

# Concluding Discussion and Next Steps

## **Co-Moderators**

Chanita Hughes-Halbert, University of Southern California Stanton Gerson, Case Western Reserve University

## **Panelists**

Session 1: Chanita Hughes-Halbert and Stanton Gerson

Session 2: Scarlett Lin Gomez and Lawrence Shulman

Session 3: Robert Winn

Session 4: Olive Mbah and Stanton Gerson

Session 5: Cathy Bradley and Gwen Darien



Multi-Level Approach to Understanding Biological Effectors and Social Determinants of Health

- Biological factors affect risk of, onset and response to cancer, and need to be contextualized with communities and racial and ancestrial backgrounds
- Screen for social risk factors that are actionable by health care systems
- Health care systems need greater preparation to address social risk factors among patients
- Actions to address social risk factors should be driven by patients and communities



Multi-Level Approach to Understanding Biological Effectors and Social Determinants of Health

- Biological factors validate the importance and impact of SDOH in at risk populations; need greater investment in transdisciplinary research to translate findings from genetic, behavioral, and health services research into practice
- Policies are needed to address care coordination related to SDOH screening and health care delivery
- Policies should be developed to ensure meaningful patient and community engagement and influence in the strategies health care systems develop and deploy to screen and address SDOH



Review of Emerging Research on SDOH, Biological Pathways, and Cancer Outcomes

- Social care is not well integrated into the delivery of health care
  - Applying 5 A's of social care can help to bridge gaps
    - Awareness how can we systematically identify social risk factors?
    - Assistance what should we and can we provide to alleviate social risk factors?
    - Adjustment what can we do to accommodate social factors into clinical care?
    - At the community level: Alignment, Advocacy
- SDOH→ Stress → cancer connection is well established, but how do we best measure the complexity of stress embodiment & weathering?
  - One major pathway: Allostasis maintain stability or homeostasis through change
    - How can we systematically measure allostatic load overall and specific physiological systems (cardiovascular, endocrine, immune, metabolic, etc.)
  - Other social epigenomic pathways
    - Epigenetic changes, genetic transmission, "loneliness gene signature", interacts with physiology of scarcity  $\rightarrow$  lead to behaviors that may not alignment with our ideal/intention
- Structural & social determinants of health measures
  - Historical redlining, housing discrimination, ICE, neighborhood deprivation



Review of Emerging Research on SDOH, Biological Pathways, and Cancer Outcomes

- Can and should allostatic load be routinely assessed in clinical practice for clinical risk assessment and treatment?
  - But there are bidirectional effects surgery having cancer can increase AL.
- We need to develop a standardized method for AL score computation? How can we accurately and consistently measure AL
- Need to better understand the complexities of factors that influence AL and its connection with cancer?
- Stress reduction test to see how much it can reduce AL
- Early-life (childhood) interventions
- We need multi-dimensional research we need interventions at the individual, health system, environment, and policy level
- Fixing one part of the problem does not excuse you from addressing all problems. If you have an agent to biologically reverse bio-pathways, it does not absolve you of addressing community, housing, nutrition, educational stresses
- Need to do both research and active interventions on what we already know not either/or



Improving the Development and Validation of Biomarkers and Models Assessing the Effects of SDOH on Biological Pathways and Patient Outcomes

- Stress (particularly chronic stress) exaggerates the occurrence and outcomes of cancer.
  - Can we reverse potential outcomes by changing exposure?
- The intersection of place, space, and ancestry to be further assessed.
- Social drivers of health for prostate cancer should be further studied.
- Understanding of cultural context is necessary in health communication.
  - We need to be multilingual (i.e., be able to speak with our communities).
- Rural populations need to be better understood; do NOT stereotype rural populations.
- Professional societies need to collectively focus on prevention (e.g., intervention at the prediabetic stage is important).



Improving the Development and Validation of Biomarkers and Models Assessing the Effects of SDOH on Biological Pathways and Patient Outcomes

- Provide reimbursement for primary care physicians to allow time to talk with patients.
- Focus on inclusion and diversity in clinical trials.
- Prioritize exercise (e.g., gym in schools) at an early age.
- Allocate more funding (e.g., billions) to provide adequate care to different populations.
- Address drug shortages.



Opportunities to Advance Progress on Biological Effectors of SDOH Research

- Questions remain regarding why Black patients develop more aggressive molecular subtypes for endometrial, breast, and prostate cancer (do SDOH play a role)?
- Can we separate contributions of risk and cancer subtypes and outcomes due to ancestry from social determinant drivers within geographic regions (urban, rural) of risk that overlap disproportionately with populations.
- Need for large datasets with more diverse patient populations (prospective for epidemiologic studies) detailing histologic and molecular subtype with race, other biomarkers (e.g., obesity), social determinants of health, access and receipt of NCCN recommended treatment and follow-up care to examine potential contribution of SDOH to inequities (along continuum of care).
- Missing data/evidence on some minoritized populations, including Native Americans who have larger inequities in some cases. How do we rectify this?
- Significant inequities in biomarker testing which is critical for clinical trial enrollment and the provision of guidance-concordant care. Important to understand drivers of inequities in biomarker testing given increasing role of precision medicine (targeted treatment) and lack of diversity in clinical trials.
  - Big issues include lack of access (insurance coverage, etc), low testing at sites where Black patients get care, provider capacity

Opportunities to Advance Progress on Biological Effectors of SDOH Research

- Could EHR data fulfill need for larger longitudinal datasets with more diverse patient population with biomarker and SDOH and access to treatment and outcomes?
- Institutionalize biomarker testing to address racial inequities (full insurance coverage, payers mandating testing)
- For most impactful research, take step back from individual level interventions to more structural interventions (example intervention to address poverty in low income communities)



Policy Opportunities to Address SDOH on Cancer Outcomes and Improve the Evidence Base on the Impact of SDOH on Biological Outcomes

- Key challenge: best practices for collecting data and meeting social needs of diverse populations
- Good intentions do not translate into cooperation, buy-in, data, or change. Needs: funding, faith, and friends
- SDOH screening can help build trust/trustworthiness if done correctly
- Lessons learned from the implementation of social drivers of health/health related social needs
  - Level of comfort sharing unmet needs. Patient feedback needed on how and what data are collected
  - Clear communication about how information is used
  - Feedback loops to communicate back on referrals
- Implementation challenges: technical, cultural, institutional
- Could population-based biological data collection help prioritize precision public health approaches?



Policy Opportunities to Address SDOH on Cancer Outcomes and Improve the Evidence Base on the Impact of SDOH on Biological Outcomes

- Research is needed to identify optimal combinations of modality and survey instruments to facilitate social and behavioral determinants of health data collection among diverse patients
- Innovative payment incentives and mechanisms can help meet health-related social needs: screening, community health integration, patient navigation, promoting self-advocacy
- Payers should invest in the collection of patient-reported data
- Implementation science: focus on policy implementation in communities
- Build community-based health workforce capacity and provide financial support
- Examine best practices for clinical workflow, EHRs, coordinated care
- Data standardization, harmonization, and linkages
- Ensure closed-loop referral systems

