverage through the promotion of key findings and outcomes of the COHP.

d. Develop marketing strategies, interventions, and activities to achieve communication goals.
e. Develop documentation and evaluation methods and measures to determine how well the plan goals and activities have been achieved.

Strategy 4.2: Gather and market educational materials and approaches to achieve the California State Oral Health Communication Plan's goals and objectives.

a. Gather and share best practice approaches and promising practices with respect to surveillance, action plans, interventions, and coalitions.
b. Inventory oral health educational materials and resources and develop evaluation criteria for determining which products meet standards for being effective, credible, and culturally and linguistically competent.
c. Develop a platform to host the repository of selected oral health educational materials and resources or links to them so they can be easily accessed, utilized, and reproduced by oral health stakeholders.
d. Increase collaboration with entities that share an interest in improving oral health and integrating oral health messaging into other health related messages, such as DHCS and CDE.
e. Explore marketing endeavors with statewide reach to promote oral health; including engaging culturally competent champions to promote oral health messages to various target audiences.

Strategy 4.3: Promote and provide resources on how to use social media to promote oral health and improve the effectiveness of social media outreach.

a. Assess use of social media and existing policies and procedures related to using social media in LHDs, FQHCs and other organizations.
b. Develop Partnership guidelines for using social media channels to promote oral health awareness.
c. Develop an oral health social media best practice toolkit for targeting at-risk populations, including resources for content development.
d. Provide training on effective social media messaging strategies to increase post effectiveness and engagement.
e. Explore innovative social media marketing strategies that have a grass roots approach, similar to the Amyotrophic Lateral Sclerosis "Ice Bucket Challenge."

Strategy 4.4: Provide training and resources to improve dental teams' communication with patients about oral health.

a. Inventory educational courses on oral health literacy and cultural competence and select ones that will be most effective for dental and medical teams.
b. Develop a webpage to link educational courses on communicating with patients to providers that can be easily accessed and utilized by medical and dental teams.
c. Identify, distribute, and encourage the use of validated health literacy questions to assess patients' understanding of oral health.
d. Promote online resources or courses that educate dental teams on how to provide culturally and linguistically sensitive oral health counseling and care to patients.
e. Develop a tool for patients so they feel empowered, confident, and welcome to ask the dental team questions and discuss recommendations for care.
f. Create and distribute a standardized tool for gathering patients' feedback about the dental team's communication.

Goal 5: Develop and implement a surveillance system to measure key indicators of oral health and identify key performance measures for tracking progress.

Assessment is a key objective of California's public health efforts to address the nature and extent of oral diseases and their risk factors by collecting, analyzing, interpreting, and disseminating oral health data. These activities provide a mechanism to routinely monitor state-specific oral health data and the impact of interventions within specific priority populations over time. Continual assessment and evaluation support development of oral health programs and policies. A surveillance system is a critical requirement for the CDPH's Oral Health Program. According to the ASTDDs' Best Practice Report on State Based Oral Health Surveillance Systems, a state oral health surveillance system should: 1) have an oral health surveillance plan, 2) define a

clear purpose and objectives relating to the use of surveillance data for public health action, 3) include a core set of measures/indicators to serve as benchmarks for assessing progress in achieving good oral health, 4) analyze trends, 5) communicate surveillance data to decision makers and the public in a timely manner, and 6) strive to assure that surveillance data is used to improve the oral health of state residents.

Objective 5.A: Develop a five-year surveillance plan consistent with the CSTE definition of a State Oral Health Surveillance System to provide current data on diseases/conditions, risk/protective factors, and use of dental services.

Objective 5.B: Gather, analyze, and use data to guide oral health needs assessment, policy development, and assurance functions.

Strategy 5.1: Convene a Partnership with representatives from key organizations and agencies to advise the CDPH's Oral Health Program on surveillance plan development and implementation.

a. Review published surveillance plans, and assemble guidance documents for surveillance plan development.
b. Assemble a comprehensive list of oral health indicators from various national and state sources including National Oral Health Surveillance System (NOHSS), HP 2020, CDC Chronic Disease indicators, Centers for Medicare and Medicaid Services (CMS), Maternal and Child Health (MCH), among others.
c. Identify data sources and gaps in baseline data, and prioritize ways to address the gaps.
d. Create five-year data collection timeline based on data source.
e. Identify target audiences for dissemination, in conjunction with COHP Communications Workgroup.
f. Develop plans to conduct oral health surveys using the ASTDD Basic Screening Survey protocols to gather data on a representative sample of Head Start, kindergarten, and third grade children, meeting criteria for inclusion in NOHSS.
g. Develop evaluation and monitoring methods and measures as part of the surveillance plan.

Strategy 5.2: Analyze, communicate, and effectively use data for planning and evaluation.

a. Gather data on a set of annual indicators on the state's operational environment and programs, including infrastructure and workforce indicators, and submit to ASTDD's Annual Synopses of State and Territorial Dental Public Health Programs.
b. Develop publicly available, actionable oral health data documents to guide public health policy and programs.

Objectives and Strategies Table

Indicators	Timeframe	Baseline	Target [1]	Strategies	Data Source
Caries experience **- Kindergarten** **-Third Grade**	2015-2025	53.6% (2004-05) 70.6% (2004-05)	42.9% 56.5%	1.1, 1,2, 1.3 2.1, 2.2, 2.3, 2.4 3.1, 3.5, 3.6, 3.7	Survey of Kindergarten and 3rd grade children
Untreated caries **-Kindergarten** **-Third Grade**	2015-2025	27.9% (2004-05) 28.7% (2004-05)	22.3% 23.0%	1.1, 1,2, 1.3 2.1, 2.2, 2.3, 2.4 3.1, 3.5, 3.6, 3.7	Survey of Kindergarten and 3rd grade children
Tooth loss **35-44 years** **Ever had a permanent tooth extracted**	2015-2025	38.4% (2014)	34.6%	2.5, 2.6, 3.2	BRFSS
65+ **Complete tooth loss**	2015-2025	8.70% (2014)	7.80%	2.5, 2.6 3.2	BRFSS
Community Water Fluoridation (CWF) **-Percent of the population on CWF**	2015-2025	63.7% (2015)	70.0%	1.1, 1.3	Safe Drinking Water Information System
Tobacco cessation counseling in dental offices	2015-2020	35.7%	39.3% [1]	1.2, 1.3 2.6,	2010 Survey of Dental Offices [2]

Preventive dental visit in children **Living in household with income 0-99% FPL** **Living in household with income 400% FPL or higher**	2015-2020	63.3% (2011-12) 83.6% (2011-12)	69.6% 92.0%	1.2, 1.3, 2.1, 2.2, 2.3, 2.4, 2.8, 2.9 3.1, 3.3, 3.4,3.5, 3.6, 3.7	National Survey of Children's Health
Preventive dental visit among Medicaid children (0-20 years)	2015-2020	37.8% (2014)	47.8%	2.1, 2.2, 2.3, 2.4, 2.8, 2.9 3.1, 3.3, 3.4,3.5, 3.6, 3.7	Denti-Cal Performance Measure [3]
Children with dental sealant on a molar (6-9 years)	2015-2025	27.6% (2004-05)	33.1%	1.3, 2.1, 2.2, 2.3	Survey of Kindergarten and 3rd grade children
Pregnant women with dental visit during pregnancy	2015-2019	42.1% (2012)	48.4% [4]	2.4,	MIHA
Children under 6 years enrolled in Medi-Cal receiving dental services provided by a non-dentist provider	2015-2020	2.80%	12.8% [3]	2.3, 2.4, 2.8 3.6,	CMS Form 416
People with diabetes who have at least an annual dental visit	2015-2020	60.0%	66.0%	2.5	BRFSS
Oral and pharyngeal cancer detected at the earliest stage	2015-2020	23.2% (2011)	25.5%	2.6	Cancer Registry
Emergency room visits	2015-2020	298/100,000 [113,000 visits-2012)]	268/100,000	2.7	OSHPD
Number of children treated under general anesthesia	2015-2020	NA	Developmental	3.1	

Number of Community Health Worker and Home Visiting Program that provide oral health counseling and care coordination	2015-2020	NA	Developmental	3.4	
Number of payers that implement dental benefit policies and payment strategies that support community-clinical linkage models	2015-2020	NA	Developmental	3.5	
Number of FQHCs providing dental services	2015-2025	68.0% (N=886)[5] (2013)	74.8%	3.6	OSHPD
Number of patients who receive dental services at FQHCs.	2015-2020	19.8%	37.7%	3.6	UDS system
Number of dentists practicing in dental professional shortage areas	2015-2020	Developmental		3.3	OSHPD
Number of local health departments with scopes of work, oral health action plan and budgets	2015-2020	Developmental	10	3.7	Title V

Note: Goals 4 & 5 strategies are considered crosscutting and relate to all other goals.

[1] Target calculated proportionally based on HP 2020 OH-11 measure unless otherwise stated.

[2] American Dental Association. 2010 Survey of Dental Practice. Available: https://www.healthypeople.gov/2020/data-source/survey-dental-practice

[3] Dental Transformation Initiative. Current Medi-Cal 2020 Special Terms and Conditions (STCs). Page 68. http://www.dhcs.ca.gov/provgovpart/Pages/DTI.aspx.

[4] HRSA Perinatal and Infant Oral Health Quality Improvement (PIOHQI) Program performance measure.

[5] UCLA Center for Health Policy Research. Better Together: Co-Location of Dental and Primary Care Provides Opportunities to Improve Oral Health. Health Policy Brief, September 2015. Available: http://healthpolicy.ucla.edu/publications/Documents/PDF/2015/Dental-brief-sep2015.pdf

References

1. California Department of Public Health. Status of Oral Health in California: Oral Disease Burden and Prevention 2017, editor. Sacramento, 2017.
2. California Department of Health. California Wellness Plan. Sacramento: California Department of Public Health, 2014.
3. Center for Medicaid and Medicare Services. Dental and Oral Health Services in Medicaid and Children's Health Insurance Program: Center for Medicaid and Medicare Services February 2016.
4. Mandal M. Changes in Children's Oral Health Status and Receipt of Preventive Dental Visits, United States, 2003–2011/2012. Preventing chronic disease. 2013;10.
5. The Pew Center on the States. The State of Children's Dental Health: Making Coverage Matter. The Pew Charitable Trusts, 2011.
6. Institute of Medicine. Advancing Oral Health in America. Washington, DC: IOM, 2011.
7. Senate Office of Research and the Senate Health Committee. A Review of California's Health Care Workforce Shortages and Strategies to Address These Shortages. Sacramento: 2012.
8. California Dental Association. Phased Strategies for Reducing the Barriers to Dental Care in California. California Dental Association Access Report. California Dental Association, 2012.
9. Little Hoover Commission. Fixing Denti-Cal. 2016 Contract No.: Report #230.
10. Murrin S. Most children with Medicaid in Four States are not Receiving Required Dental Services. In: U.S. Department of Health and Human Services. Office of Inspector General, editor. Washington, DC. : Office of Inspector General, 2016.
11. Hinton E, Paradise J. Access to Dental Care in Medicaid: Spotlight on Nonelderly Adults: A Review of Coverage and Access. Kaiser Commission on Medicaid and the Uninsured, 2016.
12. Wall T, Guay A. The Per-Patient Cost of Dental Care, 2013: A Look Under the Hood. Chicago: American Dental Association, 2016.
13. American Dental Association. A Profession in Transition: Key Forces Reshaping the Dental Landscape, 2013.
14. Diringer J, Phipps, K, Carsel, B. Critical Trends Affecting The Future Of Dentistry: Assessing the Shifting Landscape, 2013.
15. Buckley P. Obamacare and the changing health care landscape, 2015.
16. Fronstin P. California Health Care Almanac. California's Uninsured: Coverage Expands, but Millions Left Behind, 2016.
17. California Department of Public Health. Public Health 2035. Update for the Legislature on CDPH issues. In: California Department of Public Health, editor. Sacramento, 2016.
18. Dental Health Foundation. "Mommy, It Hurts to Chew" The California Smile Survey: An Oral Health Assessment of California's Kindergarten and 3rd Grade Children. Oakland: Dental Health Foundation, 2006.
19. Data Resource Center for Child &Adolescent Health. National Survey of Children's Health 2011/12 [Available from: http://childhealthdata.org/browse.]
20. Pourat N, Nicholson, G. Unaffordable Dental Care Is Linked to Frequent School Absences. Los Angeles, CA, 2009.
21. California Department of Public Health (CDPH), California Cancer Registry. Incidence and Mortality Counts and Age-Adjusted (2000 U.S. Population) Rates per 100,000 Persons by Year, Race/Ethnicity, and Sex, California, 1988-2013, Oral Cavity and Pharynx Cancer, 2015 [Available from: http://www.ccrcal.org/pdf/AnnualReport/1988-2014_ORAL.pdf.]
22. Morris C, Ramirez C, Cook S, Parikh-Patel A, Kizer K, Bates J, et al. Cancer Stage at

Diagnosis, 2013. In: California Department of Public Health, editor. California Cancer Registry, 2013.
23. U.S. Department of Health and Human Services Office of Disease Prevention and Health Promotion. Healthy People 2020, Oral Health 2010
[Available from: https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Oral-Health.]
24. Centers for Medicare & Medicaid Services. Early and Periodic Screening, Diagnostic, and Treatment Data 2014.
[Available from: https://www.medicaid.gov/medicaid/benefits/epsdt/index.html.]
25. National Center for Chronic Disease Prevention and Health Promotion. BRFSS Prevalence & Trends Data. Centers for Disease Control and Prevention, 2016
[Available from: http://www.cdc.gov/brfss/brfssprevalence/index.html.]
26. Sheiham A., Watt R.G. The common risk factor approach: a rational basis for promoting oral health. Community Dentistry Oral Epidemiology. 2000; 28: 399-406.
27. Centers for Disease Control and Prevention. Working to Improve Oral Health for All Americans: At A Glance 2016
[Available from: http://www.cdc.gov/chronicdisease/resources/publications/aag/oral-health.htm.]
28. Joshipura K.J., Ritchie C. Can the relation between tooth loss and chronic disease be explained by socio-economic status? Eur J Epidemiolology 2005; 20(3):203-4.
29. Centers for Disease Control and Prevention. Oral Health and Older Adults
[Available from: http://www2c.cdc.gov/podcasts/media/pdf/HealthyAging_OralHealth.pdf.]
30. Centers for Disease Control and Prevention. Healthy People 2020: Determinants of Health
[Available from:**https://www.healthypeople.gov/2020/about/foundation-health-measures/Determinants-of-Health**]
31. U.S. Department of Health and Human Services. National Call to Action to Promote Oral Health. In: U.S. Department of Health and Human Services, editor. Washington, DC: Public Health Service, National Institutes of Health, National Institute of Dental and Craniofacial Research, 2003.
32. U.S. Department of Health and Human Services Oral Health Coordinating Committee. U.S. Department of Health and Human Services Oral Health Strategic Framework, 2014–2017. Public Health Reports. 2016; 131(March–April):242-56.
33. Frieden TR. A framework for public health action: the health impact pyramid. American journal of public health. 2010;100(4):590-5.
34. Rudolph L, Caplan J, Ben-Moshe K, Dillon L. Health in All Policies: A Guide for State and Local Governments. Washington, DC and Oakland, CA,: American Public Health Association and Public Health Institute, 2013.
35. Centers for Disease Control and Prevention. Community-Clinical Linkages for WISEWOMAN Programs.
[Available from: https://www.cdc.gov/wisewoman/docs/ww_brief_developing_community-clinical_linkages.pdf]
36. Agency for Healthcare Research and Quality. Clinical-Community Linkages
[Available from: http://www.ahrq.gov/professionals/prevention-chronic-care/improve/community/index.html.]
37. U.S. Department of Health and Human Services. Integration of Oral Health and Primary Care Practice. In: Administration HRaS, editor. Washington, D.C. 2014.
38. Institute of Medicine of the National Academies. Improving Access to Oral Health Care for Vulnerable and Underserved Populations, 2011.

39. The Society of Teachers of Family Medicine. Smiles for Life: A National Oral Health Curriculum [Available from: http://www.stfm.org/OnlineCourses/SmilesForLife.]
40. California Department of Health Care Services. Children's Health and Disability Prevention Program. CHDP Training and Resource Material 2016 [cited 2016 Septmber 15]. [Available from: http://www.dhcs.ca.gov/services/chdp/Pages/Training.aspx]
41. California Department of Health Care Services. Children's Health and Disability Prevention Program. Educational Materials for Families 2016 [cited 2016 Septmber 2016]. [Available from: http://www.dhcs.ca.gov/services/chdp/Pages/FamilyTools.aspx.]
42. California Department of Public Health. Maternal, Adolescent and Child Health, MCAH Oral Health Program, Provider Guides and Resources 2016 [cited 2016 September 15]. [**Available from:** https://www.cdph.ca.gov/Programs/CFH/DMCAH/Pages/Maternal-and-Infant-Health.aspx**]**
43. Institute of Medicine. Oral health literacy: Workshop summary. Washington, DC: 2013.
44. National Institute of Dental and Craniofacial Research. U.S. Public Health Service, Department of Health and Human Services. The Invisible Barrier: Literacy and Its Relationship with Oral Health. Journal of Public Health Dentistry. 2005; 65(3):174-92.
45. Podschun GD. National Plan to Improve Health Literacy in Dentistry. CDA Journal 2012; 40(4):317-20.
46. National Association of Chronic Disease Directors. Cultural Competency (CC) 101. [Available from: http://c.ymcdn.com/sites/www.chronicdisease.org/resource/resmgr/healthequity/hec_updated_cc_rev01.2010.pdf?hhSearchTerms=%22cultural+and+competency%22.]
47. Centers for Disease Control and Prevention. National Action Plan to Improve Health Literacy [Available from: http://www.cdc.gov/healthliteracy/planact/national.html.]
48. Glassman P. Oral Health Quality Improvement in an Era of Accountability. 2011.
49. The Commonwealth Fund. U.S. Health Care from a Global Perspective. 2015.
50. The Urban Institute. Moving Payment from Volume to Value: What Role for Performance Measurement, 2010.
51. The Institute for Healthcare Improvement. The IHI Triple Aim [Available from: http://www.ihi.org/Engage/Initiatives/TripleAim/Pages/default.aspx.]
52. Centers for Disease Control and Prevention. A Framework for Program Evaluation [cited 2016 July 15]. [Available from: http://www.cdc.gov/eval/framework/.]
53. Phipps K, Kuthy R, Marianos D, Isman B. State Based Oral Health Surveillance Systems, 2013.
54. ASTDD. Guidelines for State and Territorial Oral Health Programs [Available from: http://www.astdd.org/state-guidelines/.]
55. American Association for Community Dental Programs. A Model Framework For Community Oral Health Programs Based Upon The Ten Essential Public Health Services 2006 [Available from: http://www.aacdp.com/docs/Framework.pdf.]
56. CCLHO-CHEAC Chronic Disease Prevention Leadership Project. Chronic Disease Prevention Framework, 2013.

Healthy People 2020 Oral Health Indicators:

Target Levels and Current Status for United States and California.

Healthy People 2020 Objective		U.S. Target (%)	U.S. Baseline (various years) (%)	California Baseline (%)
OH-1	**Dental caries experience**			
	Young children, ages 3–5 (primary teeth)	30	33.3[a]	53.6[k]
	Children, ages 6–9 (primary and permanent teeth)	49	54.4[a]	70.9[l]
	Adolescents, ages 13–15 (permanent teeth)	48.3	53.7[a]	
OH -2	**Untreated dental decay in children**			
	Young children, ages 3–5 (primary teeth)	21.4	23.8[a]	27.9[k]
	Children, ages 6–9 (primary and permanent teeth)	25.9	28.8[a]	28.7[l]
	Adolescents, ages 13–15 (permanent teeth)	15.3	17[a]	
OH-3	**Untreated dental decay in adults**			
	Adults ages 35–44 (overall dental decay)	25	27.8[a]	
	Adults ages 65–74 (coronal caries)	15.4	17.1[a]	
	Adults ages 75 and older (root surface)	34.1	37.9[a]	
OH-4	**Permanent tooth extraction because of dental caries or periodontal disease**			
	Adults ages 45–64	68.8	76.4[a]	49.5[m]
	Adults ages 65–74 (lost all their natural teeth)	21.6	24[a]	8.7[m]
OH-5	**Moderate or severe periodontitis, adults ages 45–74**	11.5	12.8[b]	
OH-6	**Oral and pharyngeal cancers detected at the earliest stage**	35.8	32.5[c]	23.2[n]
OH-7	**Oral health care system use in the past year by children, adolescents, and adults**	49	44.5[d]	
OH-8	**Low-income children and adolescents who received any preventive dental service during past year**	33.2	30.2[d]	
OH-9	**School-based health centers (SBHC) with an oral health component**			44[o]
	Includes dental sealants	26.5	24.1[e]	
	Oral health component that includes dental care	11.1	10.1[e]	
	Includes topical fluoride	32.1	29.2[e]	
OH-10	**Local health departments (LHDs) and Federally Qualified Health Centers (FQHCs) that have an oral health component**			
	FQHCs with an oral health component	83	75[f]	
	LHDs with oral health prevention or care programs	28.4	25.8[g]	
OH-11	**Patients who receive oral health services at FQHCs each year**	33.3	17.5[f]	18.5[p]
OH-12	**Dental sealants**			
	Children, ages 3–5 (primary molars)	1.5	1.4[a]	
	Children, ages 6–9 (permanent 1st molars)	28.1	25.5[a]	27.6[l]
	Adolescents, ages 13–15 (permanent molars)	21.9	19.9[a]	
OH-13	**Population served by optimally fluoridated water systems**	79.6	72.4[h]	63.7[q]
OH-14	**Adults who receive preventive interventions in dental offices (*developmental*)[r]**			
	Tobacco and smoking cessation information in past year	N/A	N/A	
	Oral and pharyngeal cancer screening in past year	N/A	N/A	
OH-15	**States with system for recording and referring infants with cleft lip and palate (*developmental*)[r]**	N/A	N/A	N/A
OH-16	**States with oral and craniofacial health surveillance system**	100	62.7[i]	0
OH-17	**State and local dental programs directed by public health professionals (PHP)**			
	Indian Health Service and Tribal dental programs directed by PHP	25.7	23.4[i]	
	Indian Health Service Areas and Tribal health programs with dental public health program directed by a dental professional with public health training	12 programs	11 programs[j]	

[a] = National Health and Nutrition Survey, 1999–2004
[b] = National Health and Nutrition Survey, 2001–2004
[c] = National Program of Cancer Registries (NPCR), CDC/National Chronic Disease Prevention and Health Promotion (NCCDPHP); Surveillance, Epidemiology, and End Results (SEER) Program, National Institutes of Health (NIH)/National Cancer Institute (NCI), 2007
[d] = Medical Expenditure Panel Survey (MEPS), AHRQ 2007
[e] = School-Based Health Care Census (SBHCC), National Assembly on School-Based Health Care (NASBHC), 2007–2008
[f] = Uniform Data System (UDS), Health Resources and Service Administration (HRSA)/Bureau of Primary Health Care (BPHC), 2007
[g] = Annual Synopses of State and Territorial Dental Public Health Programs (ASTDD Synopses), Association of State and Territorial Dental Directors (ASTDD), 2008
[h] = Water Fluoridation Reporting System (WFRS), CDC/NCCDPHP, 2008
[i] = ASTDD Synopses, ASTDD, 2009
[j] = Indian Health Service, Division of Oral Health, 2010
[k] = Data from California Smile Survey (2006) for kindergarten
[l] = Data from California Smile Survey (2006) for 3rd grade children
[m] = BRFSS, 2012
[n] = CCR, 2011
[o] = School Based Health Alliance. Of 231 health centers, 101 have some type of dental service, 49 offer preventive services only, 49 offer both preventive and restorative services, and 3 offer dental treatment only.
[p] = HRSA, DHHS, 2013. Percentage calculated using number of patients who received dental services and total patients served. (Source: **http://bphc.hrsa.gov/uds/datacenter.aspx?year=2013&state=CA**)
[q] = CDC 2012 Water Fluoridation Statistics
[r] = HP 2020 developmental objectives lack national baseline data. They indicate areas that need to be placed on the national agenda for data collection.

Contributors to the California Oral Health Plan

CDPH's OHP acknowledges the following individuals and organizations for their time and effort in developing the COHP. We are grateful to their participation in the meetings and their contributions in developing the report. We express our sincere appreciation to Dr. Jared Fine for co-chairing the Advisory Committee. We wish to thank Ms. Beverly Isman for facilitating the meetings and providing assistance in writing the report. Please note that the content within the COPH may not represent the official views or recommendations of participating organizations.

Stakeholder Organizations

Alameda County Department of Public Health
Association of State and Territorial Dental Directors
California Department of Education
California Department of Health Care Services, Medi-Cal Dental Program
California Rural Indian Health Board
California Dental Association
California Dental Hygienists' Association
California DHCS, Systems of Care Division
California Indian Health Service
California Pan-Ethnic Health Network
California Primary Care Association
California School-Based Health Alliance
California Society of Pediatric Dentistry
California Conference of Local Health Officers (CCLHO)
CAN-DO Center- University of California at San Francisco
Center for Oral Health
Children Now
Contra Costa Health Services County of Sacramento
Delta Dental State Government Program,
Dental Board of California
First 5 Association
First 5 California
First 5 Sacramento
Latino Coalition for a Healthy California
Los Angeles County Department of Public Health
San Francisco Dept. Public Health
Sonoma County Department of Healthcare Services
The Children's Partnership
University of California at Los Angeles, School of Dentistry
University of California at San Francisco, School of Dentistry
University of the Pacific School of Dentistry

Advisory Committee and Work Group Members

Bahar Amanzadeh, Alameda County Department of Public Health
Theresa Anselmo, Partnership for the Children of San Luis Obispo County
Conrado Barzaga, Center for Oral Health
Fran Burton, Dental Board of California
Maritza Cabezas, Los Angeles County Department of Public Health
Kimberly Caldewey, Sonoma County Department of Health Services
Laurel Cima Coates, California Department of Public Health
Serena Clayton, California School Based Health Alliance
James Crall, University of California, Los Angeles
Paula Curran, California Department of Public Health
Sarah de Guia, California Pan-Ethnic Health Network
Rebecca De La Rosa, Latino Coalition for a Healthy California
Gayle Duke, Department of Health Care Services
Eileen Espejo, Children Now
Jared Fine, Alameda County Dental Society Board/California Dental Association Board of Trustees
Margaret Fisher, San Francisco Department of Public Health
Susan Fisher-Owens, University of California, San Francisco, School of Medicine
Stuart Gansky, CAN-DO Center, University of California, San Francisco
Paul Glassman, University of the Pacific, Arthur A. Dugoni School of Dentistry
Rocio Gonzalez, California Pan-Ethnic Health Network
Irene Hilton, San Francisco Department of Public Health/National Network for Oral Health Access
Beverly Isman, California State University, Sacramento
Alani Jackson, Department of Health Care Services
Gordon Jackson, California Department of Education
Terrence Jones, First 5 Sacramento/California Dental Association Trustee
Olivia Kasirye, Sacramento County Health Department
Jenny Kattlove, The Children's Partnership
Moira Kenney, First 5 Association of California
Stella Kim, California Pan-Ethnic Network
Emili LaBass, California Primary Care Association
Huong Le, Dental Board of California/Asian Health Services
Reginald Louie, Region IX Oral Health Consultant
Walter Lucio, Delta Dental State Government Program
Camille Maben, First 5 Association of California
Lorena Martinez-Ochoa, Contra Costa Health Services
Gayle Mathe, California Dental Association
Rene Mollow, Department of Health Care Services
Kathy Phipps, Association of State & Territorial Dental Directors
Howard Pollick, University of California, San Francisco, School of Dentistry
Zeeshan Raja, University of California, San Francisco
Francisco Ramos-Gomez, University of California, Los Angeles

Lalani Ratnayake, California Rural Indian Health Board
Paul Reggiardo, California Society of Pediatric Dentistry
Lindsey Robinson, Private Practice Dentist
Steven J. Silverstein, University of California, San Francisco, School of Dentistry
Whitney Staniford, First 5 Association of California
Karine Strickland, California Dental Hygienists' Association
Mari Taylan-Arcoleo, California Department of Public Health
Kate Varanelli, County of Sacramento
Laurie Weaver, Department of Health Care Services

California Department of Public Health – Oral Health Program

Jayanth Kumar	State Dental Director
Jennifer Byrne	Project Manager, California Perinatal and Infant Oral Health Quality Improvement Project
Rosanna Jackson	Oral Health Program Manager
Neal Rosenblatt	Research Scientist II
Valerie Shipman	Project Manager, Maternal, Child and Adolescent Health Program
Miranda Walker	Associate Health Program Advisor

Maternal, Child, and Adolescent Health Program

Mari Taylan-Arcoleo	Chief, Program Policy and Promotion Section

California Department of Health Care Services – Medi-Cal Dental Program

Rene Mollow	Deputy Director, Health Care Benefits & Eligibility
Alani Jackson	Chief, Medi-Cal Dental Services Division

California Department of Education

Gordon Jackson	Director, Coordinated Student Support Division

California Department of Public Health

California Oral Health Plan 2018-2028

California Oral Health Program

California Department of PublicHealth

COHP California Department of PublicHealth Oral Health Program