Charting the Course to a Healthier Future

The Office of Disease Prevention's Prevention Scientific Interest Groups

EXECUTIVE SUMMARY:

KEY ACCOMPLISHMENTS 2016–2019

Fall 2019

National Institutes of Health
Office of Disease Prevention

Executive Summary

Introduction

The Office of Disease Prevention (ODP) engaged in several activities to address its strategic priority around promoting collaborative research over the fiscal year (FY) 2014–2018 strategic plan period. The major activity was the development of prevention-related scientific interest groups (SIGs). The Prevention SIGs focused on the topics that were not already being addressed by other groups across the National Institutes of Health (NIH): adult screening; childhood screening; the genetics of prevention; interventions to prevent or delay comorbidities; and evaluating environmental-, policy-, and systems-level preventive interventions. In addition to these five new Prevention SIGs, the ODP led two other groups that were part of pre-existing trans-NIH SIGs: one focused on physical activity and the other on the rapidly emerging issue of electronic nicotine delivery systems (ENDS).

The formation of the Prevention SIGs was met with enthusiasm across the NIH and U.S. Department of Health & Human Services (HHS). As of 2019, 130 staff had been active and represented 24 NIH Institutes, Centers, and Offices (ICs) and four additional HHS operating divisions—Agency for Healthcare Research and Quality (AHRQ), Centers for Disease Control and Prevention (CDC), Food and Drug Administration (FDA), and Office of Disease Prevention and Health Promotion (ODPHP). Accomplishments include: coordinating and developing collaborative funding opportunity announcements (FOAs) focused on prevention, developing three workshops on key methodologic issues in prevention, creating new research resources, and conducting literature reviews and topical analyses of the NIH grant portfolio. A number of peer-reviewed manuscripts related to these workshops and research resources are also under development.

Funding Opportunities

Several SIGs focused on developing FOAs to address prevention research gaps. The **Adult Screening SIG** led a trans-NIH collaboration to develop an FOA focused on increasing uptake of evidence-based screening in diverse populations. The FOA seeks to advance the evidence base to better understand the causes of screening disparities, as well as to develop innovative strategies to reduce disparities in the uptake of evidence-based screening. The **ENDS SIG** developed four FOAs to address the rapidly growing epidemic in ENDS use that has led to increases in nicotine consumption by youth and young adults as well as polysubstance use. These FOAs focused on population, clinical, and applied prevention research including the etiology of use, potential risks, benefits, and impacts on other use behaviors among diverse populations; and basic mechanisms research examining how ENDS aerosols affect normal and disease states. The **Physical Activity SIG** provided significant input on the renewal of trans-NIH FOAs to develop and test interventions for health-enhancing physical activity. In addition, the **Comorbidity SIG** is developing an FOA to advance research related to the prevention of multiple chronic conditions (MCCs).

Workshops

One of the limiting factors in advancing prevention research has been methodological challenges that require new research designs, analytic approaches, or measures. For example, a major challenge in evaluating outcomes from childhood screening has been that many of the benefits of such screening may not be fully realized until later in life, thus limiting the feasibility of using clinical trials to examine screening outcomes in children. To address this challenge, the **Childhood Screening SIG** held a collaborative workshop to stimulate methodological innovation in evaluating the impact of screening on child health outcomes. Understanding approaches for accurately measuring and preventing the development of MCCs was also a key research gap. Accordingly, the **Comorbidity SIG** held a methods workshop on approaches for defining and enhancing

measurement methods. The **ENDS SIG** held a workshop to advance the quality and standardization of measurement related to ENDS use behaviors and laboratory assays of ENDS substances and devices.

Research Resources

Two SIGs focused on developing research resources. To address needs within the rapidly growing physical activity research community, the **Physical Activity SIG** identified research resource needs within this community and developed a web-based collection of physical activity research and public health resources available from the NIH and CDC. This library of resources, which is available on the ODP website, provides links to physical activity databases, data instruments, research findings, clinical practice guidelines, and examples of translating research into practice. The **Genetics of Prevention SIG** developed a new data resource—the Catalog of Observational Networks Enabling Collaborations Trans-NIH (CONnECT) database. This database includes information on nearly 170 NIH cohorts that contain genetics information and have enrolled at least 5,000 participants; it also includes validated data and cohort-grant linkages. This resource will facilitate more efficient trans-NIH planning for future prevention research initiatives.

Literature Reviews and Topical Analyses of NIH Grant Portfolio

ODP staff, on behalf of the **Evaluating Environmental, Policy, and Systems (EPS) Level Interventions SIG**, conducted a scoping review (summarized in a brief report) to understand the extent to which systems science and computational modeling was applied to the major contributors of morbidity and mortality. The **Comorbidity SIG** conducted a portfolio analysis to characterize the NIH MCC grant portfolio and to understand the extent of NIH research on major co-occurring MCCs with the highest disease burden and the interventions to address such conditions. The analysis also sought to catalog measures used by those conducting this research.

In Sum

These activities engaged multiple groups of prevention research experts across the NIH in advancing trans-NIH, collaborative prevention initiatives. The ODP provided scientific guidance and logistical infrastructure to support these collaborative engagements, which reduced the redundancy of ICs individually focusing on common topics, and thus helped to highlight the trans-NIH commitment to addressing fundamental prevention research gaps. In addition, SIG members noted that the initiatives advanced by these groups could not have been accomplished without ODP's leadership and support. The SIGs have also stimulated other trans-NIH collaborative activities, including fostering networks of NIH extramural program staff and other HHS prevention staff working in trans-NIH prevention research planning. These collaborations are anticipated to continue in the future.