



DEVELOPMENT OF A 21ST CENTURY
HEALTHCARE WORKFORCE PLAN FOR ARIZONA

Report of the Primary Care Workgroup

Executive Summary

The Arizona Primary Care Workgroup was convened in Summer 2008 as a result of Executive Order 2008-03 to develop a healthcare workforce plan designed to meet the needs of 21st Century Arizona. Its charge was to develop actionable recommendations to ensure that Arizona is able to attract and train an adequate supply of well trained and equitably distributed primary care health providers to address the healthcare needs of a growing and diverse population.

APRIL 2009

The Primary Care Workgroup concluded its work in March 2009 with a strong commitment to a core set of basic principles and actionable recommendations:

Principles

- ***Commitment and Planning*** If Arizona is to remain competitive on the national and global stage, we need to make a strong commitment to developing a well-trained, highly-effective healthcare workforce, and to ensure that commitment through a systematic, participatory planning process based on up-to-date and accurate information and analysis. With full recognition of the magnitude of the state's current budget crisis, the Primary Care Workgroup believes that strong support of health workforce development programs such as graduate medical education (GME) and higher education health professions training programs should be maintained and, in better economic times, enhanced.
- ***Effectiveness and Efficiency*** Healthcare systems built on a strong primary care core are more cost-effective and efficient than systems built on an over reliance on fragmented specialty-driven services. Arizona and the nation will never be able to appreciably lower healthcare costs and improve patient and population outcomes unless we vigorously address system reform issues that increase payment to primary care clinicians and provide incentives for better system coordination, communication and management of persons with often complex and chronic diseases.
- ***Prevention and Wellness*** While Arizona's biggest current need is to address the provision of basic primary care services, especially in medically underserved areas, the longer term goal is to provide incentives for patients and providers to focus on prevention and wellness activities and interventions that improve individual and population health outcomes, reduce medical costs, and increase the responsibility and capacity for individuals and communities to stay healthy and productive.

Recommendations

- **Create a Robust Arizona Health Workforce Planning Infrastructure:**
 - Arizona Health Workforce Commission
 - Arizona Health Workforce Data Center
 - Arizona Health Workforce Job Clearinghouse
- **Focus on the Recruitment and Retention of Primary Care Clinicians in Arizona, Especially in Medically Underserved Areas:**
 - Ensure that funding continues for current state loan repayment programs for primary care clinicians practicing in medically underserved and rural areas. Enhance funding when the economy improves.
 - Consider legislation that forgives medical and other professional school loans for physicians, NPs and PAs who practice primary care in medically underserved and rural areas of the state.
 - Support national and state legislation that provides recruitment and retention incentives for medical students to become primary care physicians.
 - Maintain funding in the current economic climate for training programs that target recruitment of primary care trainees from rural and underserved areas. Enhance funding when the economy improves.
 - Pursue efforts to reduce medical malpractice premiums and a litigious practice climate.
 - Set up a Recruiting Arizona Physicians Office.

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- Maintain Graduate Medical Education (GME) funding in the current economic climate. Re-evaluate GME allocations to provide incentives for residents in primary care settings for underserved populations. Increase GME funding when the economy improves.
 - Target recruitment and retention efforts of primary care clinicians for underrepresented population groups to improve workforce diversity.
 - Expand the number of federal J-1 Visa Waiver Program slots available to the state.
 - Create K-12 educational outreach and scholarship programs for the health professions, with emphasis on recruitment of underrepresented populations.
 - Collaborate with AHCCCS to create financial and other incentives for primary care clinicians to practice in rural and medically underserved areas.

■ **Improve Training and Enhance the Practice Environment for Arizona Primary Care Clinicians:**

- Elevate the principles and practices of primary care among Arizona medical and nursing school deans and faculty.
- Revise the curricula to include more emphasis on, and experience with, working in transdisciplinary teams in coordinated practice settings.
- Include more training in diagnosing and treating mental/behavioral health conditions.
- Pursue better coordination of medical and behavioral health services.
- Ensure educational exposure to a broad range of clinical conditions.
- Focus clinical training in settings where clinicians will actually be practicing.
- Utilize distance learning modalities to deliver high-quality education to where the trainee lives.
- Regionalize Arizona clinical education around “centers of excellence” hubs.
- Provide incentives and support to connect Arizona primary care clinicians to a system of electronic health records.
- Expand Arizona’s telemedicine network.
- Engage health plans in a concerted effort to improve their policies and procedures to reduce the “hassle factor” of primary care practice.
- Create an “innovations in primary care practice” award fund.
- Encourage initiatives to model new ways of practice and payment in primary care settings.

Committee Background and Charge

In January 2008, Governor Janet Napolitano issued Executive Order 2008-03 that tasked the Arizona Department of Commerce (ADOC) to “lead and coordinate a collaborative public-private effort to develop a healthcare workforce plan designed to meet the needs of 21st Century Arizona.” Rather than create a single task force to implement the Executive Order, the Governor’s Office and ADOC chose to create workgroups focused on specific parts of the healthcare workforce, whose findings and recommendations would then be assembled into a final plan.

One of the first workgroups created was the Primary Care Workgroup. Its charge was to develop *actionable recommendations* to:

- Ensure that Arizona has an adequate supply of primary care health providers to address the healthcare needs of a growing and diverse population.
- Ensure that primary care providers have the training and skills necessary to provide high-quality and continuously-improving patient care.
- Address the shortage of primary care providers and their inequitable distribution across the state.
- Attract, educate and train more primary care health professionals in the state.

The Primary Care Workgroup was constituted in Summer 2008 as a representative cross section of primary care practitioners, educators, payers and policy leaders. In addition to formal meetings, the Primary Care Workgroup participated in an active electronic network, conducted a scan of issues and practices in primary care both in Arizona and other states, narrowed the frame of inquiry and recommendations, and issued this summary report in March 2009.

Toward the end of the Primary Care Workgroup’s deliberations, there was a change of Governors in Arizona, and some of the government representatives who were initially involved left the process. In the absence of any directive to the contrary, the Primary Care Workgroup decided to complete its charge and present the report to Governor Jan Brewer as a set of recommendations to address urgent and complex issues in primary care.

Contextual Issues and Definitions

A number of important issues and definitions set the context for our recommendations:

What is necessary to develop a 21st Century health workforce plan?

Any health workforce plan that will meet the needs of Arizona in the 21st Century depends on an effective planning process. Necessary to any planning process are the ongoing availability of up-to-date data and information, an organizational structure with the resources and time sufficient to develop the plan, and leadership to ensure that the plan is implemented. None of these appears to be evident in Arizona today. The Primary Care Workgroup – an all-volunteer effort – was given no resources to carry out its charge. It quickly became apparent that the state lacks sufficient up-to-date, relevant and accurate health workforce data. In those places where it is available, its existence is threatened by the lack of ongoing resources and support. In the Primary Care Workgroup’s view, there is little coordination between the various public and private agencies and organizations tracking health workforce issues, and even less leadership. Private organizations have stepped up to the plate in the past, but with sporadic exceptions state government has not. The recommendations in this report depend on the active leadership and involvement of *all* sectors and stakeholders if they are to have any relevance and force in the future development of this state.

What is primary care?

According to the Institute of Medicine (IOM), primary care is a *level of care* or setting providing ambulatory versus inpatient care and an *entry* point to a healthcare system offering secondary care (by community hospitals) and tertiary care (by medical centers and teaching hospitals). The *care is provided by clinicians* (Medical Doctors-MDs, Doctors of Osteopathy-DOs, Physician Assistants-PAs, and Nurse Practitioners-NPs) *offering first contact* with the system. The *attributes* of that care are that it is *accessible, comprehensive, coordinated, continuous and accountable*.¹

Why is primary care important?

Research indicates that preventive care, care coordination of those with chronic diseases, and continuity of care – all hallmarks of primary care medicine – achieve better outcomes and cost savings than a health system with an overreliance on specialty care services. Countries whose health systems are built around strong primary care (England, France, Sweden, etc.) achieve better health outcomes at less expense than the U.S. system, where current financing mechanisms result in a fragmented and uncoordinated system of care that rewards expensive procedure-based services while undervaluing primary care services. If Arizona is to develop a workforce that provides timely, affordable, and high-quality services to all its residents, the first order of business is to start with primary care.

Who are primary care providers?

The IOM – and many other national, regional and state organizations – defines primary care providers as clinicians – MDs, DOs, NPs and PAs, per the above definition. In today’s healthcare marketplace, however, “consumers” may choose to access what they consider to be primary care in alternative systems or outside any formal system entirely: naturopaths, herbalists, chiropractors, physical therapists, varieties of specialists, etc. The Primary Care Workgroup discussed whether its membership should be expanded to include representatives from some of these “alternative” providers and concluded that while consumers may choose from a multiplicity of providers of health services, and while they may find some of these services to be efficacious, the Workgroup’s principal focus should be on increasing the supply and quality of primary care providers as defined by the traditional medical model, leaving alternative conceptions and configurations of healthcare providers to other venues and groups.

What physician medical specialties constitute primary care?

According to the Association of American Medical Colleges (AAMC), primary care covers the specialties of family medicine, adolescent medicine, general practice, internal medicine, general pediatrics and geriatric medicine.² Other specialties, such as obstetrics, may provide primary care services and be an entry point to the healthcare system, but that is not their principal focus.

How important are practice patterns and settings to improving primary care?

They are critical. Although the Primary Care Workgroup’s charge was to focus on increasing the supply and quality of the primary care health workforce in Arizona, we agreed that it made no sense to continue to recruit and place primary care clinicians in settings where there are few incentives for retention and numerous disincentives that contribute to professional, financial and social hardships for primary care clinicians. Consequently, while we principally focus on strategies to increase the supply of primary care clinicians, especially in underserved and rural areas of Arizona, we underscore the importance of reforming healthcare practice configurations and payment systems through the entire healthcare system, and do not believe that workforce shortages will change substantially until this occurs.

What is a ‘Patient-Centered Medical Home’?

There was broad agreement that any recommendations to improve primary care – indeed, all of health care – in Arizona should include a recommendation to move toward the primacy of a “patient-centered medical home,” a model of care that has been around ever since the 1960s and has recently gained ascendancy among health professionals and organizations³ as a preferred, effective model of delivering care. In such a system, each person would have a medical “home” based on the principles of prevention, wellness, and timely, evidenced-based care. An integrated team of primary care professionals – physicians, nurse practitioners, physician assistants, mental health professionals and others – would provide first contact and continuous care, coordinate and monitor that care in the health system and wider community, and refer out to specialists as needed. The process would be focused on quality and safety, and be transparent and well-documented through a communications infrastructure available to the patient and all providers. Payment would be based on evidence-based outcomes that reflect the value of a patient-centered medical home; standards of practice would be continually refreshed through scientific inquiry, and a culture of learning, cooperation and open communication – all centered around the primacy of the patient – would enrich daily practice. While consideration of various medical home arrangements and issues of control and payment are outside the scope of this report, we believe its basic principles are central to any significant reformulation of the primary care environment that, ideally, will result in the increased recruitment and retention of highly trained, effective and committed professional clinicians..

The Arizona Primary Care Workforce

Healthcare workforce shortages exist across the nation. An analysis of Bureau of Labor Statistics Occupational Projections estimated that the nation will need to produce almost six million new health workers by 2014 to fill new positions and to replace workers who retire or leave their jobs for other reasons.⁴ According to the Health Resources and Services Administration’s State Health Workforce Profiles (2000 data), 7.0% of Arizona’s total workforce is employed in the health sector, 49th among states in per capita health services employment.

While health services employment in Arizona is growing rapidly (the current economic recession will temper this), the population is also growing, resulting in a lower net per capita growth in health sector employment compared with the nation (8% in AZ v. 21% nationally).

Clearly we need to look not only at the availability and distribution of primary care clinicians across the state, but also at types of practice settings, productivity and health outcomes if we are to develop a robust health workforce plan. Developing the analytical database and resources necessary to accomplish this on a sustained basis is a key recommendation of this report.

Primary Care Physicians

Statistics from the AAMC⁵ suggest that Arizona is on the low end of the per capita rate of physicians generally and primary care physicians specifically. The great majority of Arizona physicians come from out-of-state undergraduate medical education programs (UME):

Status of Physicians, 2006

	AZ	US	RANK AMONG STATES
Active patient care physicians	213.7 per 100,000	249.7 per 100,000	33
Active primary care physicians	76.5 per 100,000	88.1 per 100,000	39
% of active physicians who completed UME in the state	9.8%	28.6%	41

Data from the 2005 Arizona Physician Workforce Study,⁶ which was primarily based on licensing data from the Arizona Medical Board and the Arizona Osteopathic Board, paint a complementary if somewhat different picture. According to the study, approximately 75% of Arizona physicians are in private practice, and 41% are in primary care specialties – slightly higher than the national average of 38%. Further, there was a wide variance in the number of physicians per 100,000 population in the state, indicating the difficulty in recruiting physicians to some rural and underserved areas:

Physicians per 100,000 People, by Arizona County, 2004

Pima	276		Mohave	138		La Paz	80	
Coconino	249		Yuma	121		Santa Cruz	76	
Maricopa	220		Cochise	111		Pinal	67	
Yavapai	161		Navajo	96		Graham	61	
Gila	161		Greenlee	84		Apache	48	

The report describes a number of nuances in analyzing workforce data, but the Primary Care Workgroup was unable to commission a more detailed study of the Arizona Primary Care Workforce (including MDs, DOs, NPs and PAs) because of lack of resources.

Nurse Practitioners

Nurse practitioners (NPs) represent the vast majority of Advanced Practice Nurses in the U.S., which also include Clinical Nurse Specialists and Certified Nurse Midwives. Although national estimates of NPs vary, depending on definition and methodology of counting, there is general agreement that their numbers have steadily increased over the past decade in tandem with a growing population and scope of practice. According to the American Academy of Nurse Practitioners (AANP),⁷ over 80% of NPs in 2007 reported a primary care specialty or certification. Over 50% are certified in family practice, with another 15% and 8% certified in adult and pediatric care respectively. Approximately one in five NPs reported practicing in rural health settings, and over 50% reported working primarily with populations whose annual income was below \$50K.⁸

Nurse Practitioners, U.S., 2000-2008⁹

	2000	2002	2004	2008
NPs practicing	81,103	105,817	121,799	140,000
New graduates	6,313	5,717	6,474	6,911 ('07)

In Arizona, the annual estimates of active (licensed) NPs grew from 2351 NPs in 2001 to 3114 in 2008 (Arizona Board of Nursing). Currently, NP programs are required to be Master degree entry level. The state's estimate of master's prepared graduates, primarily NPs, has risen from 40 graduates in 2004 to over 130 in 2007:

Nurse Practitioners Graduates, Arizona, 2004-2007¹⁰

	2004	2005	2006	2007
Graduates	40	70	107	135

By 2015, NP programs will be required to be doctorate level entry – Doctor of Nursing Practice (DNP) – throughout the nation. There are currently five university-based NP programs in Arizona: University of Arizona, Arizona State University, Northern Arizona University, Grand Canyon University, and the University of Phoenix. Two of these institutions – the University of Arizona and Arizona State University – have DNP programs in place: ASU graduated its first class of DNPs (23 graduates) in December 2008, and UA will graduate their first class in 2009. Research doctorates in nursing science have been in place for several years at both ASU and UA.

Arizona is one of 22 states plus the District of Columbia in which NPs can practice independently without physician collaboration or supervision. In a report published in the *American Journal for Nurse Practitioners*, Arizona's NPs were rated first in the nation in the five categories reviewed, which included "legal capacity, NP patient access to services, and NP patient access to prescriptions."¹¹ It is important to note that while workforce policies should ensure a sufficient number of primary care clinicians to improve access to quality care and avert shortages in primary care services, they "should recognize that training more nurse practitioners does not eliminate the need nor substitute for increasing the numbers of general internists and family physicians [pediatricians, geriatricians] trained to provide primary care."¹² It is through the collaboration of primary care clinicians, not their fragmentation nor substitution of one group for another, that the greatest quality and coordination of care are achieved.

Physician Assistants

According to the American Academy of Physician Assistants (AAPA) there were almost 74,000 physician assistants (PAs) practicing in the U.S. at the end of 2008 – up from 45,311 in 2000.¹³ There are 1,688 PAs certified to practice in Arizona, with 900 actually practicing in the state. A separate report¹⁴ suggests that over half of Arizona's PAs work in an outpatient setting, with approximately 35% working in specialties that suggest a primary care focus.

A Physician Assistant must hold a valid Arizona PA license, possess an approved notice of supervision, and have an approved supervising physician "available" while performing healthcare tasks. The supervising physician is not required to be physically present, if he/she can be easily in contact via phone, telecommunication or radio. Supervision includes specific mention of mandatory weekly meetings between the supervising Physician and the Physician Assistant. Physicians may supervise up to two PAs.

Physician Assistants may function at rural health sites where supervising physicians are within reach, but not physically available. Physician Assistants work in specialty practices such as orthopedics, cardiology, and women's health as well as in primary care practices. They must have an established supervisory relationship with a physician.

There are two university-based PA training programs in Arizona – Midwestern University and AT Still University. Combined, these programs enroll approximately 150 students per year. Planning for a third proposed PA program at Northern Arizona University was recently shelved because of dramatic cuts to Arizona universities due to the state budget crisis.

The Importance of Data Collection and Analysis

Clearly there is not a great deal of Arizona-specific information about the number of primary care clinicians – their demographics, distribution, retention and turnover rates, migration patterns, practice patterns and relationships, institutional vacancy rates, trends in wages, education program enrollment and graduation rates, and indicators of productivity and quality of care delivered. States vary in their health profession information systems, capability and dissemination activities.¹⁵ Arizona has made some progress over the recent years, but the state has historically lacked the commitment to making a sustainable, long-term investment in health workforce data collection and analysis. Different state agencies, educational programs and private organizations have mounted various health workforce data and analytical studies, but they remain uncoordinated and unsustainable. In the Primary Care Workgroup's view, without major attention and leadership in this arena, it is difficult to make strategic, intelligent decisions on health workforce investments now and well into the future.

Factors Impacting the Future of Arizona’s Primary Care Workforce

Factors that impact the future of the primary care workforce nationally are also present in Arizona. We note them here to indicate the breadth and complexity of health workforce reform efforts.

Declining Interest in Primary Care Careers

In the 2005-2020 period, the national primary care workforce (MDs, DOs, NPs, PAs) is expected to decline 9% relative to the population compared to 14% growth in other medical specialties.¹⁶ The decline is projected to be most evident in the supply of physicians; it is unknown how much this could be offset by the recruitment and increasing use of NPs and PAs in primary care settings, especially in underserved and rural areas.

Some of the factors impacting a physician’s choice of a primary care career include:

- **Earning potential.** Most medical students graduate with significant financial debt. Faced with a choice between a primary care career that might pay \$170,000 annually and a medical specialty that pays \$350,000, many choose the latter.
- **Medical training and culture.** Medical training in the U.S. is driven by ever increasing specialization – and the research money that goes with it. The cognitive disciplines like family medicine, pediatrics and psychiatry are less favored by medical deans and faculty than those specialties that bring more money and prestige with them. Medical students pick up on this early in their careers.

Factors that impact all clinicians’ (MDs, DOs, NPs, PAs) choice of a primary care career include:

- **Practice patterns.** The current fee-for-service model of medical reimbursement for primary care results in having to see more patients for shorter periods of time simply to make ends meet. Constraining factors include dealing with multiple payers, insurance forms, prior authorization protocols, rural and small practice setting isolation, a litigious and fearful medical malpractice climate, and high administrative overhead costs that result from all of this.
- **A complex patient population.** More patients are showing up in the primary care clinician’s office with multiple chronic diseases that require a great deal of time, attention and coordination in a system that is ill-prepared to provide it. The U.S. fee-for-service system pays for “services” – procedures – and not for time, attention and coordination. This produces frustration for clinicians who know the right thing to do but are unable to do it because of the incentives/disincentives of the system.
- **The information explosion.** It is increasingly difficult for a primary care clinician to master the vast and growing scope of medical informatics and diagnostics necessary to act as the “generalist” and coordinator of a diverse population with a multiplicity of medical and social issues.
- **Lifestyle.** Younger clinicians – a growing proportion of whom are women – are less interested in practicing in an intense primary care pressure cooker and more interested in having a “balanced” life of family, work and leisure. It’s easier to accomplish this in institutional settings with predictable hours, a reasonable salary and control over one’s schedule – a career as a hospitalist, for example – than it is in smaller, stand-alone primary care practices. Lifestyle issues also impact where primary care clinicians choose to practice. For example, many young professionals are not interested in practicing in rural areas, where there are fewer perceived amenities and professional support networks.

Rising Healthcare Costs

The relentless rise of healthcare costs over the past decade, coupled with an attendant rise in the number of uninsured and pressure on employers to shift more costs to their employees, has made care increasingly unaffordable to a growing number of Americans. In a recent 2008 Arizona survey, for example, over 1.1 million Arizonans reported some degree of difficulty with medical debt.¹⁷ Business leaders, too, are searching for ways to lower their healthcare costs and still develop a healthy and productive workforce, leading to an interest in the medical home model, on-site clinics and an emphasis on prevention and wellness. All of this suggests the need for more, not less, primary care clinicians in the future. To attract and train such clinicians – and to deliver on the promise of lowering costs and improving health outcomes over the long run – the system will have to pay for the coordination, communication and management activities of clinical teams, and move away from a strict fee-for-service, specialty-driven model.

Demographic Forces

Arizona, like some other states, is growing younger and older at the same time. Over the next twenty years, the fastest growing age groups will be those over 65 (especially those over 85) and children 0-18 – two groups that benefit from primary care specialties. Rising rates of chronic diseases like diabetes, asthma, arthritis and heart disease will require a primary care workforce skilled in team-coordinated monitoring and management, as well as traditional medical diagnostics. As more Americans enroll in public programs like Medicare and Medicaid, the necessity to control costs and still provide comprehensive, quality care will lead to pressure for payment reform and new, coordinated models of delivery that emphasize prevention and wellness.

Training and Technology

Necessity is the mother of invention. Faced with the collision of pressures to contain rising costs, high consumer demand and expectations, and not enough primary care clinicians to meet the healthcare needs of a growing population with complex healthcare conditions, educators, professional societies and provider institutions are starting to experiment with innovative approaches to training and the use of technology in integrated practice settings. Space does not permit a listing of all of the innovations taking place here in Arizona, but just a few of them include AHCCCS' (Medicaid) use of electronic health records and the introduction of the medical home model, Arizona Health-e Connection's e-prescribing project and seeding of health information exchanges, innovative approaches to training DOs and dentists at A.T. Still University, the growing use of telemedicine to offer psychiatric and other healthcare services to rural and remote populations in the state, the introduction of new training models for NPs and PAs at the state universities, and many others. Slowly but surely, clinicians are beginning to hook up and share information electronically – more than 41% of Arizona physicians are now transmitting some form of medical records electronically.¹⁸

Lack of Support for Training Programs

The recent closing of two major hospital family medicine programs in the Greater Phoenix metropolitan area is indicative of the pressures facing primary care training programs. Without adequate reimbursement from the federal government for training slots, it is increasingly hard for hospitals to support the programs, especially with fewer physicians choosing a career in primary care specialties and economic pressure to support those programs that generate higher income. In NP training programs, and nursing education generally, it is hard to recruit and retain high-quality faculty who are capable of earning higher salaries outside the teaching setting. These factors were prevalent in Arizona well before the current budget crisis, but with the recent loss of state graduate medical education funds and drastic cuts to university training programs (for example, Northern Arizona University's plans to develop a physician assistant training program were shelved), it is extremely difficult, if not impossible, to make any significant headway in training more primary care clinicians to practice in high need areas of the state.

Recommendations

The Primary Care Workgroup is acutely aware of the seriousness of the current budget crisis in Arizona. Nevertheless, it is our view that the state's general lack of economic development and workforce planning in all sectors, including health care, has contributed in part to the crisis the state now faces. The evidence is clear: an investment in Arizona's primary care workforce planning infrastructure, recruitment, retention, training and practice is both a short- and long-term solution to increasing the effectiveness and efficiency of health care. It lowers total costs, improves outcomes and increases the health and productivity of our state's citizens. It is a first order strategy for sound economic and quality of life development in Arizona.

Workforce Planning Infrastructure

At the outset we recommend steps to put a solid health workforce planning infrastructure in place. Funding to seed these ideas might initially come from private sources, but ultimately some level of public funding would be necessary to sustain them:

- **Create an Arizona Health Workforce Commission** to plan, monitor and evaluate steps to ensure a 21st Century workforce to meet the state's healthcare needs. A number of state agencies and other organizations are involved with various aspects of health workforce development and monitoring, but these activities remain uncoordinated, piecemeal, occasionally duplicative and generally focused on the "crisis du jour" instead of a longer-term development perspective. Such a central infrastructure should have the ability to coordinate efforts through ADHS, AHCCCS, the Board of Regents and higher education, ADE and K-12 education, the Department of Commerce and the Workforce Investment Board, the Governor's office, and the legislature. It should be independent, broadly representative, free of vested interests and grounded in communities of evidence-based healthcare policy and practice. There are a number of models in other states that might prove instructive for Arizona's efforts – it's a question of having the political will to get started and see what can be accomplished.
- **Create an Arizona Health Workforce Data Center.** If this report makes anything abundantly clear, it's that the state lacks up-to-date, comprehensive and relevant information to inform health workforce policies and practices. We certainly have some strengths to build on – data sources through Arizona HealthQuery, AzHHA's Workforce Data Center, AHCCCS and ADHS come to mind – but like health workforce planning generally, they remain uncoordinated, sporadic and unsustainable. The function of such a data center would be to collect, analyze and disseminate data about supply and demand, demographics, distribution, productivity, education and employment trends, migration patterns and other factors for a full range of healthcare providers. This could reside within a state agency, be a public-private partnership, or follow any number of other organizational configurations. Once again, the experience of other states will be instructive.
- **Create an Arizona Healthcare Workforce Job Clearinghouse.** A healthcare workforce job clearinghouse should be created to meet the ongoing need of connecting people, communities and jobs through an integrated electronic database. Often Arizona communities have openings for primary care and other health professionals, but don't know where to look for, or how to attract, qualified applicants. Conversely, qualified applicants may be interested in such jobs, but don't know where they are or whom to contact.
 - a. **Develop an Arizona Primary Care "Community of Practice" (CoP).** Link primary care clinicians across the state in an electronic network and extend it through mentoring activities, conferences and workshops, and other venues of professional education and support, especially for those practicing in remote settings.

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- b. *Use the Primary Care Community of Practice Network to provide forums for community members in targeted areas of need to survey their own strengths and resources, and to develop community-specific ideas to address primary care issues. Often community members have excellent and quite specific ideas. They need to be involved from the start.*
 - c. *Create a Center for Outcomes Management/Best Practices in Primary Care to research and disseminate best practices and innovations that lead to better outcomes. This could be an extension of the Arizona Workforce Development Commission, the Data Center or the primary care community of practice.*

Recruitment/Retention

The recruitment and retention of primary care clinicians in Arizona, especially in medically underserved and rural areas, is daunting even in good economic times. The Primary Care Workgroup recommends the following:

- *Take steps to ensure that funding continues for current state loan repayment programs for primary care clinicians (including foreign medical graduates) practicing in rural and medically underserved areas.* When the economy improves, funding should be enhanced. Consider expanding the length of service possible under these programs and developing a matching-funds program for employers to increase the amount of the loan repayment.
- *Arizona should pass legislation that pays off medical and other professional school loans for physicians, NPs and PAs who practice primary care in high need, medically underserved areas of the state.* Pennsylvania and Massachusetts have pending legislation that might serve as models.
- *Arizona's congressional representatives and senators should support legislation that would provide recruitment and retention incentives* for medical students to become primary care physicians through grants, scholarships and loan forgiveness programs, such as the Preserving Patient Access to Primary Care Act (H.R. 7192). Such legislation would support and expand the patient-centered medical home model of care, and improve payment systems under Medicare to support, sustain and enhance primary care.
- *Funding in the current climate should be maintained for programs that target recruitment of primary care trainees from rural and underserved areas, and enhanced when economic conditions improve.* Trainees who come from rural and underserved areas, or who otherwise participate in rural residencies, rotations or internships, are more likely to return to practice in such areas than those who do not have this experience.
- *Arizona should pursue efforts to reduce medical malpractice premiums and provide incentives for primary clinicians to serve in all areas of the state, and especially in rural and medically underserved areas.*
 - a. *Pursue tort reform for malpractice.* In addition to looking at placing a cap on the amount of malpractice awards, the state might also consider allocating a percentage of all malpractice awards to a revolving fund to be used for recruitment efforts in medically underserved areas, with a focus on necessary and cost effective services such as primary care.
 - b. *Support national legislation to extend the Federal Tort Claims Act (FTCA) to all primary care clinicians (MDs, DOs, NPs, PAs) practicing in rural and medically underserved areas.* Arizona might consider the state equivalent of FTCA, such as a risk pool – perhaps in the form of federal-state-private partnership. Clinicians considering opportunities in these locations would find it attractive to practice without the threat of a malpractice suit hanging over their every move.

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- *Arizona should set up a Recruiting Arizona Physicians (RAP) Office* to assist with the coordination of all physician recruitment initiatives – and to focus on the recruitment of primary care physicians specifically. This could be set up under the auspices of the Arizona Health Workforce Commission (recommended previously) and also partner with other groups, such as Federally Qualified Health Centers, to develop an Arizona Incubator Model to transition out-of-state physicians to Arizona practice settings.
 - *Re-evaluate Graduate Medical Education (GME) funding allocations.* For example, Arizona GME funds should be leveraged to provide incentives for programs that provide educational experiences that prepare residents providing primary care services for underserved populations.
 - *Target recruitment and retention efforts of primary care clinicians from underrepresented population groups.* Lack of diversity in the U.S. health workforce generally, and in Arizona specifically, is well documented. Arizona’s primary care workforce should reflect the populations it serves.
 - *Expand the number of federal J-1 Visa Waiver slots available to Arizona, and support the National Interest Waiver Program (NIW).* The J-1 program provides a waiver of home residency requirements and expedites permanent residence for foreign physicians in exchange for three years of service in a medically underserved area of the state. The NIW program supports foreign physicians who serve in ambulatory primary care settings in rural underserved areas or qualifying sites in urban and rural underserved areas.
 - *Create K-12 educational outreach and scholarship programs for health professions, with emphasis on recruitment of underrepresented populations.* The Arizona Health and Occupation Students of America program, supported by the Arizona Department of Education, is one successful model of targeting students representative of the state’s diversity. Arizona should consider more scholarships for students entering high-demand health professions, as well as focus and coordination of successful Arizona Health Education Center (AHEC) programs.
 - *AHCCCS should have the authority to pay primary care clinicians in rural and underserved areas of the state more than they pay them in urban/better served areas.* More primary care clinicians might be attracted to practice in Arizona if Medicaid paid them more than what Medicare reimburses them. Further, there is evidence that reimbursement rates for primary care clinicians are lower in Arizona than in other selected regions of the country. The state should take steps to ensure that rates are at least comparable in order to attract more clinicians to practice here.
 - *ADHS needs to take a more active leadership role in helping to recruit and place – with adequate financial support – new primary clinicians in high areas of need.* Having some stability of leadership within the organization with a commitment to prevention and wellness through a system of coordinated primary care is a place to start.

Training and Practice

Recruitment and retention of primary care clinicians will be enhanced by improvements in training and practice:

- *Elevate the principles and evidenced-based practices of primary care among Arizona medical and nursing school deans and faculty.* Educators exert significant influence over what and where clinical students choose to practice. Because the “primacy” of primary care is grounded in medical research on system outcomes and principles of effectiveness and efficiency, it should be promoted by all educators in training, public education and advocacy.

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- *Revise the curricula to include more emphasis on, and experience with, working with transdisciplinary teams in coordinated practice settings.* The increasing prevalence of complex and chronic diseases, together with the explosion of medical knowledge, makes coordination and communication between teams of providers a necessity.
 - *Include more training in diagnosing and treating mental/behavioral health conditions.* A majority of mental/behavioral health conditions can be diagnosed and treated in primary care settings. Further, patients often prefer to see their primary care provider for general mental/behavioral health conditions, and not engage a separate behavioral health system. Given the high prevalence of these conditions in society, all primary care clinicians should be trained to treat them and refer out as necessary.
 - *Ensure educational exposure to a broad range of clinical conditions.* Although hospital-based training is more expensive, it must continue to be a central part of Arizona primary care training programs, with exposure to critically ill patients and complex conditions, and trainee access to full and part time professors and specialists. Office-based practice must be stressed, but not with the elimination of hospital-based practice. The recent closing of two significant hospital family medicine residency programs in the Greater Phoenix area is indicative of the financial precariousness of hospital family residency programs.
 - *Focus clinical training in settings where providers will actually be practicing* – private office settings, community health centers, rural, suburban, and urban areas. Place a strong emphasis on the primary care setting. Clinical training opportunities in rural and underserved areas need to be supported and expanded. They should be coordinated with and supported by local community leaders in order to influence the student’s choice of career in primary care.
 - *Utilize distance learning modalities to deliver high-quality education to where the trainee lives.* An increasing number of health professions training programs in Arizona and elsewhere are now utilizing integrated web-based technologies (webinars, video conferencing, list serves, etc.) to deliver high-quality instructional content to trainees in their own homes and at their own convenience. We should continue to make an investment in these distance learning modalities to make it easier for trainees to receive instruction that fits with their other personal and professional obligations.
 - *Regionalize Arizona clinical education.* With training “centers of excellence” as regional hubs, use regular and mini-residencies, telemedicine, web-based education technology, on-site visits from training faculty and other means to extend continuing education opportunities to ever wider networks of primary clinicians and other healthcare professionals working in coordinated teams along the principles and practices of patient-centered medical homes.
 - *Provide incentives and support to connect Arizona primary care clinicians to a system of electronic health records* in order to increase efficiency and reduce the administrative hassles of getting prior authorization, processing multiple insurance claims, etc.
 - *Expand Arizona’s telemedicine network* to increase the ability of primary care clinicians to more efficiently provide an extended scope of specialty services in rural and underserved communities.
 - *Engage health plans in a concerted effort to increase the efficiency and effectiveness of primary care clinicians* (indeed, all clinicians) by improving their own policies and procedures. Some examples:
 - a. Consistency of health plan requirements, forms, policies and procedures (credentialing, referrals, prior authorizations, diagnostic testing requests, etc.).
 - b. Adequate health plan phone services for clinicians and support staff so they don’t have to spend large amounts of time on “hold.”

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- c. Allow all generic medications without prior authorization.
 - d. Do not allow plans to change payment schedules without first notifying clinicians.
 - e. Reduce duplicative and unnecessary documentation.
- *Create an “innovations in primary care practice” award fund* to encourage system efficiencies and positive health outcomes.
 - *Pursue the better coordination of medical and mental/behavioral health services.* For example, allow qualified primary care clinicians to prescribe medications for AHCCCS patients to treat mental illness and severe behavioral issues. Provide support for care coordinators, social workers and psychologists to rotate through primary care offices. All of these integrated services should be provided for, and coordinated within, a medical home model.
 - *Encourage initiatives and projects to change the way clinicians are paid.* For example, qualified clinical practices might receive a monthly risk-adjusted per patient global fee to cover all primary care services, with part of the amount covering the coordination, management and communication services associated with a patient-centered medical home (team-based services, group visits, email, etc.)

Conclusion

This report and set of recommendations to develop a 21st Century primary care workforce for Arizona come at a propitious time. No one knows what the future holds, but without focused attention now on collaborative planning, thoughtful analysis, development and leadership across all sectors of our state – government, business, civil – the outlook is dim at best and bleak at worst. Surely we can do better.

The steamroller facing the state now in health care is rising costs, reduced access and uneven quality. The only way we can address this is to move from a system based on sick care and procedure-driven, fee-for-service medicine to a system based on *health* care and the goals of prevention and wellness. Central to this are primary care and the concept of the patient-centered medical home as defined in this report. The fact that the state is now in a major financial crisis should not deter us from committing ourselves to the goal of significantly reconfiguring and improving Arizona health care around a strong system of primary care and taking action on some of the specific recommendations in the report.

We are not starting this process *de novo*. We have a significant number of clinicians in Arizona who see the need to strengthen primary care and want to be involved in moving a coming agenda forward. We have strong, innovative training programs, outreach activities and model programs to build on. We have the data and analytic infrastructure in place through Arizona HealthQuery, AzHHA’s Health Workforce Data Center, ADHS, AHCCCS and other places that we can leverage. With a compelling vision and specific goals to pursue, we have places to apply for resources and support.

We call on Arizona’s political, business and civic leaders to join in this common and necessary enterprise. We call on our friends and colleagues in Arizona’s healthcare system to adopt and extend the principles and practices set forth here. Finally, we call on all Arizona citizens to take a greater responsibility for their own health based on ability and need, and to support public policy that directs more time, attention and resources to development of a strong primary care system based on commitment and planning, effectiveness and efficiency, and wellness and prevention.

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End Notes

- 1 Donaldson M. et. al., eds. *Primary Care: America's Health in a New Era*. Washington, DC: National Academy Press, Institute of Medicine. 1996. p. 26.
- 2 Association of American Medical Colleges – Center for Workforce Studies. *2007 State Physician Workforce Data Book*, Washington, DC: AAMC. December 2007. p. 4.
- 3 Including the American Academy of Family Physicians, American Academy of Pediatrics, American College of Physicians, American Osteopathic Association, and the National Business Group on Health, National Committee for Quality Assurance.
- 4 Martiniano, R. and Moore, J. *Health Care Employment Projections: An Analysis of Bureau of Labor Statistics Occupational Projections: 2004-2014*. Rensselaer, NY: Center for Health Workforce Studies, School of Public Health, SUNY, Albany. June 2006.
- 5 Association of American Medical Colleges. op. cit.
- 6 Johnson, WG., Rimsza, M., Garcy T., and Grossman, M. *The Arizona Physician Workforce Study. Part 1: The Numbers of Practicing Physicians 1992-2004*. Phoenix, AZ: Health and Disability Research Group, School of Health Management and Policy, W.P. Carey School of Business, Arizona State University, and University of Arizona Health Sciences Center. 2005.
- 7 American Academy of Nurse Practitioners. *Annual Report, 2007*. Retrieved January 20, 2009 from www.aanp.org.
- 8 Goolsby, M.J. "2004 AANP National Nurse Practitioner Sample Survey, Part 1: An overview." *Journal of the American Academy of Nurse Practitioners*. 2005; 17:(9), pp. 338-340.
- 9 Pearson, L.J. "The Pearson Report, 2007." *Journal of the American Academy of Nurse Practitioners*. Retrieved January 20, 2009 from <http://www.webnp.net/ajnp08.html>.
- 10 Data supplied by Cory Davitt, statistician, Arizona Board of Nursing. February 10, 2009.
- 11 Lugo, N.R. "Regulation: Practice Environment and Consumer Healthcare Choice." *Journal of the American Academy of Nurse Practitioners*. 2007; 11(4), pp.14-18.
- 12 American College of Physicians. *Nurse Practitioners in Primary Care*. Philadelphia: American College of Physicians. 2009: Policy Monograph. p. 3.
- 13 American Academy of Physician Assistants. *Information Update: Projected Number of People in Clinical Practice as PAs as of December 31, 2008*. Alexandria, VA: American Academy of Physician Assistants. November 5, 2008.
- 14 American Academy of Physician Assistants. *2008 AAPA Physician Assistant Census Report: State Reports*. Alexandria, VA: American Academy of Physician Assistants. September 25, 2008.
- 15 Moskowitz, M.C. *State Actions and the Health Workforce Crisis*. Washington, DC: Association of Academic Health Centers. 2007: Issue Brief.
- 16 Bodenheimer, T., Chen, E., Bennett, H. "Confronting the Growing Burden of Chronic Disease: Can the U.S. Health Care Workforce Do the Job?" *Health Affairs*. 2009; 28(1), pp. 64-74.
- 17 Rissi, J., et. al. *Health Insurance for Arizona Adults: Findings from the Arizona Health Survey 2008*, Phoenix, AZ: St. Luke's Health Initiatives, 2008.
- 18 Johnson, W.G., et. al. *The Use of Electronic Medical Records and Physicians' Attitudes toward a Health Information Exchange*. Fourth Interim Report. Prepared for AHCCCS. Phoenix, AZ: Center for Health Information and Research, Fulton School of Engineering, School of Computing and Informatics, Arizona State University. December 2008.