The Blue Ridge
Academic Health Group

The Role of Academic Health Centers in Addressing the Social Determinants of Health

Report 14 | January 2010

MISSION: The Blue Ridge Academic Health Group seeks to take a societal view of health and health care needs and to identify recommendations for academic health centers (AHCs) to help create greater value for society. The Blue Ridge Group also recommends public policies to enable AHCs to accomplish these ends.

MEMBERS AND PARTICIPANTS

Members

Denis Cortese, MD
Health Care Delivery and Policy Program
Arizona State University

Haile Debas, MD
Executive Director for Global Health Sciences
University of California at San Francisco

Don E. Detmer, MD, MA*
Professor of Medical Education
University of Virginia

Michael V. Drake, MD
Chancellor
University of California at Irvine

Michael A. Geheb, MD
Division President
Oakwood Hospital & Medical Center/Heritage Hospital

Michael M. E. Johns, MD
Chancellor
Emory University

Robert P. Kelch, MD
Executive Vice President for Medical Affairs
University of Michigan Health System

Darrell Kirch, MD
President
Association of American Medical Colleges

Jeffrey P. Koplan, MD, MPH
Vice President for Global Health
Emory University

Steven Lipstein
President and CEO
BJC Health Care

Claire Pomeroy, MD, MBA
Vice Chancellor for Human Health Sciences
Dean, School of Medicine
University of California, Davis

Arthur Rubenstein, MBBCh
Executive Vice President for Health System and Dean
University of Pennsylvania School of Medicine

Fred Sanfilippo, MD, PhD*
Executive Vice President for Health Affairs
Emory University
CEO
Woodruff Health Sciences Center
Chairman
Emory Healthcare

John D. Stobo, MD
Senior Vice President, Health Sciences and Services
University of California System

Irene M. Thompson, MD
President and CEO
University HealthSystem Consortium

Bruce C. Vladeck, PhD
Senior Advisor
Nexera Consulting

Steven A. Wartman, MD, PhD
President
Association of Academic Health Centers

Invited Participants

James W. Curran, MD, MPH
Dean
Rollins School of Public Health
Emory University

Gail R. Wilensky, PhD
Project HOPE

Staff

Amy Fields
Executive Assistant
Woodruff Health Sciences Center
Emory University

Editors

Michelle Boone
Director, Strategic and Policy Communications
Woodruff Health Sciences Center
Emory University

Jeff Molter
Associate Vice President, Health Sciences Communications
Woodruff Health Sciences Center
Emory University

**Co-Chairs*

CONTENTS

Report 14: The Role of Academic Health Centers in Addressing the Social Determinants of Health

Prelude 4

Introduction 5

What Are the Social Determinants of Health? 5

Why Address the Social Determinants of Health? 7

Why Are the Social Determinants of Health Important to Academic Health Centers? 9

How Do the Social Determinants of Health Relate to Prior Positions of the Blue Ridge Academic Health Group? 11

What Are the Opportunities and Challenges for Academic Health Centers in Their Own Communities and Regions? 12

What Should We Be Asking and Advocating? 14

Why? 14

Recommendations 16

References 17

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THE ROLE OF ACADEMIC HEALTH CENTERS IN ADDRESSING THE SOCIAL DETERMINANTS OF HEALTH is fourteenth in a series of reports produced by the Blue Ridge Academic Health Group. The recommendations and opinions expressed in this report represent those of the Blue Ridge Academic Health Group and are not official positions of Emory University. This report is not intended to be relied on as a substitute for specific legal and business advice. Copyright 2010 by Emory University.

Report 14

The Blue Ridge Academic Health Group (Blue Ridge Group) studies and reports on issues of fundamental importance to improving our health care system and enhancing the ability of the academic health center (AHC) to sustain optimal progress in health and health care through sound research – both basic and applied – and health professional education. In 13 previous reports, the Blue Ridge Group has sought to provide guidance to AHCs that can enhance leadership and knowledge management capabilities; aid in the adoption and development of Internet-based capabilities; contribute to the development of a more rational, comprehensive, and affordable health care system; improve management, including financial performance; address the cultural and organizational barriers to professional, staff, and institutional success in a value-driven health system; improve the education of physicians and other health professionals; lead comprehensive health care reform; revive medical professionalism; address the growing problem of conflict of interest, particularly in the relationship between academic health professionals and institutions and their private sector partners and sponsors; address systemic health quality and safety issues; and improve care processes and innovation through the use of informatics. The group also issued a policy proposal in support of the development of a United States health board. (Blue Ridge Academic Health Group 1998; Blue Ridge Academic Health Group 1998; Blue Ridge Academic Health Group 2000; Blue Ridge Academic Health Group 2000; Blue Ridge Academic Health Group 2001; Blue Ridge Academic Health Group 2001; Blue Ridge Academic Health Group 2003; Blue Ridge Academic Health Group 2004; Blue Ridge Academic Health Group 2005; Blue Ridge Academic Health Group 2006; Blue Ridge Academic Health Group 2007; Blue Ridge Academic Health Group 2008; Blue Ridge Academic Health Group 2008)

In this, our fourteenth report, we explore the role of academic health centers in addressing the social determinants of health. For more information, please visit our web site: **www.blueridgegroup.org**.

In Montgomery County, Maryland, an affluent suburb of Washington, D.C., average life expectancy for white citizens is 80 years; African American citizens in the same county live an average of only 63 years – a disparity of almost 22 percent. (CSDH 2008) What accounts for this significant difference in health and longevity among residents of the same county? This inequality results in large part from the substantial, yet still less than fully understood, contribution of social determinants of health, defined by the World Health Organization (WHO) as the conditions in which people live and the systems in place to deal with illness. In fact, a WHO study examined mortality rates in the United States between 1991 and 2000 and determined that if health disparities between whites and African Americans were normalized during that time period, 886,202 unnecessary deaths could have been averted. (CSDH 2008) Disparities research shows that African Americans fare more poorly in dealings with the health system – and in health outcomes – even after one controls for social determinants.

This report is written to shine a bright light on the importance of the social determinants of health and the impact they have upon the health and wellbeing of society, as well as to call for research examining which models of health promotion and health care delivery best improve the health of individuals affected by these social factors. The leadership and cooperation of multiple sectors, including academic health centers and the universities with which they associate, will be required to intelligently address and ameliorate avoidable differences in health across discrete populations within our nation.

While health care reform is certainly an important part of the solution, it alone is not sufficient to eliminate health inequalities. As long as social conditions such as poverty, lack of education, racism, and others are widespread, there will continue to be disparities – under any health care system. Even in an era of genomics and gene therapies, the interplay among genetics, behavior, and environment is complex and important. As geneticist Dr. Francis Collins puts it, "Genes load the gun; environment pulls the trigger."(AP 2006)

As a result of an emerging body of research over the past decade, plus recent policy reports relating to social determinants, the Blue Ridge Academic Health Group has focused its efforts this year on how to help address lessons emerging from this body of knowledge relating to social determinants of health both through the health care delivery system and the educational and research missions of academic health centers.

What Are the Social Determinants of Health?

Within countries – sometimes even within cities – there are dramatic variations in health among certain groups of people that are closely linked to those groups' socioeconomic status.

These conditions are the social determinants of health, and they are defined by WHO as access to health care; poverty; education; and work, leisure, and living conditions. (CSDH 2008)

These factors substantially affect the health of individuals and nations. The World Health Organization has defined measures of a population's health. Among these measures are life expectancy at birth; mortality rates for children younger than five and adults aged 15-59; and other metrics including "health expectancies," i.e., overall expectation of years of good health – not just living. (Lopez, Mathers et al. 2006) The social determinants of health significantly impact all of these measures.

In a study of men in England and Wales, researchers measured life expectancy during two time periods, 20 years apart. Keep in mind that during both of these periods, the United Kingdom has had a system of universal health

insurance and care through its National Health Service. From 1972-1976, men in the highest social class lived on average 72 years; for 1992-1996, life expectancy for this group increased to 78 years. For the same time period, men in the lowest social class lived about 66 and 68 years, respectively. For these two social groups, the gap in life expectancy actually widened over the 20 years between measurements – in spite of advances in medical knowledge and technology. Obviously, other elements within the social determinants of health prevented medical advances from being equally beneficial to both groups. (Curran 2009)

Education is another issue that is more directly relevant to health than many people realize. **In the United States, the school year lasts on average 180 days; in other Organisation for Economic Co-operation and Development (OECD) countries, the average is 195 days. Taken over 12 years, a 15-day-per-year gap results in a deficit of 180 days – leaving U.S. kids a full year of education behind their counterparts from other nations.** (Lexington 2009) **This may seem to be only a social or even a political issue, but it's also a health issue.**

Exactly how education and health status are related is an issue for further research. Perhaps education is the single best surrogate measure of social standing, or it may be more directly involved, as knowledge is directly empowering. For example, employment-based health insurance is associated increasingly with the presence of a college degree. (Gabel 1999)

For example, mortality rates in 2005 were 206.3 per 100,000 adults aged 25-64 with some education beyond high school; for those with only a high school education, mortality more than doubled to 477.6 per 100,000; and for those with less than a high school education, mortality more than tripled to 650.4 per 100,000. The same effect holds true for diabetes mortality – with 21.42 deaths per 100,000 college graduates, and 67.30 per 100,000 high school graduates. No diabetes drug is associated with such a powerful impact on mortality as educational attainment. (Woolf 2009)

Similarly, some 75% of college-educated Americans describe their health as "excellent," compared to less than 40% of high school dropouts. Likewise, 30% of those living below 100% of the poverty level are in poor/fair health, compared to only about 7% of those who live at or above 400% of the poverty level. (Pomeroy 2009)

Race and ethnicity also factor heavily into inequalities in health, as they are often associated with lower socioeconomic status. In fact, racial and ethnic minorities have higher incidence and mortality rates for almost every disease, and these inequalities have changed little in the past 50 years. (Syme 2008) The inequality begins in infancy: black newborns in the United States are twice as likely as white newborns to die before their first birthday, and they have shorter life expectancies than babies born in Bosnia or Croatia. If we could eliminate these race-based health inequalities, five lives would be saved for every one life saved by medical advances. (Woolf 2009)

Likewise, the influence of poverty on a population's health cannot be discounted. Income indicates relative position in society, which in turn affects education, jobs, housing, environment, and other factors that have a bearing on health. Too few Americans realize that the United States has the third highest poverty rate (defined as disposable income less than 50% of the median for the entire population) of all OECD nations, behind only Turkey and Mexico. (Marmot and Bell 2009) The economic downturn of the past year is only exacerbating the situation. Times of economic crisis can lead to physiological distress and may also result in reduced access to health care services.

We are deeply concerned that current reform activities are focused too heavily on insurance reform without setting in play sufficient reforms that encompass factors relating to all of the social determinants of health, as well as the very problematic aspects of our current delivery system.

"Perfecting health care is a half answer if the living conditions that cause disease prevail."
—Steven H. Woolf,
Virginia Commonwealth University

Why Address the Social Determinants of Health?

There are a variety of good reasons why society should address all of the social determinants of health. First, addressing these issues in a forthright manner is a sign of being a civil nation. It also makes sound economic, as well as social, sense.

The social determinants of health, if addressed in the population, will not only improve health, but will also improve the nation's competitiveness in the world market. **The United States spends more on health care than any other country in the world – $6,350 per person in 2005 – yet the nation ranks 36th worldwide in life expectancy for men and 42nd for women**. (Marmot and Bell 2009)

The combination of high health care spending and low return on investment in the United States creates a health care value gap that puts U.S. companies at a significant disadvantage. In spite of the country's approximately $2.5 trillion annual investment in health care, (Marmot and Bell 2009) the gap between health value (cost and performance) in the U.S. and its leading economic competitors (Canada, Japan, United Kingdom, Germany, and France) is 23%, while the gap between the U.S. and its emerging competitors (Brazil, China, and India) is twice as large at 46%. Companies in the nations with which we compete are spending significantly less on health care and yet their employees (and citizens) are healthier than we are. (Milstein and Colla 2009)

If poor socioeconomic conditions in the United States persist through lack of corrective social policies and programs, lost productivity will cause dire economic consequences as the nation's health continues to deteriorate due to these unaddressed social factors.

Working to address the social determinants of health, especially before people get sick and seek care, will not only lead to more positive outcomes, but also should be more cost-effective and beneficial to the economy. For example, the chronic conditions that account for more than 75% of the nation's health care expenditures – including heart disease and cancer – often have their roots in early childhood, so improving the conditions that shape early development can improve health throughout the entire life span. (Wilensky and Satcher 2009) National expenditures that measurably improve health and the results of health care must be viewed as investments for the country's future – not merely one-year expenditures of the federal budget.

Social determinants also play a key role in the effectiveness of health care delivery. Making the right diagnosis and instituting the best treatment is of no value if the patient does not have the education, financial ability, or social support to ensure compliance and adherence to the treatment.

Although social determinants have a profound impact on health, there are many barriers to solving the health inequalities they cause. Some of these barriers present major policy and cultural challenges while others are more amenable to being addressed. A list of barriers – and what would be corrected by addressing them – follows:

- There is inadequate understanding on the part of policymakers, providers, and consumers of how the social determinants of health lead to health inequality. If these groups were more aware of the relationship between social factors and health, they might be more inclined to address them.
- Too many people focus on health insurance coverage as the only solution to health inequalities. While health insurance is an important determinant of health, many other factors affect the health and wellbeing of populations, and people need to understand these broad factors in order to correct them.
- Mistrust of government is widespread. Government – along with the private sector – will be integral to any effort to address the social determinants of health, and public trust will be important to any effort's success.
- Health research focuses largely on basic science and clinical trials, excluding some of the other relevant social determinants of health. By including social factors, especially as key factors affecting risk of illness and effectiveness of treatment, health research would be more comprehensive – and therefore more productive.

- Most social factors that impact health are outside the control of health agencies. Empowering these agencies to play a role in addressing the social determinants of health will enable them to better improve and promote the health of the people they serve.
- The current rate of health financing exacerbates social-related inequalities. (Curran 2009) Reform of the payment system to include health prevention and promotion would help to reduce these health disparities.
- NIH funding is predominantly disease-specific, so little funding is available to study prevention efforts aimed at social determinants such as education and poverty. A more well-rounded and inclusive research program would take social factors and their health repercussions into account.
- Health care professionals' expertise is in disease and its risk factors. They have limited experience in providing homes, jobs, safety, education, etc., so their health promotion efforts are limited at best. (Syme 2008) Including these skills in the training of medical professionals would empower them to address not only the illness, but also its underlying causes as well as effective treatments.

The real solution lies in helping all health care stakeholders understand that investments in social programs are investments in health, and that social change is a powerful tool for improving health. **For policymakers, health professionals, and the public, health care reform is perceived as the solution, but the full spectrum of health encompasses much more than just delivery of traditional health care services. It also involves the social context in which people live that has a major impact on their health.** (Woolf 2009)

Table one shows how countries that invest strategically in the social determinants of health spend less on direct delivery of health care (sick care) services. Both Sweden and the Netherlands spend more on social programs than the United States, while providing more health care services per capita than we do – certainly at the primary care level. They also pay their providers less per unit of service. How macroeconomic data as shown below impact at the microeconomic level in terms of utilization of health care services is still a matter of research interest. Having said this, one program providing housing and case management services for chronically ill homeless people saw a 24% decrease in hospital stays and emergency room visits among the group. (Pomeroy 2009)

Table 1 **Societal Allocation of Dollars**

Nation	Poverty Rate	Rate After Social Programs (% Reduction)	% GDP on Social Programs	% GDP on "Sick" Care	Total % GDP
United States	23	17 (26%)	2.3%	16%	18.3%
Canada	21	11 (46%)	5.8%	10%	15.8%
Netherlands	21	7 (65%)	9.6%	9%	19.6%
Sweden	29	6.5 (77%)	11.6%	9%	20.6%

Why Are the Social Determinants of Health Important to Academic Health Centers?

In 1978, WHO Director General Halfdan Mahler reflected that "health for all" – the explicit and historic mission of the academic health center – requires removing obstacles to health as much as it does solving medical problems. (CSDH 2008) That's why academic health centers must play their own appropriate role in addressing the nation's social determinants of health. By doing so, they will not only fulfill the moral imperative inherent in their mission, but they will also help to ensure a sustainable health care system as well as their relevance to society – an explicit goal of the Blue Ridge Academic Health Group for academic health centers.

Our current health care system is costly and ineffective to an increasing degree each year because it has too limited a focus – sick care delivery – and pays inadequate attention to health promotion. Moreover, the health promotion programs that are in place rarely focus on social determinants of health such as jobs, housing, education, etc. Instead, the focus largely remains on the health problems and concerns of individuals, rather than on the problems endemic to a population. (Syme 2008) That's why the Blue Ridge Group believes that the U.S. health care delivery system, as currently constructed and funded, is the not the optimal foundation – even with more direct financial investment and dramatic changes in incentives and regulations – to improve the health status of Americans and thereby achieve greater societal happiness and progress. Similarly, we are concerned that current health reform activities are focused too narrowly on insurance reform without setting in play genuine reforms that also reflect the factors relating to social determinants of health.

A 2000 study of San Francisco bus drivers provides a case in point. Many of the drivers suffered from common complaints – hypertension, low back pain, respiratory and gastrointestinal problems, and issues relating to alcohol abuse. Researchers treated the individual drivers' clinical problems, but new drivers gradually came to present the same disease profile. Subsequent research showed that the job – namely a bus schedule that could not be met – was a primary determinant of most of the problems. (Syme 2008)

"If medicine is to fulfill her great test, then she must enter the political and social life. Since disease so often results from poverty, physicians are the natural attorneys of the poor, and social problems should largely be solved by them."—Rudolf Vinchow, 19th Century Pathologist

Academic health centers can address the social determinants of health in five major ways. We can assure that: 1) future health professionals are taught to understand the importance of the social determinants of health; 2) through advocacy and public forums, policymakers and the public are fully cognizant of this crucial issue; 3) the social determinants of health become a research priority within academic health centers and their parent universities; 4) patient care is optimized by taking into account how social factors affect health outcomes; and 5) silos are transformed into multi-sector, multi-disciplinary systems wherein teams can help address those regional social problems that impact health.

In the past, academic health centers have thought more in terms of disease prevention than health promotion, and few have engaged in more than a limited way in actively addressing the social determinants of health. There are a few exceptions as perhaps best illustrated by the Social Medicine program at Montefiore developed by Martin Cherkasky and his colleagues. (http://www.springerlink.com/content/m301478668727671/) Truly transforming health and healing in this manner, however, requires a paradigm shift. Academic health centers can take this broader view of health, considering the health repercussions of non-health-related poli-

cies and vice versa. The T3 component of the Clinical Translational Science Awards can offer some new stimulus in this direction.

For those who are still skeptical, America's obesity epidemic is a good example of these issues. In 1980, 5% of American youth were obese; in 2006, the figure had more than tripled to 16%. Health care costs attributable to obesity grew 25% between 1987 and 2001. (Pomeroy 2009) One company, Goliath Casket of Lynn, Indiana, graphically illustrates the problem. When it was founded in the late 1980s, Goliath sold just one "triple-wide" coffin per year. By 2003 that number had increased to four or five triple-wide coffins each month, and sales increased by 20% annually. (John 2003) Similarly, many manufacturers of child safety seats have introduced heftier models to accommodate the rapidly increasing number of children who are too heavy for standard car seats. Based on national growth charts, nearly 300,000 children in the United States aged one to six are too heavy for standard car seats. (AP 2006)

Historically, academic health centers have played a role in understanding the link between obesity and illness, and in educating the public about healthy diet and physical activity choices. But, in the words of Dr. William Dietz, director of the Division of Nutrition, Physical Activity, and Obesity at the CDC, "People must make good choices; but they must have good choices to make." With regard to the obesity epidemic, that can mean venues for safe physical activity, safe and effective public transportation, and easy, reliable access to grocery stores that stock healthy, affordable foods.

A 2007 series of RAND studies examined how neighborhood characteristics affect physical activity and found that parks promote exercise – especially for people who live within one mile of them. This finding is relevant to both public policy and health policy: physical activity would increase and obesity would decrease if communities created and maintained safe public places that encourage exercise. (RAND 2007)

Academic health centers are a part of their community; creative redesign and use of their own campuses can help both directly and by example.

As academic health centers look beyond clinical disease factors and work with other sectors to address the social determinants of health, they will have a more profound impact on complex issues such as obesity that have their roots in both science and society. Collective action historically has had significant impact on health. For example, collaborative action such as voting rights for women, the labor movement, and the Civil Rights movement – even though they weren't directly health-related – ended up having profound positive impacts on the health of the groups involved. (CSDH 2008)

Clearly, our current understanding of how social forces impact health is insufficient, as are ways to efficiently and effectively address them. Concerted, comprehensive, and collaborative action will be necessary if progress is to be achieved. While such progress won't come easily, it can come. The impact of social action on smoking in the United States over the past 20 years is a good example. While -'pockets'- of resistance exist, few would argue that we haven't made major progress and that academic health centers have played their part along the way. The impact of academic health centers will increase as they integrate the impact of the social determinants of health among other critical factors of success to improve the health of society. As more academic health centers take on this challenge, we will learn from the lessons of others and progress will become easier to accelerate.

Reciprocally, if academic health centers fail to better balance their priorities and resources in order to address the social determinants of health, their core missions will be jeopardized. Social factors confound the quality and safety of direct health care services; if future health professionals are not educated about the social factors that affect their patients' health, they are being set up to fail; research that doesn't examine all the factors that impact health – including those that are not basic science or clinical – is incomplete; and service to the community is limited if it does not account for all the elements that shape that community's health.

How Do the Social Determinants Relate to Prior Positions of the Blue Ridge Academic Health Group?

For more than a decade, the Blue Ridge Academic Health Group has worked to address areas of critical importance to the development and sustainability of academic health centers. Its reports have focused attention on changing health needs, emerging challenges, and important opportunities these needs and challenges create for education, research, clinical care, and community service. Three key themes that have emerged through the group's previous reports are directly relevant to the social determinants of health.

Value-driven health care

- Academic health centers are, by definition, committed to the health of individuals and populations. What is meant by value-driven? We believe that societal, professional, and personal aspirations and values all matter. Since resources are by nature limited, universal access should exist to those health care services for which good evidence exists that they have a positive impact on health status. Further, we believe that the IOM Chasm Report's six STEEEP criteria for health care delivery exemplify worthy targets, e.g., care should be **S**afe, **T**imely, **E**quitable, **E**ffective, **E**fficient, and **P**atient-centered. Furthermore, health professionals should know how to work in teams, practice evidence-based care, put the patient at the center of care, continually improve quality, and utilize informatics.
- Academic health centers should exhibit leadership to create greater social value within the geographic regions where they reside and to collaborate with other AHCs to address broader national and global issues of value to health. AHCs need to be aware of the values of those whom they serve and be appropriately responsive to them.
- Because most AHCs also serve as safety net institutions, they seek to provide high-quality care regardless of cost to the uninsured and the underinsured. A greater commitment to addressing social determinants of health will not only accelerate momentum toward improved health for all, but in time it should conserve academic health centers' financial resources.
- Value in the health care industry is generally defined by measurable cost/quality metrics. It is important to develop a similar set of appropriate metrics for measuring and addressing the social determinants of health. Policy work is needed to see if the concept of value-driven social policy can be developed along the lines of the value-driven health care model. This will require delineating the drivers and components of the social determinants of health and moving toward a balanced scorecard to support public policy, including financial investments.

Leadership

- Historically, most academic health centers have focused limited attention on the social determinants of health. Incorporating these important factors into the centers' research, education, clinical care, and community service efforts will require a significant culture change fueled by strong leadership and teamwork.
- Basic science and clinical trials are only part of the research picture. Research that examines the full range of social determinants of health, which cause and exacerbate disease, is also needed.
- The way in which the health workforce of the future is prepared will also need to be revised to include the social determinants of health. Emerging health professionals will need to be taught according to a new world view that recognizes the impact of broad societal forces on the health of the patients they serve. Students will need to be given opportunities to learn how to help address these issues in their regions as well as globally.
- Strong leadership will also be needed in order to innovate new structures that better address the social determinants of health. For example, one potential solution currently on the table is the creation of health care innovation zones, proposed by the Association of American Medical

Colleges, that provide an integrated delivery network across the full spectrum of care, including the social determinants of health. (AAMC 2009)

Professionalism

- One of the four major ethical pillars of the medical profession is justice not only for the individual, but also for society as a whole. It is part of the physician's social and professional contract to work with others within the political process to address the social determinants of health. (Kirch and Vernon 2009)
- Certification by medical specialty boards, while voluntary, is the gold standard in physician training and ability. It represents a physician's professional expertise and commitment to achieving high-quality outcomes in the clinical setting. (ABMS 2009) Action to address the social determinants of health should be included as a key metric when considering physicians for specialty certification and for improving professional performance following initial certification. To this end, specialty societies should develop tutorials for their meetings to illustrate and educate their members on ways this can be addressed in their professional work.

What Are the Opportunities and Challenges for Academic Health Centers in Their Own Communities and Regions?

Academic health centers contribute in various and significant ways to society, but there is still much more they can do to serve their own communities and regions. A 1999 Kellogg Commission report called for the creation of engaged institutions – those that revise their research, education, and service efforts to be more productively involved with the community. The report identified seven characteristics of an engaged institution (Commission 1999):

1. Responsiveness to the communities, states, and regions they serve
2. Respect for their academic and community partners
3. Academic neutrality on public policy issues
4. Accessibility to all constituents
5. Integration across missions and disciplines
6. Coordination among units
7. Resource partnerships across the academic, government, business, and nonprofit sectors

Academic health centers, composed of many units including schools of medicine, nursing, public health, dentistry, pharmacy, public policy, and others, have unique opportunities for synergistic initiatives and programs with external community partners and internally across units and disciplines. They are in a strong position to meet the criteria for engaged institutions and to leverage that engagement in addressing the social determinants of health. Further, they can reach across the greater university or respond when other parts of the university seek to engage them in useful projects or initiatives.

Many academic health centers are active in this domain, but their efforts are not sufficiently coordinated to maximize benefit and offer long-range improvement. Some programs, however, are making impressive headway. For example, the University of Michigan, Dearborn, has partnered with Oakwood Healthcare, Inc.'s Center for Exceptional Families to provide integrated, comprehensive services to children with disabilities throughout Southeast Michigan; to educate teachers who are prepared to help these children excel; to conduct multidisciplinary research in relevant fields; and to provide high-impact programs for children and their families. (UMD 2009)

The Friends of the National Library of Medicine's Office of Health Information Programs Development is harnessing the power of information technology to make health information more accessible to minority, rural, and underserved populations. (FNLM 2009)

Emory University operates the only school-based clinics in the state of Georgia at urban Whitefoord Elementary School and Coan Middle School. The mission of the clinics is to ensure

that every child has what he or she needs to succeed, and Emory provides two doctors, an on-site dentist, two nurse practitioners, and several social workers to support the program. In addition to treating children with acute illness, the clinics also help chronically ill children manage their disease, and they offer health promotion programs such as after-school exercise programs and nutrition classes. (WHSC 2009) Through these and other programs, academic health centers and other groups nationwide are already offering leadership, enhancing commitment, and heightening awareness of the social determinants of health.

Many academic health centers are also beginning to address the social determinants of health through novel educational programs that recruit diverse students to medical professions; increase the awareness and understanding of the social determinants of health to the region and society at large; and feature innovative curricula and learning initiatives.

The University of California's Program In Medical Education (PRIME) offers very specific training in meeting the needs of the state's medically underserved groups. UC Irvine offers programs in serving the Spanish-speaking community; UC Davis in rural health and telemedicine; UC Los Angeles in disadvantaged communities; UC San Diego in health inequities; and UC Berkeley and UC San Francisco in the urban disadvantaged. (UC) And for many years, the Department of Family and Social Medicine at Montefiore has specialized in providing clinical care and training in urban family medicine. (Montefiore 2009) The University of Wisconsin-Madison has had a population health sciences program that is interdisciplinary and includes active education, research, and service components. (UWM 2010)

Others approach the social determinants of health by recruiting racially and ethnically diverse students into medicine and research. For example, the University of Virginia School of Medicine offers summer research internships to diverse undergraduate students who are considering careers in biomedical research. (UVA 2009)

Similar efforts to address the social determinants of health must be made in the academic health center's research mission. Addressing the social determinants must join basic and clinical research as high priorities on academic health center research agendas. Such efforts would help to identify gaps in the knowledge base and fill the gaps that are identified. Focus areas should include how to best mitigate disparities; the evaluation and dissemination of best practices; the development of academic innovation zones; and interventions that address the social determinants of health.

Washington University, St. Louis University, and BJC Healthcare have developed a proposal to provide funding for research partnerships among community organizations and university faculty. Known as the St. Louis Community/University Health Research Partnerships, the program has a focus on reducing health inequalities by addressing through research health care problems that are important to the community. The St. Louis Regional Health Commission will facilitate the project and identify research projects that are of significant importance to the community. Research studies that will be considered must:

- **Focus on research into health problems that community-based organizations and the sponsoring academic institutions deem important to the community;**
- **Propose innovative interventions that will improve the community's health long-term; and**
- **Include a plan for communicating results back to the community.**

This unique collaboration has the potential to bring the social determinants of health to the fore of academic research and to make significant strides toward health equity for the St. Louis community.

Policy research will also be needed to help clarify the relationship between health care expenditures and an educated (or less educated) population. Additional research support for the social determinants of health will be needed from the National Institutes of Health, the Agency for Healthcare Research and Quality, and other agencies. An entirely new agency devoted exclusively to social health research might be considered.

Examples of how government involvement might engage some social determinants of health dimensions, impacting allocation and size of program components, should be examined. For example, one could innovate a program that addresses underlying social determinants to augment the successful Ryan White HIV/AIDS Program. Administered by the Health Resources and Services Administration, the program provides services to more than 500,000 patients each year who lack health care coverage or who have insufficient financial resources to handle their HIV/AIDS disease. (HRSA 2009)

What Should We Be Asking and Advocating?

Of course, the policy implications of the social determinants of health necessitate a set of compelling social dialogues:

1. Social, educational, and income disparities lead directly to health disparities. How do we work together across sectors to decrease both?
2. Without incremental resources or wealth redistribution, how do we address the social determinants of health?
3. What effect will dealing with the social determinants of health have on national health care expenditures in the short and long term?
4. How can we postulate a revenue solution? This is a question for the longer term and for society at large. For instance, one might ask why people shouldn't work longer since they are performing higher value work and have increasingly productive life spans.

An important role of academic health centers is to advocate for education and research support to engage these issues. Some of the areas in which academic health centers can be especially influential include:

Direct health care services and their intersection with research

- Convening multidisciplinary, multi-sector teams and policies
- Identifying and relating to partners

Community/regional service

- Studying, tracking, and reporting on the social determinants of health of those people in the community that the academic health center serves, including engaging directly with local citizens prior to creating unilateral initiatives
- Identifying and advocating policies that decrease social gradients and subsequent health inequalities

Technology

- Leveraging IT/informatics (telemedicine, etc.); the Agency for Health Care Quality and Research recently sponsored a conference to develop a research agenda on reducing disparities in health care quality in under-resourced settings by using health information and communications technologies. (ARHQ 2009) Discussion at the conference noted the challenges that culture, literacy, and limited research have on this crucial national problem.
- Developing clinical data repositories (such as the California Telemedicine Network)

Why?

Health care currently represents 16% of the nation's gross domestic product, and that percentage is rising. Although the United States only represents five percent of the world's population, it spends 50% of the world's health care dollars. And yet the outcomes are generally poor: the country ranks 25th out of 30

industrialized nations in infant mortality; 47 million Americans are uninsured and millions more are underinsured; and health disparities persist. A large part of the problem lies in the social determinants of health. After all, biology and sick care only influence part of an individual's health; lifestyle and environment account for the rest.

"The poor health of the poor, the social gradient in health within countries, and the marked health inequities between countries are caused by the unequal distribution of power, income, goods, and services, globally and nationally, the consequent unfairness in the immediate, visible circumstances of people's lives – their access to health care, schools, and education, their conditions of work and leisure, their homes, communities, towns, or cities – and their chances of leading a flourishing life. This unequal distribution of health-damaging experiences is not in any sense a 'natural' phenomenon but is the result of a toxic combination of poor social policies and programmes, unfair economic arrangements, and bad politics. Together, the structural determinants and conditions of daily life constitute the social determinants of health and are responsible for a major part of health inequities between and within countries."—*Closing the Gap in a Generation: Health Equity through Action on the Social Determinants of Health* World Health Organization Commission on Social Determinants of Health

The intense national dialogue around health care reform has come front and center due to the costs of health care services and their effect on other pressing social demands. That makes the social determinants of health an integral issue in the current health care reform debate.

Exactly how the social determinants of health impact clinical effectiveness, cost, insurance, regulations, and policy is highly important but presently too complex to answer clearly. **Research and demonstration projects are needed to help sort out the complex interplay between social determinants of health and the design of a more cost-effective health care system for the American context.** Academic health centers with policy units can help to clarify these issues over time.

Many other issues also make this the prudent time for academic health centers to address the social determinants of health:

- Scrutiny of the community benefit offered by academic health centers is growing. Helping to address the social determinants of health is one way centers can demonstrate their value and sustainability and stay relevant to the communities they serve.
- Academic health centers nationwide are highly variable regarding their commitment to and support of the communities and regions in which they live. Some are very engaged while others are not. Working to address the social determinants of health could help to accelerate the engagement of the former and establish the engagement of the latter.
- There is a growing need for performance incentives to produce change that enhances health and clarifies the tension among scarce resources for housing, jobs, education, health services, etc., to help decision-makers make better allocations. Risk adjustments that reflect the social determinants of health for insurers and providers are one example.
- The recent National Institutes of Health Roadmap creating Clinical and Translational Science Awards is a stimulus opportunity for academic health centers that could help to fund additional research around the social determinants of health. American Recovery and Reinvestment Act funds may offer additional opportunities.
- The nation is currently making a major social investment in health information technology that should facilitate the development of better data and data repositories for understanding these issues, in addition to the promise of delivering better care.

The time is right for academic health centers to reach out to their academic and community partners and to the government, corporate, and nonprofit sectors to undertake concerted, comprehensive action to address the social determinants of health. Although the task of improving health for all by enhancing the social conditions in which people live is a daunting one, it is by no means insurmountable if undertaken collaboratively and strategically.

Recommendations

1. Each U.S. academic health center should define and commit to a strategy to address the social determinants of health in its own local community and region.
   a. This strategy should include a community service dimension with appropriate partnerships, an internal and external educational agenda, a relevant research agenda to track regional social determinants of health, and a health care service agenda appropriate to that center. Ongoing evaluation should be part of the strategy.
   b. Academic health centers should provide leadership for studying, tracking, and reporting internally and externally on the social determinants of health of those whom they serve locally and regionally.
   c. Academic health centers should develop a strategy involving professions and disciplines across the university that engage the social determinants of health as a high priority academic agenda, including new curricula, faculty development, and research programs.
   d. Institutions considering new schools should consider the opportunity to differentiate themselves by focusing on the social determinants of health.

2. The Association of American Medical Colleges, the Association of Academic Health Centers, and the University HealthSystem Consortium are urged to convene a stakeholders group to:
   a. Develop a national matrix model for community effort and benefit reporting;
   b. Engage relevant government agencies (Centers for Disease Control and Prevention, National Institutes of Health, Health Resources and Services Administration, Centers for Medicare and Medicaid Services, etc.) and nongovernmental organizations; and
   c. Link into clinical effectiveness and social determinants of health research.

3. Professional certification and accreditation organizations are called upon to address competency in the social determinants of health for medical professional certification and training programs. Specialty societies should consider how ongoing performance improvement should engage this issue in their professional educational programs.

4. The Institute of Medicine is urged to:
   a. Identify best practices that focus on the social determinants of health;
   b. Develop a work plan to implement those best practices;
   c. Develop a strategy to begin to address the social determinants of health through prenatal care, childhood education, and early childhood development as a first step toward a comprehensive program; and
   d. Consider research issues and an evaluation strategy to assess impact.

5. The Centers for Disease Control and Prevention, the National Institutes of Health, the Agency for Healthcare Research and Quality, and appropriate nongovernmental organizations are urged to develop a national research agenda with committed funding for social determinants of health.

6. Congress is encouraged to enact legislation to support innovative programs and demonstration projects that address the social determi-

nants of health. Such programs and/or initiatives might include:

a. A "Health Innovation Zone" program as espoused by the Association of American Medical Colleges, involving local collaboratives that organize and deliver care for all people in the region;
b. A formal advisory group that will link to a national oversight entity;
c. Metrics to deal with knowledge development, care delivery, and payment, as well as clinical effectiveness and clinical documentation and financial transaction standards;
d. Involvement of all relevant stakeholders including consumers, providers, employers, insurers, and others to review and/or develop current social determinants of health measures and to develop and test new metrics; and
e. Development of risk and payment rate adjusters that reflect the social determinants of health for claims data (e.g., current procedural terminology and diagnosis-related group billing codes), that account for populations being treated, and that are reported relative to the total population in the region (geo-coding).

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