

**THE ROLE OF BEHAVIOR & ENVIRONMENT IN  
HEALTH, HEALTH CARE AND PREVENTION  
A Statement of the Society of Behavioral Medicine  
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**Behavior and Environment are Fundamental to Health.** The United States spends an estimated \$2 trillion on health care annually. Much of that is spent on treating heart disease, cancer, stroke, chronic obstructive pulmonary diseases, unintentional injuries, pneumonia and influenza, diabetes, suicide, kidney diseases, chronic liver disease and cirrhosis as well as HIV/AIDS. Today, more than 130 million Americans have one or more of these chronic diseases, diseases that account for 75% of our annual healthcare costs. Behavior is central to the development, treatment and management of these diseases. Smoking, diet, physical activity, alcohol intake, and safe sex practices are behaviors that are directly related to the development of many. In addition to these, medication management, stress management, realistic goal setting and coping, and securing cooperation from family and friends are key behaviors in managing chronic diseases once they've developed.

There is now more evidence than ever that behavioral medicine interventions with individuals, families, organizations, and environments can change the behaviors critical for reducing the occurrence of the nation's most prevalent chronic diseases, improving their management, and reducing healthcare costs.

For example:

- Programs promoting modest weight loss and physical activity have been shown to prevent diabetes in those at heightened risk and to substantially outperform medications used for this purpose.<sup>1-3</sup>
- The nation's cancer death rates have been dramatically reduced in response to science-based clinical strategies developed and applied to help people quit smoking or not start at all. A brief smoking cessation counseling effort is the single most effective and cost-effective of all clinical behavior change interventions. The combination of these and other cessation approaches, tobacco tax increases, clean indoor air laws, and counter-marketing campaigns have led to dramatic reductions in adult and youth smoking rates. Without these changes 40 million Americans might still be smoking today, with about 12 million additional premature deaths and billions of dollars in excess cost.<sup>4,5</sup>
- Research in the behavioral and social sciences has extended our understanding of decision-making, drug abuse, and sexual behavior and has resulted in the innovative interventions that – in combination with effective medications – have had a dramatic impact. The number of people infected with HIV each year has dropped from a peak of 150,000 in the early 1980s to approximately 40,000 today, and mother-to-child transmission has fallen 94% from its peak in 1992.<sup>6,7</sup>
- Clinical and policy-based changes in diet, physical activity, tobacco and alcohol use and the environments which affect them have led to significant reductions in heart attacks and strokes.<sup>8-12</sup>

**Who is Responsible for Changing Behaviors & Environments?** The burden of changing behavior and environments is shared by individuals, government, the healthcare system and industry. None of these entities can act singly and change behaviors and environments. Enormous health and economic gains can be made by working across these sectors to close the gap between what we **know** and what we **do** about creating healthy behaviors and the environments needed to support them.

It is a common misconception that advances in our knowledge of the genetic influences on diseases, like lung cancer, might allow us to disregard the importance of behavioral causes of lung cancer, such as cigarette smoking. Examples of diseases resulting from a single defective gene are very rare. Virtually all of the major chronic diseases (heart disease, stroke, most cancers, chronic obstructive pulmonary diseases, and obesity) are a result of the interaction among behavior, environment, and genes. Therefore, genes do not foreordain our fate.

### **How Can Behavioral Medicine Make a Difference?**

People see the need for making behavioral changes in their life when they are in the doctor's office. Behavioral health specialists can teach them the self management skills they need in their daily lives beyond the doctor's office. Behavioral medicine can prevent diseases and it can improve the quality of life for those already suffering from diseases. We can start seeing immediate benefits from what we already know.

- Behavioral medicine can guide policies of governments, the healthcare system, and industry to reduce the disease burden from lifestyle factors.
- With many diseases, quality of life issues are more closely linked to social and behavioral factors than to the conventional medical indicators of seriousness of disease. Behavioral medicine has demonstrated a variety of individual, group, and now web-based and e-Health approaches that help individuals improve their management of diseases.<sup>13-14</sup>
- Stress management programs developed by researchers in behavioral medicine over the past 40 years can make great contributions to preventing cardiovascular diseases,<sup>22</sup> managing diseases like diabetes or HIV/AIDS, and improving quality of life and the nation's economic health.<sup>15-19</sup>
- Programs working through peers and communities can teach skills for effective, person-to-person encouragement of screening for cancer, smoking cessation, healthy diet and physical activity or other healthy individual practices.<sup>18-21</sup>

### **Conclusion:**

Behavioral medicine holds tremendous promise for preventing and treating diseases, and ultimately reducing the ever-increasing financial burden that healthcare places on individuals, governments and industry. Behavioral medicine can also greatly improve the quality of life of our citizens. It is a cost-effective and cost-efficient way of putting in practice what we already know.

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