



In April 2005, a team of researchers visited Phoenix to study that community's health system, how it is changing and the effects of those changes on consumers. The Center for Studying Health System Change (HSC), as part of the Community Tracking Study, interviewed more than 75 leaders in the health care market. Phoenix is one of 12 communities tracked by HSC every two years through site visits. Individual community reports are published for each round of site visits. The first four site visits to Phoenix, in 1996, 1998, 2000 and 2003, provide trend information against which changes are tracked. The Phoenix market encompasses Maricopa and Pinal counties.

RAPID POPULATION GROWTH OUTPACES PHOENIX HEALTH SYSTEM CAPACITY

Unabated population growth continues to strain the Phoenix health system, despite significant hospital expansions. Enrollment in the Arizona Health Care Cost Containment System (AHCCCS), which encompasses Medicaid, the State Children's Health Insurance Program (SCHIP) and long-term care for the elderly and disabled, has continued to grow and now exceeds 1 million people. At the same time, the Maricopa Integrated Health System, the county safety net provider and trauma center, faces serious funding and cash-flow problems.

Other noteworthy developments include:

- Shifting of treatment and diagnostic services from full-service hospitals to free-standing facilities and physician offices in an effort to increase physician income.
- Launching of a pilot pay-for-performance program by large national employers seeking cooperation among competing health plans.
- Targeting coverage gaps through new and expanded state and local programs for uninsured people.

Hospital Capacity Stretched Despite Expansions

Two years ago, rapid population growth led to frequent ambulance diversions and treatment delays in Phoenix hospitals and physician offices. Despite significant expansion efforts, the Phoenix health system remains strained by the unabated influx of job seekers, retirees and undocumented immigrants.

Ambulance diversions continue to be a problem, with emergency medical technicians waiting as long as three hours to drop off patients at some downtown hospitals. Waiting times at emergency departments throughout Phoenix average six hours. Some hospitals report having twice the rate of diversions that they had two years ago and are now trying to coordinate ambulance drop-offs across area hospitals when on diversion.

Emergency department problems reflect insufficient emergency department and inpatient capacity. To ease the congestion, hospitals are adopting new processes to move inpatients through facilities more efficiently by, for example, discharging patients by 11 a.m. and providing more nurses per patient. Hospitals also are building new emergency rooms and reconfiguring existing inpatient capacity. In addition, the state is investing resources to coordinate emergency services, and there is proposed legislation to limit the length of time emergency medical technicians must wait to hand off patients to hospital emergency department personnel.

Securing emergency department and on-call coverage by specialty physicians also has become a greater challenge for hospitals over the past two years. Some hospitals have hired on-staff



Phoenix Demographics

Phoenix Metropolitan Areas
200,000+ Population

Population¹
3,593,408

Persons Age 65 or Older²
13% 10%

Median Family Income²
\$29,259 \$31,301

Unemployment Rate³
5.0% 6.0%

Persons Living in Poverty²
10% 13%

Persons Without Health Insurance²
13% 14%

Sources:

¹ U.S. Census Bureau, *County Population Estimates, 2003*

² HSC Community Tracking Study Household Survey, 2003

³ Bureau of Labor Statistics, *average annual unemployment rate, 2003*

physicians to take call, and many are planning to do so because costs for on-call coverage have become prohibitive. In addition, one health plan is using financial incentives for physicians to reduce emergency department use and improve cardiac work-ups to avoid unnecessary admissions. The health plan pays primary care physicians to provide home care and after-hours care, while cardiologists are paid for seeing a patient in the emergency department, regardless of whether the patient is admitted.

At the same time, the demands of emergency department call continue to affect certain specialty physicians' affiliations with hospitals. For example, the orthopedic surgeons who are part of the Arizona Medical Group, the largest physician-owned multi-specialty group practice in Arizona, left their on-staff arrangement at Sun City West Hospital because of emergency department on-call demands.

Hospital construction in Phoenix has not kept up with the demands of the booming population, and observers expect the market to remain under bedded for at least two more years. To meet the demands of new outlying communities, hospitals are being built in these high-growth areas, while hospital systems are upgrading and expanding existing facilities to remain competitive in older parts of the city.

Currently operating at close to capacity, the largest hospital systems in Phoenix are all pursuing expansion and reorganization projects, including increasing emergency department and intensive care unit (ICU) beds, adding specialty towers to existing hospitals, and constructing new campuses.

For example, Banner Health Arizona, a dominant hospital system with more than 2,000 beds and about one-third of the area's hospital market share, opened the 172-bed Estrella Medical Center and recently completed a 100-bed expansion at Good Samaritan Medical Center. Banner also

is adding major towers at Thunderbird Medical Center, Baywood Medical Center and Desert Medical Center.

Scottsdale Healthcare, with 10 percent hospital market share, is currently building a new 150-bed hospital at Thompson Peak and recently opened a new emergency department, ICU, and outpatient surgery center at its existing Osborn campus.

St. Joseph's Hospital and Medical Center, part of the Catholic Healthcare West system, recently opened a new trauma center and emergency department. The hospital also is building a new neurology tower that is scheduled to open in April 2006.

Nursing Shortage Continues

Hospitals have increased nurse recruitment and retention efforts dramatically over the past two years, anticipating that staffing demands will only worsen as new capacity comes online. Hospitals' recruitment efforts include seeking nurses from other states and abroad, developing new nursing schools, marketing the profession to high school students, increasing paid part-time training opportunities for student nurses and providing financial aid to students who agree to work at the hospital after graduation.

Efforts to retain nurses include quality-of-life improvements such as reducing patient loads, reducing paperwork burdens, creating flexible schedules, providing social support and mentoring programs, and engaging nurses in clinical care decisions. These efforts are starting to pay off for some hospitals. Banner Health System, for example, saw a reduction in its use of agency nurses between 2003 and 2004.

In addition, market observers are hopeful that a new medical school—scheduled to enroll its first students in July 2007 in downtown Phoenix—will help to ease capacity constraints if physicians trained in the area stay to practice (see box on page 3).



New Medical School Expected to Ease Physician Shortage

Plans to build a new medical school in Phoenix—reportedly one of the few major metropolitan areas in the U.S. without a four-year medical school—have raised hopes for addressing Arizona’s shortage of physicians, pharmacists and other health care professionals, while also providing an anchor for the area’s growing biotech industry.

The University of Arizona College of Medicine – Phoenix, a collaboration of the University of Arizona and Arizona State University, plans to admit a pilot class of 24 students in July 2007, expecting within a few years to admit 150 new medical students annually. Initial construction for the medical school is estimated to cost roughly \$200 million, with funding to come from both public and private sources. The campus will be part of a larger biomedical complex that includes the Translational Genomics Research Institute.

Phoenix hospitals are strategizing about their potential roles within the medical school, and there is much contention about which hospital system will operate the new medical center that is expected to be a part of the school. While many market observers expect that Banner Health will have a dominant role at the medical school, St. Joseph’s, Vanguard and Maricopa Medical Center are also vying for control.

Diagnostic Services Shift to Physician-Owned Facilities

Provision of certain services in Phoenix, such as cardiac and orthopedic procedures, continues to shift from general hospitals to other settings. Diagnostic services, including high-tech imaging, colonoscopies and mammograms, increasingly are being provided in freestanding imaging centers and ambulatory surgery centers (ASCs).

Convenience for both patients and physicians is considered a benefit of shifting services to physicians’ offices and freestanding facilities as patients benefit from the ease and timeliness of one-stop care. In addition, surgeons can increase productivity and avoid annoyances associated with hospital operating schedules. Despite the shift of care to outpatient settings, competition between general hospitals and physicians in the Phoenix market remains muted by a health system

stretched to capacity.

Facility fees and higher reimbursement for procedures and lower reimbursement for many primary care services under Medicare have reportedly driven this move toward acquisition of diagnostic and procedural capabilities by physician groups. One physician-owned multi-specialty group added a positron emission tomography (PET) scanner to its practice because of the potential to increase Medicare revenue. The practice also is seeing a rise in other ancillary services related to dementia workups, including neurological and psychological evaluations of patients, which are all reimbursable under Medicare although there are questions about the effectiveness of these services.

Some specialists reportedly are leaving multi-specialty groups for single-specialty practices because physicians in multi-specialty groups split technical and professional fees with the group.

Health System Characteristics

Phoenix	Metropolitan Areas 200,000+ Population
Staffed Hospital Beds per 1,000 Population¹	
1.9	3.1
Physicians per 1,000 Population²	
1.4	1.9
HMO Penetration (including Medicare/Medicaid)³	
23%	29%
Medicare-Adjusted Average per Capita Cost (AAPCC) Rate, 2005⁴	
\$654	\$718

Sources:

¹ American Hospital Association, 2002

² Area Resource File, 2003 (includes nonfederal, patient care physicians, except radiologists, pathologists and anesthesiologists)

³ Interstudy Competitive Edge, markets with population greater than 250,000

⁴ Centers for Medicare and Medicaid Services. Site-level payment rates refer to Medicare Advantage AAPCC Payment Rates by County (Part A + Part B Aged Rates). National figure is actual payment per capita, based on payments for Medicare Coordinated Care Plans and the number of Coordinated Care Plan enrollees in April 2005.



Health Care Utilization

Phoenix	Metropolitan Areas 200,000+ Population
Adjusted Inpatient Admissions per 1,000 Population¹	
158	197
Persons with Any Emergency Room Visit in Past Year²	
15%	18%
Persons with Any Doctor Visit in Past Year²	
74%	78%
Persons Who Did Not Get Needed Medical Care During the Last 12 Months²	
5.7%	5.7%
Privately Insured People in Families with Annual Out-of-Pocket Costs of \$500 or More²	
60%	44%

Sources:

¹ American Hospital Association, 2002

² HSC Community Tracking Study Household Survey, 2003

Prospering multi-specialty group practices cited the importance of providing ancillary services to enhance practice revenue.

Fragmented Health Plan Market Hinders Pay for Performance

Large national employers in Phoenix, such as Intel, General Electric and Motorola, have not exerted much pressure on health plans in the Phoenix market in the past. However, large national companies recently have started to press health plans to develop physician-level performance measures to assess the quality and cost-effectiveness of care. These companies, in conjunction with the Human Resources Policy Association (HRPA), Bridges to Excellence and Leap Frog, have partnered with CIGNA HealthCare to use CIGNA's methodology and performance measures as a starting point for a pilot pay-for-performance program in the Phoenix market to reward providers of high quality care. The development of a single, validated set of measures across plans is considered essential for gaining provider acceptance of pay-for-performance payment arrangements and minimize administrative burden.

At the same time, hospital systems in the Phoenix market have prepared for pay-for-performance programs, expecting the Centers for Medicare and Medicaid Services (CMS) to adopt pay for performance as part of Medicare reimbursement policy. Moreover, hospitals view pay for performance as important for both improving quality of care and for enhancing their public ranking and marketing strategies.

Despite national employers' interest and hospitals' apparent willingness to participate in pay-for-performance programs, the abundance of health plans in the Phoenix market may hinder these efforts. Blue Cross Blue

Shield of Arizona, UnitedHealthcare of Arizona and CIGNA HealthCare of Arizona remain the top three health plans with the largest enrollment but continue to share the market with 12 other health plans. Because any one health plan has only a fraction of the market for a particular condition or physician, the health plans cannot reliably measure cost-effectiveness for an individual physician or specialty because of inadequate sample size. And cooperation across health plans appears unlikely without strong insistence by employers. UnitedHealthcare is developing its own program and has not agreed to participate in the effort spearheaded by CIGNA. Blue Cross Blue Shield of Arizona also is proceeding to develop its own program.

Pay for performance for physicians in the Phoenix market also will be a challenge because the vast majority of physicians practice solo or in small groups of four or fewer physicians. In addition, the majority of physicians' offices do not have electronic medical records and a significant number do not have Internet access. Physicians in large specialty and multi-specialty groups also are concerned that their efforts to improve care would accrue to the health plans or the physician's organization with no benefit coming back to individual physicians.

Furthermore, the area's population growth and resulting health system capacity constraints have limited health plans' leverage with providers. Health plans are competing to improve the accuracy and timeliness of billing because time-pressed providers in the Phoenix market don't want to spend time and resources on billing issues with health plans. With health plans competing to keep providers in their networks, the potential for any future pay-for-performance programs will hinge on physicians' acceptance of them.

State and Local Programs Target Gaps in Coverage and Care

Given population growth and state policy changes, Arizona's Medicaid managed care program, known as the Arizona Health Care Cost Containment System (AHCCCS), grew significantly in recent years. Between 2001 and 2003, enrollment jumped from about 500,000 people to more than 900,000 people. Today, AHCCCS has more than 1 million members and is estimated to cover one of every five people in the state. Proposition 204, implemented in 2001, increased Medicaid eligibility for adults from 33 percent to 100 percent of the federal poverty level, and coverage was expanded in 2003 to parents of children enrolled in SCHIP (known as KidsCare in Arizona) under a Health Insurance Flexibility and Accountability, or HIFA, waiver. Because Proposition 204 was a voter referendum, eligibility requirements cannot be changed directly by state legislators but would require a new ballot measure.

Funding for the Proposition 204 expansion comes largely from tobacco settlement funds that are dedicated to this expansion, as well as tobacco tax revenues. However, the state also has diverted additional general fund appropriations to support the AHCCCS expansion. Reports of AHCCCS' financial standing have changed over the last six months. In early 2005, the AHCCCS monthly appropriation status report suggested the program would face a large budget shortfall. By April 2005, however, the situation appeared to have improved dramatically, in part because of higher-than-expected redistribution of unexpended SCHIP funds from fiscal year 2005, an increase in the tobacco settlement appropriation, and reimbursement for services previously denied for federal funding.

In 2003, the state Legislature man-

dated that AHCCCS implement some cost-sharing requirements for the expansion population as a cost-saving measure, but the advocacy community mobilized and successfully obtained a court injunction prohibiting AHCCCS from charging copayments. The Legislature also raised premiums for KidsCare beneficiaries in 2004, a move that reportedly led to a decline in KidsCare enrollment.

At the same time, new state and local programs are targeting remaining gaps in coverage for low-income and uninsured people in Phoenix. HealthCare Group, a state-sponsored program administered by AHCCCS, offers sole proprietors and employers with 50 or fewer employees a range of insurance products through private insurers that contract with the state. As of July 2005, Maricopa County had more than 7,000 members in the program with statewide enrollment of more than 15,000.

At the local level, Maricopa County's new HealthCare Connect program offers discounted health care services, including primary care, specialty care, dental and vision care to residents who are not eligible for other public coverage and have household incomes between 100 percent and 250 percent of the federal poverty level, or incomes between \$19,350 and \$48,375 for a family of four in 2005. With the help of a federal grant, HealthCare Connect was established in collaboration with community health centers, which many enrollees use as their primary care home. As a public-private partnership, the program's physician network also includes 230 private primary care physicians and 200 specialists. At the time of the site visit, approximately 1,700 people had enrolled in HealthCare Connect and the program expects to accommodate a total of 4,000 people.

Safety net providers and these state and local programs have coordinated their efforts to better fill gaps in cover-



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age and care. Safety net providers refer patients who are not eligible for public coverage to HealthCare Connect. Moreover, AHCCCS is now providing information on HealthCare Connect to applicants from the Phoenix area who are denied public coverage. In addition, because HealthCare Group enrollees have no health insurance coverage for six months prior to enrolling in the program, individuals are referred to HealthCare Connect in the interim, so they can obtain discounted health care during the six-month waiting period.

Maricopa Integrated Health System's Challenges Continue

The county-owned Maricopa Integrated Health System (MIHS) has struggled financially for several years, in part because of a loss of several funding sources, and has reached a critical juncture in terms of its future. MIHS, including the Maricopa Medical Center, family health centers, a behavioral health facility, and an AHCCCS health plan, is the largest safety net provider in the county. The system also serves as a major trauma center, has the only burn center in the region and provides nine physician residency programs.

In 2003, in response to these financial problems, county voters approved Proposition 414, which created a special health care district with authority to levy property taxes to help support MIHS. The state hospital association and individual hospitals rallied behind the proposition because if Maricopa Medical Center were to close, the county would lose a major trauma and burn center and other hospitals would have to absorb Maricopa's patient load, which includes a large number of uninsured and AHCCCS patients. Management of MIHS, with the exception of the county's health plans, was transferred from the county to the district as of Jan. 1, 2005.

Despite the creation of the health district, MIHS still has serious funding and cash flow problems. After the approval of the district, the County Board of Supervisors failed to levy the tax during 2004, and the tax is not expected to be assessed until the fall of 2005. As a result, MIHS is operating without the anticipated \$40 million in annual tax revenues, which represents about 10 percent of the system's fiscal year 2006 budget. At the time of the transfer, the county gave the new district a loan, but the district reportedly has little operating cash on hand. In addition, MIHS continues to struggle with its accounting systems—a faulty claims system that has reportedly cost the system millions of dollars. Fall out from MIHS' financial condition include the recent loss of Maricopa Medical Center's orthopedic residency program, management being forced to take days off without pay, and curtailing all but emergency care services for undocumented immigrants.

At the same time, MIHS is struggling to improve its payer mix, which currently comprises mostly uninsured and AHCCCS patients. However, Maricopa Medical Center requires extensive renovations, if not a new hospital facility, and the outdated 1960s facility makes it difficult to attract privately insured patients. In addition, MIHS has not pursued contracts with other commercial and Medicaid health plans that could bring additional revenue to the system. For example, county employees, including those working at MIHS, currently cannot use MIHS facilities because the county employees' health plan does not yet have a contract with MIHS.

Although market observers have suggested that MIHS' financial health depends on attracting more profitable patients, this approach could backfire. The state hospital association and area hospitals supported the new taxing district in recognition of MIHS' role

in serving uninsured and AHCCCS patients. That support may decline if MIHS is too successful in attracting privately insured patients.

In contrast to MIHS' financial woes, the rest of the safety net in Phoenix remains relatively strong because of federal expansion grants for federally qualified health centers and because many previously uninsured patients are covered under AHCCCS. In particular, the two federally qualified health centers in the market—Mountain Park and Clinica Adelante—have continued to improve and expand their operations. Despite these expansions, increased utilization of services by a growing population exceeds the centers' capacity. For example, Mountain Park's main site is often full, even at off-peak hours.

Meanwhile, the undocumented immigrant population in Phoenix—a large majority of whom are uninsured—continues to grow. Proposition 200, a ballot initiative passed in November 2004, requires that state and local employees screening applicants for public programs report any undocumented persons to U.S. Citizenship and Immigration Services. Although health services are supposedly excluded from the new law, community health centers in Phoenix nonetheless reported a temporary drop off in the use of services by undocumented persons just after the proposition took effect.

Issues to Track

As the population boom continues in Phoenix, the community's health system will continue to expand capacity while struggling to meet an unrelenting demand for care. And, while population growth may have raised state revenues and eased financial burdens in the short term, the state faces the ongoing financial challenge of supporting the voter-mandated expansion of AHCCCS.

The following issues are important to track:

- Will Phoenix hospital expansion efforts catch up to the area's population growth? To what extent will hospital expansion efforts be limited by health professional shortages and access to capital?
- Will the push from national employers be sufficient for health plans in the Phoenix market to cooperate and share data and methodologies to develop hospital and physician-level performance measures? How will providers respond?
- What future budget issues, if any, will AHCCCS face in light of expanding enrollment?
- How will the Maricopa Integrated Health System fare under the new health care taxing district and with what impact on access to care for low-income and uninsured people?



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Authors of the Phoenix Community Report:

Sally Trude, HSC
Jon B. Christianson, University of Minnesota
Kelly L. McKenzie, HSC
Ann S. O'Malley, HSC
Andrea B. Staiti, HSC
Erin Fries Taylor, MPR

Community Reports are published by HSC:

President: Paul B. Ginsburg
Vice President: Jon Gabel
Director of Site Visits: Cara S. Lesser
600 Maryland Avenue SW • Suite 550 • Washington, DC 20024-2512
Tel: (202) 484-5261 • Fax: (202) 484-9258

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