

Introducing the Social Interventions Research and Evaluation Network

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Summary

A substantial literature has established that social factors play an important role in determining health outcomes. This has led to a growing interest in interventions attending to patients' social determinants of health (SDH) in health care delivery, including both activities that mitigate the impacts of SDH on health care delivery and those that aim to change patients' SDH. Stronger evidence of effectiveness of interventions, complemented by convincing implementation and dissemination research, is needed to inform decision-making and secure health care sector funding for these activities. The Social Interventions Research and Evaluation Network (SIREN) at UCSF was launched in the spring of 2016 to synthesize, disseminate, and catalyze rigorous research in this field. Its establishment was motivated not only by the need for research on health care interventions addressing SDH, but also by the realization that research efforts are not well coordinated or synthesized to inform practice. One of SIREN's first goals is to develop a clear and coherent research agenda that identifies evaluation priorities reflecting the perspectives of key stakeholder groups. SIREN will also provide seed grants for new research, create an online hub for dissemination of research findings, tools, and metrics, and expand opportunities for researchers and health sector leaders to learn from each other. We hope these activities will facilitate the strategic accumulation of knowledge to inform both best practices and the financial sustainability of health care-based efforts to address patients' SDH.

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Background

A sea change in our understanding of health and its determinants has occurred over the past three decades. Paralleling the deepening understanding of basic biological processes underlying disease states and mortality, a burgeoning literature documents the powerful impact of social and economic factors on health.¹⁻³ This understanding is creating a “push” from the scientific literature to expand the ways in which we think about health and, by extension, how we think about what constitutes health care services. At the same time, the high cost and other shortcomings of traditional health care services in the US are creating a “pull” for new ways to improve the health of populations.⁴

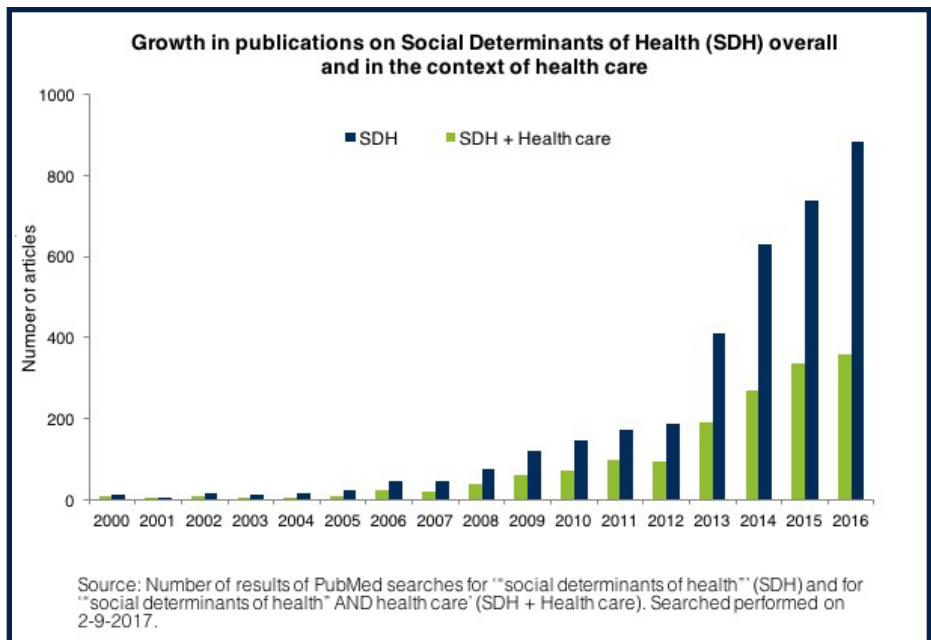
The combined push and pull have contributed to recent calls to action on social and economic determinants of health from medical care organizations, which traditionally have focused on more downstream, biological interventions to improve health.⁵⁻⁸ In fact, the increase in research on social and economic determinants of health in public health literature⁹ has been closely paralleled by a similar trend in health care services literature (See **Figure 1**).

Social interventions in medical settings encompass a wide range of activities, including policies and programs that mitigate the effects of social circumstances on health and others that instead attempt to change the underlying social barriers to health themselves. Although the health care sector’s interest is growing in both of these

areas, relatively little rigorous research has been done to date to evaluate medical care-based interventions aiming to change patients’ SDH.^{10,11} Large gaps remain in our understanding of if, how, when, and for whom social interventions impact SDH, and whether those changes influence health, health care costs, and utilization patterns. Our recent systematic literature review on evaluations in this area identified only 67 studies that provided enough information to evaluate intervention impacts.¹² Only seven of these articles met criteria for high quality evidence.¹³ The majority of the 49 studies included only process outcomes; less than half included health and/or utilization and cost impacts. No comparative effectiveness studies were identified in the review.

Improved coordination and information sharing between researchers exploring these questions would help ensure research efforts are better coordinated to advance this field.^{10,11} There is a need to synthesize the research in this area in order to effectively inform health system leaders, providers, and

Figure 1. PubMed search results for “social determinants of health” overall and in the context of health care, 2000-2016



policy makers.

The Social Interventions Research & Evaluation Network

To help fill these evidence gaps and coordinate research efforts, the Social Interventions Research and Evaluation Network (SIREN) was created in 2016 **to synthesize, disseminate, and catalyze high quality research focused on health care-based interventions designed to change or facilitate interventions to change patients' SDH.** The program, which was informed by input from a diverse group of research thought-leaders from around the US and Canada, is based out of the UCSF Center for Health and Community and is supported by Kaiser Permanente and the Robert Wood Johnson Foundation.

SIREN's core activities will include:

- **Collecting, summarizing, and disseminating research findings and resources on measures and metrics** for researchers and other industry and community-based stakeholders through an interactive website, issue briefs, and a new evidence library of work related to health care interventions on SDH;
- **Catalyzing high quality research** to fill evidence gaps by supporting a network of researchers; developing shared conceptual models; establishing an innovation grants program; and organizing national convenings;
- **Increasing the capacity to evaluate SDH interventions** by providing evaluation, research, and analytics consultation services on questions prioritized by safety-net and mission-aligned health systems.

Opportunities

SIREN activities will be guided by recent interviews we conducted with researchers and other stakeholders in this growing field.¹¹ In reflecting on existing challenges to research at the intersection of medical and social services, national thought leaders identified the following activities as key targets for advancing research across national initiatives and local or regional programs:

Create a shared research agenda

A shared conceptual model and a research agenda that identifies research opportunities and priorities can help funders and other stakeholders prioritize research and evaluation activities that are critical to advancing our understanding of the most effective and efficient role for the health care delivery system in identifying and addressing patients' SDH. This agenda will require buy-in from both health sector leaders and also community social service stakeholders.

Support rigorous effectiveness, implementation, and dissemination research

For research to translate into better population health, we need evidence on both the effectiveness of social and economic needs interventions in the medical care sector and the best processes for undertaking and spreading these kinds of interventions. Findings from controlled comparison studies—ideally including randomization to ensure differences can be attributed to the intervention—provide more definitive evidence than pre-post comparisons, which are subject to regression to the mean, temporal change, and other challenges. Although putting in place such evaluations can increase the complexity and cost of an intervention, not doing so

will limit lessons needed for sustainability and dissemination. Rigorously conducted effectiveness research will help to ensure the dollars around social interventions maximally impact patient outcomes. At the same time, implementation and dissemination research are critical to understand how best to put effective programs into practice, including the workforce and infrastructure needed to support and scale them.

Define key measures and outcomes

Common measures for inputs, outputs, and outcomes can enable comparisons across programs and improve the aggregation of findings (e.g., through meta-analysis) to improve our understanding of the impacts of integrated care for both general and select populations. Reaching consensus on shared tools will require the engagement of many stakeholders, including health services researchers, program implementers, and community based partners. Groups like the National Academy of Medicine, the Center for Medicare and Medicaid Innovation, the National Association of Community Health Centers, and Health Leads have begun important initiatives to standardize social screening instruments, but thus far the proliferation of unique screening tools has exceeded these standardization efforts. Research will benefit from ongoing efforts to improve standardization not only of the screening tools, but also the process, health, utilization, and cost measures used to document impact. In some instances, new tools may need to be developed.

Isolate impacts of social interventions that are part of multi-component interventions

Social interventions are often included as part of more comprehensive case management efforts that also address patients' behavioral

and mental health needs. Evaluations of these types of programs rarely distinguish between the impacts of specific aspects of case management. It is likely that these intervention components have unique impacts in different patient populations; knowing which interventions work best in isolation or in synergy, and which are most cost-effective, is crucial to guide the effective use of limited resources.

Collaborate with stakeholders inside and outside of the medical care sector

The causal chain reflecting the SDH-intervention-to-health outcome process typically involves a series of steps that often take place outside of the health care system and require coordination across different sectors. For instance, an intervention that helps families address legal needs may involve screening in the health care system but referral to community-based legal services. Evaluating the intervention will require capturing information on whether the patient connected with legal services following an initial referral, categorizing the types of legal services provided, determining the success of the legal intervention, and integrating that information with patient health and health care outcomes. Difficulties combining clinical data with data on activities external to the delivery system can pose a substantial barrier to internal evaluation efforts. Stronger research collaborations and data integration efforts are needed across medical care and community stakeholders to ensure data are available throughout an intervention cycle.

Conclusions

The medical care sector's interest in identifying and addressing patients' social and economic needs stems from a growing awareness of the links between social contexts and health.

Health care organizations alone do not have the capital or capacity to resolve the social and economic conditions that result in poor health, but they may be able to contribute to solutions, both for individual patients and for communities. Those solutions range from providing SDH-informed traditional medical care to more directly addressing patients' SDH in the medical setting. A strong evidence base is a necessary component of these efforts to identify and address patients' social and economic determinants and to determine whether such efforts represent an efficient and effective use of societal resources. By supporting the development of standardized measurement tools and synthesizing, disseminating, and catalyzing research, the Social Interventions Research and Evaluation Network will help to build a solid evidence base that can be used to develop programs that maximally impact patient and population health.

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