National Clinical Care Commission Meeting 5

Bethesda North Marriott Hotel and Conference Center
5701 Marinelli Road, Rockville, MD 20852

Friday, November 22, 2019
8:00 am — 4:00 pm EST

Meeting Summary

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Welcome, Roll Call, and Review of the Agenda

William (Bill) Herman, MD, Chair of the National Clinical Care Commission (NCCC), called the meeting to order at 8:00 am. Clydette Powell, MD, MPH, Technical Leader for the Commission, welcomed the Commission members and the public. Linda Harris, PhD, Designated Federal Officer for the Commission, conducted roll call (see Appendix for Commission member attendance). The meeting started with a quorum.

Dr. Herman briefly reviewed the meeting agenda. He noted that the focus of today's meeting will be on social determinants of health (SDOH) and the Commission will hear presentations and obtain input from four Federal agencies.

Review of the NCCC Model for Diabetes Prevention and Care

Dr. Herman then reviewed the NCCC Model for Diabetes Prevention and Care, developed based on two existing models. He explained that the rationale for developing the model is for the Commission to use as a guide as the Commission conducts the work described in the Charter and makes recommendations to Congress.

Dr. Herman explained the layers of factors that play important roles in diabetes prevention and treatment.

- Sectors of Influence (the outer layer of the model) contains all the key factors playing important roles in diabetes prevention and treatment, including environment, education, food, industry, housing, labor, transportation, parks and green spaces, as well as communication and marketing.
- Behavioral Settings (the middle layer of the model) include community, home, school, and worksites.
- Individual Factors (the inner layer of the model) include age, sex, diet, physical activities, psychological factors, stress, trauma, and genetics.

Dr. Herman noted that for diabetes treatment and prevention, the Commission wants to think about the individuals, as well as the community and the health care system. Within the heathcare system, the Commission is interested in all important factors such as coverage/benefits, delivery system design, and information systems/decision support. For individuals with diabetes, the critical issues include access to health care, health literacy, self-management support. For at-risk individuals, major issues include screening, diagnosis, prevention, and self-management support.

Dr. Herman then explained the pathways leading to optimal health outcomes. Developed based on the Chronic Care Model, the pathways highlight the productive interactions and relationships between informed active individuals within supportive environments and prepared practice teams of prepared proactive community partners.

Dr. Herman noted that the model is still a work in progress and he anticipated more revisions. He noted that the Commission will focus on SDOH today, and will discuss care delivery systems during the next Commission meeting.

Dr. Herman then turned the meeting to Dr. Powell, who explained the theme of the meeting.

Meeting Theme: Social Determinants of Health

Dr. Powell explained that today the Commission will review the factors contained in the outer layer of the NCCC Model and hear presentations from Federal agencies regarding these factors. She asked the Commission members to keep the following questions in mind.

- What elements of the model are covered by the presentations?
- What factors are missing from the presentations?
- What have we heard about collaborations from the presentations?
- How are these programs apply to diabetes prevention and treatment, and how they play a role in patients' lives and communities?
- What are the best practices?
- What else should the Commission learn about SDOH?

Dr. Powell urged the Commission members think broadly and use the opportunity to ask questions. She then introduced Dr. Ann Bullock and Dr. Dean Schillinger, Co-Chairs of the NCCC Prevention—General Population Subcommittee.

SDOH: The Literature and Field Examples

Social and Environmental Drivers of Type 2 Diabetes: Examples and Evidence

Dr. Schillinger reviewed the roles of social and environmental factors in diabetes prevention and treatment, and presented examples from San Francisco. Key topics of Dr. Schillinger's presentation are summarized as follows.

Social and Environmental Systems Associated with Type 2 Diabetes Incidence and Control

Dr. Schillinger noted that when thinking about the factors associated with type 2 diabetes, the Commission needs to consider the following systems and related issues.

- **Educational system**, which plays a critical role in literacy, early childhood education, physical education, and dietary quality.
- **Food system**. Critical issues related to the food system include sugary beverages, processed/fast food, marketing, food pricing, food insecurity, access to fresh food, disparity, and food labeling and warnings.
- **Transportation system**. Related issues include lack of active transportation, overreliance on automobiles, lack of walkability, and long commutes.

- **Housing system**. Related issues include the need for public housing, quality of housing, lack of safety.
- **Labor system**. Issues include lack of living wages, inadequate parental leave, child care, sedentary workplaces, and unhealthy dietary choices.
- **Environment and park/recreation systems**. Issues include unequal access to fresh water and safe spaces to exercise.
- **Regulatory systems**. Critical issues include inconsistent policies and practices to prioritize and promote public health.

Field Examples

Dr. Schillinger then presented examples and emphasized the importance of the environment on individuals and populations.

The Role of Area-Level Social and Environment Factors in Diabetes Control

Using two maps of the city and county of San Francisco (map of per-capita income and map of soda expenditures), Dr. Schillinger demonstrated that sugary beverage consumption, stress, marketing activities, and rates of hospitalization caused by diabetes-related issues are higher in the lower income areas than higher income areas.

The finding was confirmed by multiple studies, which showed that area-level social and environmental factors can predict poor diabetes control. In one study, the investigators, by combining individual-level characteristics (e.g., education level) and area-level measures of SDOH, were able to predict if a patient would have an HbA1c >9% with greater than 90% of accuracy. The investigators also found that area-level SDOH factors alone contributed to 41.2% of the variations.

Roles of the Educational System

Studies have found that limited literacy is

- associated with 2-fold odds of acquiring type 2 diabetes,
- a strong independent risk factor of sugary beverage consumption, and
- associated with worse diabetes control and high incidence of complications.

Roles of the Food Systems

Studies have shown that prices for fresh fruits and vegetables increased significantly more than sugars, sweets, and carbonated drinks from 1978 to 2009. Multiple studies have revealed that food insecurity can lead people to consume cheaper food or skip meals, and is

- associated with 1.5-2.5 greater odds of acquiring type 2 diabetes in the general population;
- associated with 1.5-2.5 greater odds of experiencing poor diabetes control among those with diabetes; however, among food insecure patients with type 2 diabetes, recipients of the Supplemental Nutrition Assistance Program (SNAP) appear to be protected;
- the most robust predictor of hypoglycemia among those with type 2 diabetes.

Studies have also found that the retail food environment index appears to be associated with glycemic control, and that changes in added sugar availability is linearly correlated with changes in diabetes prevalence (Basu et al. 2013).

Roles of Local Policies on Dietary Quality

Dr. Schillinger presented the following examples and explained how local policies can help improve dietary quality and to prevent type 2 diabetes in the San Francisco Bay Area.

- Workplace sugar-sweetened beverages (SSB) sales ban reduced SSB intake, and waist circumference.
- Regulatory policies regarding warning notices on SSB advertisements could make a difference.
- Municipal excise tax on distributors of SSBs reduced the consumption of SSB.
- Reinvestment of the excise tax revenue in communities with Fresh Fruits and Veggie Vouchers
    - Supports healthy eating habits,
    - Increases food security, and
    - Drives the supply of fruits and vegetables in underserved neighborhoods.

Dr. Schillinger noted that the Vouchers 4 Veggies program has made a huge impact in San Francisco. It has served more than 11,000 individuals and infused more than $1.5M in fruit and vegetable purchases into underserved neighborhoods.

SDOH and Diabetes: Chronic Stress, Trauma, and Adverse Childhood Experiences

Following Dr. Schillinger's presentation, Dr. Ann Bullock, Director of the Division of Diabetes Treatment and Prevention at the Indian Health Services, discussed the foundational factors affecting diabetes prevention and management.

Complex and Interrelated Risk Factors

Dr. Bullock noted that according to the World Health Organization, social determinants of health are the conditions in which people are born, grow, live, work, and age. These circumstances are shaped by the distribution of money, power, and resources at global, national, and local levels.

Dr. Bullock noted that in addition to SDOH, chronic stress, trauma, and adverse childhood experiences (ACEs) also play a huge role in diabetes prevention and management. Both SDOH and stress/trauma/ACEs affect people's health by influencing health behaviors and genetics. They affect people at both the individual and the population levels. While it is important to connect individuals to services, improving the environment in which populations live would generate much bigger impact and more benefit.

Dr. Bullock pointed out that stressors affect health throughout the life course, but they are especially impactful during pregnancy and early life development. Studies have shown that risks can be transferred across generations through multiple mechanisms (e.g., epigenetics).

Larger Context of Diabetes

Dr. Bullock noted that diabetes has long been thought to be caused by genetics and lifestyle choices, with the focus on the individual. However, studies have shown that genes account for only a small portion (5-10%) of the predisposition for type 2 diabetes. In addition, genes do not explain disparities of diabetes across populations.

Stress and Diabetes Risk Factors

A study in 18,000 adults investigated the dose-response association between the number of risk factors and the onset of diabetes over three and a half years. Results of the study showed that the following factors play huge roles in the onset of diabetes.

- Less than high school education
- Financial worry
- Being single or separated
- High stress
- Partner violence
- Neighborhood poverty
- Depressive symptoms
- Smoking

Food Insecurity

Dr. Bullock pointed out that quality of food matters and it is associated with weight gain even when calories are restricted. In addition, carbohydrates affect brain serotonin levels, which explains why people tend to eat unhealthy food when they are stressed.

Dr. Bullock emphasized the importance of early impact (during pregnancy and early childhood) by quoting the following statements from the American Academy of Pediatrics.

"…many adult diseases, including heart disease and diabetes should be viewed as developmental disorders that begin early in life…"

"…persistent health disparities associated with poverty, discrimination, or maltreatment could be reduced by the alleviation of toxic stress in childhood."

Trauma

Dr. Bullock explained that trauma, which she defined as anything that overwhelms our ability to respond, especially if we perceive that our lives or our connection to things that support us physically or emotionally is threatened, can cause lasting changes in the brain and body and thus increases risks for many health issues. She noted that when trauma and ACE (e.g., abuse,

neglect, and/or household dysfunction) occur during the developmental phase of the brain and body systems, it can have lifelong impact.

ACE and Associated Lifelong Effects

Dr. Bullock explained that studies have found that ACEs have lasting effects on health (e.g., obesity, diabetes, and depression), behaviors (e.g., smoking, alcoholism, and drug use), and life potentials (e.g., graduation rates, academic achievements, lost time from work, and attachment to other human beings). One study by Whitehall showed that every additional ACE increased the likelihood of developing diabetes by 11%. Another surveillance study revealed that risks for diabetes, hypertension, and dyslipidemia increased in a dose-response relationship with ACEs. And a recent National Academy of Sciences (2019) report stated that "early experiences and life circumstances shape prenatal and early childhood development, with powerful impacts on the developing brain and body that shape health outcomes across the life course and generations."

Dr. Bullock highlighted the following prenatal risk factors and the associated effects.

- High levels of racial inequality and socioeconomic inequality increase the risk of Small for Gestational Age (SGA) birth, particularly when they co-occur.
- Maternal stressful life events during the first trimester increase the risk of preterm birth by 2.4 times.
- Being born early and/or small is strongly associated with later risk for diabetes and heart disease.

Dr. Bullock explained that stress and inadequate nutrition in the womb can lead to

- Changes in gene expression;
- Altered fetal development (e.g., muscle and organ development, and [SGA] birthweight);
- Changes in the "set points" for several hormone systems (e.g., systems affecting glucose regulation, appetite, and stress response); and
- Insulin resistance and visceral fat that can start even before birth.

Dr. Bullock further explained that stress and inadequate nutrition in the first few years of life can lead to

- Stressed parents unintentionally transmitting trauma to their children (intergenerational trauma);
- Stress response "set points" being further ramped up and increasing risk for using substances;
- Stress that affects brain development, behavior, cognition, and the ability to bond with other people.

In addition, food insecurity alters appetite regulation, and increases risk for behavior problems, and depression.

Models and Strategies to Address ACEs

Dr. Bullock highlighted the following evidence-based strategies for addressing ACEs.

- Provide funding to address SDOH. Based on a survey showing that 2/3 of parents reported >= 1 SDOH as barriers to health, the CEO of Nemours Health suggested changing the value-based care payment model to a model that incentivizes keeping children healthy, and pairs funds for medical care with funds for addressing SDOH.
- Support home visiting
- Provide high-quality child care
- Improve income
- Reduce food insecurity and improve housing availability

Dr. Bullock ended her presentation with the following key points and she urged the Commission to think about these issues when making recommendations.

- SDOH, chronic stress, trauma, and ACEs are the "causes of causes" of chronic diseases, including diabetes.
- Macro-level policies affect these factors in populations, especially in those faced with multiple challenges.
- To make meaningful improvements in diabetes, it is critical to improve the socioenvironmental factors that underline the health of populations

SDOH and the U.S. Department of Housing and Urban Development (HUD)

Leah M. Lozier, PhD, Social Science Analyst from the Office of Policy Development and Research (PD&R) at HUD, provided a brief introduction of HUD, reviewed projects HUD is working on, and heighted research programs and initiatives relevant to the Commission's work. Key topics of her presentation are summarized as follows.

Missions

HUD's mission is to create strong, sustainable, inclusive communities and quality affordable homes for all. HUD is working to strengthen the housing market to bolster the economy and protect consumers, meet the need for quality affordable rental homes, utilize housing as a platform for improving quality of life, build inclusive and sustainable communities free from discrimination, and transform the way HUD does business.

The Office of Policy Development and Research's mission is to inform policy development and implementation through conducting, supporting, and sharing research, surveys, demonstrations, program evaluations, and best practices; and provide objective data and analysis to help inform policy decisions.

HUD Housing Assistance Programs

HUD' housing assistance programs include the following three big categories.

- **Public Housing.** A federally funded, regulated, and subsidized program managed by local housing authorities.
- **Housing Choice Voucher.** A program provides monthly rental assistance payment to assist very low-income families in renting housing on the privately owned rental market.
- **Multifamily Subsidized Housing**, which is owned and operated by private owners.

Dr. Lozier noted that across all the programs, HUD serves 10M individuals, including 4M children. Elderly and persons with disabilities make up more than half of tenant households.

Dr. Lozier explained that the programs provide assistance but they not entitlements. Eligibility is based on income, and there is a waitlist. Currently HUD supports only 20% people on the list because of various obstacles such as house shortage.

HUD Administrative Data and HUD-CMS Data Linkage

Dr. Lozier explained that HUD collects data on the people they serve, and that the data are linked to other Federal agencies such as the Centers for Medicare and Medicaid Services (CMS).

HUD-CMS Data Linkage

The program is a collaboration between the Office if the Assistant Secretary for Planning and Evaluation (ASPE) and PD&R, and the purpose is to match HUD and CMS administrative data. Through the program, they have found that about 68% of HUD-assisted residents are 65 and older and are dual beneficiaries of Medicare and Medicaid, and that the HUD residents have more chronic conditions and higher health care utilization and costs than other dual beneficiaries.

Integrated Wellness in Supportive Housing (IWISH)

Designed to test a new approach to help low-income seniors in HUD-assisted multifamily developments successfully age, the IWISH model contains six core components: resident engagement, standardized assessment, individual and community plans, centralized data platform, local partnerships, and evidence-based programming. HUD has designed a cluster-randomized controlled trial to evaluate the model. Key outcome measures include the following

- Unplanned hospitalizations,
- Use of primary care,
- Length of stay in housing, and
- Transitions to nursing homes.

Results of the study are expected to be publish in 2022.

HUD-NCHS Data Linkages

HUD's administrative data on housing rental assistance programs have also been linked to CDC's National Center for Health Statistics surveys (the 1999-2016 National Health Interview Survey and 1999-2016 National Health and Nutrition Examination Survey). The linkages provide an opportunity to examine the relationships between housing and health.

Dr. Lozier noted that two national health interviews linked with HUD administrative data on housing rental assistance programs revealed that the prevalence of diabetes among HUD adults is 17.8 percent; which is much higher than the prevalence in unassisted, low-income renters (8.8%) and the general population (9.9%). The data indicate that HUD residents might benefit from strategies for targeted populations that the Commission is evaluating, and there might be opportunities to collaborate.

Programs and Research Relevant to NCCC

Dr. Lozier highlighted the following programs and cross-agency research initiatives that might be of interest to the Commission.

- EnVision Centers
- Section 811 PRA. An evaluation report will become available in a couple months.
- Housing and Children's Health Development Study, an ongoing study funded by the NIH
- Two Cooperative Agreements looking at the roles of adolescent housing residence
    - *Understanding the Role of Adolescent Housing Residence on ACE and Outcomes of Chronic Disease Risk*—Cooperative agreement with UNC
    - *Examining the effects of the Rental Assistance Demonstration on children living in public housing in Fresno, California*—Cooperative agreement with Columbia University
- Choice of Neighborhood Programs
- Home Modification Grant Program
- Family Options Study, a multisite random assignment experiment designed to study the impact of various housing and services interventions for homeless families
- Support and Services at Home
- Moving to Opportunity

At the end of her presentation, Dr. Lozier noted there are many opportunities for collaboration, and she highlighted HUD's partnerships with the following agencies.

- Office of the Assistant Secretary for Planning and Evaluation
- Administration for Community Living
- Centers for Disease Control and Prevention
- National Center for Health Statistics
- Economic Research Service, the U.S. Department of Agriculture
- Department of Education
- General Services Administration's Office of Evaluation

Discussion

Following the presentation, Dr. Lozier answered questions from the Commission members on the following topics.

Eligibility, waitlist, and commitment

The Commission members asked questions regarding the eligibility of the HUD's housing programs and how the benefits are dispensed. Dr. Lozier explained that the eligibility could vary depending on the Public Housing Agency (PHA) and multifamily house providers, and that the ranking on the waitlist can be affected by multiple factors such as home preference and requirements of specific vouchers. In general, it is first-come-first-served.

In response to a question regarding what percent of applicants should be assisted, Dr. Lozier explained that HUD has a deep commitment to make the voucher dollars go as deep as possible so that they can serve as many families as possible with the resources they have; however at the same time they also want to ensure the quality of the services (for example, not getting the apartments too crowded).

Voucher system, cost saving, and evidence

Given that the 75% of people/families on the HUD's waitlist are not served, and they are likely associated with high costs to the healthcare system, Dr. Schillinger wanted to know if there are longitudinal studies that have evaluated, or are evaluating, the health trajectories of those on the waitlist, and estimated the hidden societal costs related to voucher-based housing systems.

Dr. Lozier responded that to her knowledge, there are no such large HUD-sponsored studies. However, she noted, there have been work looking into family experiences of homelessness and costs to Medicaid. She clarified that the PHA and multifamily house providers, not HUD, determine the ranking on the waitlist; and that PHA collects basic eligibility and contact information.

Dr. Lozier noted there is a strong belief and growing evidence showing that providing housing saves money on healthcare; however, HUD does not receive the return of investment on its budget to allow them to provide more housing; meanwhile Medicare and Medicaid cannot pay for costs of housing. She added that some of their studies (e.g. SASH) are trying to build evidence on cost saving.

Collaborations

Dr. Bullock asked if HUD works with any healthcare systems to address housing insecurity and cost saving to the healthcare system. Dr. Lozier responded that to her knowledge, there are no formal research studies going on, but she started to see more interests in these areas.

Dr. Albright added that it would be interesting to explore how these models would work in order to understand and achieve sustainability. Dr. Albright noted that she would follow up with Dr. Lozier and discuss how they could enhance and expand their collaborations.

Dr. Lozier pointed out challenges associated with building and testing models for sustainability and cost saving to healthcare plans because the housing system is not aligned with healthcare providers (e.g., renters of a public housing might be covered by various healthcare programs).

Dr. Don Shell asked in the data linkages if there are data on partnerships regarding physical activity opportunities for children. He commented that incorporating the results and data of various partnerships such as HUD's partnership with the USDA could help HUD address some of the baseline environmental issues.

Dr. Lozier explained that in terms of the linkage data, she was not sure about all the variables. She pointed out that two reports (A Health Picture of HUD-assisted Children and A Health Picture of HUD-assisted Adults) have captured all the variables and related data. She encouraged the Commission members to review the reports as well HUD's website for relevant information. She acknowledged there are other opportunities for data linkage and there are a lot of opportunities for collaboration with other agencies such as the USDA.

Dr. Schillinger commented that it is encouraging to learn HUD's dedication and commitment to harness the system to help prevent and manage diabetes. He asked where the physiology came from and how that, in Dr. Lozier's view, could be best supported and amplified within HUD and across Federal agencies.

Dr. Lozier responded that she was not sure the origin of the commitment; however, to her knowledge the focus on health has been going on for at least a decade, and it is growing. She added that at HUD, they are building their internal capacity, and that in the past 5 years, she has seen cross-training between HHS, HUD, CDC, and other agencies around these issues.

SDOH and the U.S. Department of Transportation (DOT)

Health, Safety, and Active Transportation at DOT

Vitoria Martinez, AICP, a member of the Federal Highway Administration (FHWA) Transportation and Health Workgroup at the Department of Transportation, provided a brief overview on Health in Transportation with a focus on active transportation (e.g., biking, walking). Key topics of her presentation are summarized as follows.

Fatalities/Safety

Safety is a major focus of DOT. Statistics from FHWA showed that traffic fatalities had decreased over the past decades; however in the past few years fatalities of pedestrians and cyclists had increased (3.4% increase in pedestrian fatalities and 6.3% increase in cyclists fatalities in 2018).

Health in Transportation Working Group

Ms. Martinez noted that he FHWA protects human and environmental health through its internal efforts and external collaborations. DOT's Health in Transportation Working Group, for

example, collaborates with CDC on a number of initiatives and also works with FDA in various areas.

FHWA Health in Transportation Corridor Planning Framework

The framework is a tool developed to help engage with the community and it focuses on the community's needs. It is intended to support DOT's transportation practitioners who are interested in addressing health-related issues. DOT has done a number of case studies to evaluate the effectiveness of the framework. For example, in Appleton, Wisconsin, the framework helped engage diverse stakeholders, helped them make recommendations, and built support for implementing recommendations.

Active Transposition at DOT

Ms. Martinez explained that the DOT Pedestrian and Bicycle Coordinating Committee focuses on bicycles and pedestrians, and is leading a big Safety Data Initiative designed to improve data integration and visualization in order to better address risks.

She explained that DOT has many programs that cover health-related issues, including programs on transportation planning, context sensitive solutions, quality of life, environmental justice, and community connections.

FHWA Bicycles and Pedestrian Program

Ms. Martinez noted that FHWA has produced a number of guidelines. For example the FHWA Bicycles and Pedestrian Program promote safe, comfortable, and convenient walking and bicycling for people of all ages and abilities; supports pedestrian and bicycle transportation through funding, policy guidance, program management, and resource development.

FHWA Safety Programs

Ms. Martinez highlighted the following programs.

- Highway Safety Improvement Program
- Proven Safety Countermeasures
- Safe Transportation for Every Pedestrian

Transportation Coordination: Improving Health Access

Danielle Nelson, a member of DOT's Coordinating Council on Access and Mobility (CCAM), explained DOT's efforts in transportation coordination and how the efforts affect access to health.

Access and Mobility for All Summit

Ms. Nelson reported that on October 29, 2019, DOT hosted the Summit to raise awareness of government-wide efforts to improve access and mobility for transportation-disadvantaged populations and to identify innovations that can provide more efficient, affordable, and accessible vehicles and mobility services. At the Summit, the Secretary of Transportation, Elaine

L. Chao, announced the strategic plan for CCAM and funding opportunities. The goal of the strategic plan and funding is to help provide better transportation outcomes through the coordination of more than 130 government-wide programs.

CCAM and Its Initiatives

Ms. Nelson explained that CCAM was established in 2004 to coordinate the efforts of the Federal agencies that fund transportation for targeted, disadvantaged populations. She highlighted the following initiatives.

Transit and Health Access Initiative

A national survey revealed that the rates of no-show for healthcare-related appointments were high. ranging from 11 to 30% at HRSA-funded community health centers; however the reasons for the missed appointments were not clear. To figure out why, CCAM funded a study through the Transit and Health Access Initiative Grants 2016. The goal was to find and test promising, replicable public transportation solutions that could help increase access to care, improve health outcomes, and reduce health care costs. Ms. Nelson shared a success case in Flint, MI, where they collaborate with local partners to provide same-day healthcare service as well as rides to grocery stores.

Ms. Nelson noted that they recently announced the selection of 37 projects in 37 states for FY2019 Access and Mobility Partnership grants to help improve options for people with limited transportation choices and bridge the gap between service providers in the transportation and health sectors. And they are working with the federal partners for their 2020 grants.

She reported that in 2018, five CCAM Sate focus groups identified various barriers to transportation coordination, and the number one is limited awareness (e.g., not knowing exiting funding opportunities). In response to the finding, CCAM developed a program inventory, which shows that many agencies, including the CDC, have programs that may fund transportation. For 2020, they plan to host a webinar series to bring diverse networks together, and provide free courses.

Transportation Research and Resources

Ms. Nelson shared that they fund the National Academy of Sciences and other organizations to do research. She highlighted two reports that came out this year, one is about dialysis and challenges associated with transportation and the other one is about the effects of Medicaid Non-Emergency Medical Transportation (NEMT).

She noted that they also fund the National Center for Mobility Management, the National Aging and Disability Transportation Center, and the Rural Transit Assistance Program.

Discussion

Dr. Herman asked about the reasons behind the changes to Medicaid's requirements for transportation.

Ms. Nelson replied that it was CMS's decision. Given that the HHS spends about 1% of their budget on Medicaid NEMT, she speculated that the change might be related to cost saving.

Dr. Herman then asked if CCAM has any specific programs that can help address the need. Ms. Nelson responded that they do not, and it would be challenging for rural communities.

Dr. Schillinger asked for clarification on 1) NEMT changes and implications, and 2) DOT's regulatory or funding purviews with respect to local transportation planning and coordination.

In response to the first question, Ms. Nelson explained that the direction comes from OMB, and she would be happy to connect Dr. Schillinger with her CMS colleagues who manage the changes.

In response to Dr. Schillinger's second question, Ms. Martinez clarified that the use of the framework is voluntary. The state DOT can use the money they get to do planning and activities. She explained that funding for doing Corridor planning is in place but funding for implementation is left up to regional/local resources.

Dr. Ann Albright asked two questions. One was if there are any efforts in trying to turn the pilot programs or short-term grants into long-term policies, and the other one was if there are any efforts in thinking about how to provide funding to evidence-based programs in a coordinated way.

Ms. Nelson explained that one way they are doing is requiring partnerships in the notice of funding opportunity. She noted that there are a lot of opportunities for partnership. Regarding evidence-based programs, she noted that they are just starting to collect data.

Dr. Shell commented that the Commission needs to look at the models presented (e.g., the model developed in Flint, MI) to address issues related to transportation and inter-agency collaboration. When framing recommendations across the board, he suggested the Commission learn how to adopt and utilize the approaches presented.

SDOH and the U.S. Department of Agriculture (USDA)

Overview

Dr. Pamela Starke-Reed, alternate Commission member for Dr. Naomi Fukagawa, briefly reviewed USDA's mission and organization chart and introduced USDA's research agencies including the National Institute of Food and Agriculture (NIFA) and Economic Research Service (ERS). She pointed out that the USDA's mission is not focused on SDOH.

Agriculture Research and Programs

Deidra Chester, PhD, National Program Leader of the Applied Nutrition Research (ANR) program within NIFA, provided a brief overview of ANR's programs and initiatives, some which are associated with SDOH. Key topics of Dr. Chester's presentation are summarized as follows.

Agriculture and Food Research Initiative (AFRI)

AFRI is a competitive grants program designed to provide fundamental and applied research, education, and extension projects in food and agriculture sciences. AFRI covers both challenge area programs and foundational programs. The initiative has funded the following programs related to health.

AFRI Childhood Obesity Prevention Program

The program has provided more than $222M since 2011 to 88 grantees at U.S. colleges and universities. It focuses on health-promoting factors such as nutrition education, early childhood development, and food. Priority areas of the program include following.

- Generate new knowledge of behavioral (not metabolic), social, cultural, and/or environment factors, including the food environment, that influence childhood obesity
    - This knowledge should have a strong emphasis on health literacy and health disparities.
    - Behavior should be defined in a broad sense to include individual patterns of behavior and how individuals respond to others, the environment, and policy.
- Use this information to develop and implement effective family, peer, community, and/or school-based interventions for preventing overweight and obesity and promoting healthy behaviors in children and adolescents (ages 2-19 years)

Children's Healthy Living (CHL) Program for Remote Underserved Minority Populations of the Pacific Region

The program supports child obesity prevention through training, community-based participatory intervention research, dissemination/outreach, policy change, and use of local advisory committees. It addresses childhood obesity in remote, underserved areas such as Alaska and Hawaii by helping build social or cultural, political or economic, and physical or built environment that promote active play and intake of healthy food to prevent young child obesity. The program has supported a prevalence study conducted in children in 51 communities in the United States Affiliated Pacific, and a total of 102 students have been trained in childhood anthropometric and dietary assessment field techniques across the Pacific.

Discussion

Dr. Bullock asked for clarification about the CHL program. She wanted to know if the funding supports food programs (e.g., providing healthy food to the participants) or just education about food. Dr. Starke-Reed explained that the funding in this program is for research. Another speaker from the USDA will present food programs.

Data and Research Activities on the Social Determinants of Obesity

Following Dr. Chester's presentation, Dr. Jay Variyam, Director of the Food Economics Division of ERS, reviewed food-economics research supported by ERS and data they gathered, and he provided examples. Key topics of Dr. Variyam's presentation are summarized as follows.

Research Activities

Dr. Variyam explained that ERS's research

- Studies consumer and market behavior, the factors that influence it, and impacts on diet quality & body weight;
- Assesses food security of Americans and the role of USDA food assistance programs in promoting food security, nutrition, and health;
- Investigates policy approaches to promoting healthy food choices; and
- Provides data to support internal and external research.

Examples

Food Environment Atlas

This data project assembles statistics on food environment indicators. The goal is to stimulate research on the determinants of food choices and diet quality, and provide a spatial overview of a community's ability to access health food and its success in doing so.

Food Access Research Atlas

This tool presents a spatial overview of food access indicators at the census tract level. It contains four measures of low access to supermarkets or other large stores as well as other contextual data, and it provides food access data for populations of interest. The data can be downloaded for community planning or research.

National Household Food Acquisition and Purchase Survey (FoodAPS)

The FoodAPS is a comprehensive, nationally representative survey of food availability, choices, and quality at home (household-based). The survey, by bring together nutrition and food expenditure data, sheds light on household dietary, economic challenges, and the role of food assistance programs such as SNAP and WIC.

Results of FoodAPS have shown that

- Nutritional quality of foods purchased or acquired varies depending on household income and food assistance program participation;
- Most Americans consume less amount of whole grains than Federal dietary recommendations;
- SNAP-participating households acquire about as many total calories when assessed based on a per adult equivalent basis; however they spend less on food when away from home;
- WIC-participating households generally buy more whole grains and less refined grains than eligible non-participating households; and

- Children from households with at least one obese child tend to live in a more disadvantaged home environment than those from households with no obese children.

Effects of Policies on Food Choice, Quality, and Social Trends

Studies conducted by ERS also showed that food policies play a critical role in the diets of adults and school children, and they influence social trends such as increased consumption of food prepared away from home.

Labeling

To find out how policies influence the effects of social trends, the ERS conducted a survey asking participants of the National Health Examination Survey if they see nutrition information on restaurant menus and if they read it. Results of the survey showed that adults who read restaurant nutrition information consume fewer calories per day than adults who do not read the information.

USDA National School Lunch Program

Beginning in the 2012-2013 school year, half of all grain products served to the 30M school children who participate in the USDA National School Lunch Program are required to be rich in whole grain. Results of a national food consumption survey indicate that school foods were the richest source of whole grains in the diets of the participating children.

Food Away from Home

Another ERS research on social trends and socioeconomic determinants found that higher income consumers tend to acquire a larger portion of their calories away from home than lower income consumers.

Discussion

Following the presentation, Dr. Variyam answered questions from the Commission members on the following topics.

Drivers of the Social Trends

In response to a question regarding the trend of increased food consumption away from home, Dr. Variyam explained that trend is influenced by many factors such as social demand and changes of consumer valuation of certain things such as convenience and time saving.

Other Sources of Food Assistance

Dr. Carol Greenlee asked if the ERS team has a way to find out whether or not the SNAP program provides adequate food, and if the participants need supplements from other resources such as local food banks; if so, how much?

Dr. Variyam replied that the questions can be answered by a food survey, which collected data on such information. He offered to help obtain the information.

Data on Consumption of Sugary Beverages and Salt
In response to a question regarding data on sugar and salt composition of foods, Dr. Variyam responded that the survey was linked to USDA's nutrition database, and they also have Universal Product Codes that can reveal information on food composition.

Effect of Policy Changes
Dr. Schillinger asked if the policy on whole wheat consumption at schools has been, and if the ERS team has done any modeling study to assess the effects of policy changes on health such as diabetes.

Dr. Variyam acknowledged that the legislation has gone some changes. He noted that his team does look at the effects of changes to programs such as SNAP at the macro level, but not at the household level.

Federal Nutrition Assistance Programs

Lindsey Y. Datlow, MS, RD, Senior Policy Advisor of the Food and Nutrition Services (FNS) at the USDA, provided an overview of USDA's Federal Nutrition Assistance Programs.

Ms. Datlow noted that the FNS's mission is to increase food security and reduce hunger by providing children and low-income people access to food, a healthful diet, and nutrition education in a way that supports American agriculture and inspires public confidence.

FNS administers the following 15 federal nutrition assistance programs with 65% of USDA's budget.

- **The SNAP Program** supports states in making access a priority for markets and farmers.
- **The SNAP Education Program (SNAP-Ed)** formulates grants to states and provides nutrition education at the state level through a toolkit and a website.
- **The Child Nutrition Programs** support low-income families. The goals of the programs are to support American agriculture, improve nutrition and health, support low-income families, and support national security.
- **School-based Programs** include the following four different programs, each of which supports a large number of children.
    - *The National School Lunch Program,* which serves nearly 30M children each day
    - *The School Breakfast Program,* which serves 15M children each day
    - *The Fresh Fruit and Vegetable Program*
    - *The Special Milk Program,* which served about 38 pints of milk in 2018
- **Foods for Sale outside of the Meal Program/Smart Snacks Programs** set standards on sugar and salt for food and beverages sold during school days; and promote foods with whole grains, low fat dairy, fruits, vegetables, or protein.
- **Community-based Programs** consist of the following two different programs.
    - *The Child and Adult Care Food Program* serves 4.4 M children on an average day.
    - *The Summer Food Service Program* served nearly 2.7M children in July 2018.

- **The Farm-to-School Grant Program** offers grants annually to schools, school districts, nonprofits, state agencies, agricultural producers, and Indian tribal organizations to plan, implement, or train on farm-to-school activities. The primary goal of Farm-to-School programs is to improve access to local foods in schools and there is a lot of local control over what can be done.
- **The Supplemental Nutrition and Safety Programs** are managed by different divisions (e.g., the Food Distribution Division, the Supplemental Food Program Division, and the Office of Food Safety) and involve partnerships with local communities as well as other Federal agencies. For example the Emergency Food Assistance Program provides food to food banks, and it partners with local communities.

The 15 programs together serve 1 in 5 Americans each year, and all of the programs share the following characteristics.

- In-kind or targeted benefits (e.g., food, meals, vouchers, and credit)
- Focus on low-income families and individuals
- Federally funded
- National eligibility standards
- State operated
- Benefits flow to individuals, not to government or other organizations

The Center for Nutrition Policy and Promotion (CNPP) Initiatives

Ms. Datlow explained that all of the programs mentioned above are based on the Dietary Guidelines for Americans, developed by the CNPP and updated every five years. CNPP performs all the nutrition evidence systematic reviews and conducts needed research. CNPP also develops healthy eating index and provides education on nutrition (e.g., MyPlate).

At the end of presentation, Ms. Datlow offered to provide more information if the Commission needs.

Discussion

Following the presentation, Ms. Datlow answered questions on the following topics.

Scale Up

Dr. Schillinger commented on the importance of USDA's programs. He asked Ms. Datlow's perspective on how to scale up the innovative programs (e.g., the Double Up Food Bucks program). He also wanted to know what it would take to align the U.S. Dietary guidelines with what is growing in the U.S. to incentivize farms to grow more vegetables and fruits.

Ms. Datlow explained that the GusNip program is in the Farm Bill, and it is a great program with a lot of positive outcomes. She pointed out that all of their programs have specific requirements, scalability of the programs will depend on funds, and scaling up requires a lot of preparation.

She explained that for nutrition education, they have been working to improve coordination. Given that the USDA has many programs, she noted better coordination could help generate bigger impact.

Dr. Herman asked if they have programs that do not need to be scaled up.

Ms. Datlow responded that all of their programs are tailored to different individuals, and run at the state level for local needs, and that it is impossible for her to say which program does not need to be scaled up.

Quality, Cost, and Choice of Food

Dr. Bullock commented that the WIC and Food Snack programs have profound impacts. She wanted to know if it is possible to know the quality of food purchased using WIC vouchers. Given that high-quality foods cost more, she also wanted to know how that affects the program participants' purchase choices using SNAP vouchers.

Ms. Datlow answered that they do have a report on food purchased using WIC vouchers, and she offered to find the information. She noted there is a lot of discussion around food packaging, but she did not have an answer for WIC food packages versus SNAP and other models.

Food Program Participation

Dr. Bill Cook wanted to know the percentage of people USDA serves through its food programs. Ms. Datlow responded that the programs collectively serve one in five (1/5) Americans. She noted that the participation in some programs, however, are declining and they are trying to figure out why.

Collaboration

Dr. Albright asked how they work with food banks and Feeding America (a non-profit organization). Ms. Datlow answered that a large amount of American agriculture directly goes to food banks, and Feeding America has been a great partner in that regard.

Update on the Data Call

After a short lunch break, Dr. Harris conducted roll call and the meeting resumed with a quorum. Dr. Powell then provided a brief update on the data call, which has been signed by Dr. Don Wright. She highlighted the following.

- The streamlined data call tool will be sent to the 11 federal agencies listed in the Charter.
- The final data call preserved questions in three areas: policies and programs related to prevention and treatment of diabetes in the general and at-risk populations; programs and activities that provide care for people with diabetes and complications; and

research on diabetes prevention, management, as well as education and outreach strategies.
- Responses to the data call are expected in the first quarter of 2020.

Dr. Powell reported that the Commission plans to synthesize the data call after receiving the responses. She then turned the meeting to the next presentation.

SDOH (Education, Outreach) and the Centers for Disease Control and Prevention

Zanie Leroy, MD, MPH, Medical Officer of the Division of Population Health's School Health Branch at the CDC, reviewed CDC's School Health Branch's priorities, resources, and programs. Key topics of her presentation are summarized as follows.

Dr. Leroy explained that the School Health Branch focuses on quantity and quality of physical education, health education, and physical activities. They synthesize best strategies, evaluate school-based programs, and collaborate with other organizations and CDC programs.

The Whole School, Whole Community, Whole Child (WSCC) Framework

Studies have shown that healthy students do better in school. The WSCC model, launched in 2014, is CDC's framework for addressing health in schools. The model focuses on the student, and it emphasizes collaborations between schools, communities, public health, and health care sectors.

The model includes the following 10 core components.

- Physical education and physical activity
- Nutrition environment and services
- Health education
- Social and emotional school climate
- Physical environment
- Health services
- Counseling, psychological, and social services
- Employee wellness
- Community involvement
- Family engagement. Recently a paper in Full Health based on a 2014 survey.

Projects, Funded Agencies and Organizations, and Progresses

Dr. Leroy highlighted the following programs.

Healthy Schools Program (DP-1801)

The CDC Healthy Schools program currently funds 16 state education agencies. The state grantees support the implementation and evaluation of evidence-based strategies and activities

to prevent obesity, reduce the risk of children and adolescents developing chronic diseases in adulthood, and manage chronic health conditions prevalent in student populations (e.g., asthma, food allergies, and diabetes). Progresses of the project are monitored using annual performance measures, state evaluations, and quarterly reporting.

National Collaboration to Support Health, Wellness, and Academic Success of School-Age Children

CDC has a National Partners Cooperative Agreement (OT18-1802) with the American Academy of Pediatrics and the Society for Public Health Education. The agreement with American Academy of Pediatrics comes with an action plan. In May 2019, they convened national organizations and other key stakeholders to identify policy, programmatic, and research gaps in school health services and the management of chronic conditions. The agreement with the Society for Public Health Education supports school health councils and health education in schools and assists CDC-funded grantees to develop tools and resources within the WSCC framework.

Internal and External Partnerships and Collaborations

The School Health Branch also collaborates with various U.S. Departments and agencies such as ED, USDA, the Health Resources and Services Administration, Substance Abuse and Mental Health Services Administration, and the National Cancer Institute. It also collaborates with various divisions within the CDC, including the following.

- Division of Diabetes Translation
- Division of Nutrition, Physical Activity, and Obesity
- National Center for Environmental Health
- Division of Adolescent and School Health
- Office on Smoking and Health

Chronic Health Programs

Dr. Leroy highlighted some of their work in specific areas such as managing chronic health conditions in schools. The programs support school-based services that promote better health, higher grades, and higher test scores for students with chronic conditions. They have published research reports and produced multiple types of educational materials on various topics such as PE/PA, nutrition, and how to manage chronic health conditions. All of these resources available for the school system.

Cross-Cutting Resources

Dr. Leroy highlighted the following resources that can be used to serve different purposes.

- School Health Guidelines
- School Health Index
- Parents for Healthy Schools Program
- Virtual Healthy School

- Training Tools

Discussion

Following the presentation, Dr. Leroy answered questions on the following topics.

Policies on Physical Education at Schools

Dr. Herman asked if there are, or were, any Federal policies or guidelines on physical education in schools.

Dr. Leroy responded that they have a framework, but she is not aware of any current or past Federal policies.

Dr. Herman asked again if there is an optimal amount of activities identified in the programs.

Dr. Leroy noted that the framework describes what would be ideal and helps provide ideas. She pointed out that they have resources showing the link between physical activity and academic achievements.

Practices to Policies

In response to a question regarding how school practices get translated into policies, Dr. Leroy noted that they can provide guidance and evidence, but they do not have control over implementation.

Dr. Schillinger asked if ED has regulatory influence on local school decision making. Dr. Leroy replied yes.

Resource Utilization

Dr. Greenlee wanted to know if CDC can track how many schools are using the resources.

Dr. Leroy explained that they do have some information on who downloads the tools but that does not tell how the resources are used, or who uses them. Dr. Albright added they need clearance from the OMB to collect certain information, which adds challenges for tracking the utilization of CDC's tools.

Food and Beverages Sold in Schools

The Commission members and Dr. Leroy discussed regulations on food and beverages sold in schools such as through vending machines. Dr. Leroy noted what they can do is promoting consuming healthy food. Dr. Starke-Reed explained that foods and beverages sold in vending machines are basically determined by schools; however, for nutrition programs offered by the USDA, the schools have to comply with what USDA requires.

Ad Campaigns

In response to Dr. Bolen's questions regarding ad campaigns, Dr. Albright shared that the Office on Smoking and Health has conducted a very effective campaign, and that her division has also

done an effective ad campaign with the AD Council. She pointed out that ad campaigns can be extremely expensive and may raise concerns over using tax money to buy ad spaces. Dr. Albright added that they also use other ways such as TV stations and mini-series to expand the reach of their messages. She offered to share more information and data if the Commission needs them.

Discussion of the Presentations and the Model

Following the presentations, the Commission summarized what they have heard and discussed what elements of the Model has been addressed and what have not.

Dr. Herman noted that the presentations have provided a lot of information on SODH. The Commission has heard and discussed policies and programs on education, housing, transportation, food, stress, trauma, as well as some behavior settings. However, the Commission has not heard much information related to worksites, industry, labor, and green. He asked if the Commission would like to hear more presentations on labor and worksites in the future.

Commission members suggested hearing more presentations on the following topics.

- **Programs on workplace health.** The CDC Workplace Health Resource Center has multiple relevant initiatives and programs.
- **Effects of air pollution on type 2 diabetes.** A NIH-funded clinical study is ongoing.
- **Green space from Parks and Recreation**
- **Access to fresh water from EPA**
- **Perspectives of Payers.** Members of the Commission suggested reaching out to the National Business Group on Health, which represents large employers' perspectives on national health policy issues.
- **Perspectives of Public Health Departments.** Members of the Commission suggested hearing presentations from the National Association of County and City Health Officials, the Association of State and Territorial Health Officials, and the National Association of Chronic Disease Directors.
- **Perspectives of Hospitals**
- **Medicare and Medicaid.** A Commission member suggested inviting a medical doctor from Medicaid to talk about their work.
- **QIN-QIOs programs**
- **Education.** A Commission member pointed out that the Commission still wants to hear presentations from the Department of Education.

Action Items

- Dr. Herman asked
    - the HHS team to reach out to the organizations mentioned above, and

- the Commission members to suggest potential speakers from ED and share their contact information with the HHS team.

Suggested Revisions to the Model

A Commission member suggested adding public health departments in the model because they 1) coordinate different services; 2) know diabetes-related needs in the community; and 3) have initiatives that may work really well.

Summary of the Presentations on SDOH

Upon Dr. Herman's request, Dr. Schillinger summarized what the Commission has heard from the presentations, including the following.

- Encouraging programs from and collaborations between a diverse group of agencies, which could have profound influence on the incidence and management of diabetes
- Commitments and openness for collaboration
- Different agencies are in different states of evolution. While some agencies (e.g., CDC) has done a tremendous amount of work, other agencies appeared to have just started testing their visions (e.g., the DOT and HUD).

Dr. Schillinger noted that the Commission has also noticed relatively little focus on modeling the effects of changes in policies on health and diabetes and health economics evaluations. He noted that this might be another opportunity for collaboration, and that the work could lead to policies on health impact assessment.

Dr. Schillinger commented that HUD's commitment, services offered, and innovative collaborations (e.g., data linkage with CMS) are striking. The outcomes of the services demonstrate how much impact Federal policies and programs can make, and their models might work for other Federal agencies.

On DOT, Dr. Schillinger commented that the Commission learned about a robust working group with focus on safety, and they also learned about benefits for Medicare and Medicaid beneficiaries and how the beneficiaries rely on public transportation to receive care; however, it is a little less clear to the Commission regarding where to go with the presentations. For example, it is unclear what happens to the redesigns after providing assistance for planning. In addition, the Commission did not see much linkage between building environment and health.

On USDA, Dr. Schillinger noted that it is a massive agency that does a lot of collaborative work. However, the eligibilities to the USDA programs vary from state to state. He wanted to know if there are ways to better manage the SNAP program so that the program participants can purchase better-quality food, and meanwhile to maximize the investment. He urged the Commission to think about the supply side as well. For example, if the prices for fresh fruits and vegetables drop, the demand for them might follow. The School Lunch Program, Dr. Schillinger

commented, appears to be a win-win, and he suggested the Commission recommend sustaining it.

Regarding the CDC presentation, Dr. Schillinger commented that CDC in general are collaborating externally and internally. The paradox, however, appears to be its inability to enforce policies and changes, which, he noted, is something the Commission has to think about how to tackle.

Additional Discussions

After Dr. Schillinger's summary and comments, the Commission briefly discussed additional topics, including the following.

Food Labeling

The Commission members briefly discussed how to address policies around salt and sugar in food at the state as well as federal levels. They also discussed how the food labeling system works. A Commission member explained that food labeling is a complex process, and that FDA and USDA share responsibilities to oversee food labeling (e.g., FDA regulates labeling on packaged foods and USDA regulates labeling of meat and poultry). It was pointed out that companies generally do not want to make changes unless they are required to do so.

Communication

A Commission member pointed out the importance of communication in tele health, payment, and scalability; and suggested inviting a speaker from the Federal Communications Commission.

Action Item:

- Dr. Albright will share with the HHS team the contact information of the potential speaker from the FCC.

Collaborations and Recommendations

While the Commission members were impressed by the agencies' programs overall, they, however, pointed out that 1) each agency appears to have limited staff doing work related to diabetes, 2) the programs do not seem to be well coordinated, and 3) there seems to be overlaps between some of the programs. They briefly discussed if more collaborations can be done and what recommendations the Commission could make.

Dr. Albright pointed out that it is challenging for the Federal agencies to provide all the information that might be of interest to the Commission. There are, she noted, so many different types of ongoing collaborations between agencies. Because each agency has its own unique mission, it is impossible for an agency to know everything that other agencies are doing. She asked the Commission members to be careful when making recommendations to ensure that their recommendations can make a real difference by helping the agencies get more work done.

Dr. Bolen noted that it would be valuable to invite the Office of Minority Health's Interagency team to share their experiences.

Public Comment

Hannah Martin, Director of Legislative and Government Affairs of the Academy of Nutrition and Diabetes, a member organization of the Diabetes Advocacy Alliance (DAA), spoke on behalf of the DAA. She noted that members of DAA has worked for many years to rally support from Congress for establishing the Commission.

Ms. Martin pointed out that DAA's work aligns well with the focus areas of the Prevention—Targeted Population (PTP) and the Treatment and Complications (TC) subcommittees, and members of the DAA are willing to share their expertise with the subcommittees and the Commission.

She explained that for the PTP subcommittee, DAA would welcome an opportunity to provide their perspectives on how current policies are impacting diabetes screening and prevention of type 2 diabetes among people with prediabetes; and that for the TC Subcommittee, they would like to brief the subcommittee on how policies are impacting diabetes treatment and prevention of complications, and innovations that could improve health care delivery.

Ms. Martin provided examples on what information some of the DAA's member organizations can share with the Commission. She noted that DAA stands ready to serve as a resource for the Commission.

Updates on Subcommittees Meetings

Dr. Herman provided a quick update on the subcommittees meetings on November 21, 2019. He noted that during the meetings, the subcommittees discussed and reached consensuses on the plans for the following tasks.

- Identifying key stakeholder organizations/informants and developing core questions
- Coordinating the lists of the stakeholder organizations and inviting key stakeholder informants to present to subcommittees
- Requesting responses to core questions from the public and providing information about the next Commission meeting in a Federal Register Notice (FRN)

Dr. Herman asked the Commission members to propose core questions for the FRN.

Co-chairs of the three subcommittees then provided brief updates on their subcommittees' progresses and plans for the next steps.

Dr. Schillinger noted that the PGP subcommittee agrees with the plan for obtaining input from stakeholders, and that they plan to develop questions for relevant stakeholders and will start

the literature search process soon. He reported that the subcommittee also plan to have a conference call in December to start the process.

Dr. John Boltri, co-chair of the PTP subcommittee, explained the focus of subcommittee. He noted that the subcommittee hopes, through literature review, data call, and external stakeholder input, to identify gaps in lifestyle interventions aimed at preventing type 2 diabetes and most successful type 2 diabetes prevention programs and alternative improvement programs (to help those who are not ready for full lifestyle prevention programs). The subcommittee also plans to consider other prevention tools such as medication and surgical interventions and identify effective strategies. Dr. Albright added that the PTP subcommittee is also eager to see more research on type 1 diabetes.

Dr. Greenlee, co-chair of the TC subcommittee, reported that the TC Subcommittee has developed a framing statement, identified key areas, and streamlined priorities. She noted that the subcommittee will focus on three main priority areas that the subcommittee believes could make the largest impact, including diabetes self-management and support, models for delivering diabetes care, and reducing health disparity. In addition, the subcommittee has also begun formulating key terms for literature search. Dr. Greenlee explained that the TC Subcommittee members worked together in developing the terms related to their three priority areas, and they plan to work with the HHS team on the literature search soon.

Next Steps and Closing Remarks

The Commission members discussed their next steps around the following topics.

Develop Core Questions and Identify Key Stakeholders

Dr. Herman asked Commission members to identify stakeholders and send their lists to the HHS team for consolidation.

Next Commission Meeting

For the next full-Commission meeting on Feb 19, 2020, Dr. Herman suggested the Commission continue hearing presentations on SDOH from agencies that are not included in the data call. Meanwhile, he added, the Commission would like to hear presentations on the three topic areas identified by the TC Subcommittee.

Dr. Greenlee suggested starting with presentations from CMS for the next meeting. She noted that the subcommittee has already began generating questions, which they could share with CMS.

Dr. Barry Max explained that to identify subject matter experts and speakers from CMS, it would be important for him to know the key questions and issues the Commission are interested in. He agreed to help the TC Subcommittee sort out questions and identify speakers.

Subcommittee Meetings, Conference Calls, and Mechanisms

The Commission members discussed how to move forward with one-on-one calls/interviews with key stakeholder informants while waiting for the data call.

Dr. Herman noted that if the Commission members know certain programs, it would be okay for them to reach out and learn about those programs. The Commission members generally agreed with the following good practices when speaking with stakeholder informants.

- Keep meeting minutes and report back to the Commission
- Inform the whole Commission if certain topics are relevant to the big group

A Commission member also suggested considering obtaining written responses from stakeholders.

Report Template

A few Commission members suggested the Commission begin developing a framework to guide them with the final report to Congress. Dr. Gonzalvo agreed to help draft a template. Dr. Powell offered to re-circulate the outline the Commission has previously developed.

Next Meetings

The next Commission virtual meeting will take place on February 19, 2020.

Adjournment

The meeting was adjourned at 3:20 pm.

Appendix: Commission Members and HHS Support Staff

Commission Members Present for NCCC Meeting 5

Commission Chair

William H. Herman, MD, MPH, Stefan S. Fajans/GlaxoSmithKline Professor of Diabetes, Division of Metabolism, Endocrinology, and Diabetes, University of Michigan, Ann Arbor, MI

Public Members (Special Government Employees)

Shari Bolen, MD, MPH, Associate Division Director of Internal Medicine, Center for Health Care Research and Policy, Case Western Reserve University, Cleveland, OH

John Boltri, MD, FAAFP, Chair and Professor, Department of Family and Community Medicine, Northeast Ohio Medical University College of Medicine, Rootstown, OH

J. William (Bill) Cook, MD, Chair, Board of Directors, Ascension Medical Group, Baltimore, MD

Ayotunde Dokun, MD, PhD, FACE, Chief of Endocrine Service, Division of Endocrinology, Diabetes and Metabolism Regional One Health System, Memphis, TN

Jasmine Gonzalvo, PharmD, BCPS, BC-ADM, CDE, LDE, Clinical Pharmacy Specialist, Primary Care, Midtown Medical, Eskenazi Health, Indianapolis, IN

Carol Greenlee, MD, FACP, FACE, Faculty Co-Chair, Center for Medicare and Medicaid Innovation Transforming Clinical Practice Initiative, Grand Junction, CO

Shannon Idzik, DNP, ANP-BC, FAAN, FAANP, Associated Dean and Professor, Doctor of Nursing Practice Program, University of Maryland Baltimore School of Nursing, Baltimore, MD

Ellen Leake, Chair, Juvenile Diabetes Research Foundation, International Board of Directors, Jackson, MS

Dean Schillinger, MD, Chief, UCSF Division of General Internal Medicine, San Francisco General Hospital, San Francisco, CA

David Strogatz, PhD, MSPH, Director, Center for Rural Community Health, Bassett Research Institute, Bassett Health Care Network, Cooperstown, NY

Federal Members (Regular Government Employees)

Ann Albright, PhD, RDN, Division Director, Division of Diabetes Translation, Centers for Disease Control and Prevention, Department of Health and Human Services

Ann Bullock, MD, Director, Division of Diabetes Treatment and Prevention, Office of Clinical and Preventive Services, Indian Health Service, Department of Health and Human Services

William Chong, MD, Acting Division Director, Division of Metabolism and Endocrinology Products, Office of New Drugs, Center for Drug Evaluation and Research, Food and Drug Administration, Department of Health and Human Services

Paul R. Conlin, MD, Chief, Medical Service, Veterans Affairs Boston Healthcare System, Department of Veterans Affairs

Barbara Linder, MD, PhD, Program Director, Division of Diabetes, Endocrinology, and Metabolic Diseases, National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health, Department of Health and Human Services (present for the morning session)

Barry Marx, MD, Director, Office of Clinician Engagement, Center for Clinical Standards and Quality, Centers for Medicare and Medicaid Services, Department of Health and Human Services

Donald Shell, MD, MA, Director, Disease Prevention, Disease Management and Population Health Policy and Oversight, Office of the Assistant Secretary of Defense for Health Affairs Health Services Policy and Oversight, Department of Defense

Howard Tracer, MD, Medical Officer, U.S. Preventive Services Task Force Program, Center for Evidence and Practice Improvement, Agency for Healthcare Research and Quality, Department of Health and Human Services

CAPT David Wong, MD, FAAP, Medical Officer, Office of Minority Health, Office of Assistant Secretary for Health, Department of Health and Human Services

Commission Members Absent from NCCC Meeting 5

Meredith Hawkins, MD, MS, Director, Global Diabetes Institute, Albert Einstein College of Medicine, Bronx, NY

Naomi K. Fukagawa, MD, PhD, Director, Beltsville Human Nutrition Research Center, Department of Agriculture

Aaron Lopata, MD, Senior Medical Advisor, Maternal and Child Health Bureau, Office of the Associate Administrator, Health Resources and Services Administration, Department of Health and Human Services

HHS Support Staff in Attendance

Linda Harris, PhD, Designated Federal Officer, Office of Disease Prevention and Health Promotion, Office of the Assistant Secretary for Health, U.S. Department of Health and Human Services.

Clydette Powell, MD, MPH, FAAP, Medical Officer and Technical Lead, Division of Health Care Quality, Office of Disease Prevention and Health Promotion, Office of the Assistant Secretary for Health, U.S. Department of Health and Human Services

Erika Kim, PharmD, ORISE Fellow, Office of Disease Prevention and Health Promotion, Office of the Assistant Secretary for Health, U.S. Department of Health and Human Services