ABSTRACT

Objective: There is increasing evidence about the importance of factors that impact health beyond health care and individual behavior, yet there is little public and policy discourse about these things in the United States. We surveyed Wisconsin adults to see what they think are the most important factors that affect health. We also examined which interventions they believe would improve health, and whether government should prioritize such interventions.

Methods: A phone survey of a random sample of 1459 Wisconsin adults was conducted between September 2006 and February 2007.

Results: The Wisconsin public believes that health practices, access to health care, and health insurance are the most important factors affecting health, and that health insurance is a high government priority. Other broader social and economic determinants of health, such as employment, social support, income, housing, and neighborhood factors are seen as less important to health. Although respondents believe that health practices are important to health, they are less likely to suggest that government prioritize improving individual health practices. Although the public believes the government should prioritize access to health care and health insurance, they are not as likely to support government implementing social or economic policies in order to improve health.

Conclusion: In light of research demonstrating the importance of social and economic determinants of health, and of ongoing public forums meant to raise awareness of these determinants of health, it will be important to track whether public opinion of Wisconsin adults changes over time to increase attention to the social and economic determinants of health and related policy initiatives.

INTRODUCTION

The last 2 decades have been marked by significant research attention to how multiple factors determine health, particularly in the United States, Canada, the United Kingdom, some European countries, and by the World Health Organization. Such research consistently shows that beyond access to medical care and health behaviors, a broad array of social and economic factors contributes strongly to health. Examples of such social and economic factors include income, education, employment, stress, social support, and the neighborhood environment.

Research demonstrates that the social and economic conditions in which people live and work have both direct and indirect effects on health. For example, socioeconomic status (SES), often measured by income, education, and occupation, is one of the strongest and persistent predictors of health in the United States and other countries. Income affects people’s ability to access health care and to adopt healthy behaviors, but it also affects other health risk factors such as stress, access to adequate housing, and access to safe neighborhood environments, each of which have direct effects on health. Education level not only indirectly affects health through its impact on income, but also affects people’s knowledge about health behaviors, their preference for health behaviors and physical risk, and their ability or opportunity to access and marshal a range of appropriate social and economic resources to make desired changes. Employment status and working conditions also affect health through not only physical working conditions (eg, exposure to contaminants, long hours, repetitive motions, heavy physical demands) but...
also psychosocial working conditions (eg, stress and amount of control over one’s work).5

Beyond socioeconomic status, other social and economic factors that have been shown to consistently impact health include stress, social support and social isolation, race/ethnicity, discrimination, religion/spirituality, community safety, neighborhood support and resources, and childhood experiences (eg, abuse, neglect, poverty, poor education quality). These factors demonstrate associations with health status even after controlling for a range of other factors including income, education, and access to health care. Research indicates that many of these social and economic factors have an even stronger effect on the health of people with low socioeconomic status because they are more likely to experience a compounding effect of these factors, and are less likely to have the resources to buffer their effects on health.8

As a result of findings about the influence of social and economic factors on health, many countries have begun to advance social and economic policies to improve health, including significant efforts in the United Kingdom, Sweden, Canada, and the Netherlands.9-13 Yet in the United States, there is little public discussion of how to improve health by advancing social and economic policy, and few social and economic initiatives aimed at improving health.14-15

One of the many potential reasons for lack of attention to social and economic determinants of health in the United States is that policymakers and the general public may not view social and economic factors as important determinants of health. Indeed, we know little about what the general public thinks are the most important factors that affect health. Our lack of knowledge in this area is surprising, given the number of public opinion polls conducted in the United States on both general and health-related topics. However, most US public opinion polls regarding health have highlighted what the public thinks about health care issues,16-17 not what they think about health more generally. Since public opinion can influence policymakers,18-19 public attitudes about social and economic determinants of health may affect policymakers’ willingness and ability to address related policy issues.

The first aim of our study is to examine what the general public thinks are the most important factors affecting health. Although a few studies have examined this question in Canada, Scotland, and Ireland,20-25 this question has not been addressed in the United States. Our second aim is to examine what types of interventions the public thinks would be most effective at improving health, and whether they think the government should make these interventions a priority. Research suggests that addressing early childhood development, educational attainment and quality, and poverty and economic development might be as, or even more, important to health than improving access to health care.7-8,14-25 Indeed, improving the social and economic determinants of health is one of the 11 health priorities in the Wisconsin 2010 Health Plan. However, the extent to which the public believes these types of social and economic interventions would improve health is unclear, as is the public’s level of support for the government making such interventions a priority to improve health.

**METHODS**

Data used was from the Wisconsin Population Health and Disparities Study, a phone survey of a random sample of 1459 adults in Wisconsin. The University
of Wisconsin Social Science Internal Review Board approved this survey, which was conducted by the University of Wisconsin Survey Center between September 2006 and February 2007 using random-digit dialing (RDD). The survey had a 44% response rate, which is similar to that currently achieved by other RDD surveys. Table 1 shows that the respondents are generally representative of the Wisconsin population ages 18 and older, although they have a slightly higher education level.26-28

Respondents were asked their opinions on a range of factors that research demonstrates are associated with health, including demonstrated social and economic factors such as stress, employment, income, education, housing, childhood experiences, social support, religion/spirituality, neighborhood safety, and neighborhood support. They were also asked about health insurance, affordable health care, personal health practices (eg, what people eat, whether people exercise, or whether people smoke), the physical environment (such as the quality of the air and water), and a person’s genetic makeup.

In terms of asking people about possible strategies for improving health, we chose strategies that have been discussed as potentially important to improving population health, and that generally coincide with many of the factors we asked about that may affect health. We asked about generic strategies (eg, reducing poverty) rather than particular policies (eg, Earned Income Tax Credit) to assess people’s general beliefs about these strategies rather than focusing on specific politically-oriented policy options. In terms of social and economic policy strategies, we included improving health practices, reducing poverty, improving access to early childhood programs, increasing the number of people who finish high school, reducing unemployment, improving housing quality, reducing violence, and improving social supports/networks. We also asked about the perceived effectiveness of providing health insurance to more people and improving the physical environment.

RESULTS

What Factors Affect Health?

Respondents were asked to rate 17 factors that potentially affect people’s health on a scale from 0 to 10, where 0 means the factor has no effect on health and 10 means it has a very strong effect. The factors were listed in the same order for each respondent—information about specific ordering of the items is available from the authors. Table 2 summarizes the percentage of respondents rating each factor highly (an 8, 9, or 10) and the mean score for each factor.

Respondents clearly believe that people’s health practices (such as what they eat, whether they exercise, or whether they smoke) have the greatest effect on health. Having health insurance and affordable health care were the next most important factors affecting health.

<table>
<thead>
<tr>
<th>Factors that Affect Health</th>
<th>Percent Who Rated 8, 9, or 10</th>
<th>Mean (Standard Deviation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A person’s personal health practices (eg, what they eat, whether they exercise, or whether they smoke)</td>
<td>84.6</td>
<td>8.9 (1.6)</td>
</tr>
<tr>
<td>Whether a person has health insurance</td>
<td>75.3</td>
<td>8.3 (2.1)</td>
</tr>
<tr>
<td>A person’s access to affordable health care</td>
<td>69.8</td>
<td>8.2 (2.0)</td>
</tr>
<tr>
<td>How much stress a person has</td>
<td>66.8</td>
<td>8.0 (1.8)</td>
</tr>
<tr>
<td>The physical environment, such as the quality of the air and water</td>
<td>63.2</td>
<td>7.8 (2.1)</td>
</tr>
<tr>
<td>A person’s knowledge about health</td>
<td>60.7</td>
<td>7.7 (1.9)</td>
</tr>
<tr>
<td>A person’s genetic makeup that is inherited from their parents</td>
<td>55.9</td>
<td>7.5 (2.0)</td>
</tr>
<tr>
<td>Whether a person has a job</td>
<td>55.0</td>
<td>7.4 (2.3)</td>
</tr>
<tr>
<td>The amount of social support a person has, such as a close circle of friends or family</td>
<td>51.8</td>
<td>7.3 (2.0)</td>
</tr>
<tr>
<td>A person’s level of income</td>
<td>51.8</td>
<td>7.2 (2.3)</td>
</tr>
<tr>
<td>How safe a person’s community is</td>
<td>41.9</td>
<td>6.7 (2.3)</td>
</tr>
<tr>
<td>The quality of a person’s housing</td>
<td>33.2</td>
<td>6.4 (2.2)</td>
</tr>
<tr>
<td>A person’s childhood experiences</td>
<td>34.0</td>
<td>6.3 (2.4)</td>
</tr>
<tr>
<td>A person’s level of education</td>
<td>33.7</td>
<td>6.3 (2.4)</td>
</tr>
<tr>
<td>Whether a person is religious or spiritual</td>
<td>33.9</td>
<td>5.9 (2.8)</td>
</tr>
<tr>
<td>Where a person lives, like in the city or in the country</td>
<td>26.1</td>
<td>5.9 (2.8)</td>
</tr>
<tr>
<td>How supportive a person’s neighborhood is</td>
<td>24.1</td>
<td>5.7 (2.4)</td>
</tr>
</tbody>
</table>

* Zero means the factor has no effect on health and 10 means it has a very strong effect (n=1459).
A social and economic factor—stress—was ranked next highest, with the physical environment rounding out the top 5 factors considered to have the greatest impact on health. A person’s knowledge about health and their genetic makeup were next, followed by many of the other social and economic factors research shows are related to health: employment, social support, income, community safety, housing, childhood experiences, education, and religion/spirituality. The 2 factors respondents thought had the least effect on health were where a person lives (26%) and how supportive a person’s neighborhood is (24%).

What Strategies Would Improve Health?
Respondents were given a list of 10 possible strategies for improving people’s health and asked whether they thought each strategy would: (1) not be effective at improving people’s health, (2) be somewhat effective, or (3) be very effective at improving people’s health. Figure 1 shows that the highest-rated strategy was providing health insurance to more people, followed by improving the physical environment and improving individual health practices. Four social and economic policy strategies (reducing poverty, improving access to early childhood development programs, increasing high school graduation rates, and reducing unemployment) were rated in the middle of the list. Strategies least likely to be viewed as very effective included improving housing quality, reducing violence, and improving social supports and social networks.

Priorities for Government to Address to Improve Health
Respondents who indicated that a particular strategy would be either somewhat or very effective for improving health were then asked how high a priority this strategy should be for the government to address: a low, medium, high, or not something government should address in order to improve health. Figure 2 shows that the list of priorities for government generally is similar to the list of the effectiveness of strategies to improve health, with several notable exceptions. Despite the perceived effectiveness of strategies to improve individual health practices, respondents reported programs to address personal health practices as a lower priority for the government than most other strategies. Similarly, although almost all respondents thought that strategies to improve social supports and social networks would be at least somewhat effec-
Figure 2 shows that very few respondents (15%) thought that such strategies should be a high government priority. Indeed, 21% of respondents thought that improving social networks would either be ineffective or should not be addressed by government.

Figure 3 superimposes the percentage of people who thought that each strategy would be very effective at improving health (from Figure 1), with their responses about whether the government should make such strategies a high priority. This shows even more clearly that for most issues, people who believe a strategy would be very effective at improving health also think the government should make it a high priority. For example, 74% of all respondents thought that providing health insurance to more people would be very effective at improving health, and almost all of these people also thought this should be a high priority of government. However, when it comes to personal health practices and social relationships, people are less likely to think these issues should be a high government priority, even if they think addressing such issues would be very effective at improving health.

**DISCUSSION AND CONCLUSIONS**

This study shows that the general public in Wisconsin views individual health behaviors, access to health care, and health insurance as the most important factors affecting health. They think the government should make health insurance a high priority, which is consistent with other surveys and with current public discourse. Although respondents view individual health practices as important to health, and they report that strategies to improve health practices would be effective at improving health, they are not as likely to believe that government should make this a high priority. This is consistent with research showing that the American public views health behaviors primarily as a matter of personal responsibility. Similarly, although social support is recognized as a somewhat important factor affecting health, strategies to improve social support were considered neither as effective nor as great a priority for government in comparison to other strategies.

Wisconsin residents consider the quality of the physical environment to be 1 of the leading factors affecting health. They consider improving the physical environment 1 of the most effective strategies for im-
Improving social supports/networks
Reducing violence
Improving housing quality
Reducing unemployment
Improving access to early childhood programs
Increasing number who finish high school
Reducing poverty
Improving health practices
Improving physical environment
Providing health insurance to more people

Figure 3. Percentage of respondents viewing strategies as very effective at improving health, and their beliefs about making such strategies a high government priority.

Improving health and also support the government making this a high priority. This is similar to results found in Canadian and Scottish surveys.20-22

Although research consistently demonstrates that a range of social and economic factors beyond access to medical care and health behaviors significantly affect health, our results show that most social and economic factors are not seen by the public that way. Similarly, social and economic policy and program interventions are not seen as the most effective ways to improve health. Therefore, it is also not surprising that respondents believe such strategies should not be a high government priority as a means to improve health.

Although political ideology (ie, people’s beliefs in a stronger or lesser role of government) certainly plays some role in people’s policy opinions, our findings are not solely due to differences in political ideology—many respondents did encourage government intervention in some domains (eg, health insurance and the environment), but not in others (eg, health behaviors and social support). This suggests that if more people believed a range of social and economic factors strongly affect health, there may also be some increased policy support for a governmental role in social and economic policy to improve health.

Interestingly, there are a number of ongoing national and local initiatives meant to raise people’s awareness of the social and economic determinants of health. For example, in Spring 2008, public television aired a documentary series titled “Unnatural Causes: Is Inequality Making Us Sick?” This documentary, along with an organized public impact campaign, aims to improve people’s understanding of racial and socioeconomic disparities in health. Similarly, the Robert Wood Johnson Foundation (RWJF) is launching a RWJF Commission to Build a Healthier America, which aims to address socioeconomic disparities in health through the work of a high profile commission. On a state level, the Wisconsin Partnership Program at the University of Wisconsin School of Medicine and Public Health funded a project to identify the most effective interventions for Wisconsin to become the nation’s healthiest state with less health disparity, and to monitor the state’s progress. As part of this project, the recent Health of Wisconsin Report Card highlights large education disparities in the health of Wisconsin residents as well as disparities by gender, geography, and race/ethnicity.29 The project aims to make recommendations for the types of inter-
ventions that might improve health and health disparities, including identifying promising policies beyond those involving medical care. At the local level, the City of Milwaukee Health Department is launching a Center for Health Equity to address social and economic determinants of health in the city, state, and nation.

These national, state, and local initiatives demonstrate the growing attention to promote knowledge and address the social and economic determinants of health. Our survey results demonstrate that the Wisconsin public does not currently view social and economic factors as strong determinants of health. It will be important to track changes over time in the public's opinions about social and economic determinants of health, particularly in light of these upcoming national, state, and local initiatives. Moreover, it will be important to further study whether any changes in opinions translate into support for different types of governmental and non-governmental initiatives to address various social and economic disparities in health in Wisconsin. Given multiple demands from the public for policy change in a number of domains, along with difficult fiscal realities, it is unlikely that policymakers will prioritize addressing the social and economic determinants of health unless encouraged to do so by the public or by compelling demonstration of cost-effectiveness of specific interventions.

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REFERENCES
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