*Thought Leadership Article*

# Health Care Reform—The Impact on Academic Health Centers: An Academic Health Center Executive's Perspective

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*Academic health centers operate simultaneously in the highly intellectual world of academia and the highly competitive world of health care delivery. As a result of this unique operating circumstance, health care reform will likely exert unique impacts on academic health centers relative to community hospitals and independent providers. This discussion focuses on health care reform from the perspective of an academic health center.*

## Introduction

Oregon Health & Science University (OHSU) is Oregon's only academic health center (AHC), with a four-part mission of education, research, patient care and community outreach. Like many of our peer AHCs, we are a unique health care resource in our communities and regions, and we are active in state and federal health policy debates.

OHSU is supportive of the effort to reform our health care system generally and of universal access to health care specifically. As of this writing, the ultimate outcome of federal health care reform efforts is uncertain. Broadly speaking, the focus has been on issues related to improving access to health care by lowering costs and restructuring the underlying finance system to pay for expanded coverage.

Specific proposals that emerge during a health reform debate, however, can have different (and unintended) impacts on AHCs compared to community hospitals or independent providers. As the reform legislation winds its way through the halls of Congress, we want to protect the ability of AHCs like OSHU to serve the public.

## What Is an Academic Health Center?

There are more than 100 AHCs nationwide, each with significant regional and sometimes national impact. Not every AHC is the same. But, the term AHC typically refers to a university that contains: (1) a medical school plus additional health professions schools or programs such as dentistry, nursing, pharmacy, public health, and allied health; (2) extensive biomedical research programs, and (3) one or more affiliated hospitals or health systems.

AHCs educate tomorrow's health care providers and leaders. We are vital providers of patient care—from basic to advanced care—and offer comprehensive primary care, as well as cutting-edge specialty treatment. In our hospitals and clinics, we tend to handle a disproportionate share of safety net care and to provide complex tertiary and quaternary care available nowhere else in the state or region.

Our research portfolios generate new ideas, leading to new treatments, therapies, and cures. AHCs also tend to have a significant local and regional economic impact, and are often the biggest employer in a community (e.g., Johns Hopkins is the biggest employer in Baltimore, and OHSU is the biggest employer in Portland).

Many staples of high-quality clinical care were developed and perfected in AHCs, including: intensive care units for newborns; new and better treatments for diabetes, cancer, and heart disease; new technologies, such as joint replacements, that improve quality of life; and organ and bone marrow transplantation. With the most highly trained health care providers and research scientists, and the best facilities in the world, AHCs have served as hubs of

innovation that have transformed the delivery of health care and dramatically improved its quality.

What distinguishes AHCs the most is our multi-talented faculty, who participate in all of our missions. Each of our faculty members is a teacher, a health care provider, a researcher, and often a thought leader in his/her field. Only in academic health care does the best education, research, and care come together this way.

## Defining the Operating Model

As the mission of AHCs differs from community hospitals and other health systems, so does the operating model. We have one foot in academia and one foot in the highly competitive world of health care delivery. This is unique in graduate and professional education. Business schools do not manage large corporations. Law schools do not manage comprehensive law firms. But AHCs include the largest, most complex medical centers in the world.

The prevailing model for funding AHCs, in which the clinical system significantly cross-subsidizes the education, research and community outreach missions, is increasingly under duress. Risk factors include (1) the chronic under-funding of education, (2) systemic gaps in research capitalization, and (3) cost containment pressures in health care reform. As a result, AHCs typically operate with much lower margins than community hospitals. In addition, those AHCs that have historically received substantial public funding have seen that support erode as state budgets have trended downward in recent years. Philanthropy is an important source of funding for AHCs as well. However, institutions with large endowments were more adversely hit by the recent market downturn than those with small endowments.

Clinical revenues at AHCs have been relatively strong for nearly two decades, but over-reliance on the patient care enterprise to fund other missions has often hindered adequate investment in clinical facilities and equipment. With cost containment one of the primary drivers of reform efforts, AHCs must find new sources of revenue to support education and research as well as re-investment in the clinical enterprise.

Given the unique funding model of academic medicine, elements of health care reform offer both opportunities and challenges. The reduction of uninsured populations will reduce traditional under-compensation for care. However, the potential is high for significant decreases in reimbursement levels for Medicare and Medicaid as well as gradual decreases in commercial reimbursement levels.

Medicare and Medicaid reimbursement presently award funding to AHCs in recognition that physician training is an important part of access to health care. State budgets for Medicaid have been increasingly tight, however, and further downward pressure on federal reimbursements through health reform could reduce or eliminate this "teaching margin." It must be protected or replaced in some manner or it could represent a terrible blow to an already tight funding model.

## Supporting Research and Innovation

AHCs tend to be the place where breakthroughs are assimilated into the practice of health care: new medications are tested; new procedures are perfected, taught and disseminated. Advancing the frontiers of science for the benefit of patients is one of the great calling cards of academic medicine, and my own experience as a practitioner underscores this.

Before becoming an administrator, I was a retinal surgeon. When I began my practice in the late 1970s, retinopathy of prematurity (ROP) was an intractable problem, and a near guarantee of blindness in premature infants. In the 1950s, medicine had established how to keep premature babies alive with oxygen and incubators, but one of the unintended consequences was many of those babies became blind.

One of the last things to develop in a baby before it is born are the retinal blood vessels that line the eye. If they are not sufficiently formed, the retina can detach, and blindness will result. The oxygen that was keeping the babies alive was also, unfortunately, counteracting the development of the retina.

For many years, ROP was a grim diagnosis with little hope for treatment. The children who suffered from ROP experienced total blindness, not just impaired vision. Many families were faced with bankruptcy trying to keep up with the medical bills. The emotional toil was so great that more than half of these children ended up in single-parent homes.

After a great deal of research and testing at OHSU and other AHCs, we can now treat the majority of children with ROP. It has become routine, and blindness from ROP is now a very rare occurrence. This is just one example of how AHCs improve the standard of care and, thereby, improve the quality of life for patients in immeasurable ways. Public funding for research and adequate reimbursement for leading-edge procedures are crucial factors in medical progress.

As reform efforts strive (appropriately, in my view) to move the U.S. health system towards more preventive care and wellness activities, we must be sure to protect our ability to innovate and disseminate new knowledge—as well as our ability

to effectively intervene in complex and debilitating conditions such as cancer, cardiac disease and neurological disorders.

## Trading One Access Problem for Another

One of the fundamental tenets of the reform debate has been the desire to improve access to health care and to expand coverage to address the nation's uninsured and under-insured problem. OHSU supports universal access to a defined set of health care services for all children and adults that is paid for in ways that are not exclusively linked to employment.

However, it's important that we not trade one access problem for another. The demand for health care is growing, but the supply of care is essentially fixed, at least in the short term (given the lead time for educating more health care professionals). Increasing coverage without increasing the provider population undermines the intent of covering the uninsured. Put another way, access to coverage is not the same as access to care.

Consider the Massachusetts example: In the 12-month period after the state of Massachusetts passed a landmark law providing universal coverage, about 340,000 of the state's estimated 600,000 uninsured citizens were able to gain coverage. With no corresponding increase in the population of health care providers, however, waiting times doubled for routine procedures like a general physical.[1]

The fact that there are looming shortages of health care providers in most every professional category will not be a surprise to those in the health care industry. However, it may not be well understood by the general public—the consumers of both health care and health reform. The scope of the shortages is dramatic. Recent projections anticipate a shortfall of 340,000 registered nurses and 55,000 physicians in the United States by 2020. Figure 1 presents a graphic representation of our aging population.

Insufficient new health care providers are being produced to replace the current provider population because: (1) the production of new health care providers has been relatively constant over several decades, (2) the population is growing, (3) the population is aging, (4) health care providers are also aging, and (5) the educational model historically has been inefficient and relatively inelastic.

As we age, we also need more health care. There are a number of ways to measure this. For example, looking at inpatient trends in Oregon, we can see that patients in their 70s typically utilize five to seven times more care than those under 50. See Figure 2 on the following page for a graphic representation of this trend.

Without new support for health care education, and new thinking about health care educational models, I believe health care reform may fail or, at best, only partly succeed, as we trade one set of problems for another.

## Health Care Workforce Crisis Equals Health Care Workforce Opportunity

An overlooked aspect of health care reform is explicit support for the education and continuing development of our provider workforce. While the production of more health care professionals in raw numbers is needed, this is also an opportunity to rethink the way we provide and organize health care education. This includes finding ways to ensure that our providers are rationally distributed to meet the needs of all communities—geographic, cultural, and life stage.

Current approaches to health care reform are designed to alleviate the constrained access caused by high costs and a distorted financing system. However, these approaches will not derail the trend toward a geographically and demographically lopsided, overly specialized, and inadequate workforce.

Aspects of this scenario are already approaching reality. Consider the example of primary care in Oregon: the federal government designates nearly all Oregon counties as full or partial "Health Professional Shortage Areas" for primary care. Surveys show that Oregon's physician workforce is aging as physician retirement outpaces

**Figure 1**
**Population 65 Years of Age and Older**
**United States, 1950 to 2030**

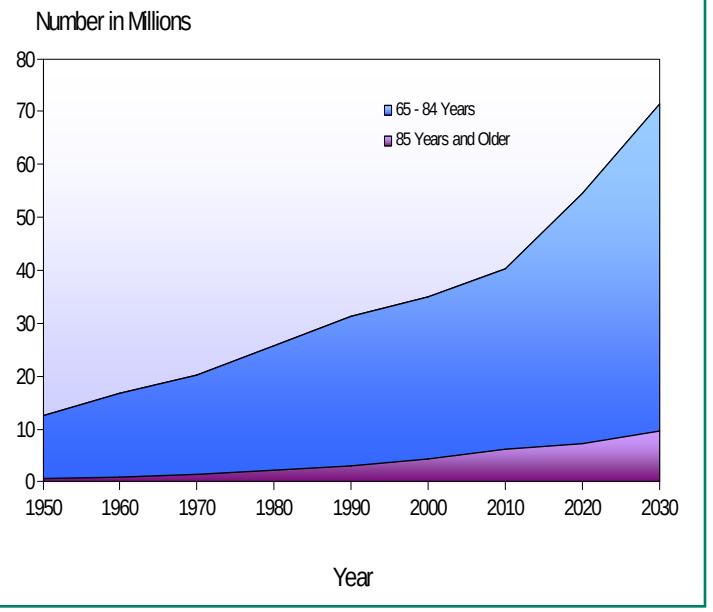
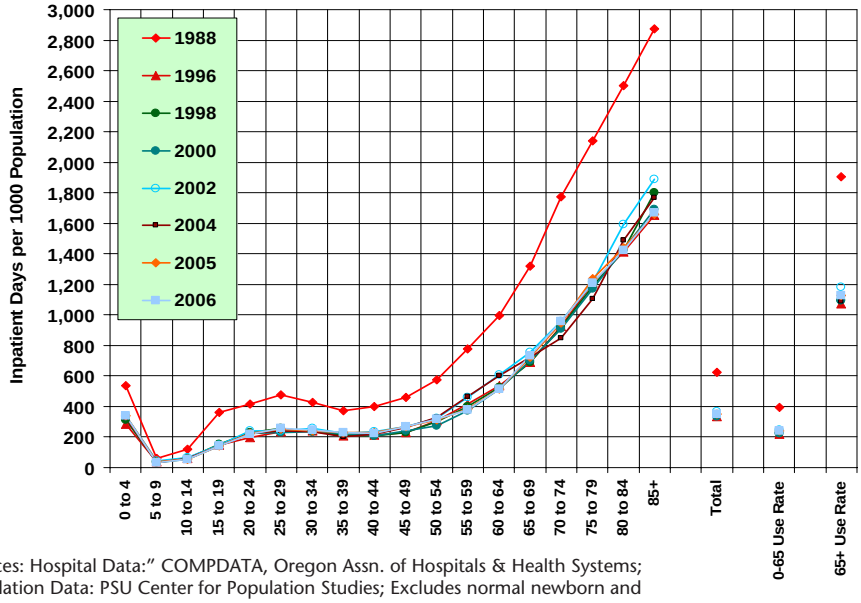


**Figure 2**
**Inpatient Day Trends, 1996 to 2006**
**For Oregon Residents**




Sources: Hospital Data:" COMPDATA, Oregon Assn. of Hospitals & Health Systems; Population Data: PSU Center for Population Studies; Excludes normal newborn and VAMC

replacement. More Oregon physicians are now in the 51–60 age group than in 1994, and fewer physicians are in the 41–50 group—a trend evident, but not nearly as remarkable, in the general population.

Oregon has taken some extraordinary steps to address our state's nursing shortage, which is projected to reach 50 percent for RNs by 2020. The Oregon Consortium for Nursing Excellence (OCNE) is a statewide coalition of community college and university nursing programs working together to reach the goal of doubling enrollment and transforming nursing education. It is an effort to increase educational capacity by making the best use of scarce faculty, classrooms, and clinical training resources in the delivery of a standardized, shared curriculum across 13 campuses, including 8 community colleges and the 5 campuses of the OHSU School of Nursing.

The consortium allows greater opportunities as well as a seamless transition for nurses and nursing students seeking additional education. Within OCNE, an individual can move freely (1) from associate to baccalaureate studies and (2) from community college to OHSU. Though other programs have used elements of this approach, OCNE's comprehensive and collaborative revision of nursing education is unprecedented in the United States and should serve as a model for efforts elsewhere.[2]

To a limited extent, current health care financing models acknowledge the role of training in delivery/access, but in a compartmentalized manner. Under Medicare and Medicaid, for instance, teaching hospitals receive federal and state payments to partly offset the costs of physician residency training programs, also known as graduate medical education (GME). However, there is only limited reimbursement for the training of health professionals other than physicians. Similarly, at the state level, within Oregon, OHSU receives funding to help educate new nurses and physicians. However, the funding does not meet all the costs, and it has declined over the last decade.

Primary care has often been noted as an area of particular concern. The following lists possible steps that can be made through health care reform to bolster primary care education efforts.

1. Reduce indebtedness of new graduates. The debt of graduating medical students is, in many cases, equivalent to a home mortgage. The 2009 median debt for public school graduates was $148,100 and $170,000 for private school graduates (compared to $22,000 and $27,000, respectively, in 1984).

   This burden increasingly discourages new graduates from choosing any but the most remunerative specialties. Health care reform could use meaningful financial incentives to encourage students to consider careers in primary care, family, or rural medicine.

2. Restructure health care finance to support primary care specialties. Health care reform must find ways to reward primary care providers for keeping patients well by reversing financing/reimbursement distortions. While this is not explicitly related to education, the precarious nature of primary care practices may discourage students from making that choice.

3. Address quality-of-life issues that discourage physicians and other health professionals from practicing in rural or underserved communities. Supporting an adequate workforce is complicated by a steadily increasing trend among medical graduates to opt for specialties with controllable lifestyles.

   Anecdotal reports from rural physicians suggest that quality-of-life issues related to geography creative a disincentive to rural practice. These include: (a) isolation, (b) permanent "on-call" duties, and (c) inadequate support for family members, including a lack of employment opportunities for spouses and limited school options for children.

OHSU has worked to address these issues in a few ways, including: (a) the development of a locum tenans program to help stem provider burnout in rural areas, (b) the offering of joint appointments to OHSU so that health professionals can come to the academic setting to refresh skills and connect with colleagues, and (c) the development of the Oregon Rural Practice-Based Research Network, or ORPRN, a statewide network of rural primary care clinicians and practices working to improve the health of rural Oregonians through community and practice-based clinical research.

4. Emphasize health care teams. Studies show that aspects of primary care can be provided by nurse practitioners and physician assistants, with more complicated conditions referred to the physician.

   Current reimbursement regulations tend to discourage the role of non-physicians by reimbursing less for the same procedure. Allowing and even encouraging team-based systems would support an increase in the physician-patient ratio without a decline in quality by allowing all primary care providers to work at the top of their license.

This last point is particularly important. Not only does health care reform offer an opportunity to identify sustainable educational funding, it also offers a chance to reform our delivery system to mirror evolving educational paradigms that enhance health care quality. The current funding framework reflects an outdated paradigm in which medical school, residency, and then a smattering of continuing medical education for licensure requirements are compartmentalized.

Times, and health care practices, are changing.

## The Potential of Educational Reform to Foster a Team-Based Health Care Culture Focused on Both Quality and Cost-Containment

As a nation, we cannot continue educating physicians and other providers in ways that have, inadvertently, supported the evolution of the current dysfunctional system. Clinical mastery requires near constant attention, updating and cross-training. Unable to keep pace with science and technology as they continue to rapidly evolve, the "silo" model will inevitably inhibit future excellence. We must teach, and fund, health care education in the context of the continual pursuit of mastery.

Educational models—at all levels of the trajectory, including graduate medical and nursing education—can be revamped to support a new vision for health care delivery. This vision includes an integrated primary care health team comprised of different provider types (physician, nurse, nurse practitioner, physician assistant, dietician, and health coach, for example) working seamlessly with specialists and community partners focused on patient partnerships and a routine use of comparative effectiveness research results. In this vision, the "team-patient" relationship supplants the current "physician-patient" relationship.

This is a model that should (and, we believe, will) be implemented nationally. However, there is reason to think Oregon is prepared to lead the way. OHSU is among the top ranked medical schools in the nation for primary care, family medicine and rural medicine.[3] About 45 percent of our recent medical school MD graduates selected primary care—higher than the national average.[4] OHSU also supports 196 primary care GME positions which are highly sought after and always filled to capacity. This figure represents all medicine, family medicine, and pediatrics residencies. Some of those students will go on to specialize, though generally 60 percent or more will remain in primary care.

About 50 percent of our MD graduates and GME trainees remain in Oregon to practice—above the national averages—and a recent study showed that graduates of our family medicine rural residency program who remain in Oregon also preferentially settle in rural areas (81 percent).

These statistics about primary care are different in other schools and throughout most of the country. So what does OHSU do differently?

We have designed a curriculum in which our MD students are involved in patient care early on in their education, and they regularly rotate through primary care clerkships. And, our national reputation encourages students with an interest in primary care to select OHSU. Equally important—and often overlooked—is that OHSU supports a culture in which primary care physicians are respected role models and a key part of our teaching faculty—a marriage of culture and curriculum that sends positive messages about the importance of primary care to students, the community, and to specialist peers.[5]

It should also be noted that the Oregon Consortium for Nursing Excellence collaborative program encourages nurses to practice in rural areas by giving nursing students with a rural background the opportunity to study and train close to home.

A new approach to health care delivery requires taking this marriage of curriculum and culture to the next level. If we embrace a vision for health

care reform that is team-based with primary care physicians and other providers working together in a community-based accountable care organization or other collective model, for example, then educational models can—must—reinforce this outcome.

New educational models may include physicians, nurse practitioners, midwives, physician assistants and other providers educated side-by-side. In this way, they will learn to better understand, respect and rely on each other's role in successful patient outcomes, and naturally align in health care teams with each member working at the "top of their license." Today, in most universities, a nurse or midwife may never interact with a physician until they encounter each other for the first time as professionals on a hospital ward or in a clinic.

A successful transformation of our health care system to increase the number of primary care physicians and other types of providers will depend on finding explicit ways in health care reform to support medical and health professional schools, and other health care programs, as they navigate this significant curricular and cultural shift. Funding demonstration models at OHSU and/or other AHCs is one avenue to catalyze this change.

## Additional Elements That Could Be Incorporated into Health Reform

To reiterate, one of the driving motivations of the present health reform debate has been cost containment. Whatever passes into law this year, if anything, will be a first step in an ongoing process.

Over the longer term, enduring success at containing costs and improving quality will require a shift away from the "fee for service" model that rewards volume toward a collective model that also rewards outcomes. The contribution of our current flawed payment system to exploding health care costs has been well covered elsewhere.[6]

The merits of several corrective proposals—accountable care organizations, medical homes, bundled payments and others—are part of the ongoing national dialogue. It is too early to know the outcome of these discussions, and it is likely that additional data collection and demonstration models will be needed before widespread implementation. In Oregon, several efforts are underway to evaluate payment model alternatives and the state is preparing to launch a statewide all-payer, all-claims data collection program which will provide the baseline information necessary to meaningfully inform future, broader initiatives.

There are two other points I'd like to make—instances where our experience at OHSU and in Oregon could inform the debate:

1. the need to fund both comparative effectiveness research (CER) and the informatics platform needed to integrate this information into routine practice
2. the power of partnering with patients and families for end-of-life decision-making

## The Need to Fund Both Comparative Effectiveness Research (CER) and the Informatics Platform Needed to Integrate this Information into Routine Practice

Strong support for funding comparative effectiveness research will be a key element in a reformed health care system. The OHSU Center for Evidence-Based Policy and the Oregon Evidence-Based Practice Center at OHSU are nationally known collaborations of academic, private sector, and government entities. Two ground-breaking projects from these centers are described below.

The Drug Effectiveness Project (DERP) was catalyzed in 2000 when Oregon's Medicaid program experienced a 60 percent increase in Medicaid drug spending in one year. The state passed legislation instituting a preferred drug list for which effectiveness of drugs was to be considered first. If drugs were found to be equally effective, considerations would then be given to cost. Realizing the utility of shared resources, additional states and nonprofit entities joined the collaboration, and DERP was formed in 2003 to provide the best available evidence about pharmaceuticals. Today, DERP produces systematic literature reviews of drug classes using only the highest quality evidence and disseminates it to participating members nationally and internationally.

The Medicaid Evidence-Based Decisions Project (MED) is a collaboration among state Medicaid programs for the purpose of making high quality evidence available to states to support benefit design and coverage decisions. As summarized by Director Mark Gibson, MED results suggest that state health programs are routinely asked to pay for interventions that either do not have evidence documenting that benefits exceed harms or that there are increased benefits associated with additional costs. The 11 states participating in the MED project have access to information that has demonstrably improved care and obtained significant savings (1) by requiring proof of benefit before funding an intervention and (2) by making sure that a given intervention is not used outside of populations for which evidence indicates it to be beneficial.

Another aspect of CER is its practical dissemination to a complex network of physicians, clinics, hospitals, providers, patients and others. In the words of Dr. Lisa Dodson, an OHSU family medicine faculty physician:

> One of the barriers to efficient use of evidence is that you very often must stop what you are doing in the middle of patient care to seek it out. Electronic Medical Records (EMRs) and other tools need to integrate this information at the immediate time when it is useful and needed. For example, having evidence-based guidelines as a "pop-up" when selecting drugs for certain conditions, or having guideline reminders integrated into EMRs.

This challenge for health care reform relates to supporting the appropriate informatics platforms/tools that will drive CER integration throughout the health care system. This also relates to the first comment about educational reform: we must educate 21st century physicians in the use of information tools that will help them better document, retrieve, and analyze information about their patients and the populations they serve as well as apply evidence-based practices.

## The Power of Partnering with Patients and Families for End-of-Life Decision-Making to Improve Quality and Lower Costs

The Center for Ethics and Health Care at OHSU has been at the forefront of education, training, research, and patient care to help honor the treatment preferences for persons with frailty and advanced medical conditions. The Center has played a pivotal role in helping to develop, test and refine Oregon's innovative Physicians Orders for Life-Sustaining Treatment (POLST) program. The POLST Paradigm initiative goal is to effectively communicate the wishes of seriously ill patients to have or to limit medical treatment as they move from one care setting to another.

In recognition of the importance of this model for end-of-life and other care situations, Oregon Rep. Earl Blumenauer introduced HR 1898—"The Life Sustaining Treatment Preferences Act of 2009"—which authorizes the Medicare program to reimburse health care professionals to counsel patients regarding advanced care planning. In addition, the bill provides financial tools to states interested in developing or enhancing a POLST Paradigm program.

The concept embodied in this legislation supports the development of a health care culture in which patient partnerships are paramount and rewards providers for supporting patient decision-making with health care information derived from CER. We believe that this approach will support the emergence of a more supportive and patient-centered health care culture that moves away from costly, unproven interventions.

Some of the provisions of Rep. Blumenauer's bill were incorporated into the House-passed health care reform bill.

## Summary and Conclusion

As reform legislation winds its way through the halls of Congress, the fate and shape of federal health care reform remain unclear. Only one thing is certain: whatever passes into law this year, if anything, will leave significant issues remaining to address.

This is likely to be the first step in an ongoing process that considers not just payments reform but delivery system reform and support for new educational models. These reforms will be driven as much by demographic and technological change as by cost and access concerns. Given the political environment in Washington, however, it may fall to the states to provide the initiative needed to change the system. We've seen before in Oregon and in Massachusetts that states can be effective laboratories in the testing of new policy ideas and systems. Indeed, the federal debate has included significant consideration of localized demonstration projects to beta test and evaluate approaches to reform.

Whether catalyzed by actions at the state or national level, change is coming to the health care system.

Notes:

1. "In Massachusetts, Universal Coverage Strains Care," *New York Times*, April 5, 2008.
2. For more on OCNE, consult "The Oregon Consortium for Nursing Education: A Response to the Nursing Shortage," by Tanner, Gubrud-Howe, and Shores, in the August 2008 version of *Policy, Politics & Nursing Practice*.
3. *U.S. News & World Report*, 2009.
4. National Resident Matching Program, 2009.
5. Several authors have written about the damaging effect of the "hidden signals" in educational curriculum that discourage primary care. See, for example, *AAMC Reporter*, May 2009.
6. See, for example, *The New Yorker* magazine article by Dr. Atul Gawande titled "The Cost Conundrum" (June 1, 2009), which tracked geographic differences in Medicare spending.

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