

ADDRESSING SOCIAL DETERMINANTS OF **HEALTH**

Addressing Social Determinants of Health:
Accelerating the Prevention and Control of
HIV/AIDS, Viral Hepatitis, STD and TB

External Consultation

December 9–10, 2008 · Atlanta, Georgia

MEETING REPORT



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION
NATIONAL CENTER FOR HIV/AIDS, VIRAL HEPATITIS, STD AND TB PREVENTION



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Abbreviations

AA	African Americans
AAPI	Asian American/Pacific Islanders
AIDS	Acquired Immunodeficiency Syndrome
CDC	Centers for Disease Control and Prevention
CCID	Coordinating Center for Infectious Diseases (CDC)
CMS	Centers for Medicare and Medicaid Services
DHAP	Division of HIV/AIDS Prevention (NCHHSTP/CDC)
DTBE	Division of Tuberculosis Elimination (NCHHSTP/CDC)
DSTDP	Division of Sexually Transmitted Disease Prevention (NCHHSTP/CDC)
DVH	Division of Viral Hepatitis (NCHHSTP/CDC)
D&W	Dahlgren and Whitehead social determinants of health model
GAP	Global AIDS Program (NCHHSTP/CDC)
FOA	Funding Opportunity Announcement
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HIV	Human Immunodeficiency Virus
HHS	Department of Health and Human Services
HRSA	Health Resources and Services Administration
MSM	Men who have sex with men
NCHM	National Center for Health Marketing (CDC)
NCHSTP	National Center for HIV/AIDS, STD and TB Prevention
NCHHSTP	National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention (CDC)
NIH	National Institutes of Health
PEPFAR	President's Emergency Plan for AIDS Relief
PCSI	Program Collaboration and Service Integration (NCHHSTP/CDC)
SDH	Social Determinants of Health
SES	Socioeconomic status
STD	Sexually Transmitted Disease
TB	Tuberculosis
VA	Veteran's Administration
WHO	World Health Organization

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EXECUTIVE SUMMARY

Background

The National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP) has established three programmatic priorities based on shared leadership values across the Center's five Divisions: maximizing global synergies, encouraging program collaboration and service integration, and reducing health disparities. Since the establishment of the original national center for HIV, STD and TB Prevention (NCHSTP), reducing health disparities has been a focus of the Center's work and a commitment of its leadership. The Center understands the need to develop a comprehensive approach to addressing health disparities, one that takes into account not only individual level factors, but importantly, structural, contextual, socioeconomic status (SES), healthcare service access and quality, and environmental factors. Together these factors are called social determinants of health (SDH).

Purpose

NCHHSTP convened the external consultation to identify key short- and long-term priorities for addressing social determinants of HIV/AIDS, viral hepatitis, sexually transmitted diseases (STDs), and tuberculosis (TB) that are appropriate for NCHHSTP to undertake.

Meeting Summary

The Consultation offered an opportunity for leading academic, scientific, public health and community stakeholders to discuss the development of more effective ways to address social determinants of HIV/

AIDS, viral hepatitis, STDs and TB in four key public health activity areas:

1. Public health policy,
2. Data systems (including surveillance and epidemiology),
3. Agency partnerships and building capacity for prevention, and
4. Prevention research and evaluation.

The NCHHSTP Director presented the strategic priorities and focus areas of the Centers for Disease Control and Prevention (CDC), the Coordinating Center for Infectious Diseases (CCID) and NCHHSTP and their respective roles in the SDH effort. The NCHHSTP Deputy Director presented a comprehensive overview of the three SDH models that were considered for NCHHSTP's prevention programs and activities. Representatives of NCHHSTP divisions presented case studies of ongoing projects in HIV/AIDS, viral hepatitis, STDs, TB, and global health framed within the context of one of the three models and provided rationale for selecting a particular SDH model.

Dr. William Foege, a Senior Fellow in the Global Health Program of the Bill and Melinda Gates Foundation and a Commissioner of the WHO Commission on Social Determinants of Health spoke on health systems transformation and social determinants of health. Dr. Foege suggested three solutions to transform health systems to better address social determinants:

- Review international health care and public health models
- Develop consensus-based metrics for health outcomes
- Identify "last mile" or the specific outcome hoped to be achieved by addressing social determinants of health.

The Divisions selected the Ansari, 2003 and Dahlgren & Whitehead, 2007 models due to their simplicity and did not choose the World Health Organization (WHO) model due to its complexity. NCHHSTP acknowledges the need to adapt these models to respond to issues related to infectious diseases, such as sexual mixing in STDs; the role of environmental settings in TB; the impact of background prevalence of disease on the incidence of disease; and quality, timing and access to health care.

The participants discussed extensively the merits of NCHHSTP adapting one of the two (the Ansari, 2003 or the Dahlgren & Whitehead, 2007) models for the SDH effort or developing an entirely new model to address SDH in infectious diseases. The participants were not in favor of NCHHSTP creating new frameworks to describe SDH because existing models that were developed by experts in the field of HIV, STD, and TB could be easily integrated within the context of existing models. Even though the WHO model was not selected, participants emphasized the critical need for NCHHSTP to strengthen its understanding of the model due to its focus on most of the key components related to infectious diseases. Participants concluded that NCHHSTP should use the WHO model in its strategy development, emphasizing that doing so would facilitate opportunities for other parts of CDC and federal agencies to use the model.

Outcomes

The participants attended one of four breakout groups to provide more focused guidance on specific actions NCHHSTP should take to develop and advance the SDH effort at the national level. The Public Health Policy Group advised NCHHSTP to:

1. Provide leadership throughout CDC and align NCHHSTP efforts with those of the Department of Health and Human Services (HHS) and of WHO;

2. Convene a national agenda setting meeting; and
3. Partner with other federal agencies, non-governmental organizations, private foundations, philanthropic organizations and the like who have an interest in reducing health disparities.

The Data Systems Group advised NCHHSTP to identify key data elements and measurements that will be needed to develop and launch the national SDH effort. To achieve this goal, the breakout group suggested that NCHHSTP:

1. Create relevant SDH metrics that would be monitored by subject matter experts;
2. Add SDH to NCHHSTP data collection systems; and
3. Share, link and integrate data to the extent possible to facilitate analyses and provide an evidence base (also identify and utilize other agencies data sets and systems).

The Agency Partnerships and Capacity Building Group advised NCHHSTP to:

1. Enhance partnerships from both traditional and non-traditional sources to strengthen the SDH effort;
2. Build capacity among partners in SDH by including language in funding opportunity announcements (FOAs) that would require state and local grantees to collaborate with and reach out to partners at state and local levels; and
3. Launch a nationwide social marketing campaign to strengthen the relationship between CDC and at-risk populations and to engage a broader group of partners in delivering messages on infectious diseases.

The Prevention Research and Evaluation Group advised NCHHSTP to:

1. Reframe traditional strategies based on individuals and broaden targeted groups on the basis of families, communities, systems, partnerships, organizations, for example;
2. Integrate a holistic and interdisciplinary approach to conducting prevention research; and

3. Advance toward participatory research in which communities are engaged at the beginning stage of conceptualizing studies through the final stages.

Next Steps for CDC

The Director of NCHHSTP identified CDC's next steps. They include:

1. Develop a detailed report of the proceedings to be distributed to all of the participants in a timely manner to ensure that key outcomes of the deliberations are applied to local practice.
2. Develop strategy and implement results of the Consultation through revising the "Green Paper" to a "White Paper" which will include a concentric circle of partner engagement and input starting with NCHHSTP leadership and staff to obtain input on suggestions, priority actions, and next steps for implementation; and incorporate key suggestions into the NCHHSTP strategic plan.
3. Develop an overarching communications plan to guide, mobilize and inspire action through strengthened Website presences and Links on social determinants of health included on NCHHSTP Health Disparities Web page.
4. Contribute to the scientific literature through publication of a special journal issue on social determinants of health in *Public Health Reports* in early 2010.
5. Promote partner engagement through a Dear Colleague letter to NCHHSTP partners; inclusion of a discussion of the outcomes of this Consultation and addressing social determinants on the NCHHSTP Director's Blog; and inclusion of SDH into other routine and *ad hoc* communication outputs from the Center.
6. Enhance outreach to the CDC community at-large through embracing NCHHSTP's leadership role in addressing SDH throughout the CDC community; providing leadership updates and feedback to Center Leadership

Council and Executive Leadership Board; working with the CDC Social Determinants of Health Workgroup; and collaborating with other National Centers who are interested and active with this issue.

7. Reinforce commitment to include SDH in NCHHSTP-sponsored conferences and identify opportunities for inclusion and raising the profile of SDH in HHS or CDC-sponsored conferences.
8. Continue and expand expert engagement in the NCHHSTP SDH activities through structured qualitative interviews with external partners including external subject matter experts not present at this Consultation and philanthropic organizations and foundations.

Conclusions

The Consultation was successful in identifying key priorities in four content areas. These priorities and suggestions from the discussions at the Consultation are an integral part in NCHHSTP's development of a SDH strategy, with clear goals and objectives. Participant input is the basis from which NCHHSTP will create a road map for key goals, to assess accountability and to evaluate progress in achieving the SDH goals and objectives over time. The Consultation demonstrated partners' commitment to address SDH and their enthusiasm to broaden the conversation about SDH to include traditional and non-traditional, federal, and private sector partners who are concerned about reducing health disparities.



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CONSULTATION SUMMARY

This report summarizes major points discussed during the two-day meeting, including priorities identified during breakout sessions for four content areas. If you would like more detailed information about the meeting or discussions that took place during the meeting, please contact the Office of Health Disparities at 404.639.8009.

Background

The National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP) has maintained a strong commitment to address health disparities since the establishment of the original center, NCHSTP in 1995. NCHHSTP is now focusing on new paradigms to better understand the role of social determinants of health (SDH) in its previous accomplishments and identifying future directions in the prevention of HIV/AIDS, viral hepatitis, STDs and TB.

NCHHSTP's mission is to maximize public health and safety nationally and internationally through the elimination, prevention and control of disease, disability and death caused by HIV/AIDS, viral hepatitis, STDs, and TB. The strategic priorities of the Centers for Disease Control and Prevention (CDC), the Coordinating Center for Infectious Diseases (CCID) and NCHHSTP are health protection impact, customer focus, health protection research, health system leadership, a global perspective, and accountability of public health practice. These priorities play an important role in addressing SDH to accelerate the prevention and control of HIV/AIDS, viral hepatitis, STDs, and TB.

NCHHSTP has an established track record of innovation, commitment and funding of public health

programs, research and policy to reduce health disparities. NCHHSTP also maintains its commitment to workforce diversity, mentoring and training to help ensure that the needs of populations affected by infectious diseases are met.

Despite its solid accomplishments, NCHHSTP is interested in what can be done to build a more comprehensive approach to address health disparities in infectious diseases and to design and establish a strong framework to integrate all of NCHHSTP's prevention activities. NCHHSTP recognizes the accomplishments to date in the area of reducing racial/ethnic and gender disparity health outcomes, many of which were attained through analyzing, characterizing and reporting disease diagnoses, incidence, prevalence and self-reported health status. NCHHSTP also acknowledges the need to increase its focus on determinants such as healthcare service delivery, health behaviors, socioeconomic status (SES) and the environment.

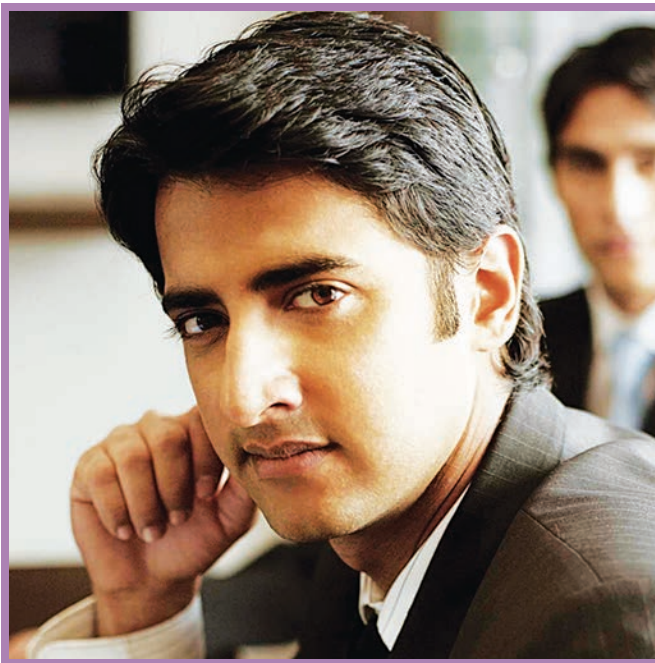
NCHHSTP also intends to place more emphasis on structural and contextual determinants of health, particularly health policy and legislation, economic and social interventions and cross-sectoral collaboration. To develop this more comprehensive approach for the prevention of infectious diseases, NCHHSTP is now addressing four key questions:

1. Is NCHHSTP taking proper actions in the areas of health outcomes, health determinants and structural/contextual determinants?
2. Are NCHHSTP's approaches across infectious diseases and within divisions consistent in an effort to conceptualize and address health disparities overall?
3. Has NCHHSTP properly balanced health outcomes, health determinants and structural/contextual determinants with individual partners, networks, communities and society as a whole?

4. What actions should NCHHSTP take to tackle more actively health disparities of infectious diseases?

NCHHSTP is placing greater emphasis on SDH because a common framework for approaching and tackling health disparities is required. New paradigms, understanding, energy and global interest about SDH are emerging. A greater emphasis on SDH will help NCHHSTP ensure a more balanced portfolio of individual, network, and community programs and societal interventions.

NCHHSTP knows that no single approach to prevention is sufficient in developing effective new tools. Integrated prevention approaches involving behavioral, biomedical and structural interventions need to be bundled into packages and targeted to specific populations. Evidence shows that the cumulative effect of a combined prevention approach promises to be an effective way to thwart the spread of infectious diseases.



Purpose

The purpose of the Consultation was to identify NCHHSTP's one-, three- and five- year priorities in the four key public health activities: public health

policy, data systems, agency partnerships and capacity building, and prevention research and evaluation. Input from the consultation will be used by NCHHSTP to develop policies, practices and guidelines that incorporate SDH and that will influence the development and implementation of domestic and global prevention programs for HIV/AIDS, viral hepatitis, STD and TB.

Overview of Selected SDH Models for NCHHSTP

The structure of the Consultation was such that an overview of selected SDH models and 5 cases studies presented during the plenary session as well as the SDH Green Paper (a discussion document intended to stimulate debate and launch a process of consultation on a particular topic) and other reference materials that were distributed served as the basis for participant discussion of four major topics during the breakout sessions. The topic areas were public health policy, data systems, agency partnerships and capacity building, and prevention research and evaluation. Participants were urged to engage actively in these discussions to provide CDC with expert guidance and suggestions on SDH next steps.

Overview

Population health outcomes are significantly influenced by complex, integrated and overlapping social structures and economic systems referred to as SDH. Studies have shown that social determinants, such as an individual's position in a social hierarchy, can influence health outcomes. For example, racial/ethnic minority groups low in the social and economic hierarchy experienced increased rates of adverse health outcomes, death and displacement following Hurricanes Katrina and Rita than other populations (Gault, et al., 2005). Moreover, the Whitehall Study documented

that British civil servants lived longer compared to persons with a lower social ranking (Marmott, 1999).

Health disparities in HIV/AIDS, viral hepatitis, STDs and TB are inextricably linked to a complex blend of social and economic determinants (CDC, 2008). To reduce health disparities, SDH must be addressed by identifying common SDH disparities across subpopulations that are disproportionately affected by these diseases to develop and integrate interventions to address or mediate these diseases.

The term “SDH” was first used in the 1970s (Wilde, 2007) in an effort to shift the focus away from individual, behavioral causes of disease toward pathways to improve health with a focus on the acute healthcare system. However, SDH has been redefined since that time.

Krieger’s 2001 definition of SDH described specific features of and pathways by which societal conditions affect health and how a person’s health potentially can be altered by informed action (Krieger, 2001). WHO’s 2005 definition of SDH described social conditions in which persons live and work (WHO, 2005). Kindig’s 2007 definition of SDH described patterns of health determinants over the life course (Kindig, 2007).

In developing the formative strategy and providing a framework for discussions during the Consultation, NCHHSTP adopted Raphael’s definition of SDH in which economic and social conditions influence the health of individuals, communities and jurisdictions as a whole (Raphael, 2004). The definition further states that social determinants affect the extent to which an individual possesses physical, social and personal resources to identify and achieve personal aspirations, satisfy needs and cope with the environment.

A literature review resulted in NCHHSTP initially selecting six SDH models for closer inspection and comparison and ultimately choosing three SDH models that were most relevant and applicable to its public health activities. The three SDH models of-

ferred to NCHHSTP’s divisions to consider as they developed case studies were:

- **Ansari’s 2003 SDH public health model.**

Ansari, et al., 2003 developed a public health model on the social determinants of health to show the relationships between health care systems, social determinants, disease inducing behaviors and health outcomes and to demonstrate a dynamic relationship between psychological risks and the circular effects of socio-economic determinants and community and societal characteristics.

- **Dalhgren and Whitehead’s (D&W) 2007 SDH model.**

Dalhgren and Whitehead’s model is a variation on the concept of concentric semi-circles. Starting at the middle of the circle, age, sex and heredity provide the center after which individual lifestyle factors provide the next closest layer, analogous to a “close in” suburb to an inner city. Adding on to that, layers of other contributing factors that impact health are shown cascading, almost rainbow-like, moving outward to higher levels of abstraction. Each additional layer presents factors that influence health or disease which are further removed from individual influence.

Dr. William Foege, a Senior Fellow in the Global Health Program of the Bill and Melinda Gates Foundation and a Commissioner of the WHO Commission on Social Determinants of Health spoke on health systems transformation and social determinants of health. Dr. Foege suggested three solutions to transform health systems to better address social determinants:

- Review international health care and public health models
- Develop consensus-based metrics for health outcomes
- Identify “last mile” or the specific outcome hoped to be achieved by addressing social determinants of health.

- **The World Health Model, 2008.** World Health Organization Equity Team model is a synthesis of a number of models reviewed by the WHO between 2003 and 2007. Structural determinants of health (social and political context) configure the health opportunities of social groups based on placement within hierarchies of social and economic power and relative social capital available in communities.

Case Studies

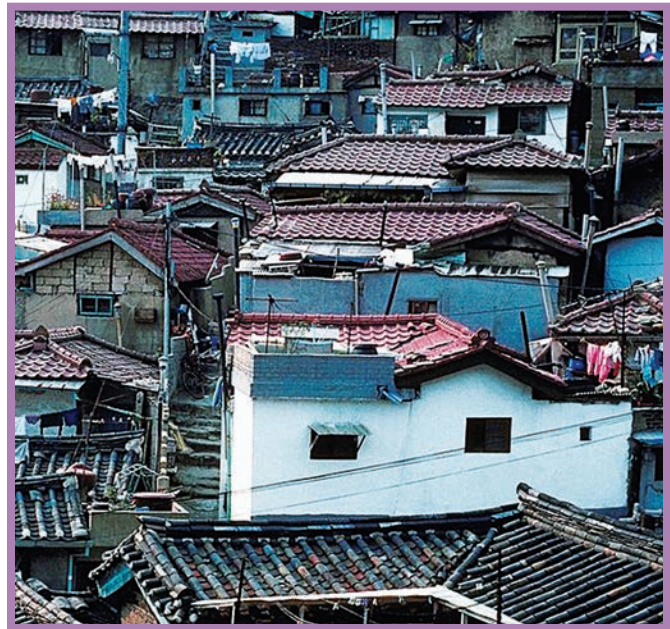
During the consultation representatives from each of the five NCHHSTP divisions presented case studies of their selected SDH models referenced above. The overviews included background information on each division's issue or program; the division's rationale for selecting a particular model; and strengths and weaknesses of the selected model within the context of the division's area of focus. The applicability of the selected model to other programs at both division and center levels was described as were potential modifications or enhancements that would need to be made to the selected model for extending its use in broader public health activities at CDC.

Division of HIV/AIDS Prevention (DHAP) selected the Ansari public health model to address SDH related to HIV/ AIDS disparities among men who have sex with men (MSM). The rationale was based on the stigma and discrimination associated with homosexuality; for example, MSM with regular sources of care often do not disclose their sexual minority status to healthcare providers. Providers are ill equipped to meet the needs of this population in a sensitive and knowledgeable manner. Individual-level decisions about risk behaviors impact health outcomes for HIV/AIDS rates (Fenton and Valdiserri, 2006).

In addition to disease-inducing behaviors and individual-level decisions, socio-economic status (SES), psychosocial risk factors, and community/social determinants that influence and interact with each other

also play a significant role in health disparities among MSM. Ansari's SDH public health model includes three key strengths to support DHAP's HIV/AIDS prevention programs and activities:

- The role of individual behavior is explicitly recognized;
- The role of social and structural influences in individual behavior is clearly defined; and
- Opportunities for public health intervention at individual, psychosocial, community and healthcare levels are described.



The Ansari model has three major weaknesses that make it less applicable to DHAP's HIV/AIDS prevention programs and activities:

- The model does not address developmental aspects;
- The level of attention between strengths and risk factors is not appropriately balanced; and
- The emphasis on mediating or buffering effects and strengths of interventions is insufficient.

DHAP could modify or enhance the Ansari model by better articulating the unique roles of the target community versus broader societal components; giving more recognition to the strengths, developmental issues over the life course; and mediating factors or strengths that contribute to risk at individual, social network and community levels.

Division of STD Prevention (DSTDP) selected the Ansari public health model to address personal barriers as well, including language barriers and low literacy levels; concerns regarding confidentiality, discrimination and stigma; and cultural differences that might make persons reluctant to seek care. In applying the model, DSTDP focused on disease-inducing behaviors, such as high-risk sexual practices involving new or multiple partners among both heterosexual and MSM populations and high rates of unprotected sex.

DSTDP also was able to use the Ansari model to address important social determinants in the syphilis elimination campaign, such as psychosocial risk factors; substance abuse and extreme alcohol use; mental stress associated with being in a marginalized population; social discrimination related to racism, classism or homophobia; social isolation related to shame; public perceptions of decreased risk for STDs due to the availability of HIV treatment; and “safer sex fatigue” related to HIV and other STDs. In addition to this application, Ansari’s SDH public health model includes many key strengths to support DSTDP prevention programs and activities:

- The role of socioeconomic determinants, such as inadequate income issues for MSM, African Americans (AA) and heterosexual populations, is clearly defined (These factors can compel persons to exchange sex for money, food, housing or drugs and also can lead to inadequate education

and poor access to health care due to the lack of employer-based insurance);

- The role of community and societal characteristics that pose unique challenges in the syphilis elimination campaign associated with rural areas is emphasized;
- The relationships between complex systems is clarified; and
- Minority groups, MSM and other populations that are similarly affected by gonorrhea, chlamydia and STDs other than syphilis are highlighted.

The Ansari model has a major weakness that makes it less applicable to DSTDP programs and activities in that it does not clearly delineate or rank priority areas. The ability of an SDH model to prioritize issues is critical in implementing the national syphilis elimination campaign because resources for this effort at federal, state and local levels are continuing to diminish.

Division of Viral Hepatitis (DVH) selected the D&W model due to its easily understandable structure, elegance in its simplicity, and entry points at each of the four concentric levels representing points of intervention for influencing outcomes and improving health. Moreover, the model’s conceptual framework is an interdependent and interactive system, which is capable of capturing influences at one level that might affect another level.



DVH used the model to address factors, such as genetic immutable composition; applied the model to address the main determinants of health for policy intervention; SES, cultural and environmental factors, and other structural determinants; living and working conditions; social and community networks; and individual lifestyle factors.

The D&W model has many strengths which support DVH's programs and activities:

- The policy levels of the model are consistent with hepatitis B virus prevention in American Asians/Pacific Islanders (AAPIs) and other DVH activities;
- Socioeconomic, cultural and environmental changes in policy level 1 reflect DVH's efforts to incorporate or integrate adult HBV vaccination services into established programs of NCHHSTP and other CDC divisions; and
- Enhancement of social and community support to persons in policy level 3 is the most relevant to DVH's activities at present. (DVH is currently providing support to state and local health departments to improve and expand hepatitis-related services under the direction of an Adult Hepatitis Prevention Coordinator.)

The D&W model has one weakness that could make it less applicable to DVH's prevention programs and activities:

- Influences on individual lifestyles and attitudes in policy level 4 are not entirely applicable to DVH's activities at this time. However, DVH has developed and disseminated communication materials through its web site and other venues and also has allocated funds to facilitate viral hepatitis education and testing in vulnerable populations.

DVH found the D&W model to be applicable to its new Chronic Hepatitis Cohort Study that was designed to monitor access and response to recommended care for chronic viral hepatitis. Data will be collected in real-time based on clinician-patient interactions in multiple settings. Information will be gath-

ered to describe the demographic characteristics, diseases or conditions, laboratory tests, and the duration, amount and outcomes of treatment of chronic HBV and HCV-infected patients. The study might help to identify barriers to access to care in certain populations and also may fit within policy levels 2 and 3 as areas for intervention.



Division of TB Elimination (DTBE) selected the D&W model to describe multiple factors and levels that interact to play a significant role in TB disparities in the AA communities and to develop strategies to address social determinants. DTBE is funding an ongoing study to analyze determinants of early TB diagnosis and treatment among U.S.-born AAs.

The D&W model has three strengths that support DTBE's programs and activities:

- The model offers flexibility in modeling any disease or condition;
- Interactivity is possible at all four intervention levels; and
- The model is easy to understand.

DTBE determined that the D&W model is applicable to many of its existing activities. At the individual behavior level of the model, DTBE is conducting studies focusing on factors related to treatment adher-

ence, including studies of the length and tolerability of TB regimens; HIV, substance addiction and other co-morbidities; logistical barriers to care; and TB knowledge, attitudes and risk perceptions. To develop and intervene through social and community networks, DTBE conducted a TB Summit with African American leaders, maintained an electronic listserv to share resources with members of that community and others, publishes a quarterly newsletter targeted to African Americans, and dedicated a website to TB in African Americans.

At the living and working conditions level of the model, DTBE funds programs to provide patient-centered TB care regardless of the ability to pay, with linkages to housing and food to needy persons during TB treatment, support for transportation, language interpreter services, and referrals to social and comorbidity services. For TB patients in correctional or homeless shelter settings, DTBE developed and disseminates guidelines for optimal TB prevention and control. At the structural level of the model, DTBE strengthens TB proficiency among providers by offering training and education through Regional Training and Medical Consultation Centers and conducted a study that resulted in the development of guidance to provide culturally competent care to various impacted populations.

Global AIDS Program (GAP) selected the D&W model as a framework for examining its gender programming within the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR). The D&W model was selected because its components define layers of influence and levels of policy intervention that are relevant to PEPFAR’s five gender strategies, which are:

- Increasing gender equity in HIV/AIDS programs and services;
- Reducing gender-based violence and coercion;
- Addressing male norms and behaviors;
- Increasing women’s legal rights and protection; and
- Increasing women’s income and productive resources.

PEPFAR programs to support these HIV/AIDS strategies share many of the same challenges faced by programs that aim to address social determinants more broadly, including the need to:

- Build the evidence base for interventions;
- Reach consensus on what outcomes to measure;
- Determine the right “mix” of interventions;
- Forge partnerships across sectors and intervention levels; and
- Create a sense of urgency and support for problems that require longer-term solutions.

Particular strengths of the D&W model include the comprehensive scope of determinants of health outcomes; specification and prioritization of social determinants; and its usefulness for advocacy and programming. The following recommendations were proposed in order to address shortcomings of the model and enhance its applicability:

- Elaborate the dynamics and linkages across layers of influence and intervention levels;
- Provide guidance on setting priorities for policy and program intervention; and
- Recognize and include gender-related influences, which cut across all layers and intervention levels.



Potentially Best Fit SDH Model for NCHHSTP

The participants discussed extensively the merits of NCHHSTP using one of the three existing models for the SDH effort or developing an entirely new model to address SDH in infectious diseases. The participants were not in favor of NCHHSTP creating new frameworks to describe SDH because existing models, developed by experts in the field of HIV, STD and TB, could be easily applied to the conditions of interest for the Center. However, the participants emphasized the critical need for NCHHSTP to strengthen its understanding of the WHO model because of its focus on most of the key components related to infectious diseases.

The participants also advised NCHHSTP to use the WHO model and further support WHO's current global movement in SDH. Moreover, participants emphasized that if NCHHSTP's leadership used the WHO model, more opportunities would be created for other parts of CDC and federal agencies to utilize the model.

NCHHSTP identified four major reasons to develop an appropriate SDH model for its programs and activities:

1. To facilitate internal and external communication on the topic;
2. To provide a consistent organizational framework to all divisions and offices;
3. To promote synergy and harmonization across programs; and
4. To facilitate the integration of social determinants into the development of NCHHSTP's policies, funding opportunity announcements, projects and programs.

The participants made a number of comments and suggestions for NCHHSTP to consider regarding an SDH model. Some of the suggestions asked that NCHHSTP:

- Acknowledge that chronic disease SDH models may not fit its programs and activities because this type of model cannot be adapted to fully address all populations, challenges, barriers and other issues associated with HIV/AIDS, viral hepatitis, STDs and TB;
- Take non-traditional approaches in adapting the models to address health objectives and SDH, such as promoting high-school graduation as a strategy to prevent STDs;
- Engage state health officers and other groups with influence at the state level;
- Develop, clearly define and articulate a solid vision for the SDH effort that focuses on health equity. NCHHSTP's first step in this effort should be to define SDH as a national public health problem in partnership with other federal partners; and
- Ensure that the SDH effort is consistent with and linked to the HHS *Healthy People 2020* effort.



This approach might facilitate the development and implementation of a government-wide SDH model:

- Ensure that CDC's future funding opportunity announcements (FOAs) require grantees to incorporate SDH into existing programs and activities at state, local and community levels;
- Engage federal partners, communities, private organizations and other stakeholders to focus on issues that are beyond CDC's public health mission, role and responsibilities;
- Acknowledge the importance of health equity and the root causes of income inequalities for vulnerable populations; and
- Reconsider the WHO SDH model, which, though complex, is comprehensive.

Charge to Participants

Consultation participants were asked to consider the actions steps reported by the WHO Commission on Social Determinants of Health for addressing SDH in the groundbreaking publication entitled *Closing the Gap in a Generation: Health Equity Through Action on the Social Determinants of Health*.

- First, conditions of daily life should be improved by analyzing the circumstances in which individuals are born, grow, live, work, play, worship and age.
- Second, structural drivers associated with inequitable distribution of power, money and resources in daily life should be examined at national and local levels.
- Third, the SDH problem should be measured and understood; the SDH knowledge base should be expanded with a broader workforce that is trained in SDH; public awareness of SDH should be raised; and the impact on actions taken to address SDH should be evaluated.



It was recognized that many activities the participants proposed for the SDH effort were well beyond CDC's core mission, domain and competencies. A common theme that participants cited throughout the Consultation was for CDC to maintain its commitment to evidence-based public health practice. In areas where the best available evidence for SDH does not exist, the participants advised CDC to provide leadership in broadening the science.

Participants were asked to work in one of four content areas:

1. Public health policy;
2. Data systems;
3. Agency partnerships and capacity building; and
4. Prevention research and evaluation.

The groups were required to stay together and over the course of three consecutive sessions, identify the top priorities for NCHHSTP to focus on in the short- and long-term.

Content Area Summaries

The participants worked within each content area to:

- Identify top priorities in each of the four content areas;
- Describe activities, methods and metrics to implement and evaluate the priorities over one-, three- and five-year periods; and
- Identify partnerships and other resources that will be required to conduct the SDH priorities.

Each group addressed the content area differently which is reflected in each summary.

Public Health Policy

Priority 1: Leadership—NCHHSTP.

- Year 1: Lead the SDH effort throughout CDC and then align this effort with HHS and WHO.
- Year 3: Develop a metric to measure health outcomes by synthesizing and harmonizing existing resources.
- Year 5: Use the metric nationally and rigorously evaluate its impact on health outcomes.

NCHHSTP Activities for Priority 1

- Identify, define and clearly articulate the goals, the one-, three- and five-year marks, and a strategic plan for the SDH effort prior to implementation.
- Reach out to the incoming Administration, Congress, the Surgeon General and other policymakers at all levels to provide education on SDH through a marketing campaign or strategic communications.
- Develop and disseminate a compendium on translating research findings of social determinants, such as racism and homophobia, into public health policy; different versions should be created for different audiences.

Partners for Priority 1

- Association of State and Territorial Health Officials
- National Association of County and City Health Officials
- American Public Health Association
- American Correctional Association
- National Commission on Correctional Health Care
- Bill and Melinda Gates Foundation

Existing Resources and Models for Priority 1

- CDC's 1978 meeting on "Objectives for the Nation"
- *Certain Trumpets* by Gary Wells
- *Data Sets to Determine Social Determinants of Health* by the Division of Adult and Community Health
- Center for Health Equity web site with guidance on framing the discussion for health disparities into an equal opportunity dialogue.
- www.cdc.gov/NCCDPHP/DACH/chaps/library/health_disparities.htm

Barriers to Priority 1

- Obtaining political will
- Identifying and sustaining true leadership
- Leveraging resources





Priority 2: National Meeting—NCHHSTP.

- Year 1: Convene a CDC-wide workshop on SDH
- Year 3: Hold a national meeting to expand previous SDH efforts

NCHHSTP's Activities for Priority 2

- Include SDH tracks in all of the Center's Prevention Conferences in the interim of convening a CDC-wide workshop and a National Congress on SDH in 2009-2010
- Form a steering committee to convene and oversee the first and second National Meetings in the near future.

Priority 3: Partnerships—NCHHSTP.

- Year 1: NCHHSTP would collaborate with a range of federal agencies, including education, housing and environmental justice agencies, non-governmental organizations (NGOs), private foundations, philanthropic organizations and other groups that have an interest in and address issues related to SDH.

NCHHSTP Activities for Priority 3

- Develop interagency FOAs in collaboration with the National Institutes of Health (NIH), the Health Resources and Services Administration

(HRSA), Department of Education and Department of Labor.

- Engage CDC's traditional programs and partners in the SDH effort (Year 1)
- Involve other agencies (Year 3)
- Solicit contributions and sources from the energy and housing sectors and other allied agencies (Year 5)

Barriers to Priority 3

- Shifting from the old paradigm of addressing diseases to a new paradigm that incorporates SDH.
- Encouraging organizations to partner without incentives.

Data Systems

Priority 1: NCHHSTP—Health Metrics.

- Create relevant health metrics and incorporate them into analyses to determine SDH factors, assess improvements in health outcomes, and facilitate data collection at both individual and systems levels.

Activities for Priority 1

- Identify and prioritize core data elements that will be most relevant to SDH data systems.
- Engage subject matter experts in SDH to identify existing databases that gather information on SDH and determine core data elements to collect.
- Use the framework of the WHO model to communicate SDH data to stakeholders.
- Review available data on legal and health policies in a meta-analysis format.
- Create strategies to identify populations that are most at risk for multiple SDH factors, neglected or unrecognized.
- Identify barriers to collecting SDH data across systems and existing gaps.
- SDH leadership should reflect multiple sectors.
- Develop and sustain a formal process, policies and practices to identify SDH data elements and measure health outcomes.

- Form a new “Data Systems Workgroup” to provide NCHHSTP with draft recommendations (Year 3).
- Special studies should be conducted to gather data on sexual identity, behavior, gender identity and other difficult SDH issues from specific subgroups.

Year 1 Implementation Plan — NCHHSTP

- Convene workgroups with stakeholders and subject matter experts to discuss data collection needs and review policies for the SDH effort.
- Integrate data systems and increase cross-collaboration related to data collection throughout CDC.
- Develop an assessment tool to evaluate both existing surveillance projects and new data collection activities through an “SDH lens.”

Year 1 Evaluation Plan

Progress in developing SDH data systems and data collection tools should be assessed based on the following criteria:

- Were effective new partnerships established?
- Was an inventory developed of existing data systems?
- Were stakeholder meetings convened?
- Did the collection of SDH data make a difference at multiple levels of prevention activities and programs?
- Were CDC’s and NCHHSTP’s data collection

processes standardized and were data systems integrated to gather, review and analyze data in a consistent manner over one-, three- and five-year periods?

- Were health metrics developed and incorporated into data systems to evaluate improvements in the health status? Were factors identified influencing SDH diseases impacting target populations?
- Was the WHO model used as a framework to develop and evaluate SDH data systems?

Agency Partnerships and Capacity Building

Priority 1: Expand existing partnerships—NCHHSTP.

- Encourage collaboration as a fundamental process to operate and deliver SDH services.

Activities for Priority 1

- Facilitate a comprehensive and holistic approach that would improve access to SDH services, including education, job training, housing, links to social services, for example.
- Engage impacted populations and other stakeholders.
- Enhance health outcomes.
- Allow organizations to use their current capacity to expand existing partnerships and build capacity in SDH without additional resources.



Priority 2: Develop FOAs that focus on SDH.

- Incorporate SDH language into existing cooperative agreements across HHS
- Incorporate SDH language into future funding opportunity announcements and requests for application across HHS

Activities for Priority 2

- Identify SDH priorities and specific areas of focus.
- Encourage collaborations among partners.
- Provide a long-term roadmap for SDH.
- Codify respectful relationships among all stakeholders.
- Build more capacity in SDH among partners.
- Increase the feasibility of conducting demonstration projects on SDH.
- Assure accountability of the SDH effort.

Priority 3: Launch a national media campaign as part of a communication strategy.

- Design a communication strategy to be understandable, reflect health literacy issues, provide health information to community partners, and address SDH for individuals, communities, systems and societies (Year 1).

Priority 3 Activities

- Raise awareness of SDH.
- Expand existing partnerships and encourage collaborations as a fundamental process to operate and deliver SDH services.
- Partner with state and local health departments to address issues raised in the Public Broadcasting System's *Unnatural Causes: Is Inequality Making Us Sick?*
- Mobilize communities.
- Reduce stigma.
- Build SDH capacity at the individual level.
- Address poverty, domestic violence and other SDH factors.
- Define SDH at the grassroots level.
- Document the impact of SDH on all persons.

- Create consumer demand for the development of conditions that allow individuals to be healthy.
- Lead to a community mobilization model for broad endorsement of the SDH effort.



Partnerships for the Priorities

- HHS, Administration for Children and Families Services
- Federal agencies or organization on Aging, Justice, Education and Agriculture
- HHS, Health Resources and Services Administration
- HHS, Office on Women's Health
- US Congress
- National Coalition of STD Directors
- National Association of Local Health Departments
- Local, state or federal elected officials
- National TB Controllers Association
- HHS, National Institutes of Health
- Private foundations
- National Medical Association
- Community-based organizations
- Gender-specific organizations
- Other federal, state and local agencies; non-governmental organizations; and community partners
- CDC and NCHHSTP Media Professionals (National Center for Health Marketing [NCHM])

Barriers to Implementation of the Priorities

- Conflicting agendas, diverse interests and “turf” issues of various stakeholders.
- Different policies and procedures across agencies.
- Limited focus on and prioritization of SDH.
- Lack of measures to ensure accountability and evaluate progress.
- Lack of understanding and awareness of SDH.
- Limited funding.
- Lack of congruence among values.
- Problems with sustaining funding and the overall concept of SDH over time.

Evaluation of the Priorities

- Engage stakeholders in developing, assessing and testing the evaluation plan.
- Clearly define and articulate SDH language.
- Identify potential indicators for the evaluation plan, such as:
 1. measuring the number of cooperative agreements pre-/post-implementation of the national media campaign;
 2. measuring the number of existing activities that currently address SDH to avoid duplication; and
 3. measuring the capacity and past successes of partners.
- Design an evaluation plan that:
 - Includes goals, objectives and activities that are specific, measurable, achievable, realistic and time-bound.
 - Is flexible and adaptable to overarching plans.
 - Is based on a strong logic model.
 - Specifies outcome and process measures in the evaluation work plan.

Indicators of Programmatic Success

- Identify culturally appropriate and specific markers with tangible and measurable outcomes.
- Based on lessons learned and best practices from programs and activities with a history of success.
- Inventory of the number of agencies and organizations that address health disparities in their FOAs. The Ohio Health Department

should be reviewed as a model in this effort.

- Allocation of state-based funding to address SDH at the local level.
- Population and process outcome measures that evaluate the success of the overall SDH process.
- Linkage of the overall SDH effort to the broader goals of funding entities.



Prevention Research and Evaluation

Priority 1: Extend the units of analysis beyond the individuals.

- Include families, communities, interventions, systems, populations, partnerships and organizations in prevention research.

Priority 2: Integrate the four infectious diseases for research funding opportunity announcements (FOAs).

- Achieve a significant impact in the treatment, care and service delivery of individuals and populations.

Priority 3: Develop new and innovative strategies to engage and involve communities.

- Include communities as true partners in prevention research and evaluation, e.g., include communities at the outset of any process.

Year 1 Activities

- Identify variables and data sources needed to broaden units of analyses beyond the individual level.
- Determine existing research frameworks and mechanisms that could be applied to prevention research and evaluation for the SDH effort.
- Define clearly the metrics needed to evaluate social determinants, measure co-morbidities and document outcomes of infectious diseases.
- Develop partnerships with other CDC national centers, federal departments and agencies, state and local organizations, and other groups with a strong interest in and commitment to SDH.
- Apply lessons learned from NCHHSTP's Program Collaboration and Service Integration (PCSI) effort in conducting prevention research on SDH.

Year 3 Activities

- Implement measurements of social determinants and co-morbidities across agencies and disciplines at federal, state and local levels.

Year 5 Activities

- Collect data from multiple sources to document the impact of SDH prevention research on reductions in identified co-morbidities and health disparities across subpopulations.
- Determine gaps or areas of improvement in prevention research.
- Articulate specific outcomes.

Challenges and Solutions to the Activities

- Potential duplication of prevention research efforts. Appropriate partnerships should be developed to resolve this problem.
- Difficulty in establishing some research collaborations and relationships due to limited

availability of data and the inability to compare data across agencies and organizations.

- Insufficient resources for SDH prevention research and evaluation. Funding issues might be resolved by pooling resources from other agencies, establishing research priorities, improving external communications, and promoting research partnerships through awards.
- Difficulty in gathering and sharing data for various populations and subgroups because of categorical funding of HIV/AIDS, viral hepatitis, STDs and TB; incompatible cultures of institutions; competing missions of individual agencies; and different technical systems.
- Differing metrics across infectious diseases. New metrics could be developed to evaluate and monitor co-morbidities. This issue might be resolved by monitoring interventions and the overall process at six-month intervals.

Evaluation of Programmatic Success

- Use the marker of “a 30% reduction in health disparities in identified co-morbidities” (populations to be identified later) as an indicator of success in the year 5 implementation plan.
- Develop a uniform evaluation data collection process, a standardized data system, and a common set of data elements across agencies and organizations.

Open Discussion

An open discussion provided participants with an opportunity to share perspectives from the Consultation. Comments and suggestions made by the participants are summarized here.

- CDC should provide a clear scientific response on the important role of syringe exchange in reducing the spread of hepatitis C virus. CDC developed and released an outstanding paper on this issue in 1996; the document should now be revisited and updated for the SDH effort.
- The SDH effort should focus on the underlying cause for the high rate of incarceration in the

United States. CDC should define this problem as a public health issue.

- The causes of SDH and health disparities should be identified and examined in efforts to communicate the importance of this issue to policymakers and the lay public in simple terms.
- Key bodies of evidence that currently exist should be compiled and reviewed to make structural changes in SDH. Studies using appropriate methods should be conducted at this time to identify gaps, determine areas of improvement in existing data, and collect new and robust data at the societal level that would affect policies in the United States.
- CDC should write and publish an opinion-editorial article on SDH especially for Congress to inform funding needs for addressing SDH. The article should emphasize the critical need to confront all parts of the disease cycle, particularly for STDs.
- The SDH effort should not be designed to promote “competition” among infectious diseases and disproportionately impacted populations.

Next Steps

NCHHSTP’s core strategic priorities of program collaboration and service integration, global health and workforce development will be integral parts in the SDH effort to focus on health equity, promote health protection and tackle issues. The meeting was an opportunity to receive input on a variety of issues related to SDH. Some key outcomes of the Consultation include:

1. mobilizing NCHHSTP leadership around SDH;
2. clarifying a framework and approach for health disparities and SDH;
3. “walking the walk rather than talking the talk” by developing policies and changing public health practice; and
4. sustaining partnerships to create joint plans and ensure accountability in moving upstream (before disease occurs) with SDH interventions, programs, research and policies.

Recommendations for future policy steps include:

- Reduce stigma and discrimination;
- Emphasize evidence-based public health practices and move away from ideologically based policies and practices;
- Promote, support and encourage collaboration, integration, coordination and accountability across federal agencies; and
- Address the root causes of poverty.

NCHHSTP Next Steps

The Director of NCHHSTP identified CDC’s next steps. They include:

- Develop a detailed report of the proceedings to be distributed to all of the participants in a timely manner to ensure that key outcomes of the deliberations are applied to local practice;
- Develop strategy and implement results of consultation through revising the “Green Paper” to a “White Paper” which will include a concentric circle of partner engagement and input starting with NCHHSTP leadership and staff to obtain input on suggestions, priority actions, and next steps for implementation; and incorporate key suggestions into the NCHHSTP strategic plan;
- Develop an overarching communications plan to guide, mobilize and inspire action through strengthened Website presences and Links to social determinants of health information included on NCHHSTP Health Disparities Web page;
- Contribute to the scientific literature through publication of a special journal issue on social determinants of health in *Public Health Reports* in early 2010;
- Promote partner engagement through a Dear Colleague letter to NCHHSTP partners; inclusion of a discussion of the outcomes of this consultation and addressing social determinants on the NCHHSTP Director’s Blog; and inclusion of SDH into other routine and *ad hoc* communication outputs from the Center;

- Enhance outreach to the CDC community at-large through embracing NCHHSTP's leadership role in addressing SDH throughout the CDC community; providing leadership updates and feedback to Center Leadership Council and Executive Leadership Board; working with the CDC Social Determinants of Health Workgroup; and collaborating with other National Centers who are interested and engaged in this issue;
- Reinforce commitment to include SDH in NCHHSTP-sponsored conferences and identify opportunities for inclusion and raising the profile of SDH in HHS- CDC-sponsored conferences; and
- Continue and expand expert engagement in the NCHHSTP SDH activities through structured qualitative interviews with external partners including external subject matter experts not present at this consultation and with philanthropic organizations and foundations.

Local level next steps identified by the participants included:

- The National Hispanic Association (NHA) will urge NCHHSTP to involve other partners that could play an important role in the SDH effort. It will be critical to engage the American Medical Association, American Academy of Pediatrics, American Academy of Family Physicians, emergency room physicians and other groups to change HIV/AIDS, viral hepatitis, STDs and TB care, treatment and service delivery in healthcare settings. The Centers for Medicare and Medicaid Services (CMS), the Department of Veterans Affairs (VA), the Department of Defense, health insurance plans, health maintenance organizations, and other federal and private payers are needed to make HIV testing part of routine care. The media will be needed to widely publicize NCHHSTP's plans;
- NHA will encourage NCHHSTP to partner with CMS to determine data elements that can be extracted from Medicaid and Medicare databases

for the SDH effort. For example, NCHHSTP could use the CMS databases to identify the amount of federal funds that are spent on infectious diseases and determine differences in these expenditures;

- Adult Viral Hepatitis Prevention Coordinators at the state level will continue their existing efforts to integrate SDH into HIV, STD and TB programs; justice systems; education agencies; and local health departments. These activities are initiated to build state and local program capacity across infectious diseases to better address health disparities in marginalized populations. NCHHSTP should enhance collaboration with Viral Hepatitis Prevention Coordinators because these experts conducted program collaboration and service integration activities long before CDC developed its PCSI effort. Moreover, state coordinators have well-established networks, strong knowledge and solid information to address SDH; and
- The Boys and Girls Clubs of America will ensure that conversations on SDH are widespread in communities throughout the country to promote empowerment and facilitate the development of a powerful educational framework at the local level.



Conclusions

The Consultation was successful at identifying key priorities in four content areas, public health policy, data systems, agency partnerships and building prevention capacity and prevention research and evaluation. These priorities and suggestions from the discussions at the Consultation are an integral part in NCHHSTP's development of an SDH strategy, with clear goals and objectives. Participant input is the basis from which NCHHSTP will create a road map to assess accountability and evaluate progress in achieving the SDH goals and objectives over time.

The Consultation demonstrated partners' commitment to address social determinants of health and their enthusiasm to broaden the conversation about SDH to include traditional and non-traditional, federal, and private sector partners who are concerned about reducing health disparities. An early step should be defining specific SDH data elements to collect, and/or utilize through linking databases, to establish an evidence base for SDH in HIV/AIDS, viral hepatitis, STDs and TB prevention.

Based on comments and questions from the participants, at the end of the consultation, Dr. Kevin Fenton, Director, NCHHSTP, clarified that:

- NCHHSTP will use the models reviewed as an organizational framework to discuss and clearly articulate issues related to SDH. However, NCHHSTP will not conduct primary research to test the WHO model;
- NCHHSTP is aware of the strong interest of the participants to focus primarily on poverty in the SDH effort. However, NCHHSTP also must emphasize other intermediary mediators of disparities in HIV/AIDS, viral hepatitis, STDs and TB to understand the spectrum of social disparities that affect these infectious diseases; and
- NCHHSTP is aware of the participants' concerns regarding the ability of the SDH effort to make a difference in CDC's existing prevention programs

and activities. NCHHSTP has made note that participants to the Public Health Policy Group advised the Center to take a leadership role in moving the SDH effort throughout CDC initially and across the entire federal government eventually. Moreover, the Agency Partnerships and Capacity Building Group advised NCHHSTP to take leadership in developing new partnerships and guiding the SDH effort at the national level. These comments and suggestions are critical to the process as this effort begins to take shape and find greater traction within NCHHSTP and its partners both domestic and global.



References

- Ansari, Zahid, Carson, Norman, Ackland, Michael, Vaughan, Loretta, Serragallo, Adrian. A Public Health Model of the Social Determinants of Health. *Sozial und Präventivmedizin/Social and Preventive Medicine*. 2003; 48(4): 242–251.
- Centers for Disease Control and Prevention. Social Determinants of Health Among Persons Disproportionately Affected by HIV/AIDS, Viral Hepatitis, Sexually Transmitted Diseases and Tuberculosis: Impact and Approaches to Eliminate Health Disparities—Green Paper. Atlanta, GA: Department of Health and Human Services, Centers for Disease Control and Prevention, December 2008.
- Dahlgren, Doran and Whitehead, Margaret. 2007. Policies and strategies to promote social equity in health. Institute for Future Studies. <http://saludcomunitaria.files.wordpress.com/2008/05/dahlgren-whitehead.pdf>. Accessed: January 2008.
- Fenton, Kevin A, Valdiserri, Ron O. Twenty-Five Years of HIV/AIDS—United States 1981–2006. *Morbidity and Mortality Weekly*. 2006; 55(21): 585–589.
- Gault, Barbara, Hartmann, Heidi, Jones-DeWeever, Avis, Werschkul, Misha, Williams, Erica. The Women of New Orleans and the Gulf Coast: Multiple Disadvantages and Key Assets for Recovery Part I. Poverty, Race, Gender and Class. Institute for Women’s Policy Research. www.iwpr.org. Accessed: September 2007.
- Kindig, David. Understanding Population Health Terminology. *Milbank Quarterly*. 2007; 85: 39–161.
- Kreiger, Nancy. A glossary of social epidemiology. *J Epidemiol. Community Health*. 2001;55: 693-700.
- Marmot, Michael. Epidemiology of Socioeconomic Status and Health: Are Determinants Within Countries the Same as Between Countries? *Annals of New York Academy of Sciences*. 1999; 896 (1):16–29.
- Marmot, Michael. 2005. Social Determinants of Health Inequalities. *The Lancet*. 2005; 365: 1099–1104.
- McKinlay, John B. A Case for Refocusing Upstream—The Political Economy of Illness. In *Applying Behavioral Science to Cardiovascular Risk*, edited by A.J. Enelow and J.B. Henderson. Washington, DC; American Heart Association. 1975.
- McKeown, Thomas. *The Modern Rise of Population*. New York; Academic Press. 1976.
- Raphael, Dennis. Introduction to the Social determinants of Health. In Rafeal D, editor. *Social Determinants of Health: Canadian Perspectives*. Toronto (CAN): Canadian Scholar’s Press; 2004: 1–18.
- Tarloff, Alvin R. Public Policy Frameworks for Improving Population Health. *Annals of the New York Academy of Sciences*. 1999; 896: 281–293.
- Whitehead, Margaret and Dahlgren, Doran. What can be done about inequalities in health? *The Lancet*. 1991; 338:1059–1063.
- Wilde, Jane. The Social and Economic Determinants of Health—For Discussion at Health and Human Rights: Setting the Priorities. Institute for Public Health in Ireland. 2007. Available from: http://www.nihrc.org/dms/data/NIHRC/attachments/dd/files/91/Social_and_economic_determinants_-_Jane_Wilde.pdf. Accessed: June 2008.
- World Health Organization. 2005. Towards a Conceptual Framework for Analysis and Action on Social Determinants of Health. Discussion Paper for the Commission on Social Determinants of Health. May 5, 2005. www.who.int. Accessed: January 2008.
- World Health Organization. 2008. Closing the gap in a generation: Health equity through action on the social determinants of health. http://www.who.int/social_determinants/thecommission/finalreport/en/index.html. Accessed: December 2008.

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APPENDICES

Appendix 1: Consultation Meeting Agenda

Tuesday, December 9, 2008

7:45am–8:25am	Consultation Registration	Concourse Level Lobby
8:30am–8:45am	Welcome Dr. Stephanie Bailey <i>Director, Office of Public Health Practice</i>	Gershwin
8:45am–9:00am	Introduction to NCHHSTP programs and priorities: Why focus on social determinants? Dr. Kevin Fenton <i>Director, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP), Centers for Disease Control (CDC)</i>	Gershwin
9:00am–9:25am	Social Determinants of Health: An overview with consideration of selected models for NCHHSTP Dr. Hazel Dean <i>Deputy Director, NCHHSTP</i>	Gershwin
9:25am–10:35am	Case studies of relevant NCHHSTP programs and activities Moderator: Dr. Laurretta Pinckney <i>Senior Public Health Analyst, Office of Health Disparities, NCHHSTP</i> Division Presenters <i>Division of HIV/AIDS Prevention (DHAP)</i> Dr. Richard Wolitski <i>Division of Sexually Transmitted Disease Prevention (DSTDP)</i> Ms. Jo Valentine <i>Division of Viral Hepatitis (DVH)</i> Dr. Deborah Holtzman <i>Division of Tuberculosis Elimination (DTBE)</i> Ms. Suzanne Marks <i>Global AIDS Program (GAP)</i> Ms. Susan Settergren	Gershwin
10:35am–10:45am	Break— 10 minutes	
10:45am–12:00pm	Plenary discussion: Social Determinants of Health—Is there a “best fit model” for NCHHSTP? Dr. Raul Romaguera <i>National Chlamydia Screening Coordinator, DSTDP</i>	Gershwin
12:00pm–1:00pm	Lunch	

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1:00pm–1:30pm	Instructions and Charge to the Panel Discussants Dr. Kevin Fenton <i>Director, NCHHSTP</i>	Gershwin
1:30am–3:00pm	First Break Out Session: Introduction to 4 Content Areas	
	Public Health Policy Group (Blue) Ms. Susan Robinson Dr. Ann Forsythe	Concourse South
	Data Systems (Red) Dr. Irene Hall Dr. Jane Kelly	Kern
	Agency Partnerships/Capacity Building (Green) Dr. Rhondette Jones Ms. Andrea Kelly	Rogers
	Prevention Programs/Research/Evaluation (Yellow) Dr. Agatha Eke	Porter
3:00–3:15pm	Break— 15 minutes	
3:15–4:15pm	Reports from Discussion Groups and Consensus Building Dr. Tanya Sharpe <i>Deputy Director, Office of Health Disparities, NCHHSTP</i>	Gershwin
4:15–4:45pm	Questions and Answers Dr. Hazel Dean <i>Deputy Director, NCHHSTP</i>	Gershwin
4:45–5:00pm	Wrap Up, Announcements and Adjourn Dr. Hazel Dean <i>Deputy Director, NCHHSTP</i>	Gershwin

Wednesday, December 10, 2008

7:45am–8:30am	Consultation Registration	Concourse Level Lobby
8:30am–8:45am	Welcome: Recap and Charge for Day Dr. Kevin Fenton <i>Director, NCHHSTP</i>	Gershwin
8:45am–9:30am	Health Systems Transformation and Social Determinants of Health Dr. William Foege <i>Commissioner, Commission on Social Determinants of Health, World Health Organization</i>	Gershwin
9:30am–10:30am	Second Breakout Session: Priority Setting in the 4 content areas:	
	Public Health Policy Group (Blue) Ms. Susan Robinson Dr. Ann Forsythe	Concourse South
	Data Systems (Red) Dr. Irene Hall Dr. Jane Kelly	Kern

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	<p>Agency Partnerships/Capacity Building (Green) Dr. Rhondette Jones Ms. Andrea Kelly</p>	Rogers
	<p>Prevention Programs/Research/Evaluation (Yellow) Dr. Agatha Eke</p>	Porter
10:30am–10:45am	Break— 15 minutes	
10:45am–12:00pm	Third Breakout Session: Implementation and Required Resources:	
	<p>Public Health Policy Group (Blue) Ms. Susan Robinson Dr. Ann Forsythe</p>	Concourse South
	<p>Data Systems (Red) Dr. Irene Hall Dr. Jane Kelly</p>	Kern
	<p>Agency Partnerships/Capacity Building (Green) Dr. Rhondette Jones Ms. Andrea Kelly</p>	Rogers
	<p>Prevention Programs/Research/Evaluation (Yellow) Dr. Agatha Eke</p>	Porter
12:00pm–1:30pm	Lunch	
1:30pm–2:30pm	<p>Reports from Discussion Groups and Consensus Building Dr. Tanya Telfair Sharpe, <i>NCHHSTP Deputy Director, Office of Health Disparities, NCHHSTP</i></p>	Gershwin
2:30pm–3:15pm	<p>Remarks/Reactions from Divisions Division of Tuberculosis Elimination Division of STD Prevention Division of Viral Hepatitis Division of HIV/AIDS Prevention Global AIDS Program</p>	Gershwin
3:15pm–3:30pm	Break— 15 minutes	
3:30pm–4:00pm	<p>Discussion of Priorities and Next Steps Dr. Kevin Fenton <i>Director, NCHHSTP</i></p>	Gershwin
4:00pm–4:15pm	<p>Questions and Answers Dr. Kevin Fenton <i>Director, NCHHSTP</i></p>	Gershwin
4:15pm–4:30pm	<p>Wrap Up and Evaluation of Meeting Dr. Hazel Dean <i>Deputy Director, NCHHSTP</i></p>	Gershwin

Appendix 2: Participants

External Consultants

Ada Adimora
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Carol Brosgart
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Virgina Caine
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National Center for Farmworker Health

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