

minnesota MEDICINE



HEALTHIEST STATE?

Minnesota's high scores on health rankings don't tell the full story.

ALSO INSIDE:

Who Still Smokes?

Fruit and Vegetable Consumption
in Farm Country

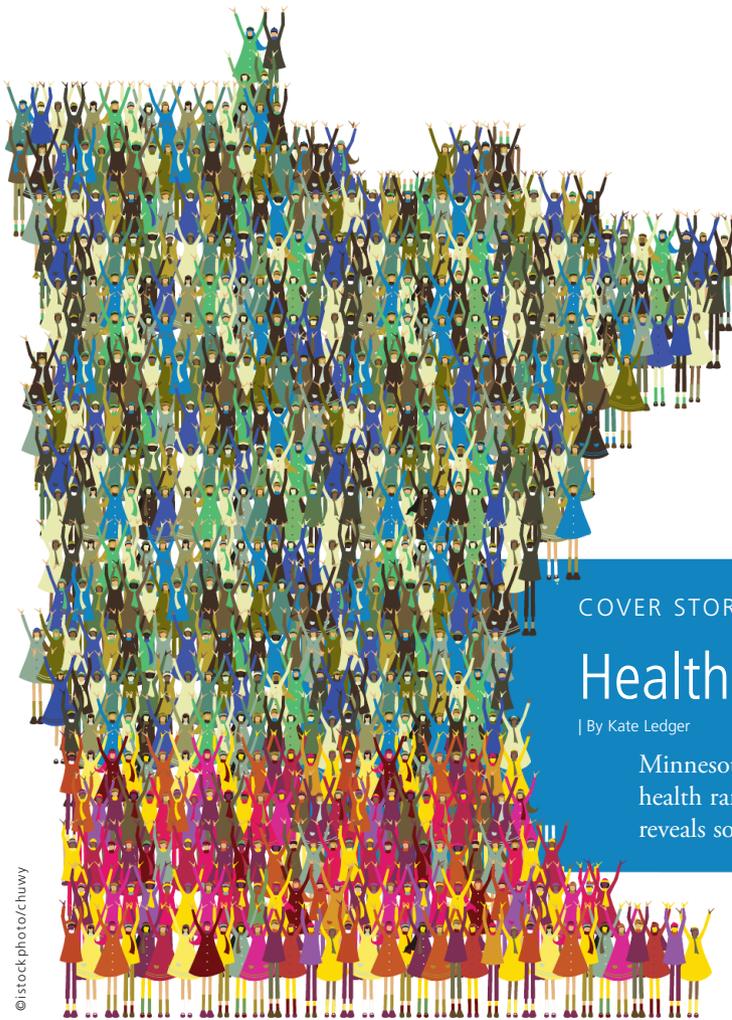
Hepatitis B:
A Neglected Disease



MINNESOTA
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MAY 2012

CONTENTS



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8



11

COVER STORY *p.* 18 Healthiest State?

| By Kate Ledger

Minnesota has scored highly on health rankings, but a closer look reveals some alarming trends.

PULSE

- 6 Food for Thought** | By J. Trout Lowen
Despite living in farm country, residents of rural areas are less likely than people in urban areas to eat enough fruits and vegetables.
- 8 Who Still Smokes (And What Can Be Done About It)?** | By Howard Bell
Why smoking rates are higher and quit rates lower among minorities than among whites in Minnesota.
- 11 The Matter of Diversity** | By Jeanne Mettner
Doctors and patients are happier when they speak the same language and share a cultural background; but the jury is out on whether it makes patients healthier.
- 14 Measuring the Gap** | By Carmen Peota
A VA study finds racial disparities remain while quality improves.

FEATURE

- 15 Making Connections**
| Interview with Ralonda Mason, J.D., by Carmen Peota
How a health insurance exchange might bring us closer to covering all.



6

CLINICAL & HEALTH AFFAIRS

- 37 Exploring Hepatitis B: A Neglected Disease**
| By Nicole M. Loo, M.D., and Douglas J. Pryce, M.D.
- 41 The Minnesota Heart Disease and Stroke Prevention Plan 2011-2020**
| By Stanton Shanedling, Ph.D., M.P.H., Mary Jo Mehlich, R.N., M.P.H., and James Peacock, Ph.D., M.P.H.
- 44 A Call to Action: Bold Ideas from the Minnesota Women's Heart Summit**
| By Nora Ali, Ruth Lindquist, Ph.D., R.N., Jackie L. Boucher, M.S., R.D., Dawn Witt, M.P.H., Teresa Ambroz, M.P.H., R.D., Suma H. Konety, M.D., M.S., Russell Luepker, M.D., M.S., Denise Windenburg, B.A., CCRC, and Sharonne N. Hayes M.D.
- 49 Pregnancy and Birth in Minnesota's Hmong Population: Changing Practices**
| By Trisha Halvorsen

THE PHYSICIAN ADVOCATE

News about Policy, People, and Politics

27 Health Care Reform and the U.S. Supreme Court
Two MMA members provide insight on the recent debate

28 Conflict Continues over Medical Staff Bylaws in Avera Lawsuit

29 Cost and Quality Reporting Law Modified

30 Meet a Member: Paul Huddleston, M.D.

32 Viewpoint: Off Balance

PERSPECTIVE

23 Beyond Words

| By Tara Johnson, M.D.

When working with immigrant patients, the messenger can be as important as the message.

25 Remembering the Neediest

| By Zubin Agarwal, M.P.H.

Malawi illustrates the extent to which poverty is intertwined with health.

COMMENTARY

35 Marriage and Health Disparities

| By Peter C. Amadio, M.D.

The MMA Board of Trustees has adopted policy on marriage. Now what?

ALSO INSIDE

- 4 Editor's Note
- 5 Letters
- 54 Index of Advertisers
- 54 Employment Opportunities
- 60 End Notes

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Medicine
is a study
of diversity.

Medicine and the Melting Pot

One of the little games I used to play during the course of the workday was to count how many Andersons I had on my schedule. I think my record was six. For variety, I sometimes expanded the field to include all patients with a last name ending in “-son” or “-sen.” That tally could include more than half of the individuals I saw in a given day. As a native Chicagoan, I wondered where all the Raspetellos, Coluccis, and Kowalskis were hiding when I first moved here. It seemed as if, at least in my practice, Minnesota was one big Scandinavian neighborhood.

In the past 15 years, that has changed. No longer is Minnesota snow white. No longer do we all speak a patois peppered with “ya sures” and “you betchas.” And no longer can we assume that everybody’s holiday celebrations include aquavit and lefse.

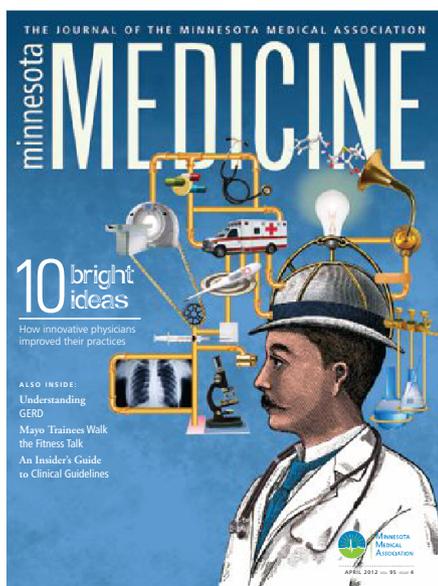
Today, the patients who walk through our clinic doors are more likely to speak Somali or Spanish than Swedish. Our waiting rooms are a veritable polyglot of Hmong, Latino, Russian, or Somali. Using interpreters has become an almost daily communication challenge for many Minnesota docs. Integrating what sometimes seem to us to be exotic beliefs about health has become quite routine, and at times it can test our tact, patience, and ingenuity. Although medical providers from different parts of the world are trickling into the system to lend their cultural understanding and linguistic skills, practitioners of all backgrounds need to become more adept at dealing with the challenges that come with having a more diverse patient population.

Physicians have always tried to treat all comers fairly and equally; but again and again, studies reveal disparities between populations with regard to medical care delivered and outcomes produced. Most of the studies have a hard time explaining why those disparities exist. The suggestion that doctors treat people differently based on ethnicity, sex, or race makes us uncomfortable and doesn’t jibe with what we all like to think we do. Most studies suggest that delivery system biases are not the most important cause of the disparities but rather the potent forces of environment, income, and life circumstances. The studies confirm that it is a lot harder to live a long, healthy life growing up in north Minneapolis or even rural Minnesota than it is in Edina or Rochester.

This reality makes our job harder. To effectively treat a community of people takes more than doling out the appropriate medication to individuals for a given disease; it takes treating the social ills of that community. Improving education and erasing poverty are big-time therapy for big-time diseases.

Most doctors know that not all Andersons are the same. From their first-year lessons about anatomical variation to their clinical realization that different drugs affect patients differently, physicians have learned that medicine is a study of diversity. We need to adjust to the expanding breadth of that diversity and look past the patient’s name to examine the patient’s circumstances.

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Editor's Note Sparks Memory

I read the Editor's Note in the March issue of *Minnesota Medicine* ("Labor Reforms," p. 4) that mentioned Dr. Charles Meyer's daughter-in-law who had Hodgkin disease and subsequent stem cell transplants. Her successful pregnancy reminded me of a similar patient.

During the 1970s, I cared for a patient with aplastic anemia. The main effects were anemia and problems with platelet function. I was able to teach her husband how to transfuse platelets at home. He picked up the packets from a local bus service in a rural community. She required multiple transfusions for her anemia and deferoxamine infusions for iron overload. She also required continuous birth control for many years to keep her from hemorrhaging during her periods.

Fast forward. Because of ATG and ALG, which were developed at the University of Minnesota to prevent transplant rejection, she recovered. At the time, stem cell research was only beginning. More than 20 years ago, she was able to become pregnant and delivered a healthy infant. I am privileged to continue to be her physician.

Michael R. Busian, M.D.
Morris, Minnesota

WHAT'S ON YOUR MIND?

Health care reform? An article you've read in a recent issue? A problem in your practice?

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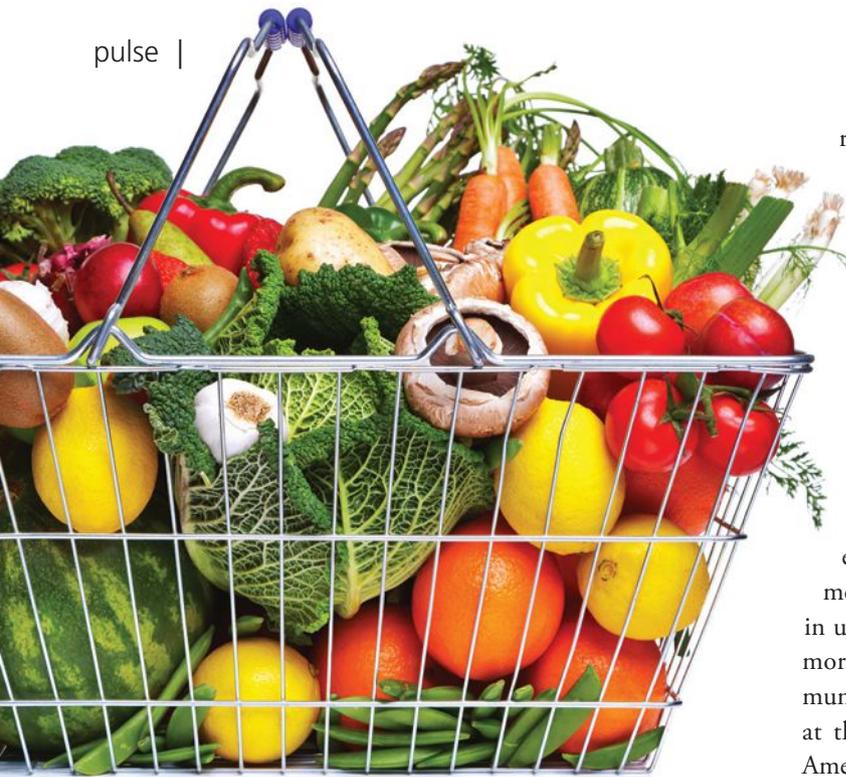


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■ Fruit and Vegetable Consumption

Food for Thought

Despite living in farm country, residents of rural areas are less likely than people in urban areas to eat enough fruits and vegetables. | BY J. TROUT LOWEN

When it comes to eating habits, location matters. Rural Americans are less likely than their suburban and urban counterparts to eat the recommended number of daily servings of fruits and vegetables, despite their seeming proximity to the farms and orchards where these foods are grown. That's the main finding of a recent analysis done by researchers at the Essentia Rural Health Institute in Duluth.

The finding has ramifications for public health, says M. Nawal Lutfiyya, Ph.D., a senior research scientist and epidemiologist at Essentia and lead author on the study, which was recently published in *BMC Public Health*. Consuming fruits and vegetables is

thought to help reduce people's risk for many chronic illnesses including diabetes, stroke, heart disease, obesity, and cancer. Chronic disease accounts for about 75 percent of health care costs in the United States. "Our hope is that identifying groups that are at risk can lead to better-targeted public health interventions," she says.

Lutfiyya became interested in comparing the consumption rates in rural and nonrural areas in 2009 after reading about a study by the Centers for Disease Control and Prevention (CDC) on Americans' fruit and vegetable consumption in the *New York Times*. Although that study did not address differences between rural and urban dwellers, it revealed differences in consumption by

race and ethnicity, socioeconomic status, and sex.

Other research had shown that rates of obesity and overweight are higher among both adults and children in rural areas than nonrural areas. People in rural areas also tend to eat foods that are higher in fat and calories, exercise less, and watch more television than people in urban areas, and poverty is more prevalent in rural communities. Looking specifically at the eating habits of rural Americans seemed important.

Fruit and vegetable consumption is "one of a larger constellation of issues of concern," Lutfiyya says, "but it also gives us direction to think about how to work with rural communities and try to wrap our arms around the 'why' and work on interventions to address the disparity in order to eliminate it."

A Look at the Data

For her analysis, Lutfiyya examined data from the 2009 Behavioral Risk Factor Surveillance Survey, a telephone survey conducted annually in all 50 states and U.S. territories for the CDC.

The survey found that just 26 percent of Americans met or exceeded the CDC's recommendation of consuming three servings or cups of vegetables and two servings or cups of fruit per day. Lutfiyya's analysis of the data showed that fewer than one in four people in rural areas were eating enough of these foods. In Minnesota, just 19.5 percent of rural adults met the recommended daily requirement

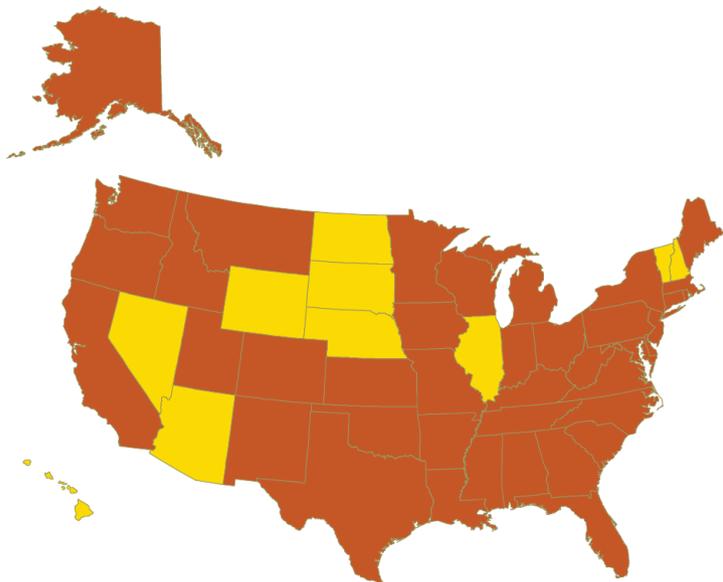
compared with 22.7 percent of adults living in more urban areas.

In all but a handful of states, fewer rural than nonrural residents ate the recommended number of servings of fruits and vegetables. Three Midwestern states, Nebraska, North Dakota, and South Dakota, were among those where there was no disparity between urban and rural residents with regard to fruit and vegetable consumption. Hawaii was the only state where rural residents consumed more produce than nonrural residents.

Lutfiyya's analysis also found that the rural residents who do eat more fruits and vegetables tend to be women and tend to be more physically active and less likely to be obese than others. And rural families without children eat more fruits and vegetables than families with children. That's a concern, she says, because it indicates that parents aren't modeling healthy behaviors.

"When you consider the childhood obesity epidemic that we have in this country and that rural kids are more likely to be chubby than nonrural kids, this is certainly something that [primary care clinics] could partner with schools on and bring families—parents and kids—together around healthy cooking and healthy eating," she says.

Education and economic status also make a difference. Families with incomes of \$35,000 or more a year consume more produce than those who bring in less than that amount. One surprising exception, Lutfiyya noted, was that adults in rural areas



Only in the states highlighted in yellow do rural residents eat as many fruits and vegetables as their urban counterparts, according to an analysis of CDC data by Duluth researcher M. Nawal Lutfiyya, Ph.D.

who do consume at least five daily servings of fruits and vegetables tend to be older and are unlikely to be educated beyond high school.

Proactive on Produce

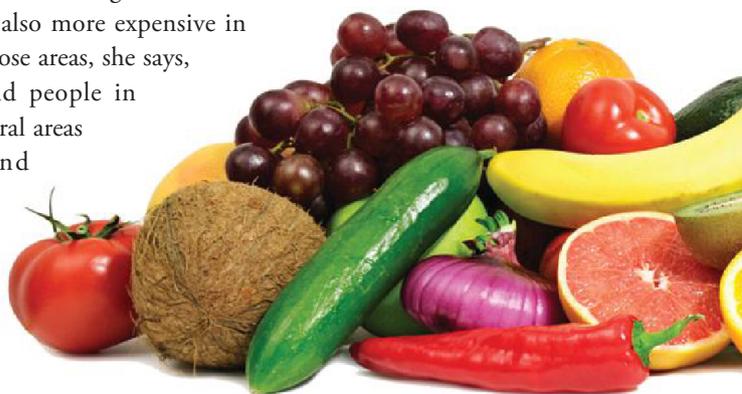
Limited access is believed to be the biggest reason rural residents don't consume more fruits and vegetables, says Lisa Gemlo, M.P.H., R.D., L.D.,

who works for the Minnesota Department of Health's Office of Statewide Health Improvement Initiatives. Although we think of Minnesota as farm country, much of the state's cropland is devoted to industrial production of corn and soybeans, she notes.

And most rural residents live far from a major supermarket, relying instead on small grocery or convenience stores that generally stock few, if any, fruits and vegetables. Produce is also more expensive in those areas, she says, and people in rural areas tend

to have lower incomes than those living in suburban and urban areas.

As part of the CDC's Healthy People 2020 initiative, Minnesota and other states are working to increase access to fruits and vegetables in rural areas by encouraging establishment of farm markets in those communities and ensuring those markets accept all forms of payment, including EBT (Electronic Benefits Transfer)



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cards and produce coupons issued by the government. Minnesota health officials also are working with local markets, convenience stores, and food banks to improve the amount and selection of produce available.

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What Doctors Can Do

Physicians can play a role in getting people to eat more produce, Gemlo says, by educating their patients about healthful eating. Physicians in some states are writing prescriptions for fruits and vegetables. And physicians at three health centers in Mas-

Physicians in some states are writing prescriptions for fruits and vegetables.

ing has helped some rural communities make changes. In the town of Grand Portage, for example, public health officials have been working with the owner of the town's only convenience store to increase the amount of fruits and vegetables for sale. Initially, the store owner was skeptical the produce would sell, Gemlo says. It did.

Following up on a national trend, school officials in Bemidji have installed salad or "choice" bars in some schools that allow students to select fruits and vegetables at lunch. Research shows that such efforts in schools can make a difference in the way students eat. In fact, some studies have shown having a garden at school can increase students' consumption of fruits and vegetables by two servings per day, Gemlo says.

sachusetts have started giving patients produce coupons to use at local farmers' markets.

Dietitians and other clinic staff can teach patients about foods they may not have tried and methods for preparation and storage, Gemlo says. The Minnesota Department of Health is involved in efforts to develop five new Regional Food Networks around the state to address accessibility and cost. The intent, Gemlo says, is to "make the healthy choice the easier choice."

Gemlo wants physicians to get involved in that effort. "Sponsor a farmers market at the clinic," she says. "Work with your health plans to try innovative ways such as produce coupons to decrease the cost barriers many patients face." ■



Minnesota's smoking rate of 16 percent doesn't tell the full story.

■ Smoking

Who Still Smokes (And What Can Be Done About It)?

Why smoking rates are higher and quit rates lower among minorities than among whites in Minnesota.

| BY HOWARD BELL

When U.S. Surgeon General Luther Terry released his historic report on smoking and health in 1964, 42 percent of adults in the United States smoked. Today, 19 percent do, according to the Centers for Disease Control and Prevention. In Minnesota, 16 percent of adults smoke.

Although the anti-smoking efforts launched since that report was issued clearly have been successful for the general population, they have not worked as well for certain groups of people. Smoking rates for American Indians, African Americans, Latinos, southeast Asian men, and the poor in the state are either higher or their quit rates are lower than for the population overall.

Why the disparities? For one thing, the poor and people who are members of racial and ethnic minority groups are less likely to use tobacco-cessation programs, which combine nicotine replacement therapy (NRT) such as gum, lozenges, and patches with behavioral counseling, because of cultural and economic barriers, says Steven Fu, M.D., who researches racial and ethnic disparities in smoking at the University of Minnesota and the Minneapolis VA's Center for Chronic Disease Outcomes Research.

Another reason may be to cope with the stresses associated with perceived discrimination. According to a new study from Washington University, people who report being unfairly treated are more likely to smoke in part to cope with stress. Clearly, there are multiple reasons for the higher smoking rates in certain socioeconomic and ethnic groups. Among Native Americans, the story is especially complex.

Native Americans

According to Fu, American Indians have the highest smoking rates in the country, with 30 percent to 50 percent smoking. Native women, including those who are pregnant, smoke nearly as much as Native men.

One reason smoking remains so common among Native Americans is the climate toward smoking on reservations. Reservations do not have tobacco-control policies, cigarette taxes, clean air laws, or laws prohibiting the sale of tobacco to minors. Thus, Native Americans who smoke report little pressure to quit—

even though 70 percent say they personally want to and most say they have tried, according to Fu.

There's also less awareness about the hazards of smoking indoors. As a result, it remains common, according to Fu's research. "We need cessation programs and public health campaigns that promote smoke-free houses," he says. "Studies show that NRT is more effective when used in households with smoking bans. People are more likely to quit and stay quit longer."

Currently, an evidence-based tobacco-cessation program designed for Native Americans is being piloted on the Fond du Lac Chippewa Reservation near Cloquet and at the Mashkiki Waakaagan Pharmacy in Minneapolis. It's showing promise.

The Fond du Lac smoking-cessation program is an adaptation of the American Lung Association's Freedom from Smoking curriculum. Counselors knowledgeable about and sensitive to Fond du Lac tribal history and customs provide four hour-long group or individual sessions over four weeks at a public health office, an individual's home, a workplace—wherever the client feels most comfortable. The sessions focus on the cultural and historic characteristics of the tribe and clearly acknowledge the importance of tobacco in ceremonies while discouraging its recreational use. Those who complete at least one counseling session are eligible for free NRT lozenges, gum, or patches as well as prescription drugs to help them quit.

Shortly after completing

the program, nearly one-third of participants reported not smoking in the last seven days—much better results than with other programs, Fu says. After three months, nearly half of participants reported not smoking in the last seven days. Those who still smoked had cut back from an average of 19 cigarettes per day to nine after three months.

Fu says the Fond du Lac program, which is funded through 2013, could prove effective in other Native American communities or even with other racial or ethnic groups if properly adapted. However, there currently are no plans to expand or adapt the program.

Latinos

Only 13 percent of Minnesota Latinos smoke, accord-

ing to the 2008 Diverse Racial Ethnic Groups and Nations (DREGAN) study done by the University of Minnesota, Blue Cross and Blue Shield of Minnesota, and ClearWay Minnesota. Although they smoke less than whites, some studies suggest Latinos' quit rates are lower. According to Michele Allen, M.D., an assistant professor of family medicine and community health at the University of Minnesota who has investigated health disparities in Latinos, one reason for the lower quit rates is difficulty accessing treatment. "Language is a barrier to getting services," she says. "Latinos are more likely to be uninsured and therefore have less access to services [including tobacco cessation], and we don't have enough culturally tailored ces-

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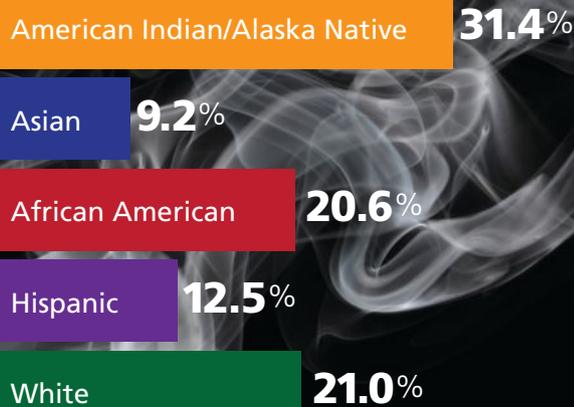


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Current smoking among adults by ethnicity—United States



Source: BRFSS, 2007-2008

sation programs provided by trained individuals with ties to the Latino community.”

In fact, there are no quit programs in Minnesota specifically for Latinos, according to Shannon Pergament, M.P.H., M.S.W., who coordinated a smoking research project for the University of Minnesota, Hispanic Advocacy and Community Empowerment through Research, and Centro Campesino, a Latino social service agency in Owatonna. For now, they refer clients to ClearWay, which offers its QUITPLAN program in Spanish. ClearWay provides smoking-cessation services to all Minnesotans using money from the state’s \$6 billion settlement with tobacco companies.

QUITPLAN’s Spanish program breaks down the language barrier but doesn’t address the specific reasons why Latinos smoke or have lower quit rates. For example, one of the reasons rural Latinas in Minnesota smoke is to assert independence from their

“If more people knew that using NRT will double their chances of quitting, they might be more motivated to use it.”

—Stephen Fu, M.D.

male partners, according to Pergament. “A quit program for women should address this issue and offer healthier ways to assert independence. We also learned that women are the gatekeepers for deciding whether smoking is allowed in the house,” she says.

Because Latinos are very family-oriented, Allen says, it’s important to emphasize that second-hand smoke hurts children and to get family and friends to support a smoker’s attempt to quit.

Southeast Asians

Southeast Asian men in Minnesota smoke far more than southeast Asian women. Forty-one percent of Vietnamese men smoke. Among Hmong

men, the rate is 31 percent and among Lao men, it’s 32 percent, according to the DREGAN report. For women in these groups, the smoking rate is in the single percent range. One reason for this difference is that in Laos and Vietnam, there is a strong association between smoking and manhood. Many Vietnamese men report that smoking provides them pleasure and reduces stress. Hmong men do not have a strong tradition of smoking, so the stresses associated with acculturation are believed to explain their high rates. Minnesota has no smok-

to quit,” Fu says. “We don’t know what that is.” Finally, blacks may metabolize nicotine differently than whites, making it harder to quit; the research isn’t clear on that, however.

Whatever the reasons, the medical community needs to be better at making quit services available to blacks, Fu says. “If more people knew that using NRT will double their chances of quitting, “they might be more motivated to use it.”

The Poor

Across all races and ethnicities, Minnesotans living at or below poverty are far more likely to smoke than those who have higher incomes. Among Minnesotans living in households with annual incomes of less than \$35,000, 45 percent smoke, according to the Minnesota Department of Health. Fu says Minnesota’s poor are also more likely to be uninsured and not have a personal physician, less aware of or able to afford help with smoking cessation, and more likely to have stress in their lives or psychiatric conditions that make quitting harder.

Minnesota offers a number of free cessation options to the poor. ClearWay offers its QUITPLAN programs free to people who are un- and underinsured. It also provides them with two weeks of free NRT. Medicaid also pays for NRT, as well as for bupropion and varenicline, two prescription drugs designed to help people quit. But patients often are not aware of these offerings. “We need to tailor programs to specific groups, then improve access, improve awareness, and improve use,” Fu says. ■

ing-cessation programs specifically for southeast Asians.

African Americans

Twenty-one percent of African Americans in Minnesota smoke—a percentage that’s not much higher than that of whites. But, according to Fu, blacks from all socioeconomic levels are less successful at quitting than whites for a number of reasons. First, blacks are more likely to try quitting on their own without help from a program or NRT. (Most people won’t succeed on their own, no matter what their race or ethnicity, he says.) Second, 80 percent of black smokers smoke menthol cigarettes. “There’s something about menthol that makes it harder



Photo by Libby Frost, University of Minnesota

The current participants in the Preparation for Residency Program (from left to right) Khem Adhikari, Mahamud Jimale, Adalberto Torres-Gorin, and Said al Tawil with program director Will Nicholson (center). All are on track to “graduate” in June.

■ Physician Workforce

The Matter of Diversity

Doctors and patients are happier when they speak the same language and share a cultural background; but the jury is out on whether it makes patients healthier. | BY JEANNE METTNER

For nearly 15 years, Khem Adhikari, M.D., lived in a refugee camp in Nepal along with about 100,000 others who fled Bhutan because of ethnic and political conflicts. As one of only three or four physicians in the camp, Adhikari provided much-needed medical care to other Bhutanese refugees until 2009, when he decided to join his family in the United States. It was a difficult decision for the now-43-year-old Adhikari, not only because he was leaving patients he had treated for years but because he knew that to become licensed as a medical doctor here, he would have to repeat residency.

Knowing it would be a tough, expensive, and lengthy process, he decided to focus on

continuing to help the Bhutanese refugee community. “It was frustrating in the beginning when I first got here,” Adhikari says. “I just kept working with them—teaching them about preventive health, how to navigate the health care system, where to go for an annual checkup.”

Two years after arriving in Minnesota, Adhikari is now closer to realizing his goal of practicing medicine in the United States, thanks in large part to the Preparation for Residency Program (PRP), a joint effort of the University of Minnesota department of family medicine and community health and HealthEast Care System. During the seven-month-long program, refugee physicians get

clinical experience in several hospital and clinic settings, which gives them a better chance at getting into a residency program. Seven physicians have participated in the program, which is in its second year. All three of last year’s participants are now in family medicine residency programs.

Doctors and Patients Win

With more than 200 foreign-born physicians looking to be relicensed in Minnesota, there is obviously a need for the PRP program. But some say it and other programs that aim to bring people from underrepresented communities into medicine do much more than help a few aspiring doctors; they help ensure that mi-

nority communities get high-quality care.

Jo Peterson, Ph.D., director of Minnesota’s Future Doctors program, which provides pre-medical training through the University of Minnesota for college students from underrepresented populations, is one who believes strongly that patients from minority groups are better served if their care team includes individuals who share their cultural background and speak their language. The program was created in 2007 by two medical students as a way to increase diversity within the medical community.

Of the 150 students who have graduated from the program since it began, 33 percent have been admitted to medical schools across the country, 21 percent are working in research or a health-related field and plan to attend medical school within five years, and 24 percent are in graduate school or professional programs pursuing other health care careers. Peterson says of the 53 students who have gone on to medical school, more than half are enrolled at one of the two University of Minnesota campuses. “Building a health care workforce that is reflective of the cultural and socioeconomic diversity of all Americans is essential,” she says. She points to the landmark Sullivan Commission re-

port published in 2004, which states that patients who have a primary health care provider who shares their language, cultural traditions, and religious beliefs have better outcomes on a wide range of measures.

Subsequent investigations have reached similar conclusions. For example, a study published in the *Journal of the American Board of Family Medicine* in 2010 found that foreign-born Latinos living in the United States who received care from a provider who spoke their language experienced less confusion and frustration than those who saw a provider who did not speak their language. Those who saw a Spanish-speaking provider also rated the quality of their care higher. And a study published in the February 2011 *Journal of General Internal Medicine* found that while limited English proficiency was associated with poor glucose control among insured U.S. Latinos who have diabetes, this association was not apparent when those patients received care from language-concordant physicians.

Some say the research on whether concordance in language, gender, race, or ethnicity between patient and provider leads to better health outcomes is less clear. “There is no doubt that race and language concordance improves patient satisfaction, which can often decrease the cost of care; but we don’t know across the board that race and language concordance improve patient outcomes,” says Pat Walker, M.D., associate medical director of the department of internal medicine’s international track at the University of Minnesota. “Whether it does

“Sometimes people are embarrassed to talk through an interpreter. When you take the interpreter out of the loop, they are able to talk about sensitive topics, and from that, they can get better health care.”

—Amina Warfa, M.D.

or not really varies by gender, race, language, and even the medical topic being discussed; it’s a very complex issue.” One study published in *Medical Care* in 2011, for example, found that Spanish-speaking patients who received care from “language-concordant” primary care providers were no more likely to get recommended screenings for various diseases than those who saw other providers. In another study, published in the *Journal of the American Geriatric Society* in December 2011, patients who considered themselves Asian Pacific Islanders and were “Asian language-concordant” with their health care providers were less likely to discuss their mental health concerns with their physicians than patients who spoke English and were seen by English-speaking physicians.

More Perspectives

Despite the conflicting evidence, Walker sees value in having a diverse physician workforce. “The more diverse your health care workforce is, the more perspectives are brought to the table, the better the patient satisfaction and the more cost-effective the care,” she says. “Studies also show that when a doctor is taking care of a patient who

shares the same language, they are happier taking care of that patient.”

From an anecdotal perspective, the effect that cultural concordance has on care can be striking. Amina Warfa, M.D., an obstetrician-gynecologist who trained at the University of Minnesota after coming to the United States from Somalia, finds her ability to speak Somali gives her instant rapport with Somali patients, which has an effect on their satisfaction and outcomes. Warfa, who practices at the HealthPartners Riverside Clinic, estimates that half of her patients are of East African heritage. “Sometimes people are embarrassed to talk through an interpreter,” she says. “When you take the interpreter out of the loop, they are able to talk about sensitive topics, and from that, they can get better health care.”

Discussion about whether patients are more satisfied and have better outcomes overshadows the fact that physicians who are immigrants themselves have unique and needed abilities, according to Will Nicholson, M.D., a hospitalist at St. John’s Hospital in Maplewood who directs the PRP. Says Nicholson: “Our physicians represent some of the newest Minnesotans—So-

mali, Latino, Bhutanese, for example—and they have special insight and connections to those often-underserved communities, which is valuable. In addition, the skills they develop when learning to adapt to American culture also make them really adept at tuning into the unique needs of patients from any culture. And in family medicine today, that is a critical skill.”

Future Unclear

The future of the PRP is tenuous. In 2011, the Legislature dropped funding for the program from its graduate medical education budget. University President Eric Kaler came up with the \$150,000 needed to keep the program running this year; but its survival remains uncertain. Explains Nicholson: “The bigger challenge that the PRP faces is the inadequate and dwindling support for medical education as a whole and specifically for primary care residency training.” He says PRP participants receive most of their training at the university’s family medicine residency sites. Their inpatient training is based out of HealthEast’s St. John’s and St. Joseph’s hospitals, and their primary clinic site is Smiley’s Clinic in Minneapolis. In addition they receive training in

Mankato and at North Memorial Medical Center, Methodist Hospital, and Children's Hospitals and Clinics of Minnesota. Financial support for residency programs at those and other sites has decreased as a result of state funding cuts. Nicholson says he is happy the university sees the importance of international refugee physician training. "We are very honored that they have taken up the funding to keep this program going," he says.

Adhikari, too, is grateful that the university continues to value the program. With his PRP training nearly complete, he could begin applying to residencies as early as September. Adhikari, who plans to continue to help refugees in Minnesota's Bhutanese community, thinks the PRP is not only benefiting him but also those he's trying to help. "Through this program, I am learning; but I am also learning how to teach," he says. "The knowledge I gain is knowledge I share with the communities I serve. The PRP is training us to enter the physician work force, helping to decrease the shortage of much-needed primary care physicians, and reducing health care disparities in the state." ■

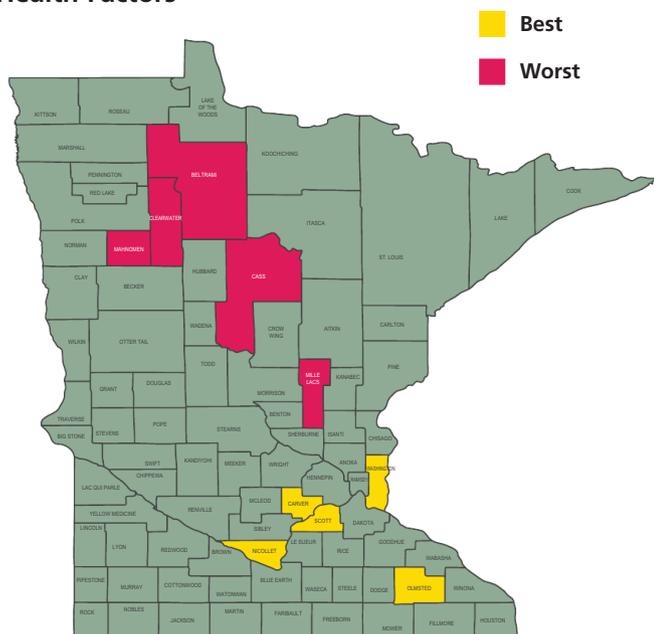
■ **County Health Status**

Location, Location, Location

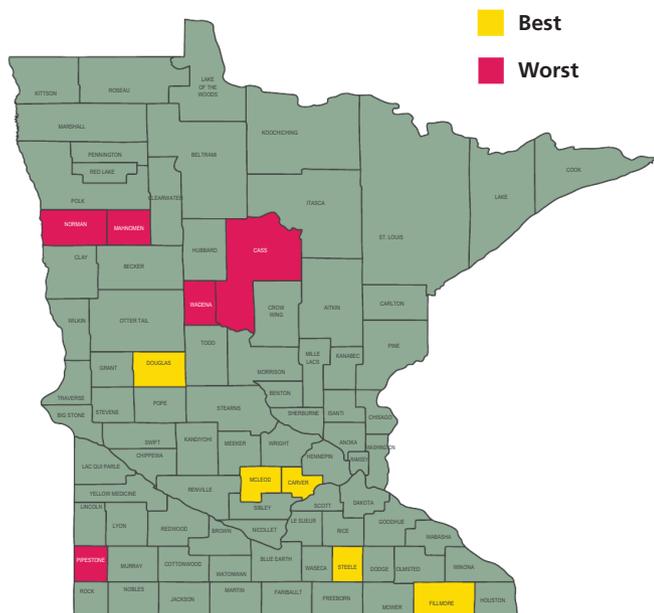
Third annual report ranks Minnesota's most and least healthy counties.

Counties that scored among the best and worst on rankings of health factors and outcomes

Health Factors



Health Outcomes



Two southern Minnesota counties, Steele and Olmsted, are among the healthiest in the state, and two north central counties, Cass and Beltrami, are among the least healthy, according to a new report by the University of Wisconsin's Population Health Institute and the Robert Wood Johnson Foundation.

The 2012 County Health Rankings report ranks counties in each state in two categories: health outcomes and health factors. Health outcomes include the rate of people dying before age 75, the percentage of people who report being in poor or fair health, and the percentage of babies born with low birth weight. Health factors include measures of behaviors such as tobacco and alcohol use, diet, and exercise; access to and quality of care; social and economic factors such as high school graduation rate, unemployment rate, and median income; and the environment.

Olmsted County, which is home to Mayo Clinic, received the top score for health factors but ranked 23rd on health outcomes. Nearby Steele County ranked No. 1. on outcomes but 29th on health factors. Cass County, which is home to a portion of the Leech Lake Indian Reservation, ranked last on health outcomes and 81st on health factors. Beltrami County, which includes portions of the Leech Lake and Red Lake reservations, ranked 84th on health factors and 77th on health outcomes.

Eighty-four of Minnesota's 87 counties were ranked. This is the third year for the rankings.

■ Quality and Disparities

Measuring the Gap

A VA study finds racial disparities remain while quality improves. | BY CARMEN PEOTA

If you eliminate disparities in the quality of care, will you reduce disparities in health outcomes?

That is the question at the core of a massive study on care in the Veterans Affairs Health System published in April 2011 in *Health Affairs*. The answer appears to be not exactly.

To get at the relationship between quality and health disparities, researchers analyzed data on more than 1 million veterans enrolled in the VA health system between 2000 and 2009. Abstractors reviewed the electronic health records for the sampled patients to determine whether they had received one of six indicated screenings or tests (process measures) and achieved control over either their cholesterol, blood pressure, or blood sugar (outcome measure). “The process measures refer to doing the right thing, that is, ordering the right test, prescribing the right medications, referring to the right provider, when clinically appropriate. These are things that are directly in the control of providers,” says lead researcher Amal Trivedi, Ph.D., an investigator at the Providence VA Medical Center and assistant professor at Brown University. They also noted demographic information about the patients including their race.

Trivedi says he and his co-investigators were interested in quality at the VA because the organization underwent a dramatic systemwide transformation in the late 1990s in response to concerns about poor quality.

What they found was overall the quality of care at the VA had improved and that scores on the process measures for white and black veterans were nearly identical. They also found there had been no change in the magnitude of the disparities in outcomes between white and black veterans over the period studied.

Trivedi says he thinks the results point to the fact that the process measures are

too simplistic. “They don’t assess whether the provider acted on the screening test or intensified therapy or issued therapy. They don’t assess whether providers initiated conversations about medication adherence. They don’t assess patients’ social support.”

Trivedi says this and other studies have shown that quality-improvement strategies can help ensure that physicians provide equitable care for patients of different races and backgrounds when it comes to doing simple things that can be easily measured—ordering screening tests, for example. But he says that achieving racial equity when it comes to the more complex aspects of providing care is far more challenging.

Still, Trivedi says a takeaway from the research is that health systems need to link their data on quality to data on patient race, ethnicity, gender, language, and socioeconomic status. “It’s impossible for organizations to be aware of disparities within their own patient populations if they don’t actually measure them,” he explains. ■

Process measures

Eye exams for patients with diabetes

Testing of HbA1c level for patients with diabetes

Testing of LDL cholesterol level for patients with diabetes

Testing of LDL cholesterol for patients with cardiovascular disease

Breast cancer screening

Colorectal cancer screening

Outcome measures

Control of HbA1c level

Control of LDL cholesterol level

Control of blood pressure

Source: Trivedi AN, Grebla RC, Wright SM, Washington DL. Despite improved quality of care in the Veterans Affairs health system, racial disparity persists for important clinical outcomes. *Health Affairs*. 2011;30(4):707-15.

Call for Papers

Minnesota Medicine invites contributions (essays, poetry, commentaries, clinical updates, literature reviews, and original research) on these topics:

Medicine and the Arts

Articles due May 20

Infectious Diseases

Articles due June 20

Finding Common Ground: what unites MDs in an age of specialization?

Articles due July 20

Genetics

Articles due August 20

Health Care Delivery

Articles due September 20

Food and Nutrition

Articles due October 20

We are also seeking articles on health care reform and other topics. Manuscripts and a cover letter can be sent to cpeota@mnmed.org. For more information, go to www.minnesotamedicine.com or call Carmen Peota at 612-362-3724.

Making Connections

How a health insurance exchange might bring us closer to covering all.

An interview with Ralonda Mason, J.D., by Carmen Peota

Among the motivations for reforming health care is the desire to address disparities in our system, one of which is the fact that African Americans, Hispanics, Native Americans, and members of other racial and ethnic minorities are roughly twice as likely to be uninsured as the rest of the U.S. population. A provision in the federal Patient Protection and Affordable Care Act of 2010—the call for states to create health insurance exchanges by 2014—is now seen by many as a key step toward elimination of that and other disparities.

The exchanges will be online marketplaces where individuals can shop for health insurance. To help make coverage more affordable, premium subsidies and tax credits will be available to people with incomes up to 400 percent of the federal poverty level. Many people of color are expected to benefit from the exchange and these subsidies.

Minnesota is now in the process of designing its version of an exchange. Although the 2012 Legislature has not approved a bill establishing a state insurance exchange, the Dayton administration and Department of Commerce are laying the foundation to construct one. Gov. Mark Dayton has appointed a task force to provide recommendations about what the exchange should look like and how to structure it so that finding and applying for insurance coverage will be easier than it now is. (If the state fails to pass such legislation in 2013, it is likely the state would be required to adopt a federal version of the exchange.) It has been projected that more than 1 million Minnesotans would access public and private health insurance coverage through Minnesota's exchange once it is up and running.

Ralonda Mason, J.D., supervising attorney at St. Cloud Area Legal Services, which provides free legal counsel to low-income residents in nine counties, is one who believes the insurance exchange could go far to minimize disparities in access to care by reducing the number of people in the state who are uninsured. She recently presented on the topic to the governor's task forces on reform and the exchange and also shared her thoughts about the issue with us.

Q: How many Minnesotans are uninsured?

A: The 2011 health access survey, which is done every two years by the Minnesota Department of Health, found that 9.1 percent of Minnesotans were uninsured. That's 480,000 people in our state who don't have health insurance.

If you look at certain populations, you'll see that the percentage of uninsured is much higher. For example, 31 percent of people living below 200 percent of poverty guidelines are uninsured, 26 percent of Hispanics and Latinos are uninsured, 17.9 percent of black families are without insurance, 14 percent of American Indians are without insurance, and 28 percent of Minnesotans born outside of the United States don't have health insurance.

The survey found that 60 percent of these individuals are potentially eligible for public coverage through programs such as MinnesotaCare or Medical Assistance. ↪

Q: So if people are eligible for coverage but aren't taking advantage of it, how would having an insurance exchange help them?

A: The Affordable Care Act has a “no wrong door” provision, meaning that people will be able to apply for public programs at the same place and in the same way that they apply for private coverage. The exchange will use a common application. That will have the effect of reducing the stigma of applying for a public program. You'll go in and fill out one application and never have to say to somebody, “I want Medical Assistance” or “I want MinnesotaCare.” The exchange will make the determination of which program is more appropriate for you given your income, your family, and your situation.

The law requires states to provide navigators to help people access health care coverage through the exchange. Today, a significant barrier to getting public health insurance is the difficulty people have in navigating the application and enrollment process. Issues like low literacy, language, and physical or mental health may make it even more difficult for people to complete the forms. A navigator program designed to help limit or remove these barriers could greatly improve access to coverage.

The law also requires the state to partner with at least one nonprofit community or consumer group to provide navigators. It does not say how many navigators we have to have, how diverse the group needs to be, where they'll be located, or how they will be accessed—those are all decisions that we will be making as we design our exchange. We need to find navigators who already have established, or have the capability to establish, relationships with people in low-income and underserved communities; who can help address some of the reasons that may make people reluctant to reach out for help; and who can help bring low-income people into the system.

Q: How will people find out about the exchange and how to use it?

A: The legislation has outreach requirements. The exchange's outreach would target traditionally underserved populations. Again, how we go about reaching out is among the decisions we, as a state, will make as we build the exchange. My hope is that we will come up with a variety of methods for reaching low-income and underserved communities.

Q: Will the exchange provide other benefits?

A: The technology that's being developed to operate the exchange is brand new. We have the opportunity to build a system that will allow applicants for health insurance to be evaluated for other low-income support programs as well. That could be hugely

beneficial. If people see the exchange as a place where they could not only get health insurance but also address other needs and issues, the exchange will be more attractive to them. More important, easier access to those other benefits and services is going to have a positive impact on the overall health of the individual.

Q: Will the exchange ensure that all Minnesotans are covered?

A: If we make good choices about how we design and implement the exchange, it could be a powerful tool to help us meet the goal of achieving universal coverage. In my presentations before the governor's task forces, I focused on the largest percentage of the uninsured—the 60 percent who have incomes at or below 200 percent of poverty. But people employed in small businesses or who purchase insurance in the individual market will be able to access coverage through the exchange as well. In the future, we will be making decisions about whether we want to bring large employers into the exchange. The exchange has the potential to be a beneficial tool for Minnesotans of all income levels.

Q: Why is Minnesota designing its own version of the exchange? Why not use the federal model?

A: The law gives us the right to make decisions that are best for the people of Minnesota. Our challenge as a state is to have the foresight and determination to create the best system possible for the people of Minnesota.

Q: Will the exchange have an effect on disparities in health?

A: I think that a well-designed exchange can be a powerful tool in addressing the health care coverage disparities that exist in our state today. In whatever reform activities we undertake in Minnesota, we have a responsibility to make sure they maximize benefits for people in our state. And if we're going to create an exchange, then we need to create one in such a way that we can have an impact on some of our bigger goals for health care reform—like improving access to care.

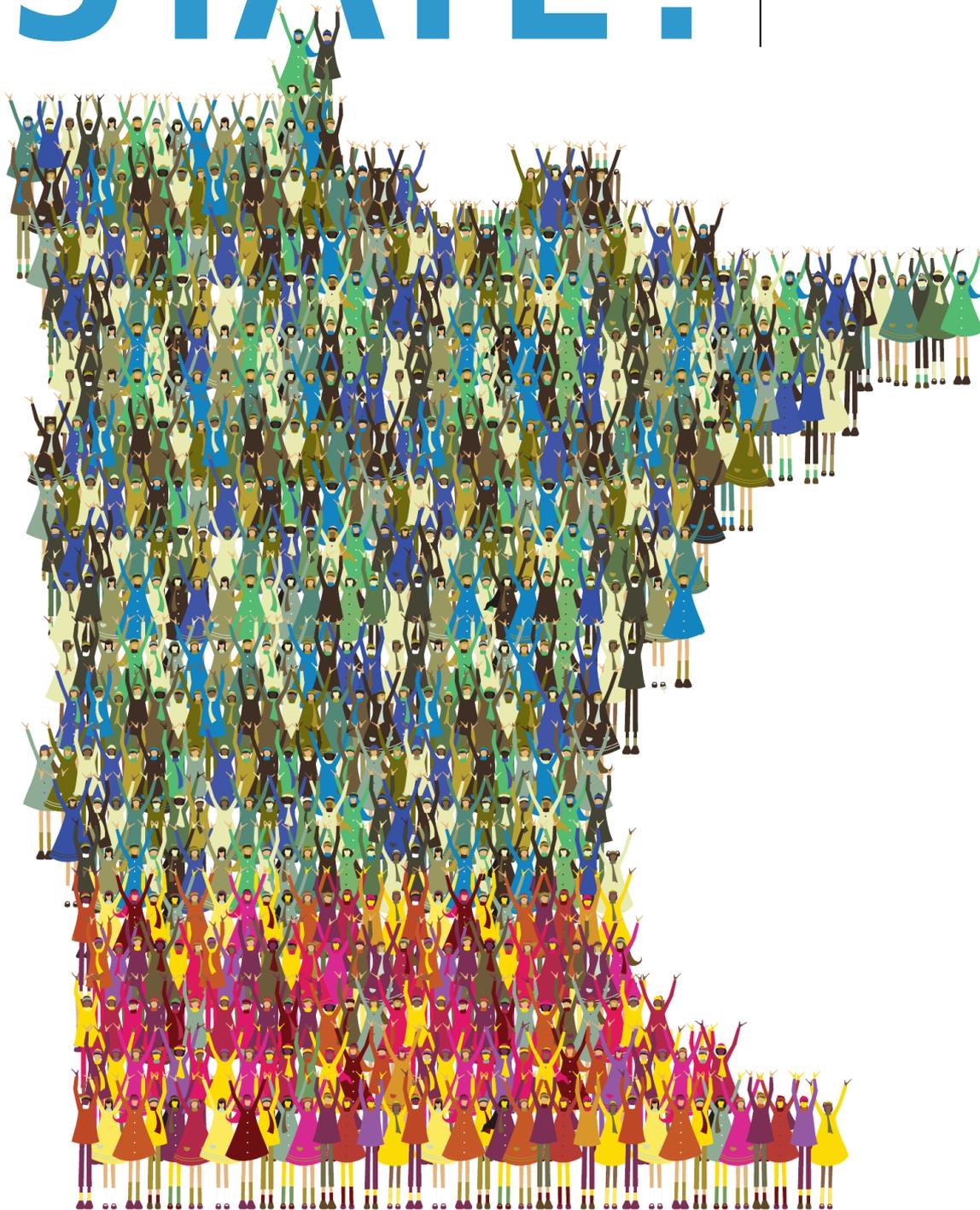
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Carmen Peota is an editor of *Minnesota Medicine*.

HEALTHIEST STATE?

Minnesota has scored highly on health rankings, but a closer look reveals some alarming trends.

By Kate Ledger





When the 2011 health rankings of states appeared, Minnesota's berth came as a disappointment, though not quite as a surprise. For a number of years, Minnesota ranked first or second on America's Health Rankings, a United Health Foundation undertaking to compare states with regard to rates of obesity, cardiovascular disease, diabetes, smoking, infant mortality, and other measures. But the state has been slipping in recent years, and in the last several reports was the sixth healthiest in the country. "Minnesota is still a healthier state than most. We're still doing well," notes Minnesota Commissioner of Health Edward Ehlinger, M.D., "but we're heading in the wrong direction."

The drop in ranking reflects an alarming reality, he says. Even though Minnesota has lower rates for many health risks when compared with other states, it also has some of the country's largest health disparities. Large gaps exist between the health of the poor and the more affluent, between urban and rural dwellers, and between whites and minority and American Indian populations.

A closer look at the statistics reveals, for instance, that even though African-American women in Minnesota have a lesser incidence of breast cancer than white women, their breast cancer mortality rate is 24 percent higher. Asian-American men die of stroke at higher rates than men from all other racial and ethnic groups. The rates of infant deaths among African Americans and American Indians are significantly higher than the state's overall average, which is one of the lowest in the country. And, according to the state's Office of Rural Health and Primary Care, people living in rural areas have a rate of dying prematurely that's 31 per-

"Minnesota is still a healthier state than most. We're still doing well, but we're heading in the wrong direction."

—Edward Ehlinger, M.D.
Minnesota Commissioner of Health

cent higher than that of those living on the outskirts of metropolitan areas. Those tracking such numbers know the gaps may widen as Minnesota's population becomes increasingly diverse.

The good news is that the topic of disparities has moved front and center in conversations about health care delivery and reform. A decade of research has raised awareness about how environment, income, and life circumstances play into health status and outcomes. There's also increased awareness that the size of the disparities reflects overall well-being. "We know from studies of other geographic areas that places with larger health disparities have worse health overall. Where those gaps are smaller, health is better for everyone," Ehlinger says.

The topic of health disparities is hardly new. As awareness that we had a nationwide problem emerged in the mid-1980s, the Minnesota Department of Health began looking closely at the health status of minority populations in our state. The findings in its 1987 report were eye-opening, prompting the health department to establish what was then called the Office of Minority Health. Over the next decade, as additional reports provided an even clearer picture of the state's health disparities, Department of Health officials reached out to minority and American Indian communities with a number of initiatives.

However, the biggest statewide effort got underway in 2000, when Department of Health officials along with community leaders began laying the groundwork for legislation to address the problem. Following rallies held by minority groups on the steps of the Capitol, the Legislature passed the Eliminating Health Disparities Initiative (EHDI) in 2001, with a \$9.5 million budget

and the goal of reducing disparities in eight areas: breast and cervical cancer screening, cardiovascular disease and stroke, diabetes, HIV/AIDS and sexually transmitted infections, immunization, infant mortality, healthy youth development, and violence and unintentional injuries. “These were, specifically, areas that the Department of Health and community leaders agreed were important to address,” says José González, director of what is now the state’s Office of Minority and Multicultural Health.

Calling on Communities

The idea that grew out of the legislation was to tackle disparities from within various communities through outreach and clinic-based programs conducted by their own members. One initiative by Vietnamese Social Services of Minnesota, for example, enabled as many as 300 women from that community to undergo a mammogram and 267 to have a Pap smear in 2006 (both figures were double those of 2005). When it came to improving preventive care for diabetes, the Center for Asian and Pacific Islanders helped new immigrants navigate the health system, enrolling 47 individuals in MinnesotaCare and connecting 234 with primary care clinics in 2006, a 58 percent increase over previous years. To promote exercise and address high rates of cardiovascular disease among tribal members, the Grand Portage Band of Ojibwe hosted a six-week team-based walking competition. The 130 participants logged 11,643 miles.

In 2001, several tribal nations got together to discuss ways to address infant mortality among American Indians, which was six times the state’s overall rate. With an EDHI grant, programs got underway within a number of tribal nations, offering nurse home visits to pregnant women and their families on the reservations. “Families have accepted tribally hired nurses and welcomed them in their homes and lives perhaps more so than they would someone from an outside agency such as a nurse employed by the county,” says Danielle Le Bon Gort, R.N., who was part of the Fond du Lac nation’s initiative. The Fond du Lac nation saw breastfeeding rates go from less than 50 percent to more than 80 percent following the initiation of the home visits in 2001. “That’s important for many health outcomes. But the real impact we hope to make is in building secure family attachments,” she says.

Last year, the Fond du Lac and White Earth nations pursued a new iteration of the program to help do just that. Each nation implemented a Nurse Family Partnership program designed to help families establish good health practices and form strong bonds. Nurses in the program visit the homes of women who are pregnant weekly during the first month, and then every other week until the child’s first birthday. In addition to promoting healthy relationships at home, they collect data on such metrics as the time at which the mother began prenatal care, changes in her blood pressure, smoking and drug use, and breastfeeding. They also keep track of the children’s health, including the number of visits to the ER, accidental injuries, and school readiness. “It’s been an honor to establish this program, which hopefully

will become a model that can be used to inform other tribal nations interested in starting their own program,” Le Bon Gort says.

Another initiative, *Aquí para Tí*, a bilingual-bicultural program in Minneapolis got off the ground in 2002 with EDHI funding to offer preventive care to Latinos ages 11 to 24. Among its aims was to reduce rates of teen pregnancy. The Spanish-speaking providers had the young people who came to their clinic complete a confidential intake questionnaire, which asked more than 80 questions about their lives. The idea was to offer them a place where they could feel safe to give honest answers, says program developer Monica Hurtado, who trained as a family physician in her native Colombia.

The teens’ responses shed new light on important health concerns. Providers realized many teens were contending with depression and anxiety along with the stresses of being immigrants or children of immigrants. “Many Latino kids cannot dream of going to college [for financial and immigration reasons]. They don’t have hope, so what is the point of finishing high school? After 10 years of doing this work, we have concluded that lack of hope is one of the reasons that Latino teens have for getting pregnant,” Hurtado says.

The program has since broadened its goals to include addressing mental health issues. It is now helping Latino families connect with other Spanish-language resources in the community. Despite this shift in approach, *Aquí para Tí* appears to be making progress on its original goal of preventing teen pregnancies: A chart review in 2009 found teens using no form of birth control had fallen from 47 percent to 13 percent after one or more visits with a health educator at the clinic.

Last year, as the EDHI grant period ended, the Department of Health reported further success: When it came to reducing both infant mortality and increasing immunizations by 50 percent among Latinos and Asians—the only outcome mandated by the legislation—the state met its goal.

Studying the Causes

Researchers at the University of Minnesota are studying factors that contribute to health disparities such as poverty, education, lack of health insurance, and the physical environment. Seven years ago, the university recruited Jasjit S. Ahluwalia, M.D., M.P.H., who now leads its Center for Health Equity, an entity funded by the National Institute on Minority Health and Health Disparities. Ahluwalia’s interest in the issue stems from his medical training at a Tulane University School of Medicine safety net hospital in New Orleans, where he saw many patients who were severely ill and had few resources. “My interest in the area also emerged from my religion, which is Sikh,” he explains. “Part of the religion is a deep sense of helping those who have less.”

Working at Grady Memorial Hospital in Atlanta in the early 1990s, Ahluwalia was struck by the fact that the diseases he was treating were directly related to tobacco and alcohol use, poor nutrition, and physical inactivity. He became especially interested in the high smoking rates among African Americans. “Nobody

was studying it,” he says. He was also struck by comments he heard from other health care providers. “They would say, ‘They don’t want to quit,’ and ‘It’s the one pleasure they have,’” Ahluwalia recalls. “I thought it was presumptuous and wrong.”

His research has shown, in fact, that African Americans who smoke want to quit as much as whites do. Early numbers suggest, however, that their quitting rates are lower. Ahluwalia has begun to look at some of the impediments to smoking cessation. He’s now part of a new multi-center investigation with a \$3.5 million grant from the National Institutes of Health to compare quitting rates of African Americans and whites. The research will assess the effects of depression, anxiety, and racism on quitting and will use genotyping and other tools to determine if biological factors such as nicotine metabolism might be a factor.

Another researcher at the university, biological psychologist and epidemiologist Susan Everson-Rose, Ph.D., M.P.H., is looking at the physiological effects of stress—how ongoing concerns about lack of money and unstable housing, for instance, can promote inflammatory pathways that heighten disease risk. She’s found that women with high levels of depression and stress have significantly lower levels of the protective, anti-inflammatory hormone adiponectin. In research elsewhere, low levels of the hormone have been implicated in increased rates of cardiovascular disease and diabetes. Everson-Rose points out that the inflammatory pathways of stress are likely activated in people who experience the long-term consequences of low socioeconomic status, racial and ethnic discrimination, or loss of employment. Understanding those pathways, and their triggers, ultimately may offer insights that can lead to ways to reduce some health disparities. “As we learn more about stress and about the effects of the social determinants of health, we may be able to begin asking what we can do to target the physiological process and relieve symptoms,” she says.

Searching for Solutions

Kolawole Okuyemi, M.D., M.P.H., directs the Center for Health Equity’s community engagement and outreach program, the goal of which is to engage the African-American and African immigrant communities in the Twin Cities in improving their health status. The program works with local groups such as the Stairstep Foundation, which disseminates health messages about topics such as fruit and vegetable consumption through churches in north Minneapolis.

In addition, Okuyemi serves as director of the medical



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—Kolawole Okuyemi, M.D., M.P.H.

school’s Program in Health Disparities Research, which brings together researchers and representatives from the community to address health disparities through research, education, and community involvement. One of the program’s initiatives is the Clipper Clinic, in which a team of providers set up one-day health screenings and educational sessions in neighborhood barbershops. “People often don’t trust medical institutions, and so they don’t go; but this is a setting where they feel comfortable,” says Okuyemi, a family physician. “It’s not that they don’t care about their health; but they’re juggling keeping their jobs and trying to fit into a complicated clinic schedule, and they may have insurance but not know how to use it. We can offer people a warm-body referral to a doctor.” Another one of its projects is the Minnesota Center for Cancer Collaborations, which is using a community-based participatory research approach to increase breast and cervical cancer screening among Latina and Somali women.

Okuyemi’s own research focuses on tobacco use among the homeless, whose smoking rates are as high as 80 percent (the smoking rate among Minnesota’s general population has fallen during the last few decades to less than 20 percent). He has found that homeless people who smoke are interested in and able to quit, if provided with the right opportunities and resources.

Changing Care Delivery

There’s little doubt that eliminating health disparities also requires making changes in the way care is delivered. Access to care is one of the critical issues facing populations in rural parts of the state. Thirty-seven percent of Minnesota’s rural population lives in a medically underserved area. In five of the state’s rural regions, people with chronic diseases such as diabetes and cancer have significantly worse outcomes than people in metropolitan areas. Among the factors contributing to worse health outcomes is the distance they must travel to see specialists. “What some rural patients with chronic diseases do is they don’t seek care. They stay home and die. Or if they do seek care, they come at a more advanced stage of their disease, so the possibility of full recovery is markedly diminished,” says Thomas Elliott, M.D., executive director of the Essentia Institute of Rural Health. ↪



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executive director of Essentia Institute
of Rural Health

Headquartered in Duluth, the institute has made health services research its focus. Investigators are studying use of telemedicine and other ways to improve the care of rural patients, particularly those with chronic conditions. “This will help patients get help early on, at their homes or at rural hospitals nearby, and not have to travel 150 miles to see a cardiologist at a major hospital,” Elliott says.

Some researchers are exploring how physicians might contribute to health disparities. Diana Burgess, Ph.D., an investigator in the Center for Chronic Disease Outcomes Research at the Minneapolis VA Medical Center, has identified subtle variations in the way physicians treat patients that appear to be based in race. One study published in 2008 in *Social Science and Medicine* found that physicians’ prescribing patterns were different for nonwhite and white patients. “It [providers’ behavior] is a topic that needs to be raised in a nonthreatening way because everybody’s human; but even unconscious prejudices can affect a patient interaction and the outcome of a visit,” she says.

For the last year, Bloomington-based HealthPartners has been working on the issue of health disparities through its EBAN experience. The initiative, named for the African symbol for trust, was a year-long series of conversations among caregivers and members of the Twin Cities’ Latino, Hmong, Somali, and African-American communities. “This was an opportunity for providers to learn what’s going on in those communities around

health care, and for community members to learn about our health goals and quality-improvement efforts,” says Carl Patow, M.D., M.P.H., director of HealthPartners’ Institute for Medical Education.

HealthPartners commissioned several playwrights, each from a minority community, to write plays depicting a single family’s experience with a health issue. EBAN participants watched filmed versions of the plays at each of the quarterly gatherings. “We wanted a way to get to the more emotional issues involving health and culture,” Patow says. “People can reflect on a film without taking it personally and use it as a way to open conversation.” The discussions helped caregivers learn, for instance, how to address topics such as end-of-life care with patients in more culturally sensitive ways, he says.

Growing Awareness

After more than a decade of efforts to eliminate them, health disparities remain, in part because the health status of white Minnesotans has improved in some areas during the same time period. “Even populations that are doing better are chasing a moving target,” notes González.

However, concern about reducing disparities has become a lens through which many now look before creating new policy or making other changes within a community. When Ehlinger recently sat down with a task force to discuss the state’s approach to developing a health insurance exchange, eliminating health disparities was part of the conversation. “People were asking, ‘How is this going to affect health disparities?’” he says. Even local projects are now being looked at through that lens. For example, the Department of Health is assisting community groups in assessing the effects on health and quality of life resulting from the construction of the light rail line along the Central Corridor in St. Paul, an area that touches many minority communities.

Awareness is growing nationwide as well, and not only among those who work in health care or on health policy. Later this year, the National Institutes of Health will co-host the Summit 2012 on Health Disparities. The previous summit, held in 2008, involved only NIH entities. This year’s event will be attended by representatives from a range of federal agencies—the Centers for Disease Control and Prevention, Housing and Urban Development, the departments of Transportation and Agriculture, and the Department of Health and Human Services. “Twenty years ago, nobody was talking about this topic at all,” notes Ahluwalia, who is co-chairing the program. “Twenty years ago, the words ‘social determinants of health’ were barely in use. Now the topic is on the table, for everyone. It’s very exciting.” **MM**

Kate Ledger is a frequent contributor to *Minnesota Medicine*.

HELLO

BEYOND WORDS

When working with immigrant patients, the messenger can be as important as the message.

By Tara Johnson, M.D.

During my last four months of medical school at the University of Minnesota, I found myself wandering through Latin America. I had spent countless hours planning my trip and was thrilled to be able to learn about international medicine at Hospital Regional del Cusco in Peru and Hospital Pedro Vicente Maldonado in rural north-west Ecuador in addition to having some fun. I thought I had an idea of what working in a third-world country would be like. But in reality, how does one prepare for the unknown?

During my time in Peru and Ecuador, I learned about treating infectious diseases and working with women who have had little prenatal or obstetric care. I also came to understand the unique challenges facing rural hospitals in subtropical areas, of integrating traditional and Western medicine, and of adjusting to a health care system that, in general, confronts different causes of morbidity and mortality than those I had grown accustomed to seeing in the United States. Although these were important lessons, what has kept me awake at night are the images of the people I saw: the couple who walked for days carrying their febrile

and dehydrated daughter to the hospital, arriving with no money but desperate for care; the malnourished, physically and cognitively stunted children who subsisted on an inadequate diet of rice and potatoes and were unable to get the supplements they needed from their broken Ministry of Health system; the indigenous woman who gave birth in her traditional standing up fashion and asked me questions in Quechua, her native language, that I did not understand.

It readily became apparent to me that these patients needed much more than what medicine could provide. They needed education, public health interventions, quality health information, jobs, government support—in a word, resources. Although I could not realistically address the complex systemic issues, one thing I thought I could provide these patients, especially with my ability to speak Spanish, was health information and advice. However, despite all of my preparation and my desire to communicate with the people for whom I was caring, I still felt I couldn't connect with them.

It is easy to think that the types of problems I encountered occur only in dis-

tant lands with disabled governments and a paucity of resources. However, here in Minnesota, we have large populations of medically underserved people, including immigrants and refugees, many of whom are struggling with hunger, chronic disease, culture shock, a language barrier, and insufficient medical insurance. According to the U.S. Office of Immigration Statistics, Minnesota admitted more than 18,000 immigrants to the state in 2009, of which more than 9,500 came from Africa and nearly 5,000 from Asia.¹ Minnesota admitted another 12,400 in 2010.² According to the 2010 U.S. Census, 7 percent of our population is now foreign-born, and 10.3 percent speak a language other than English at home.³

These newcomers are our patients. Some of us interact with them frequently; others have only the occasional encounter. Regardless, we all have a duty to try our best to do what we can to improve their health. I wonder, though, how well we actually do that. Are we doing all we can to meet their needs?

During one of my first rotations as a third-year medical student, I entered a patient room to find a woman about my age and an interpreter. The patient com-

plained of abdominal pain, so I began to ask her my standard questions. When I asked if there was a chance she could be pregnant, the interpreter translated my question but then stopped me and recommended that I ask more about the patient's social history. The interpreter's careful pause allowed me to realize that her complaint was actually a hint about an unsaid reason for coming to the clinic. After the encounter, the interpreter pulled me aside and reminded me of the importance of listening for the unspoken clues and also encouraged me to learn more about my patient's home country so that I could better relate to her situation. The interpreter's help and perspective proved invaluable, allowing me to begin to finally make the connection I had been hoping for.

I haven't always been fortunate enough to have someone at my side who speaks the language of my patients and understands cultural nuances when we are discussing topics such as obesity, risk factors for diabetes, suspicious bruises on arms and legs, and the utility of vaccines. Although I feel competent about my medical knowledge, I know I am not always getting through to patients because of my lack of cultural understanding.

Increasingly, I have realized that my patients who don't speak English or who have a cultural background different from mine need more than what I can provide them in the exam room, even with the aid of an interpreter. One Minnesota-based organization I've found helpful is ECHO (Emergency and Community Health Outreach). ECHO creates programming on topics such as navigating the health care system, pandemic flu, dealing with a diagnosis of breast cancer, and nutrition and exercise for people with limited English skills. Programs are offered in eight languages (English, Spanish, Somali, Hmong, Cambodian, Vietnamese, Lao, and Karen) and distributed over television, radio, and social media outlets; they also are available on ECHO's web-

site, where information in four additional languages (Amharic, Arabic, Oromo, and Russian) is available.

What makes ECHO's approach particularly effective is that members of the targeted communities deliver the messages, making them all the more credible. For example, last year when Minnesota experienced an increase in measles cases, ECHO worked with the Minnesota Department of Health to produce culturally sensitive messages about the disease and the importance of vaccination aimed at African immigrants. By including a Department of Health expert and a Somali woman whose child became very ill with measles, ECHO attempted to address concerns about vaccination and autism in that community. The mother shared how she previously had been apprehensive about vaccines and how she now understands their importance for preventing illness.

More recently, ECHO created programming that includes an interview with an Oromo woman about her experience

with measles during a trip home to Kenya in order to increase awareness about herd immunity and the importance of vaccines for young children

who will be traveling to countries where certain diseases still exist. While in Kenya, her daughter, who was not yet a year old and unvaccinated, contracted measles. The child's cousin visited the girl in the hospital and also contracted the disease. However, the woman's two older children, who had been vaccinated, did not get measles. This woman's testimony made the message relevant to people in her community.

ECHO attempts to address cultural nuances that can affect health. For example, a recent program on the dangers of secondhand smoke includes consideration of the fact that in some cultures tobacco is used during religious ceremonies or that it may be viewed as disrespectful to ask someone to not smoke.

Health care providers can use

ECHO's materials to help patients. They can show informational videos in waiting rooms and refer patients to ECHO's programming. In addition, we should let our patients know that during emergencies such as a storm, ECHO provides information in multiple languages. I recently started using ECHO's resources when I need help conveying information to my patients; and I certainly wish I would have had similar help while working in Peru and Ecuador during medical school.

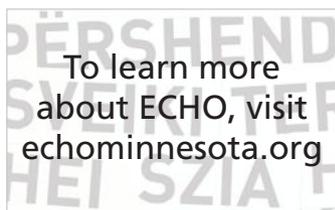
Ultimately, what we say to our patients in the clinic or hospital is very important. We should try to be sensitive to their cultural backgrounds and use interpreters when we don't speak the same language. We also can make use of readily available resources to reinforce the messages about health and safety we need to convey. For a patient, watching a video that features someone from their community, particularly a leader or expert, may be more powerful than hearing a doctor say something in a language they may not fully understand.

Minnesota is a diverse, exciting place to live; however, health disparities still exist. We physicians need to make every attempt to better connect with our immigrant and refugee patients to help them become or stay healthy and safe. **MM**

Tara Johnson is a 2011 graduate of the University of Minnesota Medical School and is currently finishing her master's degree at the University of Minnesota School of Public Health.

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Boys playing outside a shop in Mkwasa.

Remembering the Neediest

Malawi illustrates the extent to which poverty is intertwined with health.

Photos and story by Zubin Agarwal, M.P.H.

Imagine a world where the median age is 17.2 years. Where one out of every nine people is infected with HIV. Where 81 out of every 1,000 infants die at birth. Where food is scarce and malaria and TB ravage the population at large.

Welcome to Malawi, one of the most densely populated and poorest countries in the world. Nestled between Mozambique and Zambia, landlocked Malawi is the size of Pennsylvania and has one of the world's fastest-growing populations. The economy is predominantly agricultural, with 80 percent of Malawians living in rural areas. The top five causes of death are HIV/AIDS, lower respiratory tract infections, malaria, diarrheal diseases, and perinatal conditions.

In January, I had the opportunity to travel to Malawi, where I worked with a recent graduate of Mayo Clinic's internal medicine residency program. Never before in my life have I witnessed poverty on this scale. The country has a median gross national income of \$330 per capita. People simply cannot afford health care. Abject poverty permeates every aspect of daily living. It is

common for Malawians who sell their artwork out of straw huts to not make a single sale for days.

The situation is frustrating for international medical volunteers. Nurses around the country have become largely apathetic about the struggles of their patients. Death has become accepted and acceptable. At times, I felt that indifference might be the only way to survive. Any other approach would lead to anger and eventual fatigue.

But I could not let myself become indifferent. I was deeply moved by the patients for whom I cared, and I felt as if every death I witnessed was a tragedy of circumstances. I thought how despite the shortcomings of the health care system in the United States, most patients receive the care they need, regardless of their ability to pay. I thought how in another time, in another place, my Malawian patients (who had what would have been considered simple medical problems in the United States) would receive life-saving therapies.

Low levels of literacy contribute to Malawians' poor health. Only 63 percent of the population over the age of 15 can read and write, and their understanding of their health problems is based largely on misinformation. I was caring for a 5-month-old patient with a rare congenital heart disease who came into the emergency department tachypneic, tachycardic, and hypoxic. We started her on supplemental oxygen therapy. The mother was terrified. Because oxygen compressors are rare in Malawi, only the sickest patients are given supplemental oxygen. Over the years, oxygen therapy has become associated with death, and patients are very resistant to it.

Lack of transportation has an effect on health, too. I saw a patient who presented with hypotension and had an episode of syncope while eating breakfast that morning. Her mother and sister had carried her on a stretcher for one and a half hours through tea fields. She arrived at the hospital just in time. When her urine pregnancy test came back positive, an ultrasound was ordered and she was found to have a heterotopic pregnancy. She was immediately taken to the operating theater. Five liters of blood were in her peritonium.

Malawi has one of the lowest concentrations of physicians per capita in the world, less than two for every 100,000 people. In comparison, the state of Minnesota has 293 physicians for every 100,000 people, and Olmsted County has 1,871 physicians per 100,000 people. Training physicians in Malawi is a challenge. The University of Malawi has the only medical school in the country, and its best students are offered lucrative positions in South Africa upon graduation. International health care

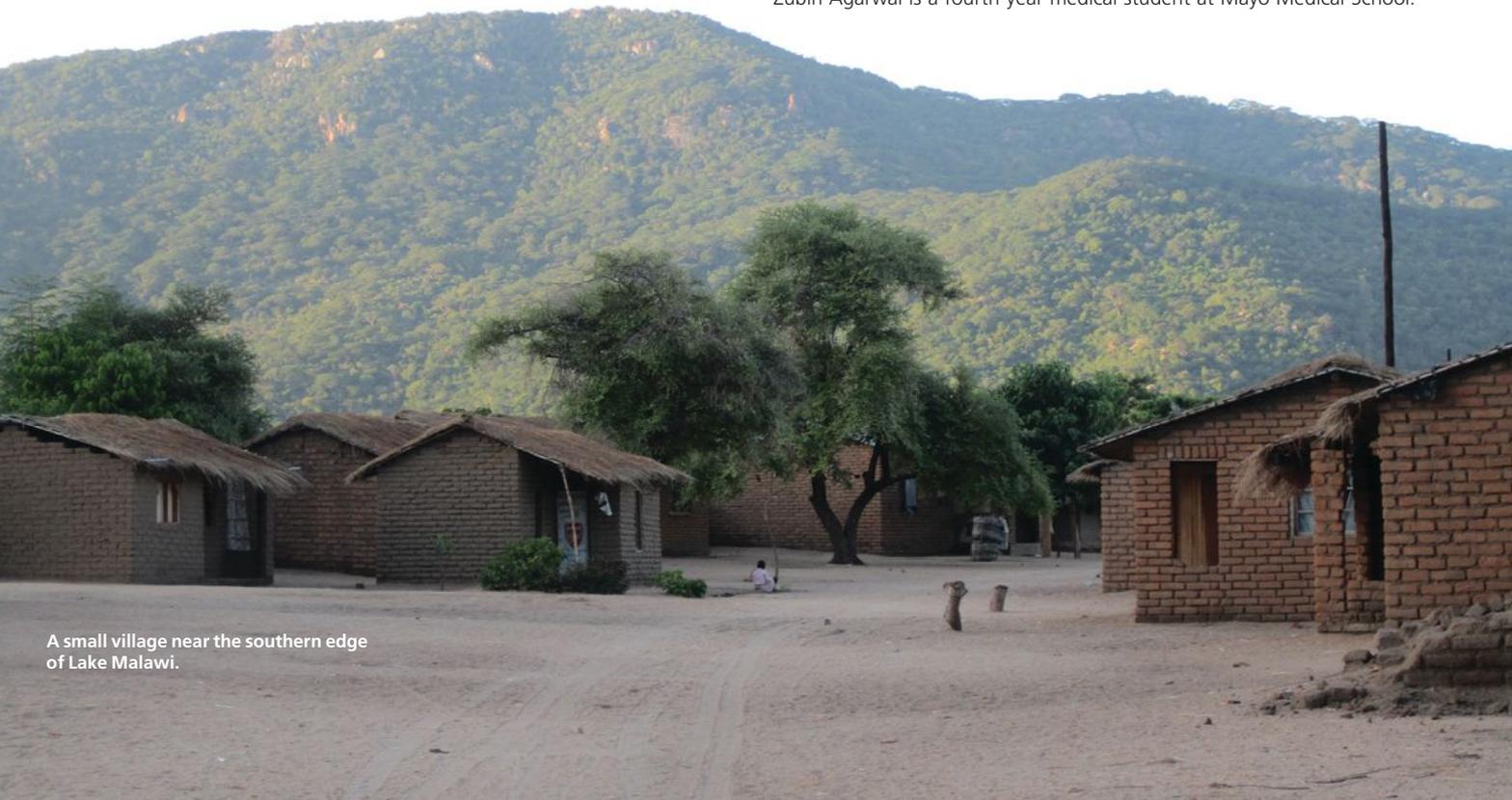
workers provide some relief, but they are not a permanent solution to the country's workforce problem.

The severity of the physician shortage became clear as I spent time at the university's hospital, which is located in Blantyre, the second largest city in Malawi with a population of approximately 800,000 people. The entire country had only one neurologist and one cardiologist. Prior to the arrival of the cardiologist, who came from the United States, only one person in the country was capable of doing echocardiograms. No one in the country could perform angiography or cardiac surgery. Neurology consultations were only available on Mondays and Thursdays at the university hospital.

Diagnosis and treatment options are profoundly limited. At Blantyre Adventist Hospital, one of the country's best private hospitals, the only imaging technology available was a portable chest X-ray machine. None of the three major hospitals in Blantyre had a working CT scanner. The panel of diagnostic tests available to clinicians was similarly limited. CD4 tests were available only two days a week. The turnaround time for laboratory tests could be days or weeks, and the results were often inaccurate or imprecise.

Trips to places like Malawi provide one with insights into global health problems and a new perspective on the challenges we face here at home. I believe both physicians and physicians-in-training should take advantage of opportunities to work in developing countries. As I continue with my training, I will remember the people I met in Malawi who have decided to give back by providing care to the underserved. And I will always remember the neediest. **MM**

Zubin Agarwal is a fourth-year medical student at Mayo Medical School.



A small village near the southern edge of Lake Malawi.



MINNESOTA
MEDICAL
ASSOCIATION

THE PHYSICIAN ADVOCATE

News about Policy, People, and Politics

THE EXAMINING ROOM

Health Care Reform and the U.S. Supreme Court

For three days in March, the U.S. Supreme Court debated the constitutionality of the Affordable Care Act and, more specifically, that of the individual mandate. After more than six hours of arguments, the Court went into recess to determine whether to leave the 2010 legislation intact, remove parts of it, or strike it down completely.

The *Physician Advocate* asked a couple of MMA members to share what they hope will come out of the Court's discussion and decision, which is expected in June.

Therese Zink, M.D.

Professor of medicine, University of Minnesota, and internal medicine practitioner

As a member of the Governor's Health Care Reform Task Force, I am watching the Supreme Court's decision closely. I've been working for health care for all since I became a physician and began to understand how the U.S. rations it—if you don't have health insurance and you are not poor enough to qualify for Medicaid or old enough to get Medicare, you receive a different class of health care. I worked for single-payer health care during the Clinton Administration's health reform efforts

and pushed for MinnesotaCare following the Health Care Access Commission's recommendations. There are still a lot of holes in health care access, but we are better off in Minnesota than most states.

The Accountable Care Act is far from perfect, but it is a step in the right direction and a number of people already benefit from it—folks with pre-existing conditions, seniors needing medications, and young adults who are able to sign up on their parents' plan. If the Supreme Court rules the individual mandate unconstitutional, it will be a setback for all U.S. citizens who deserve access to quality, affordable health care.

Here in Minnesota, we have our work cut out for us regardless. In 2011, 480,000 Minnesotans were uninsured. There are significant disparities within that group, with one-third of those having an income below 200 percent of the federal poverty level, which suggests that some of them may qualify for government-sponsored programs. In addition, minorities are a disproportionately high percentage of this group: Hispanics/Latinos (26 percent), African Americans (18 percent), and Ameri-



Therese Zink, M.D.



Jeff Schiff, M.D.

can Indians (14 percent). I am reminded daily about the tough choices patients without insurance need to make. In rural Minnesota, dental care and mental health access are huge issues. Without access to health care, people don't get basic preventive services or management of their chronic health problems and show up in crisis, often in the emergency department, which is expensive.

Jeff Schiff, M.D.

*Medical director,
Minnesota Health Care Programs,
Minnesota Department of Human Services*

The passage of the Affordable Care Act (ACA) has profoundly changed our conversations about health care delivery and

(continued on next page)

Health Care Reform and the U.S. Supreme Court

(continued from page 27)

access. We are no longer discussing whether everyone should have coverage, but rather how to make coverage available to all.

With or without the ACA, these discussions create an expectation for providers—that we must increase the value of the care we provide. We’ve all seen health care spending projections and

know that our current path is unsustainable. As providers, we must commit to the best stewardship of resources so that appropriate care is available when needed. We at Medicaid are working with other purchasers to align incentives to support a patient- and provider-directed approach to this challenge.

The reality is that Minnesota has always been a leader in health care coverage, value, and overall health. Our physician community has been key to our establishing and maintaining this position. We’ve been on this path for decades, and the ACA simply accelerates our progress with new opportunities to improve delivery and access. But continuous improvement is in the fabric of our state and regardless of the Supreme Court decision, Minnesota will continue on the path of reform.

EDITOR’S NOTE: Physician Advocate regularly invites physicians to share their opinions on important topics of the day. If you’d like to take part, email Dan Hauser (dhauser@mmmed.org), MMA media relations and communications manager.

Legal Update

Conflict Continues Over Medical Staff Bylaws in Avera Lawsuit

How important are medical staff bylaws in defining and protecting the role of the staff in facilitating quality care for hospital patients?

This question is at the heart of the lawsuit filed in January against Avera Marshall by the medical staff of Avera Marshall Regional Medical Center and its leadership.

The precedent set by this case could have a significant impact on physicians in Minnesota. For that reason, the MMA and AMA petitioned the court to allow them to submit an amicus or “friend of the court” brief to provide additional context and background information as the court considers the case’s issues.

In mid-April, however, a district court judge denied the amicus request.

Had the court agreed to allow the amicus brief, the MMA and AMA would have provided additional information about the following: 1) the unique role of medical staff; 2) the relationship of a medical staff to a hospital; and 3) how the medical staff-hospital relationship can promote or hinder the quality of patient care.

The lawsuit is the result of an impasse with Avera Marshall administration and its board of directors relating to the role of the medical staff and its officers and committees as set forth in the medical staff bylaws.

Both Avera Marshall and the medi-

cal staff had approved the terms of the medical staff bylaws back in 2010. However, this past January, Avera Marshall’s board unilaterally voted to repeal the existing bylaws and replace them with a new set without medical staff input. In doing so, the board did not follow the process for changing the medical staff bylaws described in the bylaws, which requires involvement of the medical staff.

The new bylaws would diminish the role of the medical staff in making patient care decisions and in conducting medical staff investigations and peer-review proceedings. Additionally, the new bylaws would prevent the medical staff leadership from fulfilling its normal duties such as appointing and reappointing physician applicants to the medical staff, calling and holding meetings of the medical executive committee, and appointing physician members to the medical staff quality improvement committee.

Dickhoff Case Moves to State Supreme Court

In late March, the Minnesota Supreme Court allowed the MMA and the Minnesota Hospital Association to file an amicus brief in the case *Dickhoff et al v. Family Practice Medical Center*. This is a malpractice case in which the plaintiff alleged that a delayed cancer diagnosis was a result of her doctor’s negligence. Her damage claims are tied to the probability of the cancer’s recurrence.

To prove negligence occurred, the plaintiff must ascertain that: 1) the defendant had a duty of care to the plaintiff; 2) the defendant breached that duty; 3) the plaintiff’s injury was an actual and proximate result of the defendant’s breach; and 4) harm was suffered by the plaintiff because of the defendant’s breach.

The case calls into question two issues: 1) what the correct standard should be for plaintiffs seeking to prove the causation element of a negligence claim, and 2) whether plaintiffs may now

Legislative Review

Cost and Quality Reporting Law Modified

Public reports on the cost and quality of health care in Minnesota are likely to be more accurate thanks to a bill signed by Gov. Mark Dayton in April.

The program that generates those reports, known as provider peer grouping (PPG), came out of Minnesota's 2008 health care reform legislation and is intended to compare the performance of hospitals

and clinics based on their total cost of care as well as on the cost and quality of care for specific conditions. Although few argue the benefit of such information, the MMA expressed concerns about the data's accuracy and questioned whether the information was being released too hastily.

"We know that the reputations of physicians and their clinics are at stake in any performance measurement effort, so it is critical to the MMA that sound methodologies and

accurate data are used," says Janet Silversmith, the MMA's director of health policy. Because of these concerns, the MMA went to work on revising the legislation.

Over the past few months, the MMA has worked with the Department of Health, the Minnesota Hospital Association, and members of the Legislature to ensure that hospitals and clinics would get an opportunity to review the data before it would be released to the public.

The new bill does just that. "It has more realistic deadlines for publication of the public reports and provides an opportunity for clinics and hospitals to verify the accuracy of their reports prior to public release," says Dave Renner, the MMA's director of state and federal legislation.

The legislation also includes language creating a committee to advise the Commissioner of Health on patient attribution and quality and cost-scoring

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seek damages against physician defendants under the doctrine of "loss of chance." Loss of chance, which ties hypothetical outcomes to damages, has not been formally recognized as a cause of action under Minnesota law.

Karolyn Stirewalt, J.D., MMA policy counsel, says the case is important for the MMA because it could affect the standard plaintiffs must prove when alleging that a physician acted in a negligent way. "It will also establish whether a new cause of action is available to plaintiffs in Minnesota," she says.

Mayo Patent Case Ends Favorably for Physicians and Researchers

Minnesota physicians and researchers received good news this spring when the U.S. Supreme Court ruled favorably in the patent case *Mayo Collaborative Services v. Prometheus Laboratories*. The MMA and others participated in this case by filing a joint amicus brief in support of Mayo last fall.

"The MMA became involved in the case because an adverse ruling could have had broad-reaching effects on Minnesota physicians," says Karolyn Stirewalt, J.D., MMA policy counsel. "A negative outcome could have meant that physicians were infringing on the patent at issue, thereby opening themselves up to either lawsuits or royalty obligations."

Initiated in 2004, the case stems from a dispute over an issue relating to patent infringement. Prometheus owns a patent on a test that measures metabolite levels in patients taking thiopurine drugs and determines the medications' efficacy based on those levels. Mayo developed a test that also measures metabolites, but uses different levels to determine toxicity.

At issue was whether Mayo's test violated federal patent laws or whether Prometheus' patent proved invalid because the correla-



© iStockphoto/Lewis Wright

tions between metabolite levels and drug efficacy are derived from a natural body process and are, therefore, not patentable.

In a unanimous decision, the Court stated, "We conclude that the patent claims at issue here effectively claim the underlying laws of nature themselves. [Prometheus Laboratories'] claims are consequently invalid." The Court cited the policy argument made in the amicus brief that the MMA and others filed in support of physicians and researchers.

EDITOR'S NOTE: *Keep track of legal events that affect your practice through MMA News Now, delivered to your email box free each Thursday. To subscribe, go to www.mnmed.org and look for "MMA News Now" under the "Publications" tab. We're also on Facebook, Twitter, LinkedIn, and YouTube.*

Legislative Review

(continued from page 29)

methodologies, and streamlines the appeals mechanism for hospitals and clinics that have concerns about the information in their reports.

Bill Allocates \$11 Million to Health Care

Lawmakers passed a Health and Human Services bill that allocates \$11 million to health-related programs from the money Minnesota HMOs have agreed to pay back to the state.

State officials announced in mid-April that Minnesota health plans serving Medical Assistance and MinnesotaCare enrollees were overpaid by the state by \$73 million in 2011. The plans agreed to send \$27 million of that back to the state. Legislators spent the next few weeks debating how to allocate the funds.

“We’re happy to see some of the money go to health care but at the same time it’s also a little disappointing,” says Dave Renner, the MMA’s director of state and federal legisla-

tion. “We feel that all of the \$27 million should have gone toward restoring the cuts to programs that occurred last year. After all, the money was intended for health care in the first place.”

- The bill allocated:
- \$5.9 million to increase payments to personal care attendants (PCAs), which offsets last year’s cuts;
 - \$4.6 million to reinstate coverage for dialysis and cancer treatment for Emergency Medical Assistance;
 - \$235,000 for a study of the

value of managed care in the state’s public programs; and

- \$200,000 for an autism study by the University of Minnesota.

It also funds Prepaid Medical Assistance Program audits out of the Health Care Access Fund (HCAF) but not until 2014. These audits will take place every other year at a cost of \$1.1 million. The bill also calls for a one-time appropriation from the HCAF to pay for a radiation therapy capacity study.

Along with funding, the bill addressed concerns re-

MEET A MEMBER

Paul Huddleston, M.D.

| By Lisa Harden

For Paul Huddleston, M.D., working in grim conditions is nothing new. Over the past decade, the Mayo Clinic orthopedic surgeon and lieutenant colonel in the U.S. Army Reserves has been deployed to combat zones and disaster areas on four occasions. As a result, he’s learned to adapt to working conditions ranging from the pristine operating rooms at Mayo to makeshift triage units in the Middle Eastern desert.

In 2008, Huddleston found himself stationed at the remote Forward Operating Base Orgun-E in the mountains of southern Afghanistan, near the Pakistani border. With the camp situated 7,800 feet above sea level, food had to be air-dropped in weekly. Without the precise surgical tools they used in the United States, Huddleston and his 10-person unit performed “meatball surgery” to stabilize patients before sending them on to hospitals in Germany and eventually home.

“It made me a better surgeon,” says Huddleston, who is based at the Combat Support Hospital at Fort Snelling when he’s not at Mayo.

At the camp, he treated both soldiers and civilians with wounds including those caused by a land mine that exploded after a child stepped on it. (The explosion killed 10 and injured 16.) During down time, Huddleston’s unit taught medics from other units how to treat basic and complex injuries they might encounter in the field, miles away from help.

In addition to Afghanistan, Huddleston has traveled on missions to Iraq in 2003, 2006, and 2011. He also spent three weeks in Haiti following the 2010 earthquake. On that humanitarian mission, he distributed malaria pills, treated skin diseases, and set broken



Paul Huddleston cares for a young patient while on a mission to Haiti following the 2010 earthquake.

bones in rural areas north of Port au Prince that had no other medical care available.

“It was a very powerful feeling to go to help people who had nothing,” he says.

On his last deployment to Iraq, Huddleston used TeamSTEPPS (Team Strategies and Tools to Enhance Performance and Patient Safety) with his unit. The system, developed by the Department of Defense Patient Safety Program and the Department of Health and Human Services’ Agency for Healthcare Research and Quality, is designed to improve the quality, safety, and efficiency of care delivered. At Mayo, his operating room staff and a multidisciplinary group recently completed TeamSTEPPS training as well. “If we can practice effective patient safety in an Iraqi combat zone, then we can do it in Minnesota,” he says.

Huddleston recently shared his TeamSTEPPS experience in Iraq and at Mayo with members of the American Academy of Orthopedic Surgeons’ Committee on Patient Safety and would like to make it a focus of the MMA’s Quality Committee, on which he has

Photo courtesy of Paul Huddleston, M.D.

lated to unauthorized access to electronic patient records by health care staff or others. The legislation also expanded civil penalties for illegal release of patient records to include the unauthorized access to patient records.

On Watch: MMA Legislative Priorities

As the legislative session wound down (and as this issue of *Physician Advocate* went to press), the MMA continued to work on a number of its 2012 priorities.

served for the past five years.

“Serving on MMA committees, like serving in the Reserves, gives me an opportunity to make a difference,” he says. “I have always thought of myself as more of a foot soldier and less of an administrator, working in the field rather than standing on the sidelines.”

A foot soldier who knows how to adapt regardless of conditions.

AT A GLANCE

MEDICAL SCHOOL

Mayo Medical School, 1994

RESIDENCY

Mayo Graduate School of Medicine, 1995-2000

SPECIALTY

Orthopedic surgery

CURRENT PRACTICE

Mayo Clinic, Rochester;
Lieutenant Colonel,
U.S. Army Reserves

INTERESTS/HOBBIES

Downhill skiing, jogging,
yard work

■ Public Disclosure of Physician Disciplinary Information

Lawmakers continue to wrangle with legislation designed to provide the public with more information about physicians' histories.

The key sticking point in this debate relates to the posting of information on the Minnesota Board of Medical Practice's website about malpractice judgments and settlements in Minnesota and elsewhere. The MMA maintains, and literature supports, that settlements are not an accurate indicator of the quality of a physician's care.

Legislators are also debating whether to include fingerprinting and criminal background checks as a requirement for licensing.

■ Creating an Insurance Exchange

Many questions remain about the future of an insurance exchange in Minnesota after a Senate bill regarding its creation went down in defeat in late March.

The Affordable Care Act permits states to create their own exchange by January 2014 or else use an exchange that will be established by the federal government.

The MMA supports creating a Minnesota exchange and will work with Gov. Dayton and legislative leaders to keep this objective moving forward.

EDITOR'S NOTE: *Keep track of legislative events through MMA News Now, delivered to your email box free each Thursday. To subscribe go to the MMA website and look for "MMA News Now" under the "Publications" tab.*

MMA IN ACTION

Happenings around the state



Janet Silversmith

Janet Silversmith, MMA director of health policy, represented the MMA on the Minnesota Department of Human Services' Medicaid Citizens Advisory Committee, which met in March to discuss legislative proposals and the request for federal waivers the state plans to submit to the Centers for Medicare and Medicaid Services. The waivers seek changes in the areas of community integration and independence, improved health, reduced reliance on institutional care, and attainment of housing and employment. Silversmith also served on the MN Community Measurement Cost Measure Technical Advisory Group, which met in April to develop recommendations on how to advance cost measurement.

Becky Schierman, MMA manager of quality improvement, presented information on the Statewide Quality Reporting and Measurement System requirements at the Dulcimer Medical Center in Fairmont in March. Schierman also attended a meeting in March hosted by the Minnesota Department of Health at which the public provided feedback on the state's health care home initiative. The state is required by law to report to the Legislature on the impact of health care homes on overall cost, quality of care, and population health. In addition, Schierman attended a Minnesota Advanced Primary Care Demonstration project steering committee meeting in April, where discussion focused on potential data sources and resources for practices to help coordinate care of seniors.

Mandy Rubenstein and **Brian Strub**, the MMA's physician outreach staff, attended the Minnesota Medical Group Management Association winter conference in March; the University of Minnesota 2012 Match Day event in March; and the Minnesota Academy of Family Physicians spring conference in April. In April, Strub attended the East Central Minnesota Medical Society meeting in North Branch and Rubenstein attended the Stearns Benton Medical Society Annual Meeting.



Mandy Rubenstein

Earlier this year, **Lyle Swenson, M.D.**, MMA president; **Dan Maddox, M.D.**, MMA president-elect; and **Robert Meiches, M.D.**, MMA CEO, attended the National Advocacy Conference in Washington, D.C., sponsored by the American Medical Association. They attended discussion sessions with national leaders and met with Minnesota lawmakers to discuss such issues as the Medicare sustainable growth rate cuts, workforce needs, and implementation of the Affordable Care Act. Swenson also testified in March before the Governor's Health Care Reform Task Force on general approaches to the use of cost and quality measurement data. The MMA supports such measurement as long as its primary focus is performance improvement.

VIEWPOINT

| by Lyle Swenson, M.D.

Off Balance

In athletic competitions, it is necessary for the playing field to be level to give all participants a fair chance at success. Even though the world of health care is not like athletic competitions, the same principle of a level playing field applies. Minnesota physicians are concerned and disappointed that the playing field in health care does not appear to be level.

Take, for instance, the recent announcement by state officials that Minnesota health plans serving Medical Assistance and MinnesotaCare enrollees were overpaid by the state by \$73 million in 2011. This overpayment will be paid

back to the state based on an agreement reached last year that capped operating margins at 1 percent. From 2000 to 2011, with the exception of 2006, Minnesota health plans that contracted with the state to care for this patient population showed positive operating income. At the same time, many physicians and health professionals were seeing flat or decreased payments for serving low-income patients. In fact, the payments they received often were not enough to cover their overhead expenses. This was enough to put some practices under.

There are other indications of the current imbalance. Minnesota's nonprofit health plans collectively had a 21 percent increase in operating profits last year, while some long-standing physician practices had to close their doors because of financial problems, and many others were feeling the effects of declining payment from Medicare, Medicaid, and commercial insurers. While physician practices can negotiate payments from insurers, to some extent, there is a set fee schedule from Medicare and Medicaid.

Efforts to restore balance are needed. We have already seen the state move to a competitive bidding process for state-run health programs, and it also has capped health plan profits in the Medical Assistance and MinnesotaCare programs. In addition, the MMA and its Independent Practice Task Force are working to implement and promote fair contracting recommendations that call for all physicians to be reimbursed the same amount for the same service regardless of where the service is provided.

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The MMA is promoting fair contracting recommendations that call for all physicians to be reimbursed the same amount for the same services regardless of where the service is provided.
”



Lyle Swenson, M.D.
MMA President

Photo by Steve Weverka

For some physicians, these and other efforts to level the playing field are too little, and too late. Our physician organizations must continue to be vocal in pointing out where our health care system is unfair and support efforts to restore fairness so that physicians can continue to have the ability to choose the type of practice they desire—and have a reasonable chance of success.

VITAL SIGNS: MMA News in Review

Primary Seat Belt Law Saves Lives and Money

Legislation championed by the MMA has led to \$45 million in savings and resulted in 68 fewer deaths between 2009 and 2011, according to a recent study.

Three years ago, MMA staff advocated for Minnesota's primary seat belt law, allowing law enforcement officers to ticket drivers for not wearing a seat belt. The results of a study by the Department of Public Safety's Office of Traffic Safety show the effort was worth it.

"We saved about \$45 million in avoided hospital costs, \$10 million of which would have come from taxpayers through Medicare and Medicaid charges," says Dave Renner, the MMA's director of state and federal legislation.

Minnesota is one of 32 states with a primary seat belt law.

The study found that in addition to the decrease in fatalities, the stricter seat belt law led to 320 fewer severe injuries.

Health Care Forums Scheduled for Citizen Input

The Governor's Health Care Reform Task Force is partnering with the Citizens League and the Bush Foundation to gather public input on what health care reform means to Minnesotans. Through an initiative called Citizen Solutions, the groups are sponsoring a series of forums across the state to start conversations and gather ideas.

"This is an excellent forum for physicians to get involved and speak out as to what they feel health care is and should be about," says Janet Silversmith, MMA director of health policy.

The forums, which began in April, continue through July 24 in and outside of the metro area. For a complete calendar of meetings, visit <http://health.citizensolve.org/calendar/list>.

Free Interpreter Services Training Available

The MMA and Minnesota Academy of Family Physicians (MAFP) Foundation have teamed up to offer free training to physicians on how to effectively use interpreter services.

"We are offering this training to help clinics provide the best possible care to patients," says Dionne Hart, M.D., chair of the MMA Minority and Cross-Cultural Affairs Committee.

The sessions will address such questions as: How can I feel more comfortable using interpreters? How do I know if my patient understands me? Should I be saying or doing something differently to ensure accuracy? Why is it better to use a professional interpreter than a family member?

Clinics can set up a training session by contacting Brian Strub (bstrub@mnmed.org) at 612-362-3745 or Lynn Balfour (foundation@mafp.org) at 952-542-0130.

Webinar to Improve the Patient Experience

For those who were unable to attend the April 4 webinar on preparing for Minnesota's Statewide Quality Reporting and Measurement System using CG-CAHPS survey data, it is now available on the MMA website.

The hour-long webinar, "Using CG-CAHPS Data to Improve Your Patients' Experience," outlines the state's require-

ments for contracting with certified vendors that will collect and submit data, provides insights from practices that have used CG-CAHPS surveys, and offers tips for using the data to improve patients' experiences.

View the webinar at www.mnmed.org/KeyIssues/QualityandSafety/StatewideQualityReporting/tabid/3238/Default.aspx.

Feedback Sought for Statewide Quality Reporting

Have an idea on how to improve quality measures in Minnesota? Let the Minnesota Department of Health know about it by June 1.

Health officials are currently gathering recommendations to determine what changes should be made to the Statewide Quality Reporting and Measurement system. Recommendations are due at health.reform@state.mn.us by 4:30 p.m. on June 1.

For more information on the criteria for recommendations regarding health care quality measures, visit the Department of Health's website (www.health.state.mn.us/healthreform/measurement/recommendations.html).

Advocates Gather to Support Strong Tobacco Policies

The MMA continues to fight for strong tobacco laws. In March, representatives from the MMA joined more than 300 others who share that goal at the state Capitol as part of Raise it for Health Day.

Raise it for Health is a coalition of Minnesota's health and nonprofit organizations including the MMA that want to further reduce tobacco use. Smoking kills more than 5,100 Minnesotans a year and contributes to nearly \$3 billion each year in excess health care costs.

"The ultimate goal of the coalition is to raise the tobacco tax," says Eric Dick, manager of state legislative affairs for the MMA. "A higher tobacco tax will mean fewer kids start smoking and more adults will quit."

In addition, the MMA is working on securing an increase on the tax for little cigars. Currently, they are taxed at a lower rate than conventional cigarettes and, because they're cheaper, they're more attractive to youth.

For more information, visit the Raise it for Health website at www.raiseitforhealth.org.

EDITOR'S NOTE: *Keep track of news through MMA News Now, which is delivered to your email box free each Thursday. To subscribe, go to www.mnmed.org and look for "MMA News Now" under the "Publications" tab.*



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Marriage and Health Disparities

The MMA Board of Trustees has adopted policy on marriage. Now what?

By Peter C. Amadio, M.D.

“Thank God we have spouses. I can’t tell you how often, if it was left up to the patient, they never would have sought care.”

—Ralph Brindis, M.D., as quoted in the *Wall Street Journal*, April 17, 2012¹

In 2007, I asked the MMA Public Health Committee to research the health benefits of marriage for same-sex couples. My request grew out of conversations I had had with colleagues in Wisconsin who were advocating for marriage equality as one means of reducing health disparities between same-sex and opposite-sex couples. Wisconsin physicians have been active in pressing for an end to disparities for same-sex couples in articles in their state medical journal,² in Wisconsin Medical Society policy,³ and at the AMA, where, most recently, they introduced a resolution that became the impetus for the AMA’s position opposing the military’s Don’t Ask, Don’t Tell policy.⁴

After evaluating the literature, the committee submitted a resolution to the MMA House of Delegates asking that the MMA “work to reduce the disparities in health outcomes suffered because of unequal treatment of marital status for same-sex partners in Minnesota by supporting equality in laws which affect that status” and that the MMA delegation submit a resolution to the AMA asking it do the same. The resolution also asked the AMA to study the impact of such changes on health outcomes in states where same-sex marriage is legal and where same-sex relationships have been legally sanctioned. The MMA resolution ultimately was referred to the Board of Trustees, which asked the public health committee to prepare a position paper on the issue. After reviewing the paper, the Board tabled further action on the resolution, pending action on the issue by the AMA. In 2009, the AMA adopted policy H-65.973, “Health Care Disparities in Same-Sex Partner Households,” in response to several resolutions and a report with the same title from the Council on Science and Public Health.⁵ The AMA policy states:

Our American Medical Association: 1) recognizes that denying civil marriage based on sexual orientation is discriminatory and imposes harmful stigma on gay and lesbian individu-

als and couples and their families; 2) recognizes that exclusion from civil marriage contributes to health care disparities affecting same-sex households; 3) will work to reduce health care disparities among members of same-sex households including minor children; and 4) will support measures providing same-sex households with the same rights and privileges to health care, health insurance, and survivor benefits, as afforded opposite-sex households.

Building on this policy, which recognizes that “exclusion from civil marriage contributes to health care disparities affecting same-sex households,” additional resolutions were introduced by AMA delegates in 2010 that explicitly called for the AMA to oppose legislation such as the Defense of Marriage Act and to advocate for same-sex marriage laws as a way of reducing the health disparities between same-sex and opposite-sex couples. Ultimately, the AMA House of Delegates referred these newer resolutions to the AMA Board of Trustees, which instead advised reaffirmation of the 2009 policy.

In response to the AMA’s actions, the MMA executive committee asked the Public Health Committee to review the MMA resolution and AMA policy and reports and develop a recommendation for the MMA Board of Trustees. The Board of Trustees, at its January 2012 meeting, adopted the following policy, which is nearly identical to that of the AMA:

The MMA 1) recognizes that denying civil marriage based on sexual orientation is discriminatory and imposes harmful stigma on gay and lesbian individuals and couples and their families; 2) recognizes that exclusion from civil marriage contributes to health care disparities affecting same-sex households; 3) will work to reduce health care disparities among members of same-sex households including minor children; and 4) will support measures providing same-sex households with the same rights and privileges to health care, health insurance, and survivor benefits, as afforded opposite-sex households.

Meanwhile, the issue of marriage remains politically charged. Voters will be deciding on a proposed constitutional ban on same-sex marriage in Minnesota’s 2012 general election.



Making the Case

Data documenting the health benefits of marriage specifically in same-sex couples remains limited. This is not surprising because such relationships were almost universally illegal until recently. In the Midwest, Iowa is the only state that currently recognizes same-sex marriage. In its report to the MMA Board of Trustees, the Public Health Committee included a number of references to studies documenting the well-known benefits of marriage in general to a couple's mental and physical health. These include lower mortality rates for married men and women; lower rates of depression, cardiovascular disease, respiratory disease, smoking, alcoholism, and cancer; and higher levels of well-being, happiness, and life satisfaction. The committee also cited data suggesting that these benefits were the same for same-sex couples.^{6,7} Importantly, there were no studies suggesting that the health benefits of marriage were in any way restricted to heterosexual couples. The AMA's most recent report on the issue, "Marriage Equality," which was submitted at its 2011 annual meeting, included 25 references to articles specifically related to the impact of marriage inequality on same-sex couples; the Council on Science and Public Health's report from 2009 had 45 more.⁵ Most of these were references to policy papers because same-sex marriage just recently became legal in a few jurisdictions. Thus, it remains difficult to cite long-term data showing that the health outcomes for same-sex couples who are legally married are better than those of same-sex couples who are not, and it is too early to know what impact same-sex marriage has had on access to health care benefits.

Studies have shown that the passage of anti-same-sex marriage laws has had adverse effects on the health of gay, lesbian, and bisexual individuals^{8,9} and, in contrast, that the legalization of same-sex marriage improved the health of gay men, although without regard to marital status, within the first year of its becoming legal in Massachusetts.¹⁰ Finally, several recent reports have begun to show beneficial effects on mental health conferred on same-sex couples who were married, as opposed to people who are single or who are cohabiting but not married.¹¹⁻¹³

A Duty to Act?

So where does all of this leave Minnesota physicians? Do the MMA and AMA policies, which include a call to work to reduce health care disparities among members of same-sex households, imply a duty to act on the part of physicians? They may. The American Board of Internal Medicine's Charter of Medical Professionalism states that "the physician should work to eliminate barriers to access based on education, laws, finances, geography, and social discrimination ... as well as [by] public advocacy on the part of each physician."¹⁴ Those who ascribe to this charter may see working to reduce disparities as including public advocacy against laws that increase such disparities and in favor of laws that reduce them. As noted, our colleagues in Wisconsin seem ready to move in this direction with policy supporting civil unions.³

I was glad to see the MMA Board adopt the AMA's policy

on marriage. I see it as a necessary, but not sufficient, step on the road toward ending the health disparities that affect our gay, lesbian, bisexual, and transgender patients. The evidence is quite clear that marriage is a significant predictor of better physical and mental health for reasons that have nothing to do with sexual orientation. Instead, these relate principally to legally married couples having better financial security, the committed support of and for a loved one, social recognition and acceptance, the sexual health benefits of monogamy, and better access to health insurance and health care services. Although there may be other ways to achieve those benefits without marriage, no alternative solution is readily in sight. Even the idea of giving same-sex couples the same privileges as marriage under a different name has the potential to maintain disparities in social status and recognition that they currently experience.

I encourage all Minnesota physicians to consider what this new MMA policy on marriage might mean for them, for their patients, and for their communities. Both here and elsewhere in the country, it is likely that the issue of health disparities in general, and those associated with sexual orientation in particular, will continue to require our attention until they are finally resolved.

MM

Peter Amadio is the Lloyd A. and Barbara A. Amundson Professor of Orthopedic Surgery at Mayo Clinic and a past-president of the MMA.

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Exploring Hepatitis B

A Neglected Disease

By Nicole M. Loo, M.D., and Douglas J. Pryce, M.D.

■ Chronic hepatitis B viral (HBV) infection can lead to cirrhosis, liver failure, or hepatocellular carcinoma. In the United States, HBV infection is commonly associated with high-risk behaviors such as intravenous drug use or unprotected sex; but it is not as well-known among health care providers that HBV can be transmitted from mother to baby during birth. Worldwide, the majority of cases of chronic HBV infection are in people who contracted the virus during birth. There is a lack of awareness in the United States that immigrants from HBV-endemic countries may be at high risk for chronic HBV. Thus, at-risk individuals may not be screened for HBV. The most recent Centers for Disease Control and Prevention guidelines recommend HBV screening for all people born in Asia, all U.S.-born persons who were unvaccinated as infants and whose parents were born in regions of high HBV endemicity ($\geq 8\%$), and individuals with parenteral risk factors. Screening for HBV starts with HBsAg (hepatitis B surface antigen), HBsAb (antibody to hepatitis B surface antigen), and total anti-HBc (total antibody to hepatitis B core antigen) testing. For those who are HBV-negative (HBsAg-negative) and have no evidence of prior immunity, the three-part HBV vaccination series is recommended.

CASE. A 58-year-old Chinese man with no significant past medical history presented for an annual physical exam. He asked to be screened for the hepatitis B virus (HBV), although he had no symptoms of infection. His mother, however, had died from hepatocellular carcinoma.

Screening revealed the man had chronic HBV. It was further discovered that he had cirrhosis with no signs of liver failure. He was treated successfully with antiviral medications to the point where his body completely suppressed the virus. He continues to follow up with his physician every six months to screen for hepatocellular carcinoma and liver damage.

Having been born in Malaysia, the man was at high risk for chronic HBV; yet no one had ever checked his HBV status. He had spent more than half of his life in the United States, where he had access to high-quality health care. When the man's family first heard that he was HBV-positive, they were shocked. They knew HBV was common in Asia but did not think that it would be a concern in the United States.

Hepatitis B is a viral infection that is transmitted through blood or body fluids during unprotected sex or through intravenous drug use; it also may be transmitted from mother to child during birth.¹ Generally, when an individual contracts HBV as an adult, he or she will be able to naturally clear the infection. However, 90% of people who contract HBV during birth cannot clear the virus and will develop chronic HBV.² Chronic HBV can lead to serious complications such as cirrhosis, liver failure, or hepatocellular carcinoma.³

Approximately 350 million individuals worldwide have chronic HBV as compared with the 33 million individuals worldwide who have HIV/AIDS.^{4,5} In the United States, between 1.25 million and 2 million individuals are affected by chronic HBV, with more than 50% being Asian.¹ This translates to approximately one in 10 Asian Americans in the United States having chronic HBV.³ In 2010, the Minnesota Department of

Health reported that 19,420 individuals were "assumed to be alive and living" in Minnesota with chronic HBV.⁶

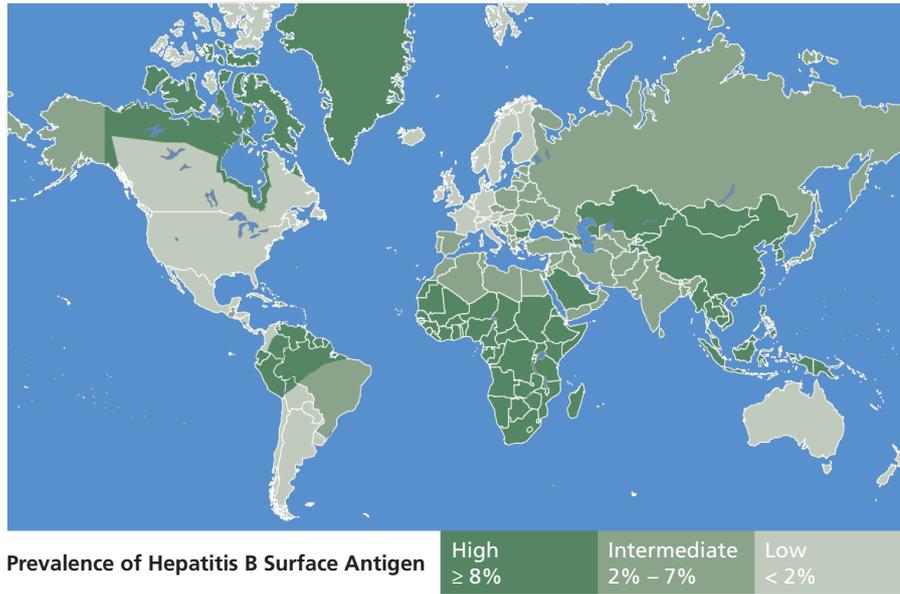
Several ethnic groups in the state are at high risk for chronic HBV including our sizable Hmong and Somali populations. In one study of 484 patients in a St. Paul family medicine residency clinic, Hmong patients were found to have an 18% HBsAg-positivity rate (indicating acute or chronic HBV infection).⁷ When 12,505 refugees in Minnesota were studied from 1998-2001, the prevalence of chronic HBV was found to be 7.1%; Africans were three times more likely and Asians were 2.4 times more likely than their European counterparts to have chronic HBV.⁸

An Overlooked Problem

Despite its prevalence rate, HBV infection remains one of the world's most neglected diseases. There are multiple reasons for this. One is the fear and stigma associated with HBV. In parts of Asia, for example, people may fear getting tested for HBV, as there is a deeply engrained

Figure 1

Worldwide Prevalence of Hepatitis B in 2006



Source: CDC Traveler’s Health: Chapter 3 Infectious Diseases Related to Travel (www.nc.cdc.gov/travel/yellow-book/2012/chapter-3-infectious-diseases-related-to-travel/hepatitis-b/liberia.htm).

stigma surrounding having a positive HBV status. For example, a man might be fired from his job for being HBV-positive. Young women with HBV are considered undesirable and cannot get married. People with HBV often become isolated because of the lack of knowledge about how the virus is spread. For example, family members may physically separate themselves from HBV-positive individuals by instituting separate meal times and making them use separate eating utensils and dish-drying racks for fear of contracting the virus. Many Asians would rather risk not knowing their HBV status than face this type of discrimination and ostracism.

In the United States, there is lack of awareness on the part of physicians about the need for HBV screening in certain high-risk populations such as Asian and African immigrants. If a physician is aware that a patient from a certain country may

Table 1

Interpretation of Serologic Test Results for HBV

Serologic Markers				Interpretation
HBsAg (Hepatitis B surface antigen)	Total anti-HBc (Total antibody* to hepatitis B core antigen)	Anti-HBc IgM (Immunoglobulin M to hepatitis B core antigen)	Anti-HBs (Antibody to hepatitis B surface antigen)	
Negative	Negative	Negative	Negative	Never infected; no evidence of immunization
Positive	Positive	Negative	Negative	Chronic infection
Positive	Positive	Positive	Negative	Acute infection
Negative	Positive	Negative	Positive	Immune due to natural infection
Negative	Negative	Negative	Positive	Immune due to vaccination
Negative	Positive	Negative	Negative	Unclear interpretation with several possibilities (see 1, 2, 3, and 4)

* Total antibody to hepatitis B core antigen includes both IgG (Immunoglobulin G) and IgM (Immunoglobulin M)

1. Resolved infection
2. False positive anti-HBc. This can happen in individuals from areas with a low prevalence of HBV infection with no risk factors for HBV
3. Low level of chronic HBV infection. HBV DNA may be detectable, but more in the liver than serum. This situation is not uncommon in individuals from areas with high prevalence of HBV infection. This can also be the case in those with HIV or hepatitis C (HCV) infection.
4. Resolving acute infection as anti-HBc may be the only marker in the window phase of acute HBV. If this is the case, the individuals should also be positive for IgM anti-HBc.

Sources: Weinbaum CM, Williams I, Mast EE, et al. Recommendations for identification and public health management of persons with chronic hepatitis B virus infection. *MMWR Recomm Rep.* 2008;57(RR-8):1-20; Lok AS, McMahon BJ. Chronic hepatitis B. *Hepatology.* 2007;45(2):507-29.

be at risk, he or she may think that person already has been screened for HBV. Indeed, when individuals migrate to Minnesota from abroad, they are screened by the Department of Health for a variety of infectious diseases such as sexually transmitted diseases, HBV, parasites, and tuberculosis.⁹ However, this information may not make it into the hands of their primary care providers. The individual may forget that he or she was tested or diagnosed; the person may not bring prior health records when seeing a new doctor; or the person may hide their positive HBV status because of the social stigma. In addition, an individual may not have been screened if he or she originally immigrated to another state that does not screen immigrants for HBV. The assumption may be that this person was already screened for the virus upon arrival in the United States.

Certain high-risk patients are overlooked with regard to HBV screening. Surveys of primary care providers conducted in San Francisco and New Jersey showed HBV screening was most often recommended for men who have sex with men, intravenous drug users, and HIV-infected persons.¹⁰ Because many Asian and African immigrants do not engage in the behaviors commonly associated with HBV infection (drug use, for example), physicians do not see an obvious reason for ordering an HBV panel. As a result, many Asian and African immigrants with chronic HBV are often not diagnosed unless they present with endstage clinical symptoms from decompensated cirrhosis (bleeding varices, ascites, encephalopathy, or jaundice) or untreatable hepatocellular carcinoma. The risk of developing endstage liver disease from chronic HBV ranges from 15% to 40%.¹¹

Screening and Treatment

In 2008, the Centers for Disease Control and Prevention (CDC) issued guidelines recommending HBV screening all persons born in geographic regions with an HBsAg prevalence of greater than 2% (ie, all Asians and members of a number of other ethnic groups), all U.S.-born persons who were unvaccinated as infants

and whose parents were born in regions of high HBV endemicity ($\geq 8\%$), and individuals with parenteral risk factors.¹² Figure 1 shows countries where HBV infection is prevalent.

A number of different lab tests can be ordered. Table 1 provides guidance for interpreting results. The serologic tests used to differentiate between acute infection, resolving infection, prior infection, and immunity are HBsAg (hepatitis B surface antigen), total anti-HBc (total antibody to hepatitis B core antigen), anti-HBc IgM (immunoglobulin M to hepatitis B core antigen), and anti-HBs (antibody to hepatitis B surface antigen).¹²

The course of action that a treating physician should take is determined by the HBV serology result. If the patient is HBsAg-positive, then he or she should be considered for periodic screening for liver disease and cancer with the liver function test ALT, the tumor marker alpha-fetoprotein (AFP), and liver ultrasound or other imaging every six to 12 months depending on disease activity and severity. It is appropriate to refer the following patients to a gastroenterologist/hepatologist: patients with chronic HBV (to determine the level of disease activity and to obtain screening recommendations); patients coinfecting with hepatitis C (HCV) or HIV; and patients with an abnormal ALT, AFP, or liver ultrasound. Counseling on the importance of avoiding alcohol, getting family members screened for HBV, and preventing the spread of HBV should be provided. Screening the patient for coinfection with HCV, HIV, and hepatitis A should also be initiated (Table 2).

If an at-risk patient is screened and is HBsAg-negative and anti-HB-negative, then the patient should receive the three-part HBV vaccination series. If the patient is HBsAg-negative and anti-HBs-positive, then the patient can be assured that he or she is immune to HBV (Table 1).

Further guidance for physicians on caring for patients at high risk for HBV is available (Table 2).

Taking Action

A number of efforts are underway in Minnesota to prevent HBV infection and help those who have chronic disease are identified and treated. The Minnesota Department of Health has been quite successful in decreasing perinatal HBV infection by ensuring infants born to HBV-infected mothers receive prophylactic treatment with hepatitis B immune globulin plus three doses of HBV vaccine. In 2009, 406 infants born to HBV-infected mothers in Minnesota had postserologic testing

Table 2

Caring for Patients at High Risk for HBV

1. Screen at-risk individuals with HBsAg (hepatitis B surface antigen), anti-HBc (antibody to hepatitis B core antigen), and HBsAb (and/or anti-HBs antibody to hepatitis B surface antigen).
 - All Asians and other foreign-born persons from areas with an intermediate to high prevalence of HBV.
 - All U.S.-born persons who were unvaccinated as an infant and who have a parent originating from a country with an HBV endemicity of $\geq 8\%$.
2. Provide the three-part HBV vaccination series to individuals who test negative for HBV and have no evidence of natural immunity.
3. For individuals who are HBV-positive, provide further counseling regarding the prevention of transmission, lifestyle modification, and family testing, and/or refer them to gastroenterology/hepatology as appropriate.

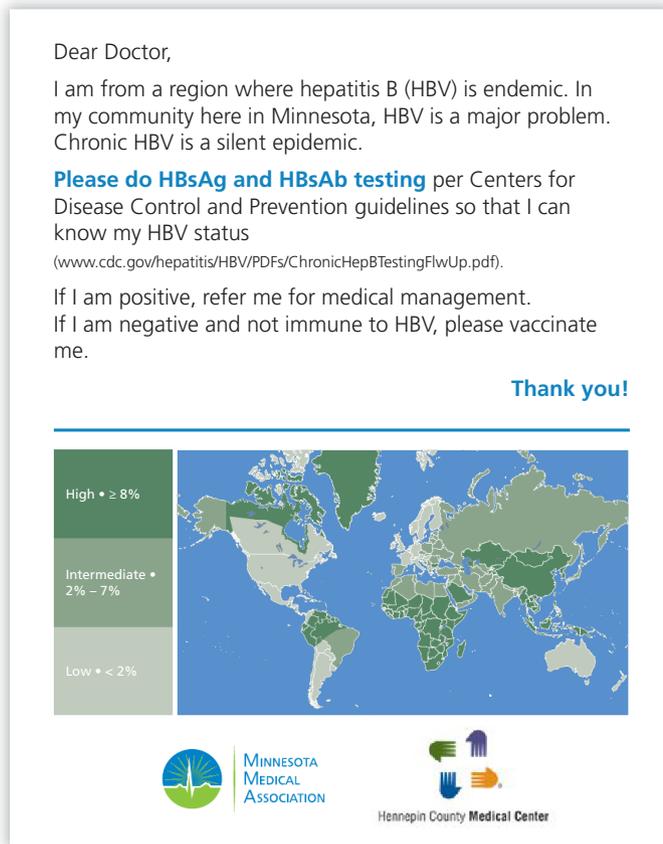
To learn more, download "A Comprehensive Physicians' Guide to HBV" from Stanford University's website <http://liver.stanford.edu/Education/physicians.html>.

For information on HBV for patients, go to <http://liver.stanford.edu/Education/hepbpatients.html>.

Figure 2

Promoting Awareness

Members of the MMA's Minority and Cross-Cultural Affairs and Public Health committees, along with representatives from the Minnesota Department of Health and Hennepin County Medical Center, created this card and are working to distribute it. The hope is that patients will give it to their physicians when they come in for visits.



demonstrating no HBV infection. Only five infants with perinatal HBV infections were identified as having positive HbsAg during a postvaccination screening performed between the ages of 9 and 15 months.⁶

In order to increase the screening rate among immigrants, Patricia Walker, M.D., DTM&H, associate professor at the University of Minnesota and founder of HealthPartners Center for International Health in St. Paul is leading an effort to develop a “global health wizard” that would provide an alert in the electronic medical record identifying foreign-born patients in need of screening.

The Minnesota Medical Association’s Minority and Cross-Cultural Affairs and Public Health committees have launched an initiative to raise awareness about the importance of screening for and vaccinating against HBV in affected immigrant communities. The committees have developed and are facilitating the distribution of an educational handout on HBV that patients can bring to their providers to

prompt a discussion of their HBV status (Figure 2).

Conclusion

Chronic HBV is common in certain Minnesota populations, including Asian and African immigrants. Because of lack of provider knowledge, many at-risk individuals are not being screened for HBV.

Chronic HBV can lead to such serious complications as cirrhosis, liver failure, or hepatocellular carcinoma. Thus, providers need to be vigilant about screening all at-risk individuals. They need to be aware that the populations at risk include not only IV drug users, patients with HIV, and men who have sex with men but also those who were born in or who have parents from countries where HBV is endemic. Those who are positive for HBV need to be further assessed for the extent of disease and have lifelong follow up. Persons who are HBV-negative (HBsAg-negative) and show no evidence of HBV immunity (anti-HBs ± anti-HBc) should be vaccinated with the three-part HBV

vaccination. All patients need to know that there are new medications for treating HBV that are effective and well-tolerated.

By taking these steps, we can begin to ensure that fewer and fewer Minnesotans suffer the devastating consequences of this disease. **MM**

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The Minnesota Heart Disease and Stroke Prevention Plan 2011-2020

By Stanton Shanedling Ph.D., M.P.H., Mary Jo Mehelich, R.N., M.P.H., and James Peacock, Ph.D., M.P.H.

■ Although Minnesota is known as a heart-healthy state, heart disease and stroke are still among the leading causes of death for people living here, especially those in certain racial and ethnic groups. To address this concern and reduce the overall incidence of heart disease and stroke, the Minnesota Department of Health's Heart Disease and Stroke Prevention Unit led an effort to create the Heart Disease and Stroke Prevention Plan 2011-2020. This article describes the plan's fundamentals and some of its recommendations.

Minnesota has a reputation for being a heart-healthy state. It consistently has had the lowest death rate from coronary heart disease in the nation. In addition, Minnesotans die from stroke at a lower rate than people in the majority of other states. In 2000, Minnesota became the first state in the nation in which heart disease fell to the second-leading cause of death behind cancer. In 2009, Minnesota became the first state to see the total number of deaths from both heart disease and stroke fall below the number of deaths from cancer. That year, there were 37,801 deaths in the state; heart disease accounted for 7,233 (19.1%) of them, stroke for 2,023 (5.4%), and cancer for 9,575 (25.3%).¹ From 2005 to 2007, Minnesota's death rates due to coronary heart disease and stroke were 40% and 9% lower than the national averages.² Even though heart disease- and stroke-related mortality has been declining for several decades, both remain among the top four causes of death in the United States. A recent analysis attributed roughly 50% of the decline in mortality from heart disease that took place between 1980 and 2000 to improved medical treatment and approximately 50% to improvements in risk factors.³

In terms of the percentage of individuals who have risk factors for cardiovascular disease (who are overweight or obese, who currently smoke, and who are physically active) (Table), Minnesota does modestly better than the rest of the nation. Until recently, Minnesota lagged behind the rest of the country in terms of adequate consumption of fruits and vegetables; fewer than 22% of Minnesota adults reported consuming the recommended five servings per day, slightly worse than the me-

dian value of all states. Adequate consumption of fruits and vegetables remains very low in all states, however.

Despite such progress, not all populations in Minnesota experience low rates of cardiovascular disease mortality. The rate of death from heart disease is significantly higher among American Indians than members of other racial and ethnic groups in the state. Death rates from stroke are higher among American Indians, African Americans, and Asians than among whites. Heart disease and stroke death rates are 36% higher in American Indians than in whites,⁴ and for stroke alone, there is a similar gap in the death rate for American Indians, blacks, and Asians when compared with whites in Minnesota (ranging from 25% to 33%). Also, heart disease and stroke risk fac-

Table

Prevalence of Risk Factors for Heart Disease and Stroke in Minnesota

- Approximately 139,000 Minnesotans (3.5% of adults) have coronary heart disease and more than 90,000 (2.3% of adults) have had a stroke
- 21.6% of adults in Minnesota have high blood pressure
- 33.8% have high cholesterol
- 16.7% are cigarette smokers
- 15.8% do not participate in any leisure time physical activity
- 78.1% consume fewer than five servings of fruits and vegetables per day
- 24.9% are obese

Source: Minnesota Department of Health. Heart Disease and Stroke in Minnesota: 2011 Burden Report

tor profiles are less favorable in Minnesotans with lower incomes and less education than in those with higher incomes and more education.

Comparisons of Minnesota with other states show that for both heart disease and stroke, American Indians in Minnesota die at higher rates than American Indians in the rest of the country. Asians in Minnesota die from stroke at a higher rate than Asians in other parts of the country, and Hispanics in Minnesota die from heart disease at a higher rate than Hispanics elsewhere. Blacks in Minnesota die from heart disease and stroke at much lower rates than the national average for blacks, but Minnesota's black population is significantly different from that in other states, as a large proportion are recent immigrants from Africa. Risk factors and health outcomes may be very different for U.S.- and foreign-born blacks.

The number of hospitalizations for myocardial infarction in the state have steadily declined; however, hospitalizations for other heart-related concerns have fallen more slowly. Hospitalizations for stroke, for example, have leveled off in recent years, following large declines during the 1990s. In total, the inpatient hospitalization costs for heart disease and stroke remain higher than those for any other disease in Minnesota. In 2009, Minnesotans incurred more than \$1.79 billion in charges for inpatient hospitalizations related to heart disease and more than \$367 million in charges for inpatient hospitalizations related to stroke.⁵ These charges do not take into account the ongoing costs associated with disease management, long-term care, rehabilitation, and lost wages or productivity.

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The Minnesota Heart Disease and Stroke Prevention Plan

In 2004, the Centers for Disease Control and Prevention required that all 43 of the states to which it provides funding create a plan as part of a national effort to address heart disease and stroke. That year, health officials in Minnesota created the state's first Heart Disease and Stroke Prevention Plan, a blueprint for addressing risk factors for and reducing mortality rates from heart disease and stroke. The plan focused on populations with the worst health outcomes and recommended a variety of strategies for improving cardiovascular health in these groups as well as in the general population. The plan had five goals 1) to develop infrastructure and capacity to promote cardiovascular health; 2) to prevent the development of risk factors; 3) to detect and treat risk factors; 4) to prevent recurrences, complications, disabilities, and mortality from heart disease and stroke; and 5) to eliminate health disparities between various populations in regard to heart disease and stroke.

A steering committee and work groups were formed to address strategies for accomplishing the five goals such as promoting healthful food choices in workplace and school cafeterias and vending machines, developing an online survey to capture work being done in the state around heart disease and stroke prevention, and establishing relationships with advocates. The Minne-

sota Heart Disease and Stroke Prevention Plan 2004-2010 mid-course review summarizes the accomplishments. It can be found at www.health.state.mn.us/divs/hpcd/chp/cvh/cvhplan.html.

In 2008, work groups convened by the Minnesota Department of Health's Heart Disease and Stroke Prevention Unit began planning a second phase of the plan, the Minnesota Heart Disease and Stroke Prevention Plan 2011-2020. Members identified goals in three areas: prevention, acute treatment, and disease management. Physicians will play a key role in achieving many of those.

■ **Prevention**

The plan targets people who are considered "healthy" but engage in unhealthy behaviors such as physical inactivity, tobacco use, and unhealthy eating, as well as those who are overweight or obese and have no other comorbidities. One of the objectives is reducing tobacco use. In Minnesota, 16.7% of adults are cigarette smokers. By encouraging patients who use tobacco to quit and connecting them with tobacco-cessation programs, and by talking to young patients about the dangers of smoking, physicians can help reduce smoking and the health consequences associated with it. Clinics can develop reminder systems to prompt physicians to ask about smoking, educate providers about evidence-based interventions such as the 5As (ask, advise, assess, assist, arrange), and provide education for patients about smoking and its connection to heart disease and stroke.

The work groups also recommended that physicians encourage patients with cardiovascular risk factors to take low-dose aspirin as a preventive measure. Physicians can refer to the United States Preventive Services Task Force recommendations to determine which patients would most benefit from aspirin therapy.

Reducing obesity rates is another way to reduce people's risk factors for heart disease. More than 60% of Minnesota adults are overweight or obese. Physicians can routinely monitor and inform patients of their weight and height. They also can offer guidance and recommendations to effect behavior change related to obesity.

■ **Acute Care**

The groups also identified strategies for addressing acute cardiac and stroke events—events in which time is of the essence. In addition to recommending that all Minnesotans become more knowledgeable about the signs and symptoms of heart attack and stroke and about when to call for emergency help, they pointed to the need for policies and protocols to enhance statewide systems of care for patients with heart disease and stroke. The state's population, especially in rural counties, is aging, and those same rural areas have few resources for rapidly diagnosing and treating stroke patients.

Identifying and treating stroke as early as possible can minimize damage to the brain and improve a person's chance of a full recovery. The clot-busting drug tPA remains the only Food and Drug Administration-approved treatment for acute isch-

emic stroke. The guidelines recommend administration of tPA within three hours of the onset of ischemic stroke symptoms (for some patients up to 4.5 hours after symptom onset). In addition, some interventional procedures can be performed by specialists at a limited number of hospitals for patients up to eight hours after symptom onset. Since early 2011, representatives from the Department of Health and the American Heart Association have been developing recommendations for a statewide acute stroke system. The goal is to provide all Minnesotans, no matter where they live, with access to high-quality stroke care. Physicians, nurses, rehabilitation specialists, EMS providers, and other health professionals have been using national recommendations to develop standards, protocols, guidelines, and policies for statewide implementation of such a system. The system will enable hospitals to clearly define their capability to diagnose and treat acute stroke patients, improve EMS education on recognizing and treating stroke in its early stages, and allow all patients to receive the appropriate care within the appropriate time frame.

In addition, the work groups identified the need for better care transitions and care coordination for patients who have been hospitalized for myocardial infarction, stroke, or other coronary events. Care transitions occur when patients move between different care settings such as from the hospital to the clinic. Good transitions are critical to preventing hospital readmissions. They involve good communication and sharing of information between the physicians who care for a patient in the hospital and the patient's primary care physician. Primary care physicians can work with their local hospitals to integrate care transition tools into their practice.

■ Disease Management

The 2011-2020 plan also recommends ways to reduce the incidence of preventable heart attacks and strokes. One is the use of evidence-based programs such as the Chronic Disease Self-Management Program developed by Stanford University. Although primary care physicians may not be the ones to implement disease-management programs, they are in a position to refer patients to them. Other recommendations include implementing reporting measures for interventions such as use of statins in patients with coronary artery disease, peripheral artery disease, or cardiovascular disease.

The plan also notes that mental health and social determinants need to be considered when implementing tactics for reducing the incidence of cardiovascular disease and stroke. For example, physicians should be aware of the fact that there is a strong inverse relationship in Minnesota between income and education and risk factors for heart disease and stroke. They also should know that patients with serious mental illnesses such as schizophrenia, bipolar affective disorder, and depression tend to be more likely to use tobacco, have poor nutrition, not exercise, and have worse post-myocardial infarction survival rates than patients who do not have such comorbidities.

The plan also identifies outcome and process measures to

evaluate progress. The outcome measures include the number of events, the prevalence of risk factors, and mortality rates. The process measures describe whether interventions have been implemented, the reach of the intervention (local, regional, statewide), and the quality of the intervention (based on best or promising practices). The Department of Health will provide progress reports in 2013 and 2018, along with a mid-course review in 2015. A final report will be issued in 2020.

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Conclusion

Physicians' involvement is needed if Minnesota is to reduce the incidence of heart disease and stroke and improve care delivered to patients who suffer from them. As practitioners and advocates, you can make a difference in the lives of your patients. The Minnesota Heart Disease and Stroke Prevention Plan 2011-2020 offers ideas for ways physicians can get involved in creating policies and implementing practices to help their patients reduce their risk for heart disease and stroke.

MM

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The Minnesota Heart Disease and Stroke Prevention Plan 2011-2020 can be found at www.health.state.mn.us/divs/hpcd/chp/cvh/cvhplan.html.

To get involved in creating policy around improving heart health and preventing heart disease and stroke, contact the Minnesota Heart Disease and Stroke Prevention Unit at 651-201-5412.

A Call to Action

Bold Ideas from the Minnesota Women's Heart Summit

By Nora Ali, Ruth Lindquist, Ph.D., R.N., Jackie L. Boucher, M.S., R.D., Dawn Witt, M.P.H., Teresa Ambroz, M.P.H., R.D., Suma H. Konety, M.D., M.S., Russell Luepker, M.D., M.S., Denise Windenburg, B.A., CCRC, and Sharonne N. Hayes, M.D.

■ Minnesota has the lowest overall coronary heart disease mortality rate in the United States. Yet disparities between men and women persist with regard to prevention, detection, and treatment. This has led to a gender gap not only in terms of care but also in survival rates. In an effort to better understand and close the gender gap, the Minneapolis Heart Institute, the Minneapolis Heart Institute Foundation, the University of Minnesota, and Mayo Clinic hosted a multidisciplinary Women's Heart Summit in April 2010. The goals of the summit were to stimulate dialogue and devise strategies to eliminate untimely deaths of women from heart disease. Summit participants were asked to contribute suggestions—called “Bold Ideas”—to address sex-based differences in the prevention, detection, and treatment of heart disease. Ideas were categorized according to three themes: educational programming, modifications to the health care system, and government involvement and funding. From these, several solutions emerged: 1) Involve obstetric/gynecologic physicians in providing heart-health education; 2) involve mid-level providers (midwives and other advanced practice women's health care providers) and other health professionals in women's heart health education, and 3) maximize the use of social media and online newsfeeds to raise awareness of heart disease in women. This article summarizes the discussion of the main ideas submitted by summit participants.

Minnesota has long been a national leader in the prevention, treatment, and study of coronary heart disease (CHD). It is one of a few states in which heart disease is not the leading cause of death. (In Minnesota, it is the second-leading cause of death behind cancer.¹) Minnesota also had the nation's fastest decline in heart disease mortality between 1996 and 2006 and now has the lowest overall heart disease mortality rate.²

In recent years there has been growing awareness that women as well as men are affected by heart disease and that outcomes for women are different than those for men. In Minnesota in 2009, 3,837 men and 3,396 women died from heart disease.³ Nationally, the total number of women who died of heart disease has exceeded the number of men since 1984; in 2008, 51.7% of deaths from heart disease were among females.⁴ In cases of acute myocardial infarction, more women than men died in the hospital (9.3% of women vs. 6.2% of men).⁵ Pooled data from three large National Heart, Lung, and Blood Institute (NHLBI)-sponsored studies revealed that 19% of men and 26% of women died within a year after a first myocardial infarction.² A study conducted by Mayo Clinic deter-

mined that women participated in cardiac rehabilitation 55% less often than men.⁶

The Minneapolis Heart Institute, the Minneapolis Heart Institute Foundation, the University of Minnesota, and Mayo Clinic convened a two-day Women's Heart Summit in Minneapolis in April of 2010. The goal was to generate strategies for improving women's cardiovascular health and outcomes.⁷ The summit drew more than 200 attendees, including academic medical faculty, health care providers, patients and patient advocates, and representatives from federal, state, and nonprofit organizations. Participants were encouraged to suggest ideas for future action; the sponsors called these “Bold Ideas.”

Each participant received note cards on which they were asked to write down their most creative and important ideas at any time throughout the program. The cards were submitted to conference staff, who organized their suggestions into major themes and further divided them into sub-themes (see Table).

The Themes

A total of 82 cards were collected, representing feedback from one-third of all attendees. Each card was reviewed and sorted

Table

Bold Ideas from the Minnesota Women's Heart Summit

Education	
Workplace	<ul style="list-style-type: none"> • Work with chief executive officers and small business owners to develop workplace health-promotion initiatives • Provide employees with incentives and rewards for implementing healthy lifestyle choices
Clinical settings	<ul style="list-style-type: none"> • Provide education about heart health at cancer screening locations • Focus interventions in women's health clinics; that is, provide educational materials to women where they receive care
Community	<ul style="list-style-type: none"> • Have community-based advocates provide education during organized gatherings • Hold classes at churches and crisis centers • Provide education in conjunction with high school sporting events • Establish a heart health mobile unit similar to Mammograms on Wheels • Distribute heart-health kits in grocery stores • Begin heart-health education in elementary school • Form cardiac support groups for women • Reach out to minority communities • Provide materials on healthful eating for people living in poverty • Advocate for nutritional information in all restaurants and reduction in portion sizes • Establish scholarship programs for girls and young women to promote awareness of heart health; give monetary awards for the best projects that schools can use to purchase exercise equipment; fund healthy cooking classes
Advertisements	<ul style="list-style-type: none"> • Send text messages about heart health • Place heart-health ads in clinic elevators and magazines • Advertise on local and national television • Conduct social media campaigns regarding heart disease in women • Advertise "Go Red" in public bathrooms • Enlist celebrities to speak about their personal struggles with heart disease
Home	<ul style="list-style-type: none"> • Encourage caregivers to educate children and spouses • Provide basic education about heart attacks • Promote the use of simple, effective, and accessible programs for stress reduction such as "Rest for Stress" and "ABCs of Breathing"
Change the Health Care System	
Change health care delivery	<ul style="list-style-type: none"> • Develop long-term health planning programs • Improve access to emergency care • Encourage cardiac rehab programs to be more supportive of the attendance of women (eg, provide child care, offer programs specifically for women, modify exercise regimens to accommodate women) • Record patient-provider sessions so patients can review the information later on • Increase the number of minority women health care providers • Stress the importance of motivating patients to change • Add cooking classes and dietitian consults as a part of cardiac rehabilitation • Encourage spouses to use Family Medical Leave Act to help women cardiac patients to attend cardiac rehabilitation
Change on the part of providers	<ul style="list-style-type: none"> • Employ electronic medical record systems that provide more thorough and complete patient histories • Engage obstetricians and gynecologists more fully in prevention of heart disease/stroke • Provide a broader assessment toolbox when screening women • Call people with heart disease "persons with heart disease" rather than "patients," which implies that one is damaged or sick • Maintain a "patient first" mentality • Use nurses and dietitians as wellness coaches
Funding and Government Intervention	
Focus on primary prevention	<ul style="list-style-type: none"> • Shift resources from research to program implementation and primary prevention • Subsidize healthy foods/provide rebates in grocery stores • Increase funding for those who need assistance • Provide tax breaks for employees who participate in wellness programs • Offer prevention grants for nutrition, exercise, and smoking-cessation initiatives • Hold a health fair at the Minnesota State Fair • Significantly discount fresh fruits and vegetables for customers on the WIC food program
Research	<ul style="list-style-type: none"> • Fund research on microvascular disease • Lessen the restrictions on research funding for one organization/system to allow for greater flexibility • Study the practices of countries where health care costs less • Use current research findings instead of focusing on lack of funding for further research • Conduct research in collaboration with behavioral economists

based on content. Six cards were excluded from analysis because they did not include a “Bold Idea.” Half of the remaining 76 cards conveyed a concrete, actionable suggestion; the others either communicated a general idea or raised a concern.

The three major themes that emerged were education, change within the health care system, and government involvement and funding.

■ **Education**

Education was a top priority for summit participants, as 50% of the cards contained education-related ideas. These included suggestions for educational initiatives in the workplace, in clinical settings, in the community, or through print or electronic/social media. Participants’ ideas ranged from the specific (send “heart healthy” text messages to patients) to the broad (educate individuals about what a heart attack is). One suggestion was to create a heart-health mobile unit that would provide education and screening for cardiovascular disease risks modeled after Mammograms on Wheels. Another was to hold educational sessions in conjunction with high school sporting events. Sessions might include cooking demonstrations, samples of “heart healthy” foods, and discussion of ways to increase physical activity. Hosting such events at community centers and schools was frequently recommended. Educating people about primary prevention was also repeatedly suggested.

■ **Change Within the Health Care System**

About one-third of the suggestions were related to implementing change within the health care system. Participants’ ideas tended to fall into two categories: 1) changing health care from the patient’s perspective and 2) improving health care delivery with regard to heart disease prevention. Participants felt the involvement of obstetrics and gynecology (ob/gyn) physicians, nurse midwives, and other advanced practice women’s health providers in screening for heart disease was critical to closing the current sex-based gaps in heart disease prevention, detection, and treatment. Several participants suggested capitalizing on the roles of nonphysicians, especially physician assistants and nurse practitioners, in providing screening and information about prevention. Another suggestion was to have patients and providers sign a long-term health agreement or “contract.” Such a contract would identify patients’ responsibilities with respect to such things as nutrition, tobacco cessation, physical activity, and taking medications. Other suggestions were to improve provider awareness of symptoms of heart disease in women, add cooking classes and more frequent nutrition consultations to cardiac rehabilitation programs, and provide patients with audio or video recordings of patient-provider sessions to reinforce messages about healthy behaviors and treatment recommendations.

■ **Government Involvement and Funding**

Lack of properly targeted government funding for research was a common concern, and several participants felt current research

findings were not being used in government programs. Some participants advocated for having more research conducted in specific areas such as symptoms of acute myocardial infarction in women or the differences between men and women in effectiveness of interventions. The need to consider sex-based data prior to Food and Drug Administration approval of drugs and devices, provide insurance coverage for specific procedures and treatments, and implement treatment guidelines was also emphasized. Most participants wanted more funding to be directed toward primary prevention. They also wanted increased funding for social services and fewer restrictions on that funding to allow administrators the freedom to implement programs in the best interest of their patients.

Another major concern was lack of standardization in data collection and reporting and in definitions of conditions and risk factors. Even more worrisome was a perceived lack of reporting of the sex of research participants, despite regulations requiring inclusion of women in federally funded clinical trials. Participants suggested requiring more consistent data collection and reporting (including reporting by sex) in order to improve the accuracy, reliability, and comparability of research findings across populations and sites. One way to accomplish this would be by standardizing patient information in electronic health records.

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Discussion

Overall, attendees offered a wide array of suggestions to improve the cardiovascular health of women and the care of women with CHD. Although some of the suggestions are unique, many echo recommendations outlined in previously published work.⁸⁻¹¹ It was noted that little progress has been made in addressing several longstanding and widely recognized gaps in best practice, which suggests that priorities are misaligned and efforts to date have been ineffective.

The overwhelming demand for educational programs is noteworthy. It implies that stakeholders in the health care system do not believe that women have been equipped with the proper knowledge they need to prevent CHD. This is supported by recent national data that indicate 43% of women are unaware that heart disease is the leading killer of women.¹²

The suggestions for educational venues are consistent with those in which many CHD prevention programs already take place: schools, workplaces, religious centers, and clinics.¹¹ Organizers of educational programs must either be leaders in their communities or be able to get community leaders to advocate for such programs in order to make them a success.^{13,14}

Several summit participants suggested developing educational content to be disseminated using mass media and social networks. Messages delivered using mass media can significantly change the behavior of a population¹⁵ and be used to enhance other interventions. It is important that the messages are professionally crafted and repeated frequently.¹⁵ As one participant suggested, posting high-quality “Go Red For Women” posters in public restrooms in health care institutions, universities, or shop-

ping malls could easily and effectively relay information to large numbers of women.

Primary care providers play an invaluable role when it comes to educating patients about heart disease; however, providers are not fully incorporating CHD prevention education into practice.¹⁶ One suggestion was to have providers focus on prevention more than treatment. It is imperative that a wide range of providers including ob/gyns, nurse practitioners, physician assistants, registered nurses, pharmacists, and registered dietitians be enlisted in educating women about heart disease. It is also important that they provide ideas for practical things that patients can then do.¹⁷

Insufficient and ineffectively prioritized funding was another concern; several participants stated that government funding needs to shift from research to program implementation. The literature supports this notion: Rosenfeld concluded that implementing the results of currently available scientific findings would have a significant impact on the morbidity and mortality of women.¹⁸ Other research shows that investing money in program delivery is favored over funding large-scale longitudinal research projects.¹⁹ Securing funding for both research and educational or intervention programs is increasingly challenging. To get the most out of limited resources, participants suggested combining grants from the NHLBI, American Heart Association, foundations, and state governments. This would provide a larger pool of money for projects that might otherwise not be able to happen.²⁰ It is important to note that several of the ideas suggested would take few, if any, resources to implement. These include sending text messages and using Facebook or others social networks to remind patients about heart health. Educating family members is another effective, low-cost way to get a message across.²¹

The participants' push for increased government involvement in heart-health education, research, and policy is justified. State government is a key player, as it typically is responsible for funding programs to improve community health.²⁰ Participants also advocated for ideas such as subsidizing grocery purchases to increase consumption of fruits and vegetables and using the power of market forces and social cognition to promote healthy decision-making and behaviors. The latter suggestion echoes the conclusion that the most effective health promotion programs recognize the relationship between human behavior and the environment.¹⁴ Some participants called for policy changes. It is important to acknowledge, however, that changing policy is particularly challenging, as it only occurs following a change in what a community considers to be the norm for health care.¹⁹

A Call to Action

The desire for change expressed by summit participants was notable. Although the idea of engaging primary care physicians in preventive care is not new,^{8,9,22} incorporating ob/gyns and other women's health providers into cardiovascular disease screening and prevention efforts is a novel suggestion.^{23,24} Many women visit their ob/gyn or women's health care provider annually for

reproductive health care and breast and cervical cancer screenings. Women's health care providers can leverage these visits to also screen for heart health and to educate women about the fact that they may be at risk for heart disease.^{25,26}

Despite the fact that many of these concerns and recommendations have been publicly advocated for for decades, little progress has been made in several key areas. The summit provided an opportunity to view the issue of women's heart health through a new lens. Gaps in education and ineffective policies and standards, lack of access to quality care, and a health care system plagued with inefficiencies remain at the root of the problem of disparities between men and women in cardiovascular care. However, the renewed emphasis on evidence-based medicine, improved access to care, health literacy, and culturally competent care, as well as advances in mobile and Internet technology, renew optimism that progress is possible.²⁷ Because of the Facebook phenomenon, we are becoming more and more accustomed to receiving many small, succinct messages. Hence, it would be wise to use social networking and other digital avenues to disseminate messages about heart health. Short, to-the-point reminders would allow Internet and mobile phone users to become educated and stay informed about heart disease. Moreover, these messages could stimulate lifestyle changes.²⁷

Progress to Date

Progress has been made on several of the recommendations that came out of the summit. The four Minnesota entities involved in its planning have continued to address the problem of untimely deaths of women from heart disease. Three have continued or expanded their collaboration with WomenHeart, a national advocacy organization. Mayo Clinic sponsors an annual WomenHeart leadership conference, and the Minneapolis Heart Institute Foundation is working with the national WomenHeart office to conduct an evaluation of the WomenHeart Support Network. The Minneapolis Heart Institute continues to identify women with heart disease admitted to Abbott Northwestern Hospital and invite them to a women-only cardiac support group. The group meets weekly and provides participants with education about and help with adopting healthier lifestyles. A team from the Minneapolis Heart Institute has provided education to nurse practitioner students at the University of Minnesota about women and heart disease.

Three of the authors of this article have explored working with the Minnesota Department of Health's SagePlus program, which provides cardiovascular screening to low-income women. Several have submitted proposals for the funding of summit-related initiatives including one to reach women through ob/gyns and another to teach women about heart health and heart-healthy behaviors using avatars in a virtual classroom. The Minneapolis Heart Institute Foundation is also offering a program, Girls and Moms on the Move (www.girlsandmoms.org), to 8- to 12-year-old girls and their mothers to get them active and eating healthier. ↪

We would like to see others designing community and national health programs consider similar initiatives. Only with multiple approaches to educating women about and screening them for CHD will we start to eliminate the disparities in outcomes between men and women. **MM**

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Pregnancy and Birth in Minnesota's Hmong Population

Changing Practices

By Trisha Halvorsen

■ The arrival of the Hmong in Minnesota starting in the late 1970s brought many challenges to both an ancient way of life as well as to hospitals and clinics trying to care for these new refugees. For Hmong women who were new to the United States, their first encounter with the U.S. health care system was often during pregnancy and birth. This article summarizes how some of the perinatal practices of the Hmong evolved following their arrival in Minnesota as well as how providers adapted in order to provide their Hmong patients with culturally sensitive care.

Between 1975 and 1999 and then again between 2004 and 2006, Minnesota saw a significant influx of refugees from Laos as residents fled the aftermath of the Vietnam War and came here seeking asylum. Today, the Hmong constitute the largest Asian ethnic group in the state,¹ and Minnesota is the state with the second-largest Hmong population in the country.² The Hmong brought with them many traditions including their approach to addressing health concerns. Many relied on shamanism and herbal remedies for treating medical conditions.³ Pregnancy and birth were often the times when Hmong women had their first encounters with the U.S. health care system. During those encounters, their traditional culture clashed with Western values. With time, both the refugee women and the health care system adapted. This article looks at a few of the Hmong's views of

pregnancy and birth, examines how their practices have evolved with time, and explores how Minnesota's medical system dealt with the unique challenges that working with this population has brought, thus eliminating some disparities in care between Hmong women and others.

Prenatal Care

In Laos, pregnancies were recognized around five months.⁴ When the Hmong arrived in the United States, they encountered a medical system that expected them to get prenatal care early and often. Used to no such thing in their native country, and confused and uncomfortable with cervical checks and other prenatal procedures, Hmong women often received care late in their pregnancies compared with other women. A study of Hmong births in Minnesota from 1976 to 1983 found that only 16% of women

initiated prenatal care in the first trimester, and almost a third delayed care until the third trimester.⁵ In 1988, Minnesota had the fifth worst record for early prenatal care in the United States, which was attributed by some to the state's large Southeast Asian immigrant population not receiving timely care.⁶

To find out what factors were contributing to this low prenatal care rate, in the late 1980s, Spring et al. interviewed Hmong women living in Minneapolis who had experienced a pregnancy during the last four years about their knowledge of and attitude toward prenatal care.⁷ They found that nearly half of the women did not understand the rationale for the pelvic exam and that almost two-thirds found the pelvic exam unacceptable. The majority of women interviewed stated they were given no warning about their first cervical check and that they found it to be a shameful and embarrassing experience. Hmong women also disliked the hours clinics were open and felt that there wasn't enough continuity of care. The researchers found that Hmong women wanted full explanations of procedures but were unable to understand such explanations because of the language barrier.

In response to the findings, one

Twin Cities clinic that served a number of Hmong patients, the Community University Health Care Center, expanded its clinic hours and added an on-call interpreter. The clinic's administration also created a video, which described in Hmong the procedures used during prenatal check-ups and the reasoning behind them. In addition, they hired a nurse midwife who spoke some Hmong and decreased the number of pelvic exams during pregnancy to none or one or two. Follow-up interviews conducted in 1993 found that Hmong women felt more positive about their experience with prenatal care than before. They also found procedures were perceived to be more acceptable by the women who viewed the video.⁷

The prenatal care rate of Hmong women in Minnesota appears have improved. Although rates specifically for the Hmong are unavailable, data concerning the state's Asian population, of which the Hmong are the largest group, show an improved rate of early prenatal care. Using GINDEX, an index on the adequacy of prenatal care (determined by gestational age at birth, the trimester during which prenatal care began, and the total number of clinic visits), the rate of adequate prenatal care in Minnesota's Asian population between 1989 and 1993 was 43%. By 2007, the rate had risen to 71.6%. The rate of Asian women who had inadequate or no prenatal care dropped from 20.8% between 1989 and 1993 to 5.1% in 2007.⁸ Similar trends have been noted among Hmong women in Wisconsin.⁹

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Birth

In Laos, women worked throughout pregnancy, until labor set in, at which time their husbands would assist with the delivery. During the delivery, the woman would squat in front of her husband, who sat behind her on a stool to support her. The women, who were taught to be stoic about pain, were silent throughout labor.¹⁰ If labor was difficult, a medicine woman or a shaman would be called to perform rituals and provide herbal remedies.¹¹ Following delivery, the placenta of the child would be buried either near the center

post of the house or near the bed, depending on the infant's gender. After death, the person's soul would retrieve it for safe passage to the spirit world.¹²

For the first 28 days after birth, the mother was served a diet of boiled chicken, eggs, broth, hot water, and rice to restore strength and vitality, in accordance with the Hmong belief that pregnancy is a heat-losing event and must be counteracted by eating only hot foods. To augment this heat gain, the woman would sleep beside a campfire with her infant for three days.¹³ Failure to do so could result in health problems for the mother such as infertility and arthritis.

Arrival in the United States forced Hmong women to change their birthing practices and hospitals to accommodate the needs of Hmong women. Initially, births in this country were similar to those in Laos, with the addition of birthing attendants and cervical exams. According to Ann O'Fallon, a nurse who worked on the nurse-midwife unit of Hennepin County Medical Center at the height of the Hmong influx, "the Hmong moms labored in seeming serenity. None of the verbal or physical cues common among U.S. moms were present. They sat in bed, often accompanied by their husbands, until the right moment occurred and they got out of bed to squat on the floor, ready for delivery. Their husbands would help support them by holding their arms from behind."¹⁴ Resistance to cervical exams was universal among Hmong women who, because of a combination of factors including modesty, trauma from refugee camps, historical knowledge that exploring a woman's pelvis with unsterile hands can cause life-threatening problems, and lack of knowledge about the usefulness of the procedure, avoided them.¹⁵ During labor and delivery, women generally wore a blouse and sarong-type skirt. If a nurse tried to push the sarong up to do a cervical check, the woman would push it back in place as a form of resistance and self-assertion.¹⁴

Once in a squatting position, the women would allow the midwives to assist in the delivery, with the midwives often

kneeling or laying on the floor to help with the birth.¹⁴ After a mother delivered, she went back to bed to rest and seemed to express little interest in her baby or in breastfeeding. Often, other breastfeeding family members arrived to take care of the baby until the mother's milk came in.

In Minnesota, hospital staff often made mistakes because of lack of cultural understanding. For example, hospital staff who wanted new mothers to "bond" immediately with their babies didn't understand that in the Hmong culture, women allowed themselves a much-deserved rest following birth and would re-engage with their babies when their milk came in.¹⁴

When the Hmong began arriving in Minnesota, no Hmong interpreters were available to convey new mothers' needs, and few providers understood the nuances of the Hmong culture. Hospitals and clinics had to try to discern the needs of Hmong women and adjust accordingly. St. Paul Ramsey Medical Center (now Regions Hospital) in St. Paul was one of the first to hire trained interpreters, which attracted Hmong women to the hospital.¹⁶ Hennepin County Medical Center worked to incorporate traditional practices to accommodate Hmong mothers. For example, nurses would bring hot tea rather than ice water and the hospital kitchen began serving Hmong women chicken and rice.¹⁴ This brought a number of Hmong women to the hospital.¹⁶

With time, Hmong traditions also changed. Deliveries began to look more westernized. There were fewer silent births.¹⁴ As their birthing practices evolved, new programs were established to teach Hmong women Lamaze and prepare them for labor and delivery in an American hospital.¹⁷

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Cesarean Sections

In Laos, cesarean sections were unheard of, and cutting the body was feared (some believed it allowed the spirit to escape) in the Hmong culture.^{11,18} Clashes occurred as Hmong women began giving birth in hospitals where c-sections and episiotomies were common. American providers encouraged c-sections for the health of

The Hmong and Breastfeeding

Breastfeeding was common in Laos but not embraced. Bottle feeding was often perceived as superior. In one study, 58% of women who had given birth in Laos or Thailand stated that they had breastfed their infants because of the unavailability of formula or because of the expense of bottle feeding.¹ Many Hmong women believed that colostrum was unhealthy for the baby and would utilize a wet nurse in the early days postpartum until her milk came in.² An article on infant feeding in Australia reports that Hmong women thought colostrum caused stomach problems such as diarrhea in infants and that they perceived it as “dirty” because its yellowish color was similar to that of pus or other signs of infection.³ Of Hmong women who did breastfeed in Laos, many did so because it was the only option available to them.⁴

Within six months of arriving in the United States, the percentage of Hmong women who were continuing to breastfeed had dropped to 25%.² Swora found that Hmong women in the United States were dissuaded from breastfeeding for a number of reasons. For one, breastfeeding was viewed as inconvenient and “unfashionable.” It was associated by some with the chronic fatigue, likely from anemia, that was experienced in the refugee camps, and it conflicted with work and English classes. In addition, bottle feeding was perceived as being healthier for babies. Some thought that with bottle feeding, their infants would grow as tall as Americans. In addition, 65% of women noted a lack of instruction on breastfeeding and that the language barrier made it difficult to request help with it while in the hospital.² As fewer and fewer women in the Hmong community breastfed, fewer wet nurses were available to women in the early days postpartum, making it more difficult for the women who did wish to breastfeed to do so. In addition, the formula sent home from the hospital as well as a continuous supply of free formula granted to women through the Women, Infants, and Children (WIC) program all deterred women from breastfeeding.

The number of Hmong women who breastfed continued to decrease in the 1980s and into the mid-1990s, with rates hovering near 10%.^{4,5} Despite targeted education by the state of Minnesota, which produced videos and pamphlets in Hmong on the importance of breastfeeding,⁶ and Hmong-focused initiatives by the St. Paul Ramsey WIC program,⁷ rates of breastfeeding are still believed to be lower among the Hmong than among the general population. Findings from a Minnesota Department of Health-sponsored Hmong focus group reveal that Hmong women, especially those who are employed, viewed breastfeeding as inconvenient; that women were getting little information about breastfeeding from their health care providers; and that babies who were breastfed were believed to have more gastrointestinal issues. In addition, the women indicated that breastfeeding is now discouraged by Hmong community elders and family members.⁸

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the mother and child, but the Hmong resisted. As Amos Deinard, M.D., and Timothy Dunnigan, Ph.D., noted in their reflection on caring for Hmong refugees, “OBs were ignored when they advised mothers to have a c-section. Patients chose to deliver at home or to go through a protracted labor despite advice that to do so posed a serious risk to the unborn child’s central nervous system.”¹⁹

Also, because of the patriarchal system, women could not make the decision to go to c-section on their own. Instead, community elders and spiritual leaders had to grant permission for them to have the procedure.¹⁴ For this reason and others, the Hmong had some of the lowest cesarean rates around. A study of Hmong births in California from 1985 to 1988 found c-section rates for Hmong women were one-half to one-tenth the rate for white women. In other words, about 3.9% of Hmong mothers had c-sections compared with 28.3% of white mothers.²⁰ Another study from 1995 that looked at Hmong births in Wisconsin came up with a similar figure, 3.6%.¹⁵ Yet another study of Laotian women living in Washington from 1993 to 2006 showed a cesarean rate around 11%.²¹ The national rate for all women hovered around 20% during the 1990s. Similarly, data from 1990 to 2001 show Hmong cesarean rates nearly 15% lower than the U.S. average for any given year and approximately 10% lower than the average for other groups in Minnesota during the same time periods.²²

Pregnancy Outcomes

Despite having numerous risk factors for poor pregnancy outcomes including refugee status, short stature, extremes on both ends of the maternal age spectrum, high parity, late prenatal care, and poor nutrition during the early years of resettlement, Hmong women were found to have superior pregnancy outcomes. A study of Hmong women when they first arrived in Minnesota during the late 1970s through the mid-1980s showed that they had lower rates of both preterm deliveries as well as fewer children born at low and very low birth weights as compared with

controls.⁵ Studies of various Hmong communities throughout the United States showed similar findings.^{20,23} In addition, other migrant groups had similar pregnancy outcomes during their early days in the United States.²⁴ One theory as to why these women had superior pregnancy outcomes is the healthy migrant effect, which posits that immigrants are healthy when they first arrive in this country. However, factors such as poverty, living in substandard housing, lack of access to medical care, and adopting bad American health habits (such as eating a poor diet, smoking, and substance abuse) are believed to play a role in the deterioration of that health advantage in subsequent years and generations.^{24,25}

The early positive birth outcomes didn't last. A study by Cripe et al. in 2007 found that in a cohort of Southeast Asian women in Washington, Laotian women were more likely to deliver low-birth-weight babies and were at moderately increased risk for preterm delivery.²¹ In Minneapolis, rates of both preterm births as well as low-birth-weight infants among Asians were found to be quite similar to the Minnesota state averages between 1990 and 2001.^{26,27}

Conclusion

It often was not until they needed care during pregnancy and childbirth that Hmong women who were new to Minnesota would encounter the U.S. health care system for the first time. At the outset, many medical providers expected that once interpreters and explanations of procedures were provided, Hmong women would readily accept Westernized care.¹⁹ This did not turn out to be wholly true. Hospital and medical staff did not help as they brought the wrong foods, attempted to perform unwanted pelvic exams and surgeries, and tried to force bonding between mother and baby immediately after birth.

After the misfires at the outset, hospitals changed their policies in order to accommodate the needs of Hmong women. Hospitals honored Hmong women's desire for more delicate prenatal care, Hmong

interpreters, culturally sensitive education, and traditions surrounding birth. As hospitals and clinics started understanding and meeting the needs of Hmong women, the women began to accept American practices around perinatal care. Early prenatal care, and Western labor and delivery have all become much more prevalent among the Hmong during the last 30 years. Still, cultural beliefs about surgery continue to make this group hesitant to embrace c-sections even when there is the potential for harm to both the mother and child.

Over the years, both hospitals and the Hmong have in many ways adapted their practices. The Hmong have become acculturated to Minnesota, and health care providers have learned a great deal about the traditions and values of this important population.

MM

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Cusco Reflections

Poverty, health, and the physician's duty.

By Erik Anderson, M.D.



Photo courtesy of Erik Anderson

As we tended to patients in the small emergency room in the Hospital Regional del Cusco in Peru, we almost did not notice the person underneath what looked like a pile of clothes on a stretcher. That person turned out to be a 64-year-old man. He was being treated for pulmonary TB and had been brought in hypoxic and in respiratory distress. What was most striking about him wasn't his symptoms but his size. He was obviously malnourished, worse than any patient I had ever seen. It looked as if someone had stretched a thin layer of skin over his skeleton, making the outline of every bone visible. He brought with him four days worth of pills. We learned he had a perfect six-week record of receiving treatment for his TB, as he was fortunate enough to receive directly observed therapy at his Centro de Salud (a local government-run clinic) in the town where he came from. But he was unfortunate to suffer from something that was complicating his disease process much more than mycobacterium: poverty.

Although progress has been made in improving nutrition in the Andean regions of Peru in recent years, the chronic malnutrition rate is still estimated at around 30 percent. The percentage is even greater in indigenous communities, with children being the hardest hit. Poverty is evident within the walls of a hospital such as the one in Cusco, and even more so in the rural health outposts. Paul Farmer, a prominent physician who works in underdeveloped areas, has written extensively about the relationship between poverty and health. He has also shown that malnutrition

During his time in Peru, Erik Anderson, M.D., worked with local nurses to provide community education about nutrition and hygiene.

alone is a risk factor for active TB. He believes in the Haitian proverb, "Giving drugs without food is like washing your hands and drying them with dirt."

Without addressing poverty, malnutrition, clean water, or social inequities, we as health care providers will continue to wash our patients' hands with dirt.

The relationship between poverty and health cannot be overlooked, especially in underdeveloped areas. One morning, one of the physicians and I went out to a small town south of Cusco, set up clinic in the back of our truck, and proceeded to prescribe and administer antibiotics, give vitamin injections, and weigh children. Although our intentions were admirable, we were not even scratching the surface of the health care issues facing the people of this town. What was the purpose of treating people for parasites without addressing hygiene, latrines, and clean water?

The cachectic TB patient provides a dramatic image of the intersection of poverty and health. How helpful is directive and supportive therapy if public health and nutrition are lacking? How can chronic diseases be effectively treated when patients worry about where their next meal is coming from? I found myself wondering what my role could be now and in the future. I wondered what I could possibly contribute as a fourth-year medical student, and what I could contribute in the future as an emergency physician. This daunting interface of health care and poverty called to mind Virchow's quote that "physicians are the natural attorneys of the poor." What else can we do as witnesses of poverty and injustice but commit ourselves to working on behalf of the poor? Health care can dignify the world's poor, who are frequently disrespected and ignored by society and their governments. But being an attorney of the poor takes more than good intentions.

My experiences in Peru have led me to further reflect on what our priorities must be in this country. As I ended my medical school career, I was left with memories of patients in both Minnesota and Peru, whose faces reflect a more complicated life than their medical histories show. They remind me of what our priorities must be as our health care system evolves. Will we leave the poor and working class to fend for themselves? Will we advocate for them rather than for our own wallets? I know that if I maintain the belief that all men and women are created equal, I have no choice but to advocate for the poor and make their plight a priority.

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