

# Health Care Reform: Addressing the Needs of Rural Minnesotans

## Rural Health Advisory Committee Work Group on Rural Health Reform October 2007



office of   
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*Protecting, maintaining and improving the health of all Minnesotans*

October 10, 2007

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Dear Ms. Muckenhirn and Dr. Christensen:

I am pleased to receive this Rural Health Advisory Committee Report on Health Care Reform: Addressing the Needs of Rural Minnesotans. The department appreciates the Rural Health Advisory Committee's thoughtful work on this important and timely topic.

The report describes well the rural landscape and the context in which health policy decisions play out in rural Minnesota.

The Rural Health Advisory Committee's options and recommendations on increased support for primary care, reducing duplication by supporting integration and coordination of services, and redesigning health care jobs and health care delivery for better coordinated prevention and basic care have much promise.

Regarding the report's options and recommendations on improving quality and health status, on the role of technology, on state purchasing and reducing administrative costs, the report describes both the potential and the challenges to achieving progress on these priorities in rural Minnesota. The recommendations are thoughtful and we will consider them carefully.

Regarding the Rural Health Advisory Committee's options and recommendations on coverage options for individuals and employers, the report again performs an important service in describing what have been intractable challenges faced by rural small employers and individuals seeking affordable coverage. The report describes some past attempts to overcome these challenges that have unfortunately not succeeded, and identifies options that may improve the odds for such approaches.

I am pleased to be able to share with you that Governor Pawlenty, legislative leaders, the Departments of Health and Human Services, and leaders from within the health care delivery system are also making important progress developing strategies to improve the availability and affordability of coverage for individuals and small groups in Minnesota. As part of the Governor's Health Care Transformation Taskforce, these leaders are working toward consensus on insurance

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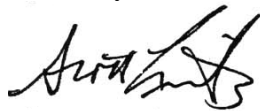
Ms. Muckenhirn and Dr. Christensen

October 10, 2007

market reform and new, breakthrough approaches to providing coverage within the individual and small group markets. We expect many ideas and proposals in these areas to be considered during the 2008 Legislative Session, and invite your involvement as events unfold. The conversation will be richer for the perspective this report adds on the need for health reform strategies responsive to rural Minnesota.

I congratulate the Rural Health Advisory Committee and the Rural Health Reform Work Group for their hard work and look forward to your future efforts to improve access to quality health care for all Minnesota citizens,

Sincerely,

A handwritten signature in black ink, appearing to read "A. Christensen", written in a cursive style.

Assistant Commissioner  
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October 5, 2007

Scott Leitz, Assistant Commissioner  
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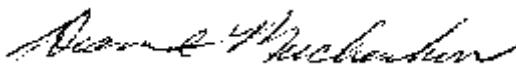
Dear Mr. Leitz:

It is our privilege to transmit to you this report from the Rural Health Advisory Committee on *Health Care Reform: Addressing the Needs of Rural Minnesotans*. In May 2007, the Rural Health Advisory Committee established a Work Group on Rural Health Reform to review the unique characteristics of rural Minnesota with implications for policymakers considering health reform proposals. The Work Group was also charged with developing health reform options and recommendations to help policymakers reach their health reform goals to improve access, quality and cost efficiency with strategies that can be effective in the 80 percent of Minnesota considered rural.

In addition to members of the Rural Health Advisory Committee, the Work Group included health care executives from rural Minnesota, rural health researchers and experts, health care educators and citizen leaders. The Work Group met through the summer and the report was adopted by the Rural Health Advisory Committee in September. The report and its proposals address the same set of issues assigned to the Governor's Health Care Transformation Taskforce and present a comprehensive response to the range of improvements needed to truly transform our health care system.

We appreciate the opportunity to contribute a rural perspective to the important work underway in Minnesota on reforming our health care system, and we look forward to discussing the report with you and other policymakers.

Sincerely,



Diane Muckenhirn, RN, CNP  
Chair  
Rural Health Advisory Committee



Raymond Christensen, M.D.  
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## **Executive Summary**

Health care reform emerged from the 2007 Minnesota Legislature as a priority issue. During the legislative interim, study, analysis and recommendations were developed in multiple forums for consideration during the 2008 legislative session.

The Rural Health Advisory Committee (RHAC) established a Rural Health Reform Work Group to offer a rural voice to the health reform discussions. RHAC is a 15-member statutory body established to advise the Commissioner of Health and other state agencies on rural health issues. RHAC recommends and evaluates approaches to rural health concerns that are sensitive to the needs of local communities.

This work group identified the unique features of rural Minnesota that should be taken into consideration in developing state-level health care reform proposals. Rural Minnesota has 80 percent of the state's land area, 30 percent of the total population and 41 percent of those 65 and older. This older population has more chronic disease and disability, and there are other health status differences between rural and metro areas. Rural Minnesota has also experienced significant growth in minority and immigrant populations. Rural employment is disproportionately characterized by low-wage, part-time and seasonal jobs, making uninsurance more common. Rural Minnesotans who are insured are less likely to have employer-sponsored policies and more commonly have individually-purchased policies, often with high premiums, deductibles and co-pays.

Members of the work group included policy experts, health care providers, and academicians. Results of the work group will be shared with the Governor's Health Care Transformation Task Force and other stakeholders charged with making recommendations to the 2008 Legislature.

Options and recommendations in this report are organized according to the themes for action undertaken by the Health Care Transformation Task Force established by the 2007 Legislature.

## **Options and Recommendations**

### **Reduce health care expenditures and limit the rate of growth.**

- 1) Increase support for primary care and for educating primary care practitioners.
- 2) Reduce duplication by supporting integration and coordination of services.
- 3) Redesign health care jobs and health care delivery for better coordinated prevention and basic health care services delivery.
- 4) Support utilization of proven cost-effective technology, such as telehome care, telemental health services and teleradiology.

### **Increase affordable coverage options and ensure all Minnesotans have coverage.**

- 1) Work toward universal coverage. The combined effects of higher uninsurance rates, lower availability and lower participation in employer coverage, lower rural incomes, and fewer satisfactory individual or small group market insurance options, leads this report to

conclude that a comprehensive coverage solution will be required to meet the insurance needs of rural Minnesota.

Until a comprehensive coverage solution is available, this report recommends continued efforts such as those below, with a narrower focus on rural Minnesota, to improve coverage options.

- 2) Consider improving the affordability of commercial insurance by providing income-related premium subsidies on a sliding scale on policies purchased in the private market to any rural Minnesotan who has been without employer based coverage for more than 12 months.
- 3) Consider revisiting approaches for state participation in reinsurance strategies for the individual or small group markets, with attention to those issues determinant of past failures such as adverse selection, rising premiums and dwindling subscribers. Reinsurance, if available at a reasonable cost, may have the potential to improve the chances for pool approaches for these groups to succeed.
- 4) Revise the asset-related eligibility of MinnesotaCare in acknowledgement of the illiquid farmland assets held by lower income farm families.

#### **Improve quality and safety of health care.**

- 1) Financially support rural health promotion and chronic disease management pilots that integrate care provided by Critical Access Hospitals and community providers across the continuum.
- 2) Develop and incorporate rural relevant measures for quality into pay for performance strategies.
- 3) Design and support a rural health delivery model (i.e., medical home) where chronic and acute care is seamless.

#### **Improve the health status of Minnesotans.**

- 1) Develop a community-based health care mission covering the continuum of care from health promotion and disease prevention to chronic disease management and end-of-life care.
- 2) Support the role of local public health in data gathering, health promotion and disease prevention.

#### **Change state health care purchasing to promote higher quality with lower cost.**

- 1) Support and document the comprehensive approaches to case management, primary care, mental health and dental care being taken by state public programs' county based purchasing projects.
- 2) Study further options for expanding MinnesotaCare (or another state-sponsored but not necessarily state-subsidized program) to those with lower incomes and higher assets as well as small businesses (less than 10 employees). Support county and regionally based purchasing cooperatives.
- 3) Ensure that access standards for managed care networks reflect and support the rural health infrastructure.

- 4) Allow pilot project initiatives that offer flexibility with how health care coverage is purchased by state employees or subsidized enrollees, with the goal of encouraging the development of rural-focused collaborative health networks.

**Promote appropriate and cost-effective investment in new facilities, drugs and technologies.**

- 1) Provide support for affordable and accessible electronic communication technologies (i.e., broadband) to ensure availability and sustainability of telehealth capacity in rural areas.
- 2) Develop rural centers of excellence through the University of Minnesota and Minnesota State Colleges and Universities to train the rural technology workforce needed to staff health information technology applications.
- 3) Develop centralized technical support models.
- 4) Expand support for telehealth in Minnesota.

**Support options for serving small employers and employees and self-employed.**

- 1) Increase affordable health care coverage for small employers.
- 2) Support county and regionally based purchasing cooperatives and alliances.
- 3) Encourage demonstration projects with new health benefit structures designed for rural residents who may have low incomes with high assets.
- 4) Continue to monitor innovative efforts in other states and be open to implementing those ideas on a demonstration or pilot basis.
- 5) Regularly assess the viable health coverage options available in rural Minnesota, through both formal and informal means.

**Reduce administrative costs.**

- 1) Provide rural and small facilities support for converting to standardized billing and eligibility systems.
- 2) Reduce duplication and centralize the repositories where quality data reported to government and private groups is collected.
- 3) Continue support for the adoption of interoperable electronic health records by maintaining the funding of state sponsored grants, loans and other financing options.

## Introduction

Health care reform emerged from the 2007 Minnesota Legislature as a priority issue. During the legislative interim, study, analysis and recommendations were developed in multiple forums for consideration during the 2008 legislative session.

The Rural Health Advisory Committee (RHAC) established a Rural Health Reform Work Group to offer a rural voice to the health reform discussions. RHAC is a 15-member statutory body established to advise the Commissioner of Health and other state agencies on rural health issues. RHAC recommends and evaluates approaches to rural health concerns that are sensitive to the needs of local communities.

This work group identified the unique needs of rural Minnesota that should be taken into consideration in developing state-level health care reform proposals. Members of the work group included policy experts, health care providers, economists and academia. Results of the work group will be shared with the Governor's Health Care Transformation Task Force and other stakeholders charged with making recommendations to the 2008 Legislature.

Options and recommendations in this report are organized according to the themes for action undertaken by the Health Care Transformation Task Force established by the 2007 Legislature.

The premise of the work group and this report is that health care reform policies must be responsive to the unique characteristics of rural Minnesota and its health care system to achieve the results intended for citizens. Failure to account for the nuances of delivering care in rural areas may make access, care delivery and health outcomes worse instead of better.

The need to substantially change the way health care is delivered has been well documented. In Minnesota, we are facing ever increasing costs for the provision of care. Few of these health care dollars are being used to manage chronic conditions or to prevent illness and promote good health. More people are going without insurance or are buying expensive policies with high deductibles and high out-of-pocket costs. The ratio of uncompensated care costs to operating expenses for rural hospitals has risen to levels only previously reported by urban hospitals in the late 1990s, indicating the uninsured or underinsured are turning more and more to emergency rooms for care in rural areas (Health Economics Program, 2007).

Studies show that despite the high cost of health care, quality outcomes are not assured. Care is not consistent across the continuum and medical practice varies from setting to setting. Patients are at risk for medical errors ranging from receiving the wrong medications to undergoing the wrong surgery.

Along with rising cost and poor quality, our health care system is challenged by a growing population of people with chronic illnesses and conditions. Our health care system responds well to acute episodes but does not have a consistent way of caring for people with long-term chronic conditions.

At a time when we are seeing more people with multiple conditions requiring the kind of coordination of care that primary care practitioners provide, we are seeing the erosion of the primary care workforce. More and more medical students are opting for specialty professions.

These shortcomings are compounded in rural areas where access to primary and specialty care can be problematic, the population is older, poorer and less insured, employers are less likely to offer health insurance and the health system infrastructure is financially fragile.

The first meeting of the rural health care reform study group addressed two questions:

- What do we mean by health care reform?
- What is unique about rural needs involving health care reform?

## **What Do We Mean by Health Care Reform?**

Health reform begins with fundamental changes that will likely require a cultural shift among the health care industry and consumers in terms of how we prevent, treat and manage disease. In *Crossing the Quality Chasm: A New Health System for the 21<sup>st</sup> Century*, the Institute of Medicine (IOM) recently called for overhauling our current system of health care delivery by identifying six core aims for improvement: safety, effectiveness, patient-centered, timely, efficient and equitable (IOM, 2001). A health system succeeding in achieving these six aims will be “far better at meeting patient needs” (IOM, 2001).

Transforming health care delivery can begin with mostly governmental policy changes to our existing health care system. Many proposals in Minnesota and around the country are looking at ways to slow the rising cost of health care and expand access, primarily because the current system of employment-based health insurance is becoming unaffordable. The proportion of the population lacking health insurance in Minnesota is estimated to be 7.4 percent (Health Economics Program, 2006). At any given time, more than half (61 percent) of the uninsured in Minnesota are “long-term” uninsured – that is, people who have been without health insurance coverage for a year or longer (Health Economics Program, 2006). From 2001 to 2006, Minnesotans covered by employer-provided health insurance in Minnesota dropped from 70.9 percent to 64.9 percent (Minnesota Council of Nonprofits, 2007). Some experts attribute the increase in uninsured to the erosion of coverage being offered by employers in the private sector (Blewett, 2007). The current health reform proposals include one or more of the following:

- Mandates to purchase or provide health insurance coverage
- Tax credits for purchasing health insurance coverage
- Public subsidy making insurance or care more affordable for the low-income
- Performance measures and payment incentives to improve quality, safety and chronic disease management
- Incentives promoting healthy behaviors

Health care reform proposals in Minnesota encompass a variety of ideas. Some take a broad perspective blending public health principles with evidence-based medical practice and universal insurance coverage. Others look solely at insurance coverage and ways of making coverage more affordable and available to the general public.

## What is Unique about Rural Needs in Health Care Reform?

Rural Minnesota has unique features that must be factored into any health care reform proposal. The Work Group identified a number of areas that distinguish the needs of rural populations from their urban and suburban counterparts.

### Aging Rural Population

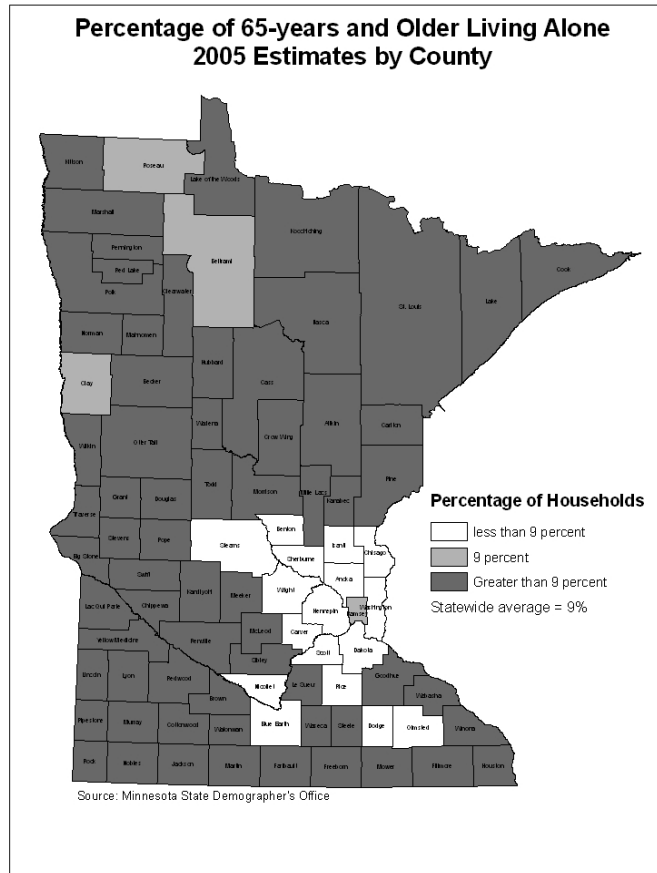
Rural Minnesota is undergoing major shifts in demographics, especially with the aging population. While 30 percent of the state's total population lives in rural Minnesota, 41 percent of those 65 and older currently live there. All counties where more than 20 percent of the population is 65 and older are in rural Minnesota (See Table A). With the aging of the population comes an increased incidence of chronic disease and disability. In Minnesota, 32.5 percent of those ages 65 and older reported being limited in activities because of physical, mental or emotional problems (Minnesota Department of Health fact sheet 2005).

**Table A**

<b>County</b>	<b>Percent 65+ years</b>
Traverse	27.3%
Lincoln	24.4%
Aitkin	24.2%
Big Stone	24.0%
Grant	22.8%
Lac qui Parle	22.7%
Kittson	22.7%
Faribault	22.0%
Pipestone	21.9%
Cottonwood	21.6%
Murray	21.6%
<b>Statewide Average</b>	<b>12.1%</b>
Source: 2005 Population Estimates from Minnesota State Demographer's Office	

A large portion of Minnesota’s rural senior population is also living home alone, without spouse or family in the area to provide care if necessary (See Figure A).

**Figure A**



### **Economic Differences**

Rural Minnesota residents are poorer and more likely to receive public assistance payments including family assistance, food stamps and supplemental Social Security. While the median 2004 household income in Minnesota was \$51,202, rural counties comprise 81.6 percent of the counties with less than \$50,000 in household income. Mahnommen County in remote northwestern Minnesota reported the lowest median income at \$29,645 (U.S. Census, Center for Rural Policy and Development.)

Rural areas are in the midst of a shift from a farm economy to a small business economy, and rural employment is disproportionately characterized by low-wage and part-time jobs. In 2006, 75 percent of businesses in Greater Minnesota employed less than 10 employees (Minnesota Department of Employment and Economic Development). As of 2006, only 54.5 percent of business establishments located outside the Twin Cities offered health coverage. Only 34.9 percent of employers with three to nine employees in Greater Minnesota offered coverage compared to 54.1 percent in the Twin Cities (Health Economics Program, 2007). Analysis of the employment characteristics of the uninsured in Minnesota show the largest percentage, 26.8 percent, are

working for employers with less than 10 employees (Minnesota Department of Health fact sheet, 2004). Additionally, small employers are dropping coverage due to cost, or employees are declining coverage because it is no longer affordable (Gencarelli, 2005).

### **Stressed Rural Health Care Delivery System**

Although on average the financial performance of Minnesota's small rural hospitals has improved in recent years, many produce financial margins too low to provide or support the capital investment needed to update aging plants and keep pace with the changing technologies available to improve care (Critical Access Hospital Financial Indicators Report Team, 2006). Half of rural Minnesota's hospitals have attached nursing homes and significantly poorer financial performance than hospitals without nursing homes.

Nursing homes are in essence a rate-regulated industry in Minnesota, and Medicaid rates remain well below actual costs. This has been true historically and has been exacerbated in recent years by flat or falling rates due to state budget deficits and rising inflation, though assisted living or other alternatives have proliferated. Many rural long term care facilities are at risk for closure, which threatens the safety net for an aging population (Rehkamp, 2006).

### **Uninsured and Underinsured**

Having health insurance is among the greatest predictors of access to health care services. Between 2001 and 2004 the rate of uninsured rose in Minnesota from 5.7 percent to 7.4 percent (Minnesota Department of Health, 2006). The proportion of non-elderly adults who became uninsured in Greater Minnesota rose from 7.4 in 2001 to 9.7 percent in 2004 (MDH, 2006). Being uninsured is common given the part-time, seasonal and low-income employment found in rural areas. Rural Minnesotans who are insured are more likely to have self-purchased insurance policies rather than employer-sponsored policies. Often individually-purchased policies include high premiums, deductibles and copayments. A survey respondent from a recent study looking at Minnesota farm family health insurance noted, "We just make the deductible then the year is over so we never really feel the benefit from having insurance" (The Access Project, 2007).

### **Minority and Immigrant Population**

Rural Minnesota has experienced significant growth in minority and immigrant populations. Much of the growth has been attributed to the employment opportunities provided by manufacturing and food processing plants located in rural counties. For example, between 1990 and 2000 the rural Hispanic population increased by 176 percent and the African American population by 177.6 percent. Willmar has the third largest Hispanic/Latino population in Minnesota and a growing Somali population of approximately 1,000. The Hispanic population living in Watonwan County is 18 percent of the total resident population, four times higher than the statewide average of 3.9 percent. It is estimated that 25 Hmong families now live in Walnut Grove, a town of 600. The arrival of new cultures and languages in many small, rural areas of Minnesota make it a challenge for rural hospitals and health care systems to provide culturally appropriate care.

### **Health Care Workforce Shortages**

Thirty-seven percent of Minnesota's rural population lives in a Health Professional Shortage Area (HPSA) or a Medically Underserved Area (MUA). Forty-six of the most rural counties have 13 percent of the state's population but only 5 percent of the state's practicing physicians. Along with physician shortages are significant shortages in registered nurses, dentists, pharmacists and ancillary medical personnel. Moreover, the rural workforce is aging. For example, 28 percent of rural registered nurses are over the age of 55. The median age of a rural physician is 48. In other

areas, 45 percent of the rural ambulance workforce is over the age of 40, with 67 percent of rural ambulance services indicating they have difficulty finding coverage for all the shifts particularly during the daytime when volunteer personnel are at their regular jobs (A Quiet Crisis, 2002). Replacing an aging workforce in rural areas is urgent because newly graduated physicians, nurses, pharmacists and other allied health professionals are more often choosing to practice in urban rather than rural communities.

**Access to Health Information Technology and Telehealth**

Health information technology and telehealth has the potential to expand accessibility to services and also increase the quality of services. The recent launch of the University of Minnesota’s Telehealth Registry provides a centralized repository for tracking telehealth resources and services statewide. However, information in the registry is voluntary, and current data on the range of health information technology and telehealth in Minnesota is limited. It is estimated that 68 percent of Minnesota primary care clinics have electronic health records. (Stratis Health, 2007). However, of the clinics reporting full implementation of electronic health records, 53 percent were from rural areas (See Table B).

**Table B**

Implementation Stage	All		Rural		Urban	
	2005	2007	2005	2007	2005	2007
Fully implemented or implementation in process	46%	68%	36%	53%	54%	77%
Implementation in next 12-24 months	27%	22%	35%	35%	21%	14%
Implementation beyond 25 months or no plans for implementation	27%	10%	29%	12%	25%	9%

Source: Stratis Health

A work group convened by the Minnesota Office of Rural Health and Primary Care in 2006 to explore telehealth reported a number of challenges. Foremost was the lack of coordination and interoperability among systems. Networks do not communicate with one another. The group also identified the lack of broadband availability especially in remote locations. Initial equipment and startup costs along with the lack of a rural technical support workforce have also added to the challenge of using new technology (Rural Minnesota Journal, 2007).

**Minnesota Rural Health Status**

A recent analysis of Minnesotan’s health status comparing rural populations to urban populations found that a number of differences exist. Rural residents are more likely to smoke, be overweight and not participate in leisure-time physical activity (Office of Rural Health and Primary Care [ORHPC], 2005). Motor vehicle death rates are higher as are unintentional injuries (ORHPC, 2005). Numerous studies show these behaviors are modifiable with the implementation of health promotion and disease prevention strategies.

Elderly, rural residents (46 percent) suffer more tooth loss than their urban counterparts (32.3 percent), and are twice as likely to have not visited a dentist or dental clinic in five or more years (15 percent versus 7.5 percent) (ORHPC, 2005). Rural Minnesotans have higher cancer fatality

rates and higher mortality rates due to heart disease (ORHPC, 2005) largely because Minnesota's rural communities are predominately older compared to urban communities. However, specialized health care services necessary to treat chronic disease in rural areas are frequently a long distance away or are unavailable given the shortage of health care providers.

### **Geographic Distances**

Rural residents often have to travel great distances to receive services, particularly specialty care. Public transportation is limited or uncoordinated. Minnesota's severe winter weather, combined with rural roads, can make accessing health care services nearly impossible for rural residents. It can be especially burdensome to find access to certain kinds of health care, such as obstetrics, mental health or chemotherapy. Long term care services such as home care and home hospice can be cost prohibitive to provide in sparsely populated areas.

### **Reliance on Primary Care**

Primary care is the backbone of rural health and the building block for the medical home model. Physicians practicing primary care make up 65 percent of the physician workforce in rural Minnesota compared to the metro region where 55 percent are specialty physicians and only 45 percent are practicing primary care. The ratio of primary care physicians to the population in rural Minnesota is still lower with only 87 per 1,000 population, compared to the ratio of 132 primary care physicians for every 1,000 urban Minnesotans. Practicing primary care physicians in rural areas are the frontline of health care delivery in rural Minnesota since they are likely to be the first to see and treat a wide range of patients.

Existing physician shortages require more reliance on receiving regular care from allied health professions, which sometimes are greater in number in rural Minnesota. For example, physician assistants are more likely to practice in micropolitan or rural areas than physicians – 21 percent work outside metropolitan areas compared to only 15 percent of physicians (ORHPC, 2006). Approximately, 7.2 percent of nurse practitioners report practicing in Minnesota's most rural counties, their most common specialty area being family nursing (76 percent) (preliminary ORHPC workforce data).

### **Strengths of Rural Communities**

Despite the challenges, commitment to community is strong in rural areas and can lead to practical solutions to complex problems. Rural areas have these built-in strengths that help communities respond to problems (Phillips and McLeroy, 2004):

- Strong social networks
- Social ties of long duration
- Ability to collaborate and cooperate
- A high quality of life.

In 2004, the Institute of Medicine (IOM) issued *Quality through Collaboration: The Future of Rural Health*, which recognized that rural communities are ideal laboratories for transforming the delivery of health care. Collaboration, community partnerships, local business investment, and a strong public health response system in times of emergency are “uniquely necessary” in rural communities where health professionals are few and medical services are not always readily nearby.

Many rural communities are finding unique ways of meeting the health care needs of their residents. In Wabasha, St. Elizabeth's Hospital has been working collaboratively with the schools, businesses and faith-based organizations in a community-wide effort to fund and administer personal health improvement programs. In the Arrowhead region, Sisu Medical Systems, a collaborative of 14 hospitals, is providing and utilizing a high quality, cost effective, fully integrated management information system meeting all of the clinical, financial and administrative needs of their members. Willmar is one of four Minnesota communities addressing increasing chronic disease rates associated with physical inactivity by partnering with clinics, schools and work sites to implement *Steps to a Healthier MN*, a program funded through the U.S. Department of Human Services. These efforts and others can serve as models to lead the state in transforming its health care delivery system.

## Options and Recommendations

### A. Reduce health care expenditures and limit the rate of growth.

#### 1. Increase support for primary care and for educating primary care practitioners.

Research demonstrates that a strong primary care system reduces costs and increases quality of care. Rural health care systems are heavily reliant on the delivery of primary care, but this system is in jeopardy due to the aging of the primary care workforce, the lack of students going into primary care and the difficulty recruiting primary care practitioners for rural sites. Support for primary care would:

- Consider changing medical school admissions to admit more “primary care predisposed” students.
- Increase incentives and remove obstacles for the recruitment, training, placement and retention of rural health care practitioners. Examples include K-12 health careers programs, Medical Education and Research Costs (MERC), and loan forgiveness. Redesign practice so primary care becomes a more attractive lifestyle choice.
- Study the feasibility of mandatory primary care education and practice for all physicians before entering specialty education.
- Fund rural “medical home” pilot projects and evaluate pilots using a start-up pool of capital for investment in practice redesign and technology. Provide incentives to use primary care and coordinated patient care management.
- Consider developing “rural medicine” and “rural nursing” specialties that acknowledge the broad scope of services rural providers deliver.

#### 2. Reduce duplication by supporting integration and coordination of services.

- Provide transition funding to neighboring facilities that commit to consolidating services including support for improving Emergency Medical Services response.
- Seek changes in federal law and regulation that restrict integration of services among rural health facilities.

#### 3. Redesign health care jobs and health care delivery for better coordinated prevention and basic health care services delivery.

- Use the full potential of provider types such as advanced practice nurses, pharmacists, Emergency Medical Technicians, expanded functions dental hygienists and community health workers.
- Implement changes to retain older, experienced health care workers.

#### 4. Support utilization of proven cost-effective technology, such as telehome care, telemental health services and teleradiology.

Support is needed for technology purchases, improved reimbursement and removal of regulatory barriers. The reduced per-person home care costs and dramatically reduced hospitalization rates of telehome care have the potential to deliver better outcomes and improved efficiency. Telemental health services and teleradiology has provided psychiatrists and radiologists the ability to geographically expand their services allowing them to see more rural patients. Continued expansion of telehealth technology promotes early intervention and empowers patients to be more in control of their care.

## **B. Increase affordable health coverage options and ensure all Minnesotans have coverage**

1. **Work towards universal coverage.** The combined effects of higher uninsurance rates, lower availability and lower participation in employer coverage, lower rural incomes, fewer satisfactory individual market insurance options, and challenges faced by small groups or pools leads this report to conclude that a comprehensive coverage solution will be required to meet the insurance needs of rural Minnesota. However, legislative consideration of a universal coverage mandate must take into account the higher proportion of small, independent employers in rural Minnesota. Unless carefully designed, a universal health insurance mandate that relies on all employers to provide health benefits may harm small employers without improving effective coverage.

**Until a comprehensive coverage solution is available, this report recommends continued efforts, with a narrower focus on rural Minnesota, to improve coverage options for employers and citizens. Continued efforts to engage rural providers, rural employers and farm families in identifying workable models should be pursued.**

2. **Consider improving the affordability of commercial insurance by providing income-related premium subsidies on a sliding scale on policies purchased in the private market by any rural Minnesotan who has been without employer based coverage for more than 12 months.** This could be paired with a “grouping” model for purchasing health care, such as a community purchasing alliance or rural cooperative.
3. **Consider the opportunity for the state to serve as a reinsurance partner for a insurance carrier willing to solicit the working uninsured (e.g., the state would pay a portion of any care costs between \$30,000 and \$100,000 for those who have been without employer sponsored coverage for more than six or 12 months) or consider state involvement as a partial reinsurer for small employer pools or groups.** These alternative approaches to reinsurance are not new. In 2001, the legislature supported limited reinsurance for three rural demonstration projects, in northwestern, southwestern and central Minnesota. Two of these purchasing alliances offered a product to uninsured, small employers but their commercial insurance partners struggled with how to rate the premiums for these tiny groups and it appeared they did not factor in the state’s reinsurance offer. The concept may need to be tried again now that more rating experience is available from New York, Montana, Oregon and other states that have tried similar programs
4. **Revise the asset-related eligibility of MinnesotaCare.** Rural residents who are income poor, but have assets such as farmland, are often ineligible for MinnesotaCare. Rural residents rely more on MinnesotaCare than residents in urban areas. In 2006, non-elderly residents were almost twice as likely to be enrolled in MinnesotaCare as their urban counterparts (Sonier, 2007). MinnesotaCare is often the only option for rural residents because of low incomes, lack of employer-based insurance or high cost of individual insurance. In 2004, an estimated 57 percent of uninsured residents living in Greater Minnesota were potentially eligible for one of Minnesota’s public programs while 26.6 percent fell into an insurance coverage gap by not being eligible for employer or public coverage (HEP, 2006).

## C. Improve quality and safety of health care

1. **Support rural health promotion and chronic disease management pilots that integrate care provided by Critical Access Hospitals and community providers across the continuum.** Rural Minnesota's Critical Access Hospitals (CAHs) function as the center of care in many communities, providing primary care, rehab and other outpatient services, home care and more. Minnesota has the third highest number of CAHs in the nation, providing an extensive resource for local care coordination. St. Elizabeth Medical Center in Wabasha is an example of a Critical Access Hospital working collaboratively with the local businesses, faith-based organizations, and schools to fund and administer health improvement programs for an entire community. A pilot study of St. Elizabeth's Fresh-Start Education and Exercise program revealed that 47 percent of participants significantly reduced their risk of cardiovascular disease and diabetes after six months of participating in the program.
2. **Develop and incorporate rural relevant measures for quality into pay for performance strategies.** Involve the Institute for Clinical Systems Improvement (ICSI) and Stratis Health, Minnesota's Quality Improvement Organization, in developing and piloting rural relevant, evidence-based measures. Rural hospitals have lower inpatient volume and often are the smaller part of a total set of services delivered to patients. They also have fewer specialized services and are less likely to have the resources available for staffing and technology, which often means transferring a higher percentage of patients with certain conditions to larger facilities (Casey, 2007). Inclusion of emergency response and transfer measures would provide a rural relevant measure of quality.
3. **Design and support a rural health delivery model (i.e., medical home) where chronic and acute care is seamless.** The "medical home" concept emerged from the family-centered care movement and currently provides the organizing principles for caring for children with special health care needs (Minnesota Children with Special Health Needs, 2007). Today, "medical home" represents "a community-based primary medical care provider who is the first line of preventive and acute care for patients and coordinates and manages referrals to and results from any specialty care or services" (Minnesota Children with Special Health Needs, 2007). Since primary care functions as the foundation of the rural health system, redesigning a payment system that supports the "medical home" as the model for rural health care delivery is most appropriate. The medical home, coupled with investments in community health workers and cultural competency improvement also has potential to reduce racial disparities in rural communities.

## D. Improve the health status of Minnesotans

1. **Develop a community-based health care mission covering the continuum of care from health promotion and disease prevention to chronic disease management and end-of-life care.** Chronic disease has become the leading cause of illness and death requiring changes to the way illness is managed and health care services are delivered. Collaboration between the public health and medical communities is necessary for communities to incorporate a population health focus involving the health care sector, education, faith-based organizations, businesses, and other key areas of civic involvement. Serving nutritious school lunches or creating pedestrian-friendly parks and neighborhoods are

examples of community-wide programs where health promotion and disease prevention can be addressed as a community. Care coordination among providers and local public health in the treatment and prevention of disease, especially for aging residents living in rural communities, can provide an effective approach to changing personal behaviors while delivering patient care.

2. **Support the role of local public health in data gathering, health promotion and disease prevention.** The application of the public health model is intended to encourage early recognition of health problems, but a lack of resources has prevented rural Minnesota's local public health agencies from realizing their full potential in promoting early detection and prevention of disease. As one of its principles for improving rural health care, the Institute of Medicine recommends that "rural communities...focus greater attention on improving population health in addition to meeting personal health care needs." Current emphasis on creating healthy lifestyles, minimizing the likelihood of illness, or improving the management of chronic disease begins with monitoring the health status of the community and appropriate interventions through the coordination of rural health services to ensure a continuum of care.

#### **E. Change state health care purchasing to promote higher quality with lower cost.**

1. **Support and document the comprehensive approaches to case management, primary care, mental health and dental care being taken by state public programs' county based purchasing projects.** Recent studies indicate significant savings when an effective care coordination strategy is implemented. These care coordination successes taking place at the county-based level in rural Minnesota should be documented, shared and expanded.
2. **Study further options for expanding MinnesotaCare (or another state-sponsored but not necessarily state-subsidized program) to those with lower incomes and higher assets as well as small businesses (less than 10 employees).** The purchasing power of the state may allow efficiencies for rural workers if the rural provider infrastructure can be sustained at the lower reimbursement rate of current state-sponsored programs. Further study with the provider community, commercial insurers providing policies to small rural employers and workers themselves, should take place.
3. **Ensure that access standards for managed care networks reflect and support the rural health infrastructure.**
4. **Allow pilot project initiatives that offer flexibility with how health care coverage is purchased by and delivered to state employees or subsidized enrollees, with the goal of encouraging the development of rural-focused collaborative health networks.** The state can encourage creativity by working with the provider community to reward innovation such as telehealth networks and joint data sharing and reporting. Much of the work that has been done, to date, for "pay for performance" measures are based on providers with high patient volume. Opportunities for rural providers to pool their performance measures should be allowed and encouraged by state purchasers.

**F. Promote appropriate and cost-effective investment in new facilities, drugs and technologies.**

- 1. Provide support for affordable and accessible electronic communication technologies (i.e., broadband) to ensure availability and sustainability of telehealth capacity in rural areas.** The high cost of telecommunications equipment, and/or limited availability of high speed telecommunications lines, and smaller patient volume limit the potential for rural providers to participate in telehealth services. New technologies support health professional education, community health education and clinical applications such as doctor-to-doctor or doctor-to-patient medical consultation, and the transmission and evaluation of images from radiographs to fully interactive video conferences.
- 2. Develop rural centers of excellence through University of Minnesota and Minnesota State Colleges and Universities to train the rural technology workforce needed to staff health information technology applications.**
- 3. Develop centralized technical support models** that provide high quality and cost effective technology such as SISU, a consortium of rural hospitals serving the Arrowhead region, by sharing access to information technology resources.
- 4. Expand support of telehealth in Minnesota** to provide the capacity for centralized, statewide planning and coordination such as scheduling, bridging and shared services among telehealth networks, originating sites and receiving sites. Also support telehealth cooperatives and a statewide telehealth registry to share information and resources.

**G. Support options for serving small employers and employees and self-employed**

- 1. Increase affordable health care coverage for small employers.** Data indicate that the majority of employers in rural areas have 10 employees or less. The Minnesota Department of Employment and Economic Development reported in the first quarter of 2006, 55 percent of businesses in Greater Minnesota had less than five employees and 75 percent had less than 10 employees. The number of Minnesota employers offering medical benefits varies by the size and industry. A 2006 Minnesota Employee Benefits survey reveals only 44 percent of very small firms (with three to nine employees) offer medical insurance plans (preliminary data, Health Economics Program). Many small employers have dropped coverage because of the high cost, and many rural residents who are employed have dropped coverage or have not taken it up because of cost.

For small, start-up businesses in Greater Minnesota, finding ways of financing health insurance is not easy. Responses from a survey of rural entrepreneurs in Greater Minnesota revealed a full 50 percent of the interviewees said they depended on their “regular” job or their spouse’s job for health insurance (Geller, 2007). Additionally, small, rural businesses face excessive financial difficulties to purchasing health insurance. One third of survey interviewees purchased their own insurance, and the remaining 13 percent simply went without (Geller, 2007). Supporting an affordable health insurance benefit for small businesses will allow independent establishments to remain in their communities contributing to their local economies. Small employers also often lack the employee

benefits staff needed to purchase and manage insurance. Some report that administrative costs and commissions associated with providing coverage are higher than expected.

2. **Support county and regionally based purchasing cooperatives and alliances.** The average size of business in many rural areas is nine employees. This small scale makes administrative costs high for both health plans and small employers. Allowing employers to group together in a regulated manner will bring efficiencies and options to rural Minnesota. Over the past decade, several community-focused purchasing alliances have struggled to navigate through complex state and federal regulations to achieve a community solution to their uninsured and under-insured populations. Creative demonstration models should be encouraged. With each effort more is learned about who the working uninsured are and what type of products will relieve the growing problem of health care coverage
3. **Encourage demonstration projects with new health benefit structures designed for rural residents who may low incomes with high assets.** Community-focused groups in the Benson-Morris and Brainerd Lakes area have looked at alternative models for benefits, everything from a product that covers 50 percent of the first \$20,000 in claims and 90 percent after that to a higher deductible plan than is currently available under Minnesota law. These discussions should continue and consideration given to offer a rural-focused policy.
4. **Continue to monitor innovative efforts in other states and be open to implementing those ideas on a demonstration or pilot basis.** The Legislature may want to consider granting the commissioner of the Minnesota Department of Health flexibility to approve time-limited demonstration projects in rural areas that allow providers and workers to collaborate on new and innovative models.
5. **Assess regularly the viable health coverage options available in rural Minnesota, through both formal and informal means.** Often coverage surveys don't offer an adequate picture of rural challenges. The sample sizes are often too small to provide in depth analysis of rural differences. When practical, conduct over sampling or qualitative research of rural areas.

## **H. Reduce administrative costs**

1. **Provide rural and small facilities support for converting to standardized billing and eligibility systems.** Rural and other small providers struggle to find the resources to comply with the billing and quality reporting requirements of multiple payers, government agencies and employers.

2007 legislative action to support administrative simplification and to establish and implement uniform electronic transaction standards for health plans and providers represents progress. All health care payers and providers doing business in Minnesota are required to use electronic methods for all claims and eligibility transactions after January 15, 2009. Rural and small providers may need the assistance of cooperatives and other collaborations that share resources, billing capabilities, electronic health records and other services to make this transition.

2. **Reduce duplication and centralize the repositories where quality data reported to government and private groups are collected.** The number of payers, government agencies and purchasers instituting public reporting of quality and cost data has increased substantially and this trend is likely to continue. Though this is a positive development, it strains the capacity of rural and small providers to report data, some identical or very similar, to multiple recipients.
  
3. **Continue support for the adoption of interoperable electronic health records by maintaining the funding of state sponsored grants, loans and other financing options.** **This will** ease the financial burden of Minnesota’s small, rural health providers investing in information communications technology. Support is needed for both the purchase of technology and the organizational changes required for successful implementation.

## References

- Quality through Collaboration - The Future of Rural Health*. Washington, DC: The National Academies Press.
- A Quiet Crisis: Minnesota's Rural Ambulance Services at Risk*. (2002.). St. Paul: Minnesota Department of Health - Office of Rural Health & Primary Care.
- Employer-Based Health Insurance in Minnesota: Results from the 2002 Employer Health Insurance Survey*. (2005). Retrieved from <http://www.health.state.mn.us/divs/hpsc/hep/publications/yearly/2005.html>.
- Healthy Aging and Chronic Disease. (2005). Retrieved September 27, 2007, 2007, from <http://www.health.state.mn.us/divs/orhpc/pubs/healthyaging/cd.pdf>
- National Profile of Local Health Departments*. (2005.). Washington, DC: National Association of County and City Health Officials.
- Health Insurance Coverage in Minnesota: Trends from 2001 to 2004*. (2006.). St. Paul: Minnesota Department of Health - Health Economics Program.
- Preventive Care: A National Profile on Use, Disparities, and Health Benefits*. (2007.). Washington, DC: National Commission on Prevention Priorities - The Partnership for Prevention.
- Uncompensated Care, Community Benefits, and the Value of Tax Exemptions*. (2007.). St. Paul: Minnesota Department of Health - Health Economics Program.
- Understanding Small Business Development and Entrepreneurialism in Rural Minnesota*. (2007.). Saint Peter: Center for Rural Policy and Development.
- Blewett, L. (2007). Census Survey Finds Number of State's Uninsured Holding Steady. Retrieved September 17, 2007 from <http://minnesota.publicradio.org/display/web/2007/08/28/census/>
- CAH Financial Indicators Report Team. (2006). *CAH Financial Indicators Report: Summary of Indicator Medians by State*. Chapel Hill: North Carolina Rural Health Research and Policy Analysis Center, Cecil G. Sheps Center for Health Services Research
- Call, K. T. Z., J. (2007). Health Insurance Coverage and Access to Care Among Rural and Urban Minnesotans. *Rural Minnesota Journal*, 2(1), 11-36.
- Casale, O. (2005). *Benefits Offered by Employers in Minnesota*. St. Paul: Department of Employment and Economic Development.
- Casey, M. M. (2007). Measuring and Improving the Quality of Care in Rural Minnesota Hospitals. *Rural Minnesota Journal*, 2(1), 123-144.
- Committee on the Quality of Health Care in America, I. O. M. (2001). *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, DC: National Academy Press.
- Davis, K. S., Cathy; Guterman, Stuart; Shih, Tony; Schoenbaum, Stephen C.; and Weinbaum, Ilana (2007). *Slowing the Growth of U.S. Health Care Expenditures: What are the Options?* New York: Commonwealth Fund.
- Geller, J. (2007). *Understanding Small Business Development & Entrepreneurialism in Greater Minnesota*. St. Peter: The Center for Rural Policy and Development
- Gencarelli, D. M. (2005). *Health Insurance Coverage for Small Employers*. Washington, DC: National Health Policy Forum - The George Washington University.
- Lottero, B. P., C.; Rukavina, M.; Prottas, J.; Knudson, A. (2007). *2007 Health Insurance Survey of Farm and Ranch Operators - Overview of Findings*. Boston: Schneider Institute for Health Policy - Brandeis University. .
- Office Rural Health & Primary Care. (2005). *Health and Well-being of Rural Minnesotans: A Minnesota Rural Health Status Report*. St. Paul: Minnesota Department of Health.

- Phillips, C. M., K. (2004). Health in Rural America: Remembering the Importance of Place. *American Journal of Public Health, 94*(10), 1661-1663.
- Rehkamp, N. (2006). *Mapping The Future: Enhancing LTC for Older Minnesotans, 2005 to 2030*. Minneapolis: LarsonAllen.
- Sonier, J. (2007). MinnesotaCare: Key Trends and Challenges. *Rural Minnesota Journal, 2*(1), 37-52.