Health Care Professionals: Opportunities to Address Social Determinants of Health

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Nearly all of the health-related investments in the United States are focused on health care. While access to and quality of health care is important, health is influenced far more strongly by social and economic factors such as employment, income, and education. These factors drive not only health outcomes, but also the significant health inequities experienced by many of our communities. Therefore, it is essential that professionals dedicated to improving health increase their effectiveness by addressing the "upstream" causes of health in the community, and by engaging in ways to change the broad policies, systems, and environments that shape the social and economic conditions that, in turn, so strongly influence health.

The World Health Organization (WHO) has broadly defined the social determinants of health as "the conditions in which people are born, grow, live, work, and age."[1] They include an individual's socioeconomic status (SES) including income, employment, and education as well as multiple other factors such as social cohesion, social support, community safety, affordable housing, and food security.

Research shows strong and consistent associations between these socioeconomic factors and health outcomes.[2,3] The Milwaukee Health Report illustrates this pattern well, showing a consistent gradient on nearly every health measure, with higher education and income strongly associated with better health outcomes.[4] Further, communities with greater differences between the highest and the lowest incomes not only experience poorer health down the income gradient, but also overall poorer health than communities with incomes more equally distributed.[5]

These relationships are documented not only in research data; there are solid, plausible mechanisms proposed for why socioeconomic factors drive health outcomes.[6] In short, social determinants (a) affect people's access to health care, (b) support or constrain people's ability to practice healthy behaviors, and (c) directly affect people's physiology through chronic elevations of stress hormones, epigenetic changes, and other biologic mechanisms across the life course that can have lasting impacts across generations.[7]

The effects of socioeconomic factors on health are surprisingly strong. The County Health Rankings model (Figure), developed at the University of Wisconsin Population Health Institute (UWPHI), indicates that only 20% of the modifiable factors that influence health relate to access to quality health care, while 40% of the factors that influence health are social and economic.

While the influence of social determinants of health in driving health outcomes is clear, actions to address social determinants—particularly by physicians, other health professionals, and health care systems—have been less well explored. How can professionals dedicated to improving health continue our traditional roles of promoting healthy behaviors and delivering quality health care, and also balance our repertoire by adding the skills, competencies, tools, and methods to address the socioeconomic policies, systems, and environments that so strongly influence health?

Here we discuss 2 concrete and well-studied examples of social determinants of health: income/employment and education. We then describe evidence-based examples of clinical and policy-level practices to address these determinants.[8] Finally, we offer suggestions and resources for specific actions readers can undertake to address not only these specific determinants, but any of the many other social and economic factors that drive health outcomes.

DETERMINANT: INCOME / EMPLOYMENT

There is a clear relationship between health and employment/income: people in high-income groups can live up to 6 years longer than their low-income counterparts.[2] Not only are high-income individuals more likely to have insurance and access to medical care, but they also have better access to nutritious food, more opportunities to be physically active,

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and increased ability to live in safe homes and neighborhoods.[9] For most people, income is driven by employment, yet employment opportunities vary widely among communities. For example, the rate of employment for the white population of Milwaukee is 77.4%, while the rate of employment for Milwaukee's African Americans is only 44.7%.[10] Increasing employment rates and income levels typically requires systemic policy changes, and although income- and employment-based policies often do not have health improvement as a primary goal, research has shown that many such social policies play a key role in improving health outcomes.[5]

Existing antipoverty programs such as Social Security have already reduced poverty by about 80% among seniors.[11] But with poverty rates in Wisconsin hovering in the low double digits overall, and closer to 25% in some urban areas (including a child poverty rate of over 40% in Milwaukee),[12] more policy interventions are needed.

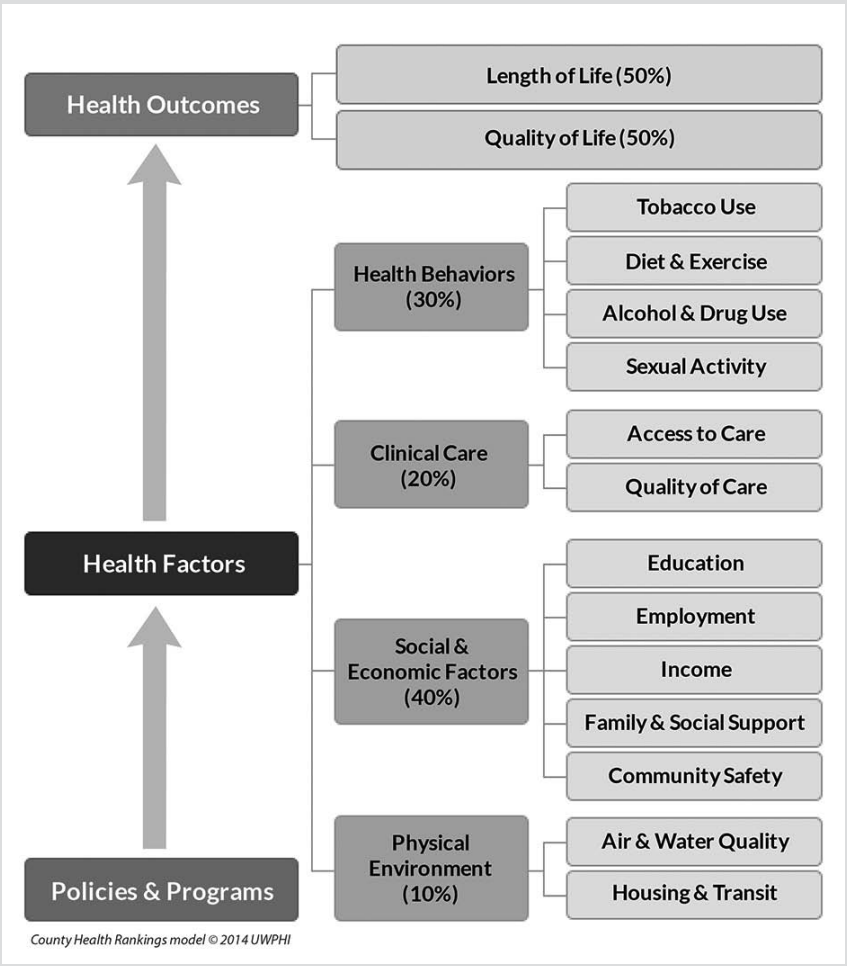
Policy Case Example

Addressing income and employment to greatly reduce poverty

A rigorous analysis by the Urban Institute and Milwaukee's Community Advocates Public Policy Institute has shown that a 4-component policy package would reduce poverty in Wisconsin by more than 50% for all age groups and all racial and ethnic groups.[8] This policy package includes: (1) expanding transitional jobs programs, (2) increasing the minimum wage and indexing it for inflation, (3) expanding the Earned Income Tax Credit (EITC) so that all low-income workers—regardless of marital status or number of children—would qualify, and (4) providing a tax credit for adults who cannot work and who receive disability income or Social Security income.

The components of this policy package have proven health benefits as well. In the case of EITC, an increase of $1000 in the tax credit income is associated with a 6.7% to 10.8% reduction in low birth weight rates for single mothers with less than a high school diploma, and an even larger impact for births to African American mothers.[13] In the case of transitional jobs (TJs), a Health Impact Assessment (HIA) conducted by UW–Madison's Population Health Institute found a host of positive health impacts of relating to expanding TJs.[14] In fact, the study found that the absence of such programs increases poor health outcomes, and that many of employment's positive effects on stress, children's physical and mental health, and family cohesion are undermined or even reversed when employment is unstable (and income inadequate). Another HIA on minimum wage policy conducted at the University of California Los Angeles (UCLA) showed that improvements in minimum wage policy could reduce mortality on the order of 1.4 deaths per 10,000 workers per year over the long term.[15]

Figure. The County Health Rankings Model



DETERMINANT: EDUCATION

Education and poverty are closely linked—as one's educational background improves, typically so do opportunities for higher incomes, better employment opportunities, and improved living conditions.[16] As with income/employment, educational outcomes can vary widely among communities. For example, Wisconsin's 4-year graduation rate (87.5% in 2011-2012)[15] is among the best the nation. In Milwaukee, however, the graduation rate is 61.1%; and among Milwaukee students who are economically disadvantaged, graduation rates are even lower.[17] As with income, there are many policy levers by which to improve educational outcomes (and thereby improve health);[6] we will highlight only 1 example here.

Policy Case Example

Early Childhood Education Programs

WHO's Commission on Social Determinants of Health has identified early childhood education as a priority area, urging governments to invest

Box. Examples of social determinants-focused individual and population level strategies

Clinical level

Screen for socioeconomic issues in clinical interactions.
Screening for access to basic needs (food, employment, benefits, education) increases physician referrals and family contact with community resources. Screening tools which use the mnemonic IHELLP for income, education, housing, legal status, literacy, and personal safety (Table) are intended to facilitate care by connecting a patient's biomedical situation to the context of his or her life.[30]

If no one on the healthcare team asks and providers remain ignorant of patients' social and economic realities, factors like prescription unaffordability and poor neighborhood composition will continue to adversely influence health. Conversely, screening for patient's socioeconomic issues could broadly augment clinical care over a number of clinical visits, or could be leveraged in a focused way should 1 area be identified as a significant contributor to poor health,[31] such as altering traditional clinical prescribing practices to better fit within a patient's life conditions, or providing more coordinated services overall.

Coordinate services for individual patients by partnering with social workers, health advocates, community health workers, and similar professionals.
One California-based organization, Health Leads, leverages college students to connect patients with the basic resources they need to be healthy. Information from socioeconomic screening questions results in more effective prescriptions for food, heat, and aptly targeted diet and exercise-related interventions. Through this model, students act as navigators to expand clinics' capacity to address basic resource needs often at the root causes of poor health and implement a net of social support within health-care settings.[32]

Population level

Advocate for pro-health social and economic policies.
Due to their position and influence in society, healthcare professionals in general and physicians in particular can use their expertise, access to evidence, and credibility to help decision-makers better understand the health impact of policies far beyond those focused on clinical care quality or access. With their power, physicians can advocate for pro-health social policies such as income maintenance policies (eg, unemployment and disability insurance), education policies (eg, Head Start, universal pre-K), employment policies (eg, transitional jobs), compensation policies (eg, minimum wage / living wage), and tax policies (eg, Earned Income Tax Credit). In addition to developing relationships with and educating policy-makers directly (eg, participating in Doctor Day at the Wisconsin Capitol), physicians can exert their influence through media appearances (eg, television interviews, radio show call-ins, and writing op-eds and letters to the editor), by becoming involved in local policy leadership (eg, school board, board of health, city council, county board), by supporting educational and workplace initiatives, and by working in other venues to change public attitudes on various issues. Physicians and other healthcare professionals can also provide significant support to community efforts—via partnering with community and faith-based organizations with overlapping interests, education sector leaders, business leaders, and public health and safety officials—because of the content expertise as well as the credibility and standing in society that they bring to the table.

Work collectively with peers. Clinicians can and should advocate within their group practice/hospital/HMO for a community/population health perspective emphasizing the importance of addressing the social determinants of health. As group practices and hospitals are increasingly held accountable for community health outcomes, effective interventions addressing "upstream" socioeconomic factors are crucial for success.

Work collectively with professional associations.
The more medical and other health professional groups become involved in addressing social determinants of health, the higher the impact on policy change and eventual improvement in health outcomes. The American Academy of Pediatrics (AAP), for example, has put poverty high on its advocacy agenda for 2013-2014, and has convened a workgroup to review current opportunities related to expanding access to basic needs such as food, housing and transportation, and promoting positive early brain and child development and school readiness and success.[33]

Be both patient and persistent.
Physicians and other health care professionals should view policy change as incremental and occurring at various windows of opportunity, not under any 1 political environment. Health care providers can help open these windows of opportunity by building policy and advocacy capacity within their organizations, creating and elevating the evidence-base for social policy, and educating their own organizations, policy-makers, and the public on these issues.

in it.[14] Similarly, Wisconsin's State Health Plan—Healthiest Wisconsin 2020 (HW2020)—cites strong and consistent evidence for early childhood education's positive influence on health over the life course.[2] Children who attend high-quality early learning programs see gains later in life including improved graduation rates and earnings, as well as decreased rates of crime and teen pregnancy.[18] Additionally, randomized controlled preschool intervention trials have shown that early childhood education is associated with improved adult health status, lower behavioral risk factors, and lower criminal activity,[19,20] and that these early childhood programs are cost-effective.[21] The quality of these programs can be improved through interventions such as smaller teacher-child ratios, increasing the number of teachers with 4-year college degrees in early childhood education, increasing home visits with families, and more monitoring by government or accrediting agencies.[22] Expanding the reach and quality of early childhood education programs such as Head Start and Early Head Start, therefore, is a social determinants-based policy approach with potential for great impact on health outcomes.[23]

IMPLICATIONS FOR PRACTICE

Today, 4 in 5 physicians believe that unmet social needs are leading to worse health among Americans, yet the same percentage also feel unable to address health concerns caused by the unmet social needs of their patients.[24] The Affordable Care Act's new payment structures encourage physicians, hospitals and other health care professionals to form networks known as Accountable Care Organizations to increase the coordination and quality of care.[25] ACOs currently are thought of as focusing on individual-level quality care that matters (eg, improvement in health measures among clinical populations, such as average Hemoglobin A1c among all diabetics in a health care system). However, health care systems will see improved patient outcomes, and thus improved reimbursement, if they also become involved in addressing the upstream social determinants of health in the communities where their patients live, work, and play.

Medical school curricula are beginning to emphasize the role of physicians as population health and social determinants policy advocates.[26] At least 9 medical schools now integrate population and community health coursework with traditional clinical science curricula.[27] Some also include the importance of advocacy and policy work for medical professionals. Both Wisconsin medical schools are innovating in this area; the University of Wisconsin School of Medicine and Public Health incorporates policy advocacy in its innovative Integrative Case Series for medical students in their first 2 years,[28] and the Medical College of Wisconsin features an Urban and Community Health Pathway whose core sessions include a focus on social determinants.[29]

In practice, physicians and other health care professionals can address the social determinants of health at both the individual and population levels. *See Box for examples.*

On the individual patient-care level, clinicians can implement broader and deeper screening for social determinants (Table). Elevating the importance of gathering information on a patient's socioeconomic context to that of conducting his or her physical examination or developing an evidence-based treatment plan will increase the effectiveness of individual level patient care. Clinicians also can partner with allied health professionals and community partners to address patients' socioeconomic needs.

On the continuum between the individual and population levels, physicians also can provide support to local community-based organizations whose mission focuses on addressing the social and economic needs of community members. Such physician support could range from providing volunteer clinical services (eg, sports physicals at Boys and Girls Clubs or YMCAs/YWCAs) to serving on the advisory boards of advocacy or social service organizations.

Physicians also might consider working with community coalitions. Coalitions are comprised of many partners such as community-based organizations, government agencies, and private sector partners who are collaborating on a common goal. Physician perspectives can bring added depth to coalition strategies, and such engagement can provide a platform for policy and systems change.

On the population level, health care professionals should advocate for pro-health socioeconomic policies, work collectively with peers and professional organizations, and be both patient and persistent in working to bring about policy change (Box).

To be effective change agents, physicians don't need to become policy experts on income/employment, education, or any other social determinants-related policy. What physicians and other health care professionals bring to the table is unparalleled credibility and expertise in the area of health. Thus, when physicians and their colleagues bring their health-related voices to the table, it strengthens the arguments of advocates who are already experts in policy fields related to the social determinants of health.

It would, of course, be extremely helpful for health professionals to partner with policy advocates. It would also be ideal for each group practice or hospital system to designate a specific person whose job is to advocate for pro-health social and economic policies.

In any case, clinicians' participation in the policy advocacy process makes such changes far more likely to succeed—all for the ultimate benefit of patients, communities, and population health.

Table. The "IHELLP" Mnemonic

Examples of Potential Social History Questions (Using the "IHELLP" Mnemonic) to Address Basic Needs

Domain / Area	Examples of Questions
	Income
General	Do you ever have trouble making ends meet?
Food Income	Do you ever have a time when you don't have enough food?
	Do you have WIC?[a]
	Do you have food stamps?
	Housing
Housing	Is your housing ever a problem for you?
Utilities	Do you ever have trouble paying your electric / heat / telephone bill?
	Education
Appropriate education placement	How is your child doing in school?
	Is he/she getting the help to learn what he/she needs?
Early childhood program	Is your child in Head Start, preschool, or other early childhood enrichment?
	Legal Status
Immigration	Do you have questions about your immigration status?
	Do you need help accessing benefits or services for your family?
	Literacy
Child literacy	Do you read to your child every night?
Parent literacy	How happy are you with how you read?
	Personal Safety
Domestic Violence	Have you ever taken out a restraining order?
	Do you feel safe in your relationship?
General safety	Do you feel safe in your home?
	Is your neighborhood safe?

[a]WIC includes Supplemental Nutrition Program (SNAP) for Women, Infants, and Children

CONCLUSION

The role of physicians and other health care professionals in both individual care provision and individual behavior change is crucial. However, social determinants of health make up a stronger percentage of the modifiable drivers of health outcomes than either health care or health behaviors.

To be most effective at improving the health

of families and communities, and to ensure the greatest impact for investment of resources, health professionals need to expand their repertoire of skills and activities both with their individual patients and in the policy arena.

Medical education training programs are focusing on physicians' clinical and policy-level responsibilities for addressing social determinants are emerging.[31,34] But currently-practicing physicians and other health professionals must also work both individually and collectively, to address social determinants within their practices, their communities, their states, and beyond.

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