Policy Statement: Social Determinants of Health and Improving Oral Health Equity

Association of State and Territorial Dental Directors

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Summary

Health disparities and inequities are prevalent among Americans, with oral health challenges among the most persistent. These disparities are significantly influenced by factors known as social determinants of health (SDoH), also referred to as upstream factors; without addressing these determinants, health disparities cannot be reduced or eliminated.

As defined by the World Health Organization (WHO), "The social determinants of health (SDoH) are the non-medical factors that influence health outcomes. They are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies and political systems."

Though the prevalence of oral diseases and conditions can be linked with individual biological characteristics and risk factors, the circumstances in which we live can shape access to healthcare and quality of services, risk indicators and factors, and patient and support networks. Inequities in oral health status, such as higher incidence of untreated tooth decay, edentulism, periodontal disease, oral cancer, and adverse health outcomes are driven by these factors.

Oral health inequities are often bi-directional; this dynamic suggests that assessing and addressing SDoH can lead to improved physical, mental, and oral health at the individual and population levels, and improved oral health can have a positive impact on SDoH.

State and territorial oral health programs (S/TOHP) can address SDoH from a public health and community level perspective, or by collaborating with health professionals who are providers or educators. To reduce oral health inequities, action is required to address SDoH through the implementation of evidence-based, appropriate, and sustainable oral health interventions and policies. This paper provides a broad background of the issues and a range of models for taking action.

ASTDD supports strategies to address SDoH to improve oral health equity. S/TOHP need to address factors such as personal choices (e.g., toothbrushing or consuming sugary foods and beverages) and behavioral or lifestyle influences, and adopt a multi-pronged approach that focuses on understanding the factors (SDoH) that contribute to oral health equity. S/TOHP can work proactively in partnerships with state dental/dental hygiene associations, health and public health professional organizations, and community groups to incorporate principles that address SDoH into their program and policy initiatives.

Problem

Health disparities and inequities are prevalent among Americans, with oral health challenges among the most persistent.[1] These disparities are significantly influenced by factors known as social determinants of health (SDoH), also referred to as *upstream factors*; without addressing these determinants, health disparities cannot be reduced or eliminated.

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> "The social determinants of health (SDoH) are the non-medical factors that influence health outcomes. They are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies and political systems."[2]

Public health professionals, researchers, clinicians, and policy-makers recognize that the environment where individuals live, learn, work, and play can significantly impact health outcomes, including oral health outcomes.[3] Though the prevalence of oral diseases and conditions can be linked with individual biological characteristics and risk factors, the circumstances in which we live – the upstream factors – can shape access to healthcare and quality of services, risk indicators and factors, and patient and support networks. Inequities in oral health status, such as higher incidence of untreated tooth decay, edentulism, periodontal disease, oral cancer, and adverse health outcomes are driven by these factors.

Public health professionals, policy-makers, funders and other groups have a growing interest in defining, evaluating, and addressing SDoH to create more holistic approaches to caring for patients and underserved populations. These professionals know from daily practice the impact that external factors can have on even the most well-designed treatment plans and community-based programs. Research has also found that interventions to address SDoH can make a measurable difference in health outcomes. Also referred to as *downstream factors*, these are interventions and strategies that are centered on providing more equitable access to care and services, and also may involve individual-level behavioral approaches for prevention or disease management. A 2015 review in *PLOS ONE* found that 82% of initiatives targeting SDoH had significant positive health outcomes and/or cost reductions.[4]

The U.S. Office of Disease Prevention and Health Promotion set the Healthy People 2030 (HP 2030) framework to establish national goals and objectives to improve the health and well-being of people in the United States by addressing SDoH. HP 2030 specifies five domains of SDoH: economic stability, education access and quality, health care access and quality, neighborhood and environment, and social and community context.[5] While the domains have been proposed in HP 2030, the measures and individual factors addressed in research and in care settings vary. SDoH definitions, statements, and domains across multiple disciplines have been developed. The U.S. Center for Disease Control and Prevention's (CDC) website offers a compilation of evidence-based models and promising approaches based on the earlier Healthy People 2020 framework for use in improving health equity. (NOTE: a selected list of additional resources for background on SDoH appears at the end of this document.)

Oral health inequities are often bi-directional; for example, people who experience financial barriers to access regular dental care may be less likely to have good oral health, and people with poor oral health may encounter limitations in employability. This bi-directional dynamic suggests that assessing and addressing SDoH can lead to improved physical, mental, and oral health at the individual and population levels, and improved oral health can have a positive impact on SDoH.

A crucial component in addressing oral health inequities is working to ensure that resources and guidelines regarding SDoH are disseminated and integrated into the entire dental care system, which includes private dental practices, local/municipal health departments, community dental centers, federally qualified health centers, and dental/dental hygiene schools. Although S/TOHP work to address relevant SDoH for their states or jurisdictions, they may encounter substantial challenges in accessing evidence-informed, well-articulated resources specifically related to oral health. Gaps in defining, collecting information, and addressing SDoH within the context of preventing oral diseases and the delivery of oral health care can be recognized and addressed at the community level, thus benefiting individuals as well. For example, community water fluoridation (CWF), a community-level intervention, increasingly has been seen as a health equity issue and a social determinant because it provides a baseline benefit to everyone who uses fluoridated public drinking water, without regard to age, income, insurance status or regular access to preventive dental care.[6,7]

Method

To effectively reduce oral health inequities, S/TOHP need not only address *downstream* behaviors and choices such as toothbrushing or consuming sugary foods and beverages, but also adopt a multi-pronged approach that focuses on understanding SDoH. For example, infrequent toothbrushing and consuming sugary beverages and snacks appear to be individual choices, but if toothbrushes are not affordable, and healthy beverage choices are not available, or the public water supply is unreliable or non-fluoridated, then upstream factors are in play. In 2010, a WHO report stated that methods exclusively focusing on downstream factors can have limited success compared to those addressing upstream factors.[8,9] Current approaches to addressing SDoH by focusing on downstream factors can be ineffective and costly and can also lead to harmful effects such as victim blaming for patients.[10]

S/TOHP can address SDoH from a public health and community level perspective, or by collaborating with health professionals who are providers or educators. A public health perspective can help to influence or frame public policy and raise the level of knowledge and understanding in communities and individuals.

To reduce oral health inequities, action is required to address SDoH by implementing evidence-based, appropriate, and sustainable oral health interventions and policies.[8] Given the complex and nuanced nature of SDoH, investing in both inter- and cross-sector partnerships to enact and sustain change is imperative.[8,10] Further, it is essential to address oral health disparities and inequities within communities by tailoring interventions and advocacy to community needs.[8] A four-step, community-based framework

that incorporates these critical principles was developed by the Center for Health Care Strategies to address SDoH with a focus on oral health. This framework entails the following steps:

1. Identifying the social determinants of oral health in a community;
2. Mapping and mobilizing available community resources through partnerships;
3. Selecting approaches to take action; and
4. Evaluating implementation and impact. [11]

STEP 1

Identifying the social determinants of oral health in a community requires defining the community by characteristics such as geographic location, population demographics, and languages spoken. This step can provide guidance for tailoring oral health interventions to community needs. Next, a community needs assessment (CNA) can be used to identify SDoH related to oral health.

One needs assessment resource is Community Commons, an online tool that provides data by state, county, city, zip code or region in six categories: demographics, social and economic factors, physical environment, clinical care, health behaviors, and health outcomes. Community Commons also provides community-level data on service utilization and health or oral health outcomes. In a CNA, primary data collection can take the form of surveys, interviews, town hall meetings, listening sessions, public forums, and focus groups.[12] The act of primary data collection itself helps to establish relationships with community members and raise awareness of SDoH related to oral health.

The CDC's Agency for Toxic Substances and Disease Registry Social Vulnerability Index (SVI) is another resource that can be used, specifically to estimate the needs of vulnerable populations in an event that requires emergency response efforts. It features an interactive map and data sheets that can be used to predict relative vulnerability by location and the specific needs of communities.[13]

Using resources such as Community Commons and SVI will aid in identifying risk factors that affect not only oral health but also systemic health. These data are particularly useful when using a common risk factor approach: one that aims to reduce the prevalence of different diseases by targeting their common risk factors, including tobacco, alcohol, and sugar intake, within the context of wider socioecological milieu, such as income, food security, and other SDoH.[14]

An example of successfully utilizing this framework is United Way of Central Jersey (UWCJ).[11] Using data from Community Commons, UWCJ identified indicators relevant to oral health. Through primary data collection, they confirmed that language, cultural barriers, and diet are prevalent SDoH presenting barriers to oral health. They identified racial/ethnic disparities in oral health care utilization, especially among black and Hispanic populations, in Middlesex County. Their findings also suggested that public transportation and a shortage of oral health providers were prevalent SDoH in the community.

STEP 2

The framework's second step involves determining the skills, capacities, experiences, and partnerships necessary to enact change in the areas identified by the CNA to improve oral health outcomes. Engaging community infrastructures, resources, and assets begins with communicating findings from the CNA to key community stakeholders to solicit their feedback and discover how they may be able to contribute.[11] This step is also crucial to understanding which SDoH are priorities for the community, which will help to develop realistic and manageable goals, and also enhance community efficacy and empowerment.[15] Geographic information system mapping and the United Way 211 website are helpful tools to use to map community organizations, faith-based organizations, and local health providers. Solidifying and sustaining partnerships requires building trust and developing a common vision, which represents and reflects a mutual understanding of SDoH affecting the community and a commitment to resolving them. The following questions are important to consider when developing the vision:

- What are the most important social determinants related to oral health in the community?
- How can partnerships encourage community participation and optimize existing social relationships?
- What changes in the community are needed to improve the priority social determinants related to oral health, and how will the community benefit if these SDoH are addressed?[11]

UWCJ established partnerships with community organizations to mobilize key capacities, skills, and experiences, such as trusted relationships with families and existing advocacy for improved oral health care access. With Head Start programs and the New Jersey chapter of the American Academy of Pediatrics, they formed the Central Jersey Oral Health Collaboration (CJOHC).

STEP 3

Once the healthcare team establishes a common vision, an action plan for addressing the priority SDoH can be developed. Various approaches can be taken to create an action plan. For example, CDC has outlined six approaches to addressing SDoH.[11]

1. Consciousness raising brings community members together to discuss their concerns and encourage critical reflection to humanize an issue and can be a valuable intervention for increasing community-wide support for addressing specific SDoH.
2. Community development strategies help enact change at the community level by strengthening social ties, increasing awareness of issues driving SDoH, and empowering community members to draw upon their strengths and capacities to address SDoH.
3. Social action includes public demonstrations that highlight how social factors can affect oral health and how SDoH can be changed to raise awareness and increase community participation in addressing them.
4. Oral health promotion involves direct outreach to individuals, families, and populations to influence their knowledge, attitudes, and skills around particular health behaviors.
5. Media advocacy mobilizes the strategic use of media to drive change.
6. Policy and environmental change results in the development or change of policies in a state, municipality, or community, and environmental changes that can improve SDoH.

A single approach or a combination of approaches can be undertaken. Deciding on the approach and intervention will depend on several factors, such as the nature of the SDoH, if the intent is to create community change or organizational change, success or failure of similar interventions in the past, political and social buy-in by the community, and the relative benefits and potential drawbacks of each intervention.[11]

Both health and non-health sectors already been advancing their own initiatives to address SDoH. An example has been demonstrated through dental managed care contracts. With more than two-thirds of Medicaid beneficiaries enrolled in managed care plans nationally, states can utilize health plans to address SDoH. The National Academy for State Health Policy (NASHP) scanned dental contracts in 19 states. Of these, 13 included coordination with social and community services while 10 state contracts referenced services such as transportation, education, and equity/cultural competence. Through these contracts, almost all states scanned have some requirement to refer members to community resources and social services.[16]

States vary in how they approach addressing SDoH through dental managed care contracts. Strategies employed by some state dental contracts include:

- Screening, referral tracking, and follow-up;
- Educational initiatives;
- Staffing and training requirements;
- Data sharing and technology;
- Coordination between dental and medical systems; and
- Performance improvement.

While not all states have included SDoH requirements in their dental managed care contracts, these are examples of potential strategies already being used by states. States can elect to include optional benefits that address SDoH under guidelines released by the Centers for Medicare & Medicaid Services (CMS). Section 1905(a) State Plan authority mentions that states can include these services under their Medicaid state plan.[17]

Improved transportation is one key improvement implemented in some states and associated with success. A Milliman white paper published in 2020 evaluated different Medicaid dental program delivery systems. Transportation concerns often pose a substantial barrier to dental care. Medicaid offers a nonemergency medical transportation program to provide beneficiaries convenient or consistent transportation to dental appointments. Medicaid programs that invest in transportation concerns could enable higher utilization of dental services.[18] The paper also noted that addressing provider reimbursement rates, administrative processes, education and outreach, transportation, and community-based care were among the factors that indicated success in improving Medicaid dental utilization.[18]

As of July 2019, more than three-quarters of the 41 states that offered managed care plans were leveraging managed care contracts to promote strategies to address SDoH.[19] Addressing individual social

needs is a necessary step to improving oral health outcomes, but not all states have included SDoH within their dental contracts. Failure to incorporate SDoH as part of a comprehensive model through a state contract or policy is unlikely to improve outcomes, considering that 60 percent of health impact results from behavior, environmental, and social conditions.[20]

A response by CJOHC is an example of taking action. They implemented the consciousness raising and health promotion approaches to address issues of language, transportation, access/consumption of healthy foods, and access to providers in their community. They developed a *Parent Promotoras* model of care for Head Start programs, where parent promotoras or community health workers are trained to teach parents about at-home oral health practices, what to expect at dental visits, and insurance basics. They planned to accompany families to dental visits and provide those in need with transportation to the visits. This partnership and intervention leverage various community resources: trusted relationships with the target population and providers; the Head Start programs' well-established system for parent engagement; and the social services that families already access through Head Start advocates. [11]

The CHCS framework has been successfully applied to address SDoH affecting rural communities. The Lakewood Engage program was designed to address food insecurity affecting communities of Lakewood, Minnesota, a classified food desert. Access to healthy foods is pertinent to patients' oral health and overall systemic health. Through screening questionnaires, yearly community needs assessments, and the establishment of partnerships with community organizations, the Lakewood Health System developed various programs to provide community members with nutritious food. Community members can access food and meals through food pharmacies, food delivery programs, farmers' markets and more. Dental providers can join the effort by integrating SDoH screening tools into their practices to identify patients with food insecurity and connect those in need with available resources.[21]

STEP 4

The fourth step in this framework entails establishing an evaluation plan informed by the common vision and the priority SDoH, and that enables the interventions to stay on course to move towards the identified goals and objectives.[11] Establishing this plan prior to implementing interventions is important because it ensures that partnering organizations have agreed on baseline measures and benchmarks and created timelines for interim and final evaluations. Evaluation metrics at the individual, organizational, and community levels can be utilized. The evaluation process can inform the partners of intervention strengths and weaknesses, thus allowing refinements and improvements to their action plan. Sharing intervention progress with the community can further drive engagement. Furthermore, establishing an effective evaluation plan will help strengthen the community's ability to sustain the changes brought about by the interventions.[14]

The CJOHC partnership planned to employ a multi-faceted evaluation approach that would include pre- and post-intervention surveys. The first was to assess parent awareness of oral health care guidelines. The second survey was intended to assess whether parents had adopted recommended preventive practices,

using periodic group discussions and individual interviews with key intervention stakeholders, and to track changes in the number of students with an established dental home and their utilization of dental services.[11]

Several other toolkits/frameworks that can be adapted for use in oral health settings include:

1. "Promoting Health Equity," a resource developed by the CDC, includes a comprehensive framework that details the critical steps communities can take to address SDoH.[22]

2. The EveryOne Project toolkit (American Academy of Family Physicians) provides guides for establishing a team-based approach to addressing SDoH, including training guides for implicit bias, cultural proficiency, and health literacy. The toolkit provides validated screening tools for housing, food, transportation, utilities, and personal safety, as well as a social needs patient action plan template available in seven languages.[23]

3. The Community Tool Box (Center for Community Health and Development at the University of Kansas) offers a variety of toolkits that provide guidelines and resources for assessing community needs and resources, building leadership, enhancing cultural competency, action planning, and much more.[24]

4. The Health Leads Social Needs Screening Toolkit enables health professionals to customize their screening approach and provides advice on how to effectively use screening tools. Screening tools include questions on food security, housing instability, utility needs, transportation, exposure to violence, childcare, social isolation and supports, and more.[25]

5. PRAPARE (Protocol for Responding to and Assessing Patient's Assets, Risks, and Experiences) is a social risk assessment tool that includes multiple measures of SDoH such as housing status and stability, employment, income, social integration and support, transportation, safety, and refugee status. The toolkit has an organized and systematic framework that consists of three key stages: prepare, test and spread. Each step is broken down into sub-steps with resources and explanations.[26] The Iowa Primary Care Association implemented the PRAPARE framework and extracted new data about SDoH in their state.

6. The Rural Health Information Hub (RHIhub) developed The Social Determinants of Health in Rural Communities Toolkit. It provides organized instructions for developing and implementing an SDoH program specifically geared to rural settings. The toolkit includes program models as well as resources to help with funding and sustainability.[27]

7. The FrameWorks Institute developed the Reframing Oral Health toolkit to provide evidence-based recommendations for comprehensive communications strategies for oral health advocates for advancing oral health reform. Recommendations include communicating the connection between oral health and overall health, emphasizing that oral health involves a broad team of

professionals, and using explanatory metaphors to make complex concepts easier to understand. This toolkit also can help dentists and dental professionals communicate more effectively with their patients and communities and improve information dissemination on the impacts of SDoH on oral health.[28]

Multiple domains are important to highlight when defining SDoH, including components of socioeconomic status, the built environment, educational and professional opportunities, healthcare access and quality, and social and community context. There is no specific toolkit that can help oral health professionals recognize and address SDoH. S/TOHP can apply the highlighted step-by- step process to identify their own approach to address SDoH to promote more equitable oral health outcomes, and to collaborate and partner with health organizations on initiatives to promote wider understanding of the relationships between SDoH and oral health.[29]

Policy Statement

ASTDD supports strategies to address SDoH to improve oral health equity. S/TOHP need to address factors such as personal choices (e.g., toothbrushing or consuming sugary foods and beverages) and behavioral or lifestyle influences, and adopt a multi-pronged approach that focuses on understanding the factors (SDoH) that contribute to oral health equity. S/TOHP can work proactively in partnerships with state dental/dental hygiene associations, health and public health professional organizations, and community groups to incorporate principles that address SDoH into their program and policy initiatives.

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Additional resources:

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