

Health Equity and Implementation Science – Lessons learned from an NIH Pathways to Prevention Workshop

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RESEARCH OBJECTIVE

Despite improved access to evidence-based clinical preventive services, uptake of these services in health disparity communities remains low. Many researchers recommend that more emphasis on addressing the social determinants of health (SDOH) would prove effective.¹ It is well documented that many of the factors contributing to health inequities are historic, systemic and influenced by SDOH. Some studies posit that the field of implementation science (IS) is critical to catalyze change in the use of preventive services. The use of IS concepts and methodologies has proven successful in increasing the uptake of evidence-based practices. We postulate that synergy between health equity research and IS would offer novel possibilities for improving uptake of evidence-based clinical preventive services.



METHOD

This poster describes lessons learned from a Pathways to Prevention Workshop convened by the National Institutes of Health (NIH) to identify ways of reducing disparities in use of clinical preventive services for three common conditions—cancer, heart disease, and diabetes—and opportunities for applying implementation science as a framework for closing long-standing gaps in uptake among disadvantaged populations.

The workshop was framed around five key questions, included a systematic evidence review from Pacific Northwest Evidence-based Practice Center, speaker presentations from national experts, public discussion and an independent panel to weigh the evidence and identify gaps.

Following the workshop, an independent panel report was published, a meeting with potential federal partners was conducted, and a brief NIH portfolio summary was characterized. A central theme reinforcing the value of and need for implementation science emerged from the workshop and the report, for both research and training.

One year after the workshop, the authors conducted an analysis of the NIH's research grant portfolio to assess the extent to which NIH health equity grants awarded between 2016 and 2020 addressed implementation research to one or more of the ten USPSTF-recommended preventive services that served as the focus of the workshop. After mapping to the preventive service(s) of interest, grants were then mapped to one or more relevant themes 1) integration of services and new delivery models, 2) need for innovative methods, 3) community engagement and systems approaches, and 4) workforce and training (see Table 1).



FINDINGS

Of the independent panel recommendations, 96% (25 out of 26) offer implementation science as a direct method or facilitator for advancing disparities research in preventable health conditions.

Approximately, 221 health equity implementation research grants were found and mapped to relevant preventive service(s) and workshop recommendation theme(s). Over all ten of the preventive services, the greatest number of grants mapped to Integration of Services and New Delivery Models (Theme 1), and the least to Workforce and Training (Theme 4). The remaining two themes, Need for Innovative Methods (Theme 2) and Community Engagement and Systems Approaches (Theme 3), were mapped onto half of the projects related to the preventive service of interest (Table 2). Projects testing and assessing multiple preventive services (26%) comprised similar representations across the research themes.

Table 1. Health Equity in Preventive Services Recommendation Themes

Theme 1. Integration of Services and/or New Delivery Methods	Theme 2. Need for Innovative Methods	Theme 3. Community Engagement and/or Systems Approaches	Theme 4. Workforce and Training
Study or study components may include - • Community health or lay workers • Patient navigators • Health literacy • Shared decision-making • Clinical tools – reminders, electronic health record prompts, communication prompts	Study or study components may include - • Assessment of community, patient, and/or clinical barriers • Replication of cancer screening methods for other disease • Trial design – pragmatic, stepped wedge, adaptive • Measuring the quality of provider-patient communication • Impact of environment/policy changes • Cost of intervention, services, bundling of services • Implementation Science/Research	Study or study components may include - • Identifying approaches and reaching out to at-risk populations • Addressing underlying social determinant of health (SDH) • Collaborations with community organizations that may address SDH (ie. housing, prisons) • Partnerships with community organizations and local businesses (ie. Churches, barber shops/salons, grocery stores) • Cross-sector partnerships – integrating clinical health systems with public health and community-based organizations • Community health workers • Hard to reach populations (ie. homeless)	Study or study components may include - • New workforce training • Reducing bias among providers; explicit bias training • Sustaining institutional partnerships • Sharing information and educational materials for traditional and non-traditional providers • Diversity training for providers • Research training in health equity

Table 2. NIH Research Grant Portfolio for Ten USPSTF-Recommended Preventive Services, by P2P Workshop Recommendation Theme (n=221)

Preventive Services	Number of Relevant Projects	% of Total Number of Projects*	Theme 1: Integration of Services and New Delivery Methods (%)**	Theme 2: Need for Innovative Methods (%)**	Theme 3: Community Engagement and Systems Approaches (%)**	Theme 4: Workforce and Training (%)**
Colorectal Cancer Screening	47	21%	70	57	60	6
Breast Cancer Screening	30	14%	60	67	33	10
Cervical Cancer Screening	23	10%	74	70	48	4
Lung Cancer Screening	21	10%	67	71	62	5
Tobacco Smoking Cessation	65	29%	89	38	40	2
Aspirin to prevent CVD and CRC	6	3%	83	50	17	0
Healthful Diet and Physical Activity for CVD Prevention	51	23%	90	22	55	2
High Blood Pressure Screening	19	9%	84	47	53	5
Abnormal blood glucose and Type 2 Diabetes Screening	19	9%	89	53	32	0
Obesity Screening and Management	41	19%	95	32	49	0
Multiple Preventive Services	58	26%	76	48	55	5

* Grants were allowed to be mapped onto one or more preventive service(s).

**Total percentages across each preventive services will add up to more than 100% as grants may have been related to one or more workshop recommendation theme(s).

Row totals may exceed the number of relevant grants per preventive service because some grants may have been relevant to more than one recommendation theme.

DISCUSSION

Fundamental research opportunities to improve health equity with implementation science (IS) concepts include advancing the science of engagement and inclusion of diverse populations (R/E, geography, health literacy), social determinants of health, and cross-sectoral collaborative models. The NIH portfolio is rich with prevention research that integrates services and/or explores new delivery models. Despite the recent critique of dismal funding levels in health disparities work and IS, our analysis of the NIH portfolio identified a number of prevention-focused grant awards with designs that include community engagement and systems-level approaches. Furthermore, research focused on innovative methods for cancer screening uptake garners strong support.

Investments are needed for workforce development that emphasize team science with representation from diverse disciplines and professional backgrounds, and a broader depth of expertise in health equity and IS relevant approaches (pragmatic trial designs, natural experiments, SDOH) to advance the field.

IMPLICATIONS FOR RESEARCH, POLICY AND PRACTICE

- We should integrate health equity and IS strategies early in research development phases to accelerate moving proven therapies and practices into communities to eliminate/reduce health disparities.
- Innovative initiatives that support cross-sector collaborations and sustainable community-based IS studies in non-traditional, health relevant settings will catalyze progress towards eliminating disparities in preventable conditions.
- Achieving health equity in the preventive services will continue to delay in the absence of increased dedicated funding to support training and career development for the next generation of IS researchers.

CONCLUSION

Emerging themes from the portfolio analysis, workshop, and post-workshop activities emphasize the need to guide more dissemination and implementation research and widen the lens for addressing social determinants of health. In addition, building an appropriate workforce capacity in the IS field must include training opportunities for future scholars and practitioners from diverse background to advance their understanding of both IS evaluation frameworks and best practices for utilizing IS approaches to improve health equity through implementing tailored disease prevention strategies.

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