Society of Behavioral Medicine (SBM) position statement: Increasing funding for the NIH OBSSR to promote timely and effective behavioral medicine research

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Cite this as: *TBM* 2018;8:309–312
doi: 10.1093/tbm/ibx022

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Abstract

Chronic diseases are a leading cause of morbidity and mortality in the USA. Most chronic diseases have behavioral risk factors that can improve health and quality of life and reduce financial burdens. Improved methods of measurement and behavioral interventions are rapidly progressing. These changes require sufficient funding to maximize effectiveness. The National Institutes of Health (NIH) Office of Behavioral and Social Sciences Research (OBSSR) helps to coordinate and support behavioral and social science research initiatives that are designed to promote public health and reduce chronic disease burden throughout the NIH. OBSSR's budget has not increased for the past 5 years. The goals of this policy paper are to promote awareness of the OBSSR Strategic Plan FY 2017–2021's three priority areas and encourage increased and sustained funding for OBSSR to support these priority areas. Priority area 1 involves improving the quality and integration of behavioral and social science research, which can increase speed of funding natural experiments. Priority area 2 encourages the use and improvement of new technology to create methods and infrastructures to analyze big behavioral data, ensuring that health behavior interventions keep pace with the substantial data generated from new technology. Priority area 3 supports translational research between scientific data and real-world practice, ensuring the delivery of research findings to patients and populations. Adequate and sustained resources are needed to address these priority areas. Without such resources, disparities in health outcomes and the costs of treating preventable chronic diseases will continue to grow. Society of Behavioral Medicine (SBM) recommends and supports an increase for OBSSR's budget.

Keywords:

Behavioral science, Social science, Research funding, Policy, Prevention, Interventions

INTRODUCTION

Sustained, robust funding support for National Institutes of Health (NIH) Office of Behavioral and Social Sciences Research (OBSSR) is critical for promoting health and preventing chronic diseases for all Americans. Now, more than ever, it is necessary to fully support, sustain, and increase NIH funding for behavioral and social sciences research. Behavioral risk factors such as tobacco and alcohol use, poor diet, and physical inactivity account for a large proportion of the chronic disease burden

Implications

Practice: The OBSSR Strategic Plan FY 2017–2021 outlines three priority areas that have the potential to reduce disease burden and practitioners can assist in furthering work in these three areas.

Policy: SBM encourages an increase in OBSSR's budget in order to maximize effectiveness of the Strategic Plan FY 2017–2021's three priority areas that can improve morbidity and mortality.

Research: Conducting innovative research in the three priority areas outlined in the OBSSR's Strategic Plan FY 2017–2021 can greatly improve methods and outcomes in behavioral and social sciences.

in the USA [1, 2]. Funding to support more research for prevention and intervention strategies can greatly reduce the morbidity, mortality, and costs associated with chronic diseases. The Society of Behavioral Medicine (SBM) supports a much-needed increase in funding to the NIH OBSSR so that it fulfills its mandate to promote behavioral medicine research working towards broad prevention strategies, outlined in the OBSSR's 2017–2021 strategic plan [3–6].

BACKGROUND

The scope of the problem of chronic disease in the USA is broad. Chronic diseases such as cardiovascular disease, cancer, type 2 diabetes, kidney disease, asthma, and arthritis are increasingly common in the USA [7]. Among the U.S. adults, approximately half, or 117 million, are living with at least one chronic health condition, and up to one third have multiple chronic conditions [8, 9]. Chronic diseases can impair health-related quality of life and cause disability, and the prevalence and risk of chronic conditions greatly increase with age [10]. Furthermore, cardiovascular disease and cancer are the top two causes of

Table 1 | Highlights from the OBSSR FY 2017–2021 Strategic Plan

Strategic Plan Priority Area 1: Improve the quality and integration behavioral and social science research.

Specific Action from Strategic Plan Priority Area 1

Speed up the funding process for critical health conditions and treatments to improve public health.

Text from Strategic Plan: Priority Area 1, Improving Funding Process

“The NIH has the capacity to accelerate the grant application and funding process and has done so previously for rapid research on policy changes and naturalistic experiments (34) [21]. The OBSSR will continue to support the expansion of these rapid funding efforts for time-sensitive natural experiments and to enhance the scientific rigor of these natural experiments.” (p. 22)

Strategic Plan Priority Area 2: Use and improve new technology to create new methods and infrastructures to capture/analyze multiple behavioral data points.

Specific Action from Strategic Plan Priority Area 2

Increase infrastructure, evaluation, and scaling of technology-based behavior change interventions.

Text from Strategic Plan: Priority Area 2, Improved Technology

“Leveraging technologies for delivering behavioral and social interventions has been effective in addressing some of these dissemination and implementation challenges. Treatment fidelity is maintained by the automated delivery of intervention algorithms. [...] Although more resources are initially required to develop technology-based interventions, subsequent costs of delivery are reduced and intervention reach is extended, particularly to individuals with limited access to in-person intervention options.” (p. 25)

Strategic Plan Priority Area 3: Support translational research between scientific data and real-world practice.

Specific Action from Strategic Plan Priority Area 3

Greatly increase the capacity to study timely translational interventions.

Text from Strategic Plan: Priority Area 3, Translational Research for Improved Health

“Research methods that facilitate the adoption of behavioral and social interventions are a crucial component of any effort to advance dissemination and implementation. [...] Critical to this effort is that behavioral and social interventions should be evaluated in the context in which the interventions are anticipated to be delivered. These contexts, however, add challenges and complexities to the research design that need to be addressed through innovations in research methodology that retain as much internal validity as possible while strengthening external validity. [...] Broader consideration of the evidence produced from alternative, pragmatic, and adaptive designs will improve the basis for determining effectiveness of behavioral and social interventions evaluated in the context in which they are intended to be delivered.” (p. 26)

death in the USA, accounting for almost half of all deaths [11].

In addition to the health and quality of life toll of chronic conditions, the financial cost is also large, accounting for approximately 85% of all the U.S. health care spending in 2010 [9]. For instance, costs for care of cardiovascular disease, diabetes and pre-diabetes, and cancer are approximately \$316 billion, \$322 billion, and \$157 billion, respectively [12–14]. The proportion of healthcare spending is also skewed such that 71% of healthcare spending is for the 31.6% of Americans with multiple chronic conditions. The costs of chronic diseases are projected to continue to rise with an aging population [9].

The risk factors for chronic diseases are behaviors that, if modified, can largely prevent or reduce this disease burden [1, 2]. These health behaviors include not smoking, getting enough physical activity, maintaining a normal body weight, eating a healthy diet, and avoiding excessive alcohol use. For example, hypertension (27% of adults) and hyperlipidemia (22% of adults) are the most prevalent chronic conditions, which can be improved or alleviated by health behavior modification [9]. However, many Americans are falling short on these critical health behaviors. Only about 21% of the U.S. adults and 20% of the U.S. children are physically active enough to meet national recommendations and prevent

associated diseases [15]. If 50% of children met physical activity guidelines, this would save \$11.4 billion in medical costs and reduce youth overweight and obesity by 4.18% [16]. If physical activity levels are left unchanged, 65% of the U.S. youth will develop chronic diseases such as cardiovascular disease and type 2 diabetes [16].

Dietary changes also play an important role in prevention. Decades of research indicate the importance of diets high in fruits, vegetables, whole grains, and healthy fats in the prevention of chronic diseases and their precursors such as hypertension and hyperlipidemia [17, 18]. There are currently approximately 36.5 million cigarette smokers, or about 15% of the U.S. adults. If this prevalence decreases, in addition to the known benefits of quitting smoking, lung cancer, other cancers, heart disease, and stroke risks drop dramatically [19].

NIH-supported research has shown that there are strategies that work to improve health behaviors and reduce disease incidence and prevalence. Further questions have arisen that require additional study in order to more broadly promote health, given that: (a) chronic disease prevalence remains high, (b) greater technical resources are increasingly available to study and measure relevant behaviors, and (c) OBSSR has recently released a Strategic Plan FY 2017–2021 [3] outlining priorities and approaches to

make significant progress in this area (<https://obssr.od.nih.gov/about-us/strategic-plan>).

ASSESSMENT OF CURRENT POLICIES

The NIH OBSSR supports behavioral and social science research, which is integral to achieving NIH's mission. Mandated by Congress, OBSSR has an essential role of assisting the NIH in coordinating and supporting behavioral and social science research initiatives throughout the NIH. These research initiatives are aimed at promoting public health and reducing the burden of chronic disease. OBSSR's FY2016 budget was \$26.7 million, which has not increased substantially for the past 5 years [20]. This sum is equivalent to \$18.1 million in 1995 dollars, based on the NIH Biomedical Research and Development Price Index (BRDPI).

Primary prevention approaches (e.g. physical activity promotion, early nutrition interventions) are currently underfunded, which will create gaps in the uptake and implementation of these important programs. Increased support for OBSSR will provide it the additional leverage it needs to coordinate trans-NIH initiatives at its 27 institutes and centers.

OBSSR's Strategic Plan FY 2017–2021 outlines three priority areas for which we encourage additional support (Table 1). Each of these priority areas have the potential to contribute to reduced disease burden, but require an adequate and sustained budget to maximize effectiveness.

SUMMARY AND POLICY RECOMMENDATIONS

The OBSSR Strategic Plan's three priority areas constitute a scaffolding to direct future research designed to fill gaps in current knowledge. Improving the quality and integration of behavioral and social sciences research can increase the speed of funding critical natural experiments, given rapidly changing environmental influences on health.

Improving methods of data gathering and analysis is imperative to ensure that health behavior interventions keep pace with commercial products, and given the large amount of data being generated from technology, new methods are needed to ensure that our social and behavioral sciences research stays on the cutting edge.

Finally, ensuring the translation of research data to real-world practice settings is the most important way to ensure delivery of our findings to patients and populations in need. Funding for each of these priority areas can greatly improve the funding processes, behavioral interventions, dissemination, and ultimately health and cost saving outcomes.

Adequate and sustained resources are needed to undertake meaningful work to address these gaps. Without such resources, disparities in health outcomes and the costs of treating preventable chronic diseases will continue to grow. Therefore, SBM recommends and supports an increase in

OBSSR's budget. An increase in the budget would allow OBSSR to accelerate the progress of the three key initiatives outlined in their Strategic Plan FY 2017–2021. These initiatives hold great promise for improving tangible health and health-care cost outcomes. Increased funding would allow for the support of greatly needed research that can lead towards alleviating or preventing the burden of modifiable chronic diseases. SBM supports an increased OBSSR budget that most effectively promotes research that is critically needed to help Americans to improve their health and quality of life and reduce the ever-growing cost of healthcare.

Acknowledgments: The authors wish to acknowledge Dr. Joanna Buscemi for her guidance and input during the process of writing this policy brief, as well as the oversight provided by the Society of Behavioral Medicine's Health Policy Committee. These findings have not been previously published and this manuscript is not being simultaneously submitted elsewhere. On June 28, 2017, a shorter version of this manuscript was posted as a policy brief on the Society for Behavioral Medicine's website, Twitter, and Facebook pages. The authors have full control of the entire content of this manuscript and allow the journal to review the information and sources if requested. This project had no direct funding sources. Funding for writing time was provided by NIH grant K23HL135277 to Dr. Millstein.

Compliance with Ethical Standards

Conflicts of interest: Rachel A. Millstein, Lisa M. Quintilliani, and Angela L. Sharpe declare that they have no conflicts of interest.

Ethical Approval: All procedures were conducted in accordance with ethical standards. This article does not contain studies with human participants or animal subjects; no informed consent was necessary for writing this policy paper.

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