Who Will Care For Wisconsin?
A Roadmap to Ensure a Sufficient Physician Workforce

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INTRODUCTION

Wisconsin is facing a shortage of physicians. As a result, the people of Wisconsin face an associated lack of access to health care. This shortfall, which is likely to grow over the next two decades, is particularly acute for primary care physicians. In addition Wisconsin is facing an unequal geographic distribution of physicians that is adversely impacting the rural and deep urban areas of the state. This memo argues that the Wisconsin Medical Society should take bold action to ensure a sufficient physician workforce.

Increasing and maintaining the number of physicians, however, will not be enough on its own. Health care delivery itself must be reformed to improve workflow, along with payment reform, to address the workforce shortage. The current health care delivery system is fragmented, with lack of coordination between medical personnel, insufficient patient information, poor communication, uneven quality, and rising costs. Implementing the patient-centered model of health care delivery and promoting accountable care organizations and other forms of care integration are expected to increase the level of efficiency in the use of existing resources, but we need to dedicate ourselves to achieving their ultimate goals and not stop at simply deploying the requisite elements for PCMH or ACO. These efforts may also ease the pressure on physician workforce expansion as existing health care resources are utilized more productively.

This memo discusses the problems surrounding physician workforce and lays out various policy alternatives to address these.

THE PROBLEM

Physician Shortage in the United States

Although projections vary, there is a general consensus that the United States will face a shortage of physicians in the coming years. The country had 799,509 active physicians in 2010, Twenty-two specialty groups and 33 states report physician shortages. The Association of American Medical Colleges’ (AAMC) estimates that the nation could expect to face a shortage of 124,000 physicians by 2025. The Health Resources and Services Administration’s Bureau of Health Professions anticipates a shortage of no less than 51,000 physicians and as many as 228,000 physicians by 2020. Expansion of health care coverage, aging population, and the retirement of a large number of older physicians are factors that intensify the projected shortfall.
The primary care specialties, in particular, face a severe shortage. In 2010, the United States had 279,719 active primary care physicians (family medicine, general internists, ?OB/Gyn, ?peds—will want to define what is in, what is out of this number)—about 35% of the total active physicians for that year. Many health policy experts suggest that a sound health care system should have 40% to 50% of its physician workforce dedicated to primary care. The shortage is partially a consequence of income disparities between specialties; excessive workload; and consequent dissatisfaction among primary care physicians. In 2010, there was a need for 16,000 additional primary care physicians across the nation. By 2020, according to AAMC, the United States will need 45,000 more primary care doctors.

In rural areas, the shortage of physicians may hinder access to health care for one in every five citizens. As of 2010, rural areas of the nation had one-fourth fewer physicians per person than urban areas. This resulted in 68% of the communities with federally designated physician shortages being rural.

Physician Shortage in Wisconsin

Others also describe that Wisconsin is facing severe shortages of physicians, especially in primary care. A 2008 report by the Wisconsin Council on Medical Education and Workforce estimates that the Wisconsin population will increase from 5,589,876 in 2006 to 6,004,954 in 2020 (an increase of 7%), and 6,150,764 in 2030 (an increase of 10%). The estimated office visits are likely to increase by a higher proportion using the 2006 baseline estimate: from 18,783,000 in 2006 to 21,288,000 in 2020 (an increase of 13%), and 22,906,000 in 2030 (an increase of 22%). However, if the utilization of physician services continues to change at rates experienced in the past, the estimated office visits may increase by 33% in 2020 and 65% in 2030. This will create enormous pressure on the physician workforce to keep up with demand for services. A recent Wisconsin Hospital Association report predicts a shortage of 1,080 to 3,312 doctors by 2030. Eighty percent of the shortage is expected in primary care. The Wisconsin Hospital Association report recommends that Wisconsin needs 100 additional new physicians every year (which is the average of the low estimate of 54 and the high estimate of 166 additional new physicians). Although the projections will need continued examination, there is a general agreement that the state needs more physicians, especially in primary care.
Rural Wisconsin has a shortage of physicians as well. In Wisconsin, 83% (60 of 70) of counties are designated as fully or partially underserved. Of these, 77% are rural. A third of Wisconsin’s population is in rural areas, but only 11% of the state’s doctors serve these rural areas. This compares unfavorably to the national data, where 20% of the population live in rural areas with 9% of the nation’s doctors serving those areas, given the geographic maldistribution, a shortfall of primary care physicians means lack of access to proper health care in rural Wisconsin.

Disputing the “Shortage” Argument

In a 2008 article, David Goodman and Elliott Fisher state that there are more physicians per capita in the United States (in 2008) than there have been for at least half a century. The two experts believe that “the presence of more physicians doesn’t translate into better care.” They say that “physicians in high-supply regions are more likely to report concerns about inadequate continuity of care, inadequate communication among physicians, and greater difficulty in providing high-quality care.”

David Goodman and Elliott Fisher point out reasons why increasing the number of physicians will hurt the health care system. They say that the regional inequities in health care, such as physicians not choosing to practice in areas where need is greatest. This results in overcrowding of physicians in certain locations due to the mismatch in demand and supply. Also, expanding graduate medical education to accommodate a higher number of medical students and residents may exacerbate the already existing disparity between primary care physicians and specialists, thereby reinforcing “trends toward a fragmented, specialist-oriented health care system.” The reimbursement system currently favors procedure-oriented specialties, and training programs respond to these incentives. Finally, they argue that expanding the workforce is an expensive project.

Therefore, efforts to ensure a sufficient physician workforce should aim at implementing team based care, optimizing the use of too few primary care providers to enhance coordination to achieve better chronic care with, increased quality. Accompanied by payment reform, team based patient-centered model of care promises to lead to higher levels of efficiency in the use of existing health care resource, thereby easing the pressure of having to add new physicians in the system.
EXPANDING THE PHYSICIAN WORKFORCE

To tackle the shortage of physicians in the state, there should be efforts to increase the supply of physicians—expand enrollment, increase funding for graduate medical education, additional programs designed to emphasize primary care training, engage students with underserved communities, and provide financial incentives to practice in shortage areas.

The Wisconsin Academy for Rural Medicine

The Wisconsin Academy for Rural Medicine (WARM) is a program within the University of Wisconsin School of Medicine and Public Health (UWSMPH) that admits only in-state candidates who demonstrate appreciation and commitment to returning to the communities of rural and underserved Wisconsin to practice medicine. For admission, a student has to have a rural background and demonstrate commitment to practicing rural medicine, or have an urban background and show commitment to serving in a rural setting. Preference to live in a rural area, attachment to rural lifestyle, and history of community involvement are also taken into account. Study shows that students from the most rural counties are four times more likely to practice medicine in a rural area than are those from the most urban counties. Studies have shown that pre-medical school factors such as rural upbringing and specialty preference strongly correlate with recruitment of physicians to rural areas. If we are committed to producing more rural based primary care physicians, it is important for medical schools to shape admission policies to better prepare rural students for health care careers. The WARM program features clinical rotations in rural areas, providing opportunities for students to develop relationships with underserved communities of Wisconsin. Studies have shown that training factors such as commitment to the rural curricula and rotations are strongly correlated with physician retention in rural areas. Evidence also suggests that these rotations influence practice site and career choice, but it is hard to conclude if they reinforce preexisting interest or can motivate previously uninterested students to choose careers in primary care or rural medicine.

Records from the 2012 graduating class show that seven of the 11 graduates in 2012 were matched into primary care residencies and 8 of the 11 students obtained in-state medical residency positions. Although limited, the data from the program show desirable outcomes for
residency selection, longitudinal tracking will demonstrate whether these students, like others who will train in Wisconsin’s medical schools or residency experiences, will ultimately practice in the state.

**Training in Urban Medicine and Public Health (TRIUMPH)**

The shortage of physician adversely affects urban areas of Wisconsin as well as rural areas. In 2008, UWSMPH established an urban medicine training program called TRIUMPH to help curb health disparities in the urban areas of the state, such as in inner city Milwaukee.\(^{37}\)

The program “combines existing Milwaukee-based third-year primary care, obstetrics and gynecology, internal medicine rotations, the fourth-year preceptorship and electives with community and public health experiences.”\(^{38}\) Prior to starting TRIUMPH, students are matched with an appropriate community partner based on their interests.\(^{39}\) The program allows the students to explore the rich history and diversity of Milwaukee’s neighborhoods, and provides them with opportunities to engage in communities to promote health. Students are able to “work under the guidance of faculty mentors and community health leaders on a community or public health, quality improvement or research project.”\(^{40}\) They “learn about community health assessment, project design, evaluation and how to participate actively in a community health team.” The course contents for the program are delivered through four sequential, interrelated courses over the third and fourth year of medical school.\(^{41}\) The courses expose students to urban health through various seminars, discussions, and community and public health activities in Milwaukee.\(^{42}\) the TRIUMPH program is expected to produce physicians who will practice medicine in underserved urban areas.

**Financial Incentives**

Many rural counties in Wisconsin are designated as health professional shortage areas (HPSAs) or medically underserved area/population (MUA/P). In 2009, there were 118 primary care HPSAs and 74 MUA/Ps in Wisconsin.\(^{43}\) Programs such as the National Health Service Corps and the Wisconsin Health Professional Loan Assistance provide financial incentives for physicians who wish to enter primary care and/or practice in rural, underserved areas. Studies have shown that the average retention duration for generalist physicians in rural HPSAs is identical to or slightly shorter than for those in rural non-HPSAs.\(^{44}\) This suggests poor
recruitment is the reason for rural shortages, in communities both served and underserved. There are many factors that make rural areas less attractive—lack of local amenities, small economies, and unsatisfactory practice situations, lifestyle preference and employment opportunities of spouse, etc. Also, short-term financial incentives may not offset the overall lifetime benefits that a prospective physician would get by entering a higher paying specialty.

**MCW Community-Based Medical Education Program**

Announced in 2012, The Medical College of Wisconsin plans to implement a statewide community-based medical education program. MCW has already announced that two new campuses will be established, one in Green Bay and the other in central Wisconsin. The purpose of these initiatives is to address the shortage of physicians and other health care providers in Wisconsin, especially in underserved rural and urban areas.

In establishing new campuses, the vision is to develop additional capable community based (?) physicians using a curriculum that accumulates less student debt and places students in residency programs earlier. Because the burden of debt prevents many medical students from considering careers in primary care, lessening their debt burden may enable more students to pursue primary care careers. The development of the school’s curriculum will also include “a focus on opportunities for inter-professional learning with other health sciences programs such as physician assistants, pharmacy, nursing, or dentistry to emphasize a team-based model of care, and leverage distance learning techniques.” The initial plan for the new campuses calls for “an immersive model”[needs description] in which students will be educated in Central Wisconsin and Green Bay. Additionally, students will have the opportunity to take elective classes in MCW’s Milwaukee campus or other campuses.

Out of about 625 Wisconsin residents who apply to MCW each year, a substantial portion comes from underserved areas of the state. These students may be particularly well suited to the community-based campuses. For the first class of medical students, at least 15 students per class will be enrolled at each of the new campuses, with a target of 25 students in the following years. The cost of developing the two community-based campuses in Green Bay and Central Wisconsin is approximately $23 million. MCW expects that the first cohort of medical students will begin their studies on the two new campuses as early as July 2015.
MCW’s President and CEO, John Raymond Sr., MD, states that “strong health systems with outstanding physicians and established programs for student-focused clinical experiences, quality academic institutions with a scientific program infrastructure, and civic and business engagement and enthusiastic support” are the factors that led to the determination of Central Wisconsin and Green Bay to be the appropriate sites for the establishment of new campuses. MCW believes that one of the key drivers of success is the commitment of the regional health systems to create more residencies, because the completion of a medical residency is the largest determinant of the eventual practice location of a physician.  

**Proposed School of Osteopathic Medicine**

Recently a non-profit health system based in central Wisconsin considered a plan for establishing a new school of osteopathic medicine. According to plans, the school would produce 100 new physicians annually. The plan has been postponed after a feasibility assessment, although proponents continue to seek a successful combination of site and funding.

The osteopathic medical education and profession have grown significantly. Osteopathic medical schools have seen large increments in the number of applications received, enrollment, and the number of graduates in recent years. Active DOs are 7% of all physicians in the United States, and more than 20% of all first-year medical students are attending DO school. The American Association of Colleges of Osteopathic Medicine states that the osteopathic medical profession has “a proud heritage of producing primary care practitioners.” The organization also claims that “the mission statements of the majority of osteopathic medical schools state plainly that their purpose is the production of primary care physicians.” The osteopathic medical profession is known for its holistic approach to patient care, its focus on prevention, and for serving rural populations.

**GME Funding and Residencies**

Many, including the Wisconsin Hospital Association, argue that graduate medical education (GME) funding needs to be increased. There is a cap on federal funding for medical residencies, but increasing the number of medical school graduates does not solve the workforce needs without sufficient residencies. At present, Wisconsin has 30.7 medical residents per 100,000 population. This is below the United States average of 35.7, and well below other
Midwestern states such as Michigan and Minnesota: 46 and 42.4 per 100,000 population, respectively.\textsuperscript{60} Therefore, some call for increased GME funding to boost the number of available residencies. It is important to see if simply increasing the number of residencies is enough or would residencies be increased for particular specialties.

However, arguments that increasing the funding for GME has high opportunity cost for the society will remain.

**Student Debt**

Debt is a huge part of a medical student’s life. According to a 2011 New York Times article, 80 percent of each class of medical students will graduate with some debt, and that percentage has remained unchanged for over two decades.\textsuperscript{61} As stated in New York Times, the Association of American Medical Colleges claims that the average debt of a medical student graduating in 2010 was \$158,000 (\$2.3 billion for the graduating class as a whole).\textsuperscript{62} From the results of a survey of 112 medical schools, U.S. News reported that 2010 graduates averaged \$145,020 in debt.\textsuperscript{63} When undergraduate debts are added, the burden becomes heavier. Such burden of debt may force graduates to pursue medical specialties with higher earning potential, contributing to the looming shortage in the area of primary care.

One strategy might be to reduce the debt burden for residency graduates if they serve in a specialty/area where physicians are needed, much like what is done for the National Health Service. Because the Wisconsin Medical Society Foundation, who has preferentially awarded in-state students, administers a loan program, the potential for growing the loan forgiveness program should be considered for out-of-state primary care medical residents who wish to come and practice in the state of Wisconsin for a designated period of time.

**MAINTAINING THE PHYSICIAN WORKFORCE**

In addition to alternatives to bring new physicians into the workforce, certain steps should be taken to maintain the workforce. These include improving reentry programs, restoring physician health program, and assisting in maintaining a sufficient non-physician healthcare workforce.

**Reentry Program**
The American Medical Association defines physician reentry as “a return to clinical practice in the discipline in which one has been trained or certified following extended period of clinical inactivity not resulting from discipline or impairment.” Reentry programs help combat the shortage of physicians and ensure patient safety. Changing demographics, attitudes of physicians, and workforce needs make physician reentry very important. The process of reentry may require less time and resources compared to training a new physician.

There are several reasons for clinical inactivity including family leave, other caretaking or relationship issues, personal health reasons, career dissatisfaction, and alternative careers such as administration, military service, and humanitarian leave. Women, who are more likely than men to take time away from work to care for children, are a larger percentage of the physician workforce than ever before. Between 1980 and 2007, female physicians in patient care increased by 451.1%. Bringing capable physicians who are currently not practicing back to practice could incrementally reduce the shortage.

Physicians who wish to reenter medical practice face several hurdles—absence of a comprehensive reentry system in the United States, lack of information regarding reentry requirements, financial barriers, opportunity costs, lack of confidence about clinical skills and medical knowledge, etc. There are also geographical barriers to reentry programs, such as the limited availability of reentry programs.

In Wisconsin, physician assessment and reentry programs had been established by the University of Wisconsin, with input from the Wisconsin Medical Society. The program worked with multiple health systems to provide clinical experience to physicians enrolled in the program. Progress was made in acquiring medical licensing for reentering physicians. However, due to budget problems, the program came to an end. To reestablish physician assessment and reentry programs, enough dedicated stakeholders, experts, and resources are needed.

A high quality physician reentry program should provide physicians from all specialties and practice backgrounds the opportunity and resources for successful reentry. Resources should be deployed to identify and connect with physicians who leave clinical practice, to find out what incentives would encourage them to reenter. While the program should be standardized to ensure safe reentry, it should also be responsive to individual physician needs.

A recent national survey using a sample of 4,975 inactive physicians in the United States shows that nearly half of the respondents were in or had practiced primary care. Therefore,
successful reentry programs may help curb the shortage of primary care physicians by helping these professionals go back to practice. For fully retired physician respondents or those not currently active in medicine, personal health was the top reason for leaving, and the second highest reason for those who reentered. For reentered or inactive physicians, the availability of flexible scheduling or part-time work was the main reason for returning or considering returning to practice. The study concludes that availability of part-time work and flexible scheduling strongly influence decisions to leave or reenter medical practice. Also, lack of retraining before reentry, as identified in the national survey, raises concerns about patient safety and clinical competence of reentered physicians. Reentry programs must also ensure patient safety.

Physician Health Program

The health and wellbeing of physicians influence the practice of medicine. Medical training and work are highly demanding and carry significant risk of physician distress. It is evident that many trainees and physicians have physical, mental, or emotional suffering. Depression and burnout (a syndrome of emotional exhaustion, depersonalization, and a sense of lacking in accomplishment that leads to decreased effectiveness at work) is common across medical specialties. The causes of physician distress include loss of control over the practice environment, workload, specialty choice, and experience with suffering, death, and medical errors. Improving physician health and performance is essential to improve productivity and meet today’s health care challenges. Therefore, it is important to design a program that will help systems identify factors that ensure the physical and mental wellbeing of physicians to enable them to practice in a sustainable fashion.

In 2006, the Wisconsin Medical Society Board of Directors approved the reorganization of the Statewide Physician Health Program. The goal was to increase the effectiveness of the physician health program. However, implementation of a transition plan for the program faced several difficulties, which eventually resulted in discontinuing the entire program.

Because the mission of the Wisconsin Medical Society is to improve the health of the people of Wisconsin by supporting and strengthening physicians’ ability to practice high-quality patient care in a changing environment, the Society should consider options for restarting a physician health program in Wisconsin.
Other Health Care Professions

To sustain a stable physician workforce, it is important to have a sufficient supply of supporting health care professionals such as nurses/nurse practitioners, physician assistants, etc.

Registered nurses (RNs) make up the largest occupation in the health care industry.\(^{80}\) In 2010, there were 77,701 RNs who renewed their Wisconsin licenses.\(^{81}\) Base projections made by the Office of Economic Advisors at the Wisconsin Department of Workforce Development show that the supply of RNs will begin to flatten while demand for RNs will grow steadily.\(^ {82}\) Under present market conditions, the gap between the supply and demand is expected to reach about 35% by 2035.\(^ {83}\)

Physician assistants (PA) are also an important part of the health care industry. Med 8 of the Wisconsin Administrative Code addresses physician supervision of PAs. The Society has supported the concept of allowing a physician to supervise up to four PAs at one time, an increase from the current 1:2 supervision ratio, and has partnered with the Wisconsin Hospital Association and the Wisconsin Academy of Physician Assistants to support the change. Staff and members of the Medical Examining Board have made numerous other changes to Med 8 that go beyond the requested ratio change.

The citizens of Wisconsin will require a careful and continued assessment of the available physician and non-physician team elements necessary to address their health care needs.

THE SOCIETY FOUNDATION'S ROLE IN IMPROVING WORKFORCE

The Wisconsin Medical Society Foundation has played an active role in ensuring a sufficient health care workforce by developing relationships with medical students. The Foundation offers many programs in support of medical education.

Currently, the Foundation operates the Student Loan Program, designed to help medical students prepare for careers in medicine. The loan program is interest free during medical school, offers an attractive fixed interest rate after medical school with no loan origination fees, and allows loan deferral to up to 5 years with the possibility of two years of additional deferment. The Foundation awards a total of $325,000 to $350,000 annually, or $5,000 per student per year (with a maximum of three years). Several county medical societies have student loan programs that assist high school graduates from respective counties to obtain funding for medical school.
The Foundation has established several scholarships and award funds, administering these according to the wishes of the donor individual or organization. Preference is given to in-state students attending one of the two Wisconsin medical schools and committed to serving the state after graduation. Academic performance, leadership experiences, as well as financial need are important determinants for scholarships. The Foundation hopes to have no less than $100,000 per year in the years to come. The Foundation provides scholarships between $2,500 and $5,000 per student per year for the second to the fourth year of school.

The Foundation also offers medical students attending MCW or UWSMPH the opportunity to apply for summer fellowships in Government or Community Service. The fellowships provide Wisconsin medical students the opportunity to work under the guidance of a Wisconsin Medical Society member, thereby facilitating the development of a strong relationship between the Society’s current physician members and the physicians of the future; encourages medical students to increase their knowledge of how the state, county and the federal government works with the medical profession to advance the health of the people of Wisconsin; and offers opportunities to gain hands-on experience working with Wisconsin communities or specific patient populations to address pressing health issues.

To improve health through education and outreach, the Foundation provides support for physician-led, high-impact and high-visibility community-based programs. Preference is given to initiatives that promote changes to modifiable factors affecting health; are new or innovative; focus on prevention; are well-defined and reasonable to be accomplished within the grant period, have a plan to become self-sustaining if the initiative requires multiple years; encourage collaboration or partnerships; incorporate principles of public health; and offer the Foundation an opportunity to truly make a difference.

The Foundation also administers the White Coat Campaign, a unique way of connecting physicians to medical students. In this campaign, physicians throughout the state of Wisconsin sponsor a white coat and provide a personal message of encouragement to every first-year medical student in Wisconsin. Each medical student receiving a white coat is able to convey his/her gratitude to the donor physician by sending a note of acknowledgment using a pre-addressed envelope that every student gets. The White Coat Campaign provides a systematic way of connecting physicians with medical students, mentoring, and helping to carry the legacy of the practice of medicine forward into the future.
Finally the Foundation, in partnership with the Wisconsin Medical Alumni Association and the Medical College of Wisconsin-Marquette Medical Alumni Association, organizes Operation: Education every year. The event is held at each school and offers students the opportunity to speak with a variety of medical specialists and general practice physicians in small groups. This allows the students to explore various specialties and types of practice (independent, large groups, rural, etc.) by asking questions to the practicing physicians present.

CONNECTING STUDENTS, RESIDENCIES, AND HEALTH SYSTEMS

To ensure that Wisconsin’s medical students and residents choose to stay and practice medicine in Wisconsin, it is important to provide them with proper knowledge of the variety of opportunities available here. By establishing enhance awareness for medical students, residency program directors, and health systems to allow robust sharing of unique features offered by some of our local assets.

Given the Wisconsin Medical Society’s large membership and reach in the health care sector, the Society can help make these connections. For example, the Society can supervise a process by which residency program directors and health systems are able to post video recordings on the Society’s website informing students about what opportunities they have to offer. Students can also post video recordings stating what interests and experiences they have, and what kind of professional ambitions they want to fulfill, which will then be available for review by residency program directors and health systems who looking for candidates for the physician workforce. Other options include open houses at residency or campus locations for students to visit. These social approaches to attracting and retaining medical students, residents, and ultimately the career physicians are underutilized currently.

BRAND WISCONSIN AS A PLACE TO LIVE AND WORK

Branding Wisconsin as an excellent place to live and work may capture the attention of professionals nationwide. The Wisconsin Medical Society and the business community can collaborate to advertise and highlight the following: professional opportunities in Wisconsin; availability of good housing; strong financial institutions; educational and training opportunities for all age groups; attractions of social life; recreational opportunities; holiday getaways; and safety and security. Such a brand management project to promote Wisconsin to the rest of the
country can be expected to attract professionals, including those in health care across the nations, to consider relocating in Wisconsin. Furthermore, spreading information about the presence of good health systems, access to research institutions, favorable medical malpractice liability environment, excellent electronic health record systems, good end of life care, and a vibrant and thriving environment to practice medicine can possibly influence health care professionals in other states to move to Wisconsin with their families.

HEALTH CARE DELIVERY AND PAYMENT REFORM

There are nationwide efforts to increase the number of new physicians over the next decade to care for the increased chronic and coordination of care needs of the baby boom generation. A recent survey by the Association of American Medical Colleges shows that the number of students entering the nation’s 137 accredited medical schools will rise nearly 30% from 2002 levels to 21,376. However, higher number of physicians in the economy might contribute towards increasing the health care sector’s share of the United States’ GDP, which is at 18.1% (August 2011). This percentage is significantly higher than the corresponding figures in other developed countries.

Therefore, the state needs a fiscally viable alternative to ensure efficient utilization of existing resources. One such alternative is the patient-centered model of health care delivery. In a report published by the California Healthcare Foundation, Rachel Willard and Tom Bodenheimer present the primary building blocks required to implement patient-centered model of health care delivery—data-driven improvement, empanelment and panel size management, team-based care, population management, continuity of care, and prompt access to care. These are briefly discussed below:

- Data driven improvement refers to the practice of collecting, cleaning, and summarizing performance data, which are used by clinicians and staff of the organization to drive action to achieve higher levels of performance.
- Empanelment and panel size managements refer to the practice of assigning patients to a clinician and team. The clinician and the team manage the size of the panel by balancing the demand and the capacity of providing medical care to ensure that continuity of care and access are maintained.
Team-based care means that the delivery of care is conducted by a highly organized team of medical professionals. Teams include clinicians, medical assistants, registered nurses, front desk personnel, and behaviorists. With explicit vision, principles, defined workflows, proper channels of communication, training and cross-training to build skills, ground rules, and clinician approved standing orders, a team can ensure that the quality of care is improved.  

Population management requires that patient with varying levels of need are divided into subgroups—one requiring preventive care, the other obtaining self-management support of health coaching, and the patients with complicated medical and psychosocial needs being subject to complex care management.

Continuity of care is the potential result of clinicians working at least a minimum number of hours and days every week, continuous scheduling of patients, and active management of panel size to ensure that demand does not exceed the capacity of provide care. Continuity of care is expected to lead to better health outcomes.

Prompt access to care is essential for improving the quality of patient care and outcomes. Managing the panel size, development of teams, improved scheduling, and clear communication using various mediums such as phone and web help ensure that patients have prompt access to care when they need it.

One way to implement this model is by establishing patient-centered medical homes (PCMHs). The PCMH incorporates the principles of patient-centered care delivery model. It is a “multifaceted source of personal primary health care. It is based on a relationship between the patient and physician, formed to improve the patient’s health across a continuum of referrals and services.” The PCMH is characterized by a personal physician, team-directed medical practice, whole-person orientation, coordinated care across all domains of the health care system, and quality and safety. The goals of a PCMH are comprehensive, coordinated, effective, and efficient health care delivery.

At present, 1051 physicians in Wisconsin are recognized by the National Committee for Quality Assurance (NCQA) as having implemented patient-centered medical homes. Not enough is known about who these physicians are and where they practice. The Wisconsin
Academy of Family Physicians (WAFP) is currently studying clinicians who are practicing within this model.

The 2009-2011 state budget created a PCMH pilot program to be implemented by DHS starting January 2010, but its scope is limited to high-risk OB patients.\textsuperscript{98} For the concept of patient-centered model, WAFP prefers that the delivery of care should incorporate all stages of the life span rather than discrete groups which by definition fragments care.\textsuperscript{99}

Payment models must also be reformed to change the model of health care delivery. Payment needs to reward the value of care instead of the volume of care. Increasingly payment reform should reward better performance on carefully physician selected quality measures, better care, and test appropriateness. WAFP supports a blended payment system, with the majority of the payment pertaining to care management and pay-for-performance, and the rest following the fee-for-service method.\textsuperscript{100} Accountable care organizations (ACOs) may also help lower health care costs and lead to better outcomes by tying provider reimbursements to quality metrics. ACOs are networks of health care providers that will receive financial rewards if they succeed in slowing down the growth in their patients’ health care spending.\textsuperscript{101} WAFP expects lower spending has to be accompanied by better-quality outcomes. ACOs offer the clearest path to improved population health, high-quality care experiences, and moderation of per capita health care cost increases.\textsuperscript{102} Through payment reform, ACOs will emphasize primary care services, coordinate care between providers, and be accountable for health outcomes and treatment costs.

Patient-centered model of care delivery is expected to reduce emergency room visits by 25\% to 35\%, and decrease hospitalizations by 16\% to 20\%.\textsuperscript{103} While such reductions are desirable, implementing this model may be politically challenging given the various stakeholders and their incentives in the health care sector of the state. The Wisconsin Medical Society has to carefully evaluate the pros and cons of health care delivery and payment reforms.

In spite of all the perceived benefits of health care delivery reform, skepticism regarding its benefits remains. Health care should improve the health of the population. Therefore, in implementing new methods of care delivery, the perception of the patients about the new model, and their satisfaction with the system should be taken into account. While seeking health care, patients need the powerful reassurance that they are going to receive the treatment they seek. This may often involve going to a physician they know and are comfortable with, and not
necessarily a patient-centered practice that experts believe will lead to efficient outcomes. The psychological aspect of the doctor-patient relationship should be considered.

In addition, the efficient way of health care delivery in patient-centered model may involve having PAs treat low-risk patients to save physicians’ time for more complex needs. However, a patient may be seeking access to the most highly trained individual, rather than be subject to the rationing of expertise. Some possible circumstances that may arise with health care delivery reform should be considered carefully.

SURVEYS

Adopting sound policies requires sufficient and accurate workforce data. Although there are some efforts to collect relevant data, the state lacks a comprehensive survey program.

The overall response rate for the 2009 Physician Workforce Survey by the Wisconsin Medical Society was a major step towards collecting data on physicians. The response rate was 10% (1,043 completed survey responses out of 10,070 e-mail invitations that were sent out). A survey like this helps identify factors contributing to physician burnout, desire to stay in the state or move, views on practice environment, etc.

The Wisconsin Medical Society Foundation’s student survey asks students about their motivation to choose medicine as a career, factors most important in a work environment, their ranking of preferred specialties, and if the students wish to ultimately practice medicine in Wisconsin, and allows room for additional comments. This survey, which should be given to first-year medical students, should also include questions about their background, such as family (for example, if there are health care professionals in families), early schooling (for example, interest in science courses and projects), as well as their interaction with the health care professionals while growing up, to provide comprehensive information about students.

Annual follow up surveys should be conducted to learn whether the ranking of specialties originally presented by each individual student has changed or not, and provide reasons for any change. This would help identify factors that contribute to changing preferred specialties, which would be particularly important in identifying factors that make students move towards or away from specialties facing health care access concerns such as primary care, psychiatry, and general surgery.

RECOMMENDATIONS
Ensuring a sufficient physician workforce in Wisconsin will require a comprehensive, multifaceted approach. The following recommendations offer guidance to achieving that goal:

1) **Work with stakeholders to reduce the burden of financial debt on medical students:** The Society should work with partners to minimize the impact of medical student loan debt and financial debt on medical students, residents and physicians’ decisions regarding their practice of medicine choices and opportunities.

2) **Support medical programs that place students in urban, rural and other underserved areas, such as WARM and TRIUMPH:** These valuable programs increase the likelihood that graduates will serve in medically underserved areas and in specialties that face shortages. Admission of in-state students in WARM, and involvement in local communities as part of both programs increase the likelihood of retention.

3) **Support expansion of medical student training capacity:** The expansion of MCW to establish two new community-based campuses in Wisconsin to house condensed medical programs is likely to foster a strong relationship between underserved local communities and prospective physicians, thereby increasing the chances of retention.

4) **Sustain short-term financial incentives while exploring better longer-term financial incentive alternatives:** Short-term financial incentives are unlikely to solve longer-term workforce shortages. These incentives should not be removed, but there are better alternatives for use of financial resources than increasing these incentives.

5) **Carefully evaluate the need for more strategic use of GME funding:** While more GME funding is needed if the number of medical graduates seeking residencies in Wisconsin increases, residencies in certain specialties have been under filled for years. Therefore, more attention is needed to evaluate GME funding as the changes are made in the medical education and health care sector of Wisconsin.

6) **Work with and bring together stakeholders to organize a new physician reentry program:** As the largest association of physicians in the state, the Society should invite various stakeholders to help design a program that ensures trained, clinically inactive
physicians are properly assessed and assisted to fulfill requirements for a safe and successful reentry.

7) **Work to reestablish a statewide physician health program:** Because the medical profession can adversely affect the physical and emotional well-being of physicians, the Wisconsin Medical Society should work to reorganize and reestablish a physician health program to make sure that valuable health care resources such as physicians are not lost. Such a program will demonstrate the Society’s commitment to helping physicians and ensuring patient safety. This program need not be re-established within the Wisconsin Medical Society, but the Society must take the lead in ensuring that physicians experiencing substance misuse, mental illness, or similar difficulty have a non-punitive place to receive the care, treatment and help they need.

8) **Support the concept of physician-led team-based care:** The Society should support the concept of collaborative physician-led team-based care.

9) **Maintain and expand the role of the Wisconsin Medical Society Foundation is supporting physician workforce development issues:** The Foundation should continue to provide loans and scholarships to medical students, especially to those who demonstrate a commitment towards serving Wisconsin. It should maintain efforts to engage medical students with its physician members to work on community-based projects. The Foundation should strengthen its efforts to connect medical students with physician mentors. While students should be able to explore various opportunities, the Foundation should ensure that the mentors guide and encourage students to stay and practice in Wisconsin.

10) **Explore the feasibility of creating an additional loan forgiveness program or building upon the current programs:** Instituting greater Government or Foundation loan forgiveness for Wisconsin residents in out-of-state residencies for primary care who return to the state to practice for at least 5 years would improve recruitment and retention.

11) **Act as a catalyst to connect medical students, residencies, and employers:** The Wisconsin Medical Society should try to connect medical students, residency program directors and mentors, and health systems that employ physicians to facilitate the spreading
of information on medical practice opportunities in the state and encourage prospective promising physicians to stay.

12) **Form partnerships with business communities to promote Wisconsin:** The Wisconsin Medical Society should partner with business communities to brand Wisconsin as an ideal place to live and work, to attract not only health care professionals but also other potential labor market participants. This would boost the overall economy and benefit the health care sector as well.

13) **Analyze and if necessary improve the system to survey medical students and physicians:** The Wisconsin Medical Society should identify gaps in the current data and work with the two medical schools and health care systems to implement surveys and to ensure higher response rates. Collecting information about students and the health care workforce is essential to understand the effectiveness of various policy alternatives and make necessary changes as issues are identified.

14) **Study and evaluate ways to reduce the financial burden on the practice of medicine:** The Society should seek ways to address the financial disincentives in the practice of medicine, and investigate the impact of economic credentialing.

15) **Track Medical School Students and Residents:** Work to maintain relationships with medical school students and graduates and examine where they ultimately practice with goal of keeping them in-state and bringing more back to Wisconsin.

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