



**GREATER PHOENIX
CHAMBER**

2019 Health Care Report



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Executive Summary

In an update to the Phoenix Forward Health Care Industry Overview white paper of 2017, this report examines the current and future state of the health care ecosystem in the Greater Phoenix region.

Arizona is the second-fastest growing state in the United States, and Phoenix is the second-fastest growing metro area in the country. The health care sector is expected to continue its growth in Arizona and nationally, outpacing occupations in all other sectors. By 2026, the City of Phoenix health care sector is estimated to gain 88,000 jobs, an increase of 34% from 2016. Arizona currently ranks 44th out of 50 states in the number of primary care physicians and is addressing this shortage through legislation and funding. While progress has been made in the registered nursing shortage, reflecting a 50% improvement in staffing, the Southern and Western parts of the United States will have higher shortage ratios than the North and Midwest. Arizona will continue to experience increasing demand for specialized nursing if strategies to address the shortage aren't implemented.

Aging populations and people with chronic conditions and comorbidities will drive much of the expected health sector employment growth in Arizona.

Consumer trends include new ways of paying for care, and industry trends show health care giants demonstrating a renewed focus on core business strengths and a divesting of other parts of their portfolio as spin-offs, while mergers and acquisitions continue in other parts of the sector. No longer just pharmaceutical companies, the broader health care sector is marketing directly to patients as consumers are increasingly making decisions about payment for care as well as timing and location of delivery of care. Disconnects in home health are becoming more prevalent – patients are living longer and failing to follow up with providers for treatment. Algorithms are needed for population health and rural health and opportunities exist to address Electronic Medical Records (EMR) workflows.



Introduction

This white paper serves as an update to the Phoenix Forward Health Care Industry Overview report published by the Greater Phoenix Chamber and the University of Phoenix in 2017. It provides current data on the health care sector in the Greater Phoenix region as well as nationally. It features insights from the Arizona Chapter of the American College of Healthcare Executives and the Arizona Healthcare Executives, regarding desirable employee skillsets, industry trends, and untapped opportunity spaces.

The Chamber considers health care a key industry for the Greater Phoenix region. The Phoenix Health Care Sector Partnership (PHCSP), led by the Greater

Phoenix Chamber, and the Hospital Workforce Collaborative (HWC), organized by the Greater Phoenix Chamber Foundation, support the growth and development of the health care sector and those organizations and academic institutions who are stewards of employment and education in the Greater Phoenix region. The PHCSP seeks to cultivate robust partnerships that stretch across the health care ecosystem in Arizona and encompasses industry and academic organizations throughout the region, all working to improve Arizona's health care industry. The HWC was organized to address ongoing critical shortages in specialized nursing within Arizona's hospitals.



Growth & Cost of Care

Growth in the Phoenix metro area and Arizona

In Q1 of 2019, Arizona's GDP grew 6.4%, making it the second-fastest growing state in the nation. Between 2015 and 2018, the population of the Phoenix metro area grew 6%, faster than most areas across the United States, second only to Dallas. Phoenix is expected to add approximately 108,000 jobs from 2016-2026.¹

Within the City of Phoenix, Arizona Labor Statistics projects health care to grow at an annualized rate of 3.4% between 2016 and 2026. This rate translates into an additional 88,000 health care jobs for the area, an increase of 34% over the period.² Job growth of 23% is predicted in specialized nursing in Arizona alone.³

2016-2026 CITY OF PHOENIX OCCUPATIONAL PROJECTIONS

| Standard Occupation Classification (SOC)1 | | Employment | | 10 Year Change | | 10 Year Openings | | | |
|---|---|---------------|-----------------|----------------|--------------|------------------|------------------|--------------------|--------------------|
| SOC Code | SOC Title | 2016 Estimate | 2026 Projection | Numeric | Percent | Due to Growth | Due to Transfers | Due to Separations | Total ² |
| 29-0000 | Health care Practitioners and Technical Occupations | 54,432 | 71,434 | 17,002 | 31.2% | 17,002 | 15,804 | 16,643 | 49,449 |
| 31-0000 | Healthcare Support Occupations | 22,417 | 31,582 | 9,165 | 40.9% | 9,165 | 15,162 | 14,936 | 39,263 |
| Total | | 76,849 | 103,016 | 26,167 | 34.0% | 26,167 | 30,966 | 31,579 | 88,712 |

Growth & Cost of Care

Phoenix Metro: Employment in Health Care

Health care companies make up four of the top 25 employers in Maricopa County and employ just under 50,000 people.⁴

Phoenix Biomedical Campus

Nearly 20 years ago, the Phoenix City Council committed to developing a 30-acre Downtown city-owned site into the Phoenix Biomedical Campus. That investment of almost \$100 million has generated 9,500 jobs and continues to generate new activity to this day.

The vision shown in that decision has resulted in a strong link between bioscience, health care, education, and the City of Phoenix growing stronger each year with collaboration between 10 universities, medical schools, and community colleges for research, development, patents, and degrees.

Today, the biomedical campus is an integral component of the statewide bioscience initiative as its faculty contributes significantly to bioscience discoveries, the quality of health care, and the expansion and diversification of the Arizona economy. In Phoenix, the bioscience health care collaboration means solutions rapidly moving from discovery to delivery.

By late 2021, over four million square feet of new bioscience health care facilities will be developed in Phoenix. That number includes the development of primary bioscience health care facilities, medical centers, research and development laboratories, laboratory buildings, and medical equipment manufacturing.

TOP 25 EMPLOYERS IN MARICOPA COUNTY

| | |
|---|--------------|
| Banner Health | 26,460 |
| State of Arizona | 23,950 |
| Frys Food Stores | 14,830 |
| Walmart | 14,470 |
| Wells Fargo | 13,850 |
| Maricopa County | 13,430 |
| City of Phoenix | 12,060 |
| Intel Corporation | 10,290 |
| JPMorgan Chase Bank National Association | 10,070 |
| Arizona State University | 9,770 |
| Bank of America | 9,510 |
| Dignity Health | 9,370 |
| Honeywell | 8,710 |
| Mesa Unified School District 4 | 8,690 |
| United States Department of the Air Force | 8,050 |
| HonorHealth | 7,810 |
| Amazon | 7,570 |
| State Farm Insurance | 7,560 |
| McDonalds | 7,050 |
| United States Postal Service | 6,900 |
| American Express | 6,750 |
| Home Depot | 6,590 |
| Mayo Clinic | 6,530 |
| Safeway Stores | 6,352 |
| Uhaul | 5,760 |

Health care companies

Maricopa Association of Governments. (2018). Employment Summary for Maricopa County. Retrieved August 28, 2019 from <https://geo.azmag.gov/maps/azemployment/#chart>

Growth & Cost of Care

It does not include the many medical office buildings, retail clinics, urgent care, rehab hospitals, long-term care facilities, or minute-clinics that will be built to accommodate Maricopa County and Phoenix's nation-leading population growth.

In total, over \$4 billion is being invested in facilities being constructed across the Greater Phoenix region. Major projects by Arizona State and Creighton universities, Banner Health, Mayo Clinic, and Wexford Science + Technology are already under construction to the tune of nearly one-quarter of the total projected capital investment. When the last of the proposed developments are delivered to market, there will be 7,000 new jobs to fill with an annual payroll of almost half a billion dollars.

Though bioscience health care is not the most visible industry sector in Phoenix, its workforce, investment, and capital facilities are major contributors to the Valley's strength and global recognition.

Health Care Sector Growth

Opportunity for employment across the health care sector is projected to grow 14% from 2018 to 2028 nationally, more quickly than the average for all occupations across all other sectors, **adding about 1.9 million new jobs.**⁵ The United States Bureau of Labor Statistics reports that health care occupations are projected to add more jobs than any

other occupational group.⁶ **Projected nationally is job growth in registered nursing of 12%,⁷ and in Arizona in particular, job growth of 23%⁸ in specialized nursing.** This rising demand in health care occupations accompanies a continued increase in health care spending, which is projected to grow 5.5% through 2026, outpacing spending in other sectors.⁹

Of the 20 fastest growing occupations,¹⁰ 12 are in health care and related occupations. Increased demand for health care services is reflected in shifts in economic and demographic contexts: increased disposable income, increasing costs for medical goods and services, and aging consumers' movement from private health insurance to Medicare.¹¹

These occupations include:

- Genetic counselors
- Health specialties teachers, postsecondary
- Home health aides
- Medical assistants
- Nurse practitioners
- Occupational therapy assistants
- Personal care aides
- Phlebotomists
- Physical therapist aides
- Physical therapist assistants
- Physician assistants
- Speech-language pathologists



Growth & Cost of Care

Cost of Care in Arizona

Aging populations and people with chronic conditions will drive much of the expected health care sector employment growth. The fastest growing among these occupations are home health aides and personal care aides. Nurse practitioners, physician assistants, and medical assistants will be in greater demand as the health care industry continues to move toward delivery of team-based care.



While a 50% improvement in staffing has been reported in the Nurse Workforce Report Card and Shortage Forecast, the Southern and Western parts of the country will experience more of a shortage than the North and Midwest. The number of low-performing states identified in the research has improved from 18 grades of “D” and 12 grades of “F” in earlier research to 13 “Ds” and 1 “F” in this update, but the research asserts that support for pipelines to improve the nursing workforce must continue.¹²

Accompanying this employment growth comes increases in health care costs driven by the aging and chronic care populations. Individuals age 65+ are projected to make up 17.6% of the population in Maricopa County in 2026, compared to 19.3% for the United States.¹³ The projections only consider the permanent residents in Arizona and don’t account for the high influx of winter visitors to the state, which adversely affects the percentages shown above. An increased need for geriatric care and care for individuals with chronic disease and comorbidities accompanies an aging nation and creates new challenges for the health care industry.

According to the Partnership to Fight Chronic Disease, in 2015, 4.2 million people in the state had at least one chronic disease, and 1.6 million had two or more. Estimates of the total cost of chronic disease in Arizona from 2016-2030 sit at \$1 trillion.¹⁴

Challenges & Opportunities

Key Challenges

The nursing workforce in Arizona, as in most states, is aging quickly, and **there are no longer enough trained specialty nurses to meet the growing need for their expertise**. This hiring difficulty is compounded by the ongoing challenges of turnover among nurses at all levels of experience in most states.

According to a 2018 survey conducted by the National Council of State Boards of Nursing and The Forum of State Nursing Workforce Centers, 50.9% of the nursing workforce is age 50 or older, and it is projected that one million registered nurses will reach retirement age within the next 10-15 years.

The impact of an aging nursing workforce presents major quality of work-life, and quality of patient care issues. The shortage of nurses increases stress on the current workforce which, in turn, negatively impacts patient care quality and becomes a catalyst for nurses

to leave the profession. The number of nurses leaving the workforce in the United States steadily grew from 40,000 in 2010 to nearly 80,000 in 2020.

Acute care and ambulatory care facilities are challenged when experienced nurses retire, and novice nurse's development is delayed and underdeveloped without the mentoring of expert practitioners.

Arizona is expected to experience a 23% growth in demand for specialized nursing, with 20,508 new openings projected by 2025. As a result of this demand, hospitals must hire expensive traveling nurses and pay extensive overtime in what is a very costly support model. **Recruitment for new talent can cost up to \$10,000 per nurse.** Though these numbers vary by location and facility, when additional costs are incurred through orientation, education, and inactive working hours for a nurse preceptor are included, hospitals can **spend around \$170,000 on each new nurse they hire.**¹⁵

Successful employees need the following skills:

Real-world training through on-the-job development or volunteering

Data-reporting and data-visualization skills

Process improvement experience

Customer-centric mindset

Empathy, openness, and agility

Insight into a healthy work/life balance

Key Opportunities

In order to overcome challenges, health care employees are seeking to develop better-prepared health care professionals.

Direct-to-consumer marketing across the sector

Consumers are increasingly making decisions about payment for care as well as timing and location of delivery of care. No longer just pharmaceutical companies, the broader health care sector is increasingly marketing directly to patients.

Continuity in Home Health

Patients are living longer but failing to follow-up with providers for treatment. Home health services are growing, but disconnects remain between providers and businesses about how to most effectively and seamlessly care for aging patients.

Mobile Provider Groups

Returning to the days of house calls, mobile providers are growing in number across the United States, as are group practices and clinics. Insurance companies do not yet contract with these groups.

Other opportunities:

- Algorithms and data sharing mechanisms for population health
- Increased innovation in rural health
- Address cumbersome, "glitchy" EMR workflows

Challenges & Opportunities

The Greater Phoenix Chamber Foundation is strengthening health care talent pipelines through the hospital workforce collaborative.

The health care ecosystem in the region needed a more efficient way to upskill candidates from entry-level to specialty nursing roles, so the Hospital Workforce Collaborative was organized by the Greater Phoenix Chamber Foundation to address ongoing critical skill shortages. The nine hospitals involved in the collaborative in the Greater Phoenix region used the Talent Pipeline Management® (TPM) model to identify the greatest pain points – developing and retaining nurses in six specialty practice areas including; OR, ICU, telemetry,

oncology, ER, and home health – and develop a plan to address them.

The collaborative of employers established a partnership with the Maricopa County Community College District (MCCCD) to inform the curriculum of applicable nursing and healthcare programs within the district's ten community colleges to meet the needs of the growing health care industry.

The state of Arizona approved a \$5.8 million budget request to expand nursing programs at the community colleges, specifically focused on upskilling existing employees. This unique approach to upskilling talent will deliver the workforce that our local economy needs.

300 students are projected to graduate through this new talent pipeline by 2020

936 specialty nurses are projected by major health care providers in the regions to need upskilling in the next year across six practice areas

\$5.8 million has been committed by the state to support community colleges

Arizona is leading the way in addressing the health care talent shortage!

Through the collaborative efforts of many stakeholders, including the Chamber's Public Affairs team, the Phoenix Health Care Sector Partnership, and the Hospital Workforce Collaborative, Arizona has been leading the way in tackling our workforce challenges.

State Loan Repayment Program

In 2015, Arizona expanded the state loan repayment program for health care professionals to include additional high demand occupations, such as behavioral health.

Medical Licensure Compact

In 2016, Arizona joined the Interstate Medical Licensure Compact, which allows reciprocity for health care professionals licensed to practice in other practicing states. The practice was so successful that it was adopted for all licenses in 2019.

New Specialty Nursing Programs

In collaboration with the Maricopa County Community College District, the Hospital Workforce Collaborative is developing new training programs to upskill experienced nurses into specialty areas.

Trends in Health Care

Health care facilities and educational institutions are growing their physical footprint and expanding across the Valley.

From established health systems further saturating their current markets to those groups moving to other corners of the Valley, care providers and educational institutions are increasing their reach and diversifying their physical locations.

New Development

A minimum of 15 new health care related projects are either in the planning stages or under construction in Phoenix that total over 3.3 million square feet of space and capital investments exceeding \$1.9 billion.

Health Care Design

Health care design is a collaborative effort across architects, interior designers, health care executives, health care practitioners, researchers, and others to ensure that health care facilities reflect best practices in patient care, practitioner support, environmental sustainability, and many other aspects. Organizations like the Center for Healthcare Design, started in 1993, have been the drivers of the movement, focused on research, education, and advocacy for patients, practitioners, and communities. This collaborative effort is a growing trend toward design that is evidence-based and focused on best practices in health care.

Among many other initiatives and projects in the health care sector, leaders in the health care design industry are working to address the challenges of those with Alzheimer's Disease.

These projects are especially timely for Arizona. The Alzheimer's Association estimates that, here in the United States, Arizona will have the highest projected increase in the number of those affected by Alzheimer's Disease over the next decade.¹⁶ Until recently, there has been little attention paid to the challenges health care environments can pose to individuals with cognitive problems or dementia.

According to AJ Thomas, American Institute of Architects, American College of Healthcare Architects, Evidence-Based Design Accreditation and Certification, Leadership in Energy Efficient Design, Accredited Professional, Amy Zitny, AIA, LEED AP, and Eric Thomson, AIA, health care-focused architects at Corgan Design in Phoenix, their team will be looking at the challenges and opportunities in health care facilities providing care for people with dementia. They are particularly curious about the role that health care design can play in creating guidelines for dementia care in new and existing facilities. The project seeks to create research-based guidelines that others across the country can implement to ensure best practice for individuals with dementia, driven by the built environment.



Trends in Health Care

Alternative Medicine

As models for patient care continue to respond to the increased need for new ways of providing care across populations, the mix of types of providers is changing as well. Alongside increasing numbers of nurses, physicians' assistants, medical assistants, and other providers is an increase in alternative care providers, including naturopathic physicians, or NMDs/NDs.

The Southwest College of Naturopathic Medicine (SCNM) in Tempe, established in 1993, is well-positioned to answer continued shifts in the sector. According to data from the Association of American Medical Colleges (AAMC), in 2018, there were more than 115 medical school graduates in Arizona, a slight increase from 2017, but an overall decrease from previous years. The State of Arizona Naturopathic Physicians Medical Board reports continued growth in licensed Naturopathic Practitioners in the state, with 879 licensees in 2017 and 1017 licensees in 2019, demonstrating an increase in alternative practice that could serve to support existing and emerging models of care. According to the Association of Accredited Naturopathic Medical Colleges (AANMC), there are seven accredited naturopathic medical schools enrolling students across the United States and Canada. The 2016 AANMC alumni survey showed that 92% of respondents are using their degree, 65% have been in practice around ten years, 67% own or co-own a practice, and many practice in multidisciplinary settings with other allopathic and alternative care providers.¹⁷ Roughly, 53% offer cash-only reimbursement, and 45% report a combination of cash and insurance. More than half offer a sliding scale or discounts for their services.¹⁸ Naturopathic physicians in Arizona have one of the largest

scopes of practice of alternative care providers in the country. According to Dr. Jessica Mitchell, Interim Dean, School of Naturopathic Medicine for the Southwest College of Naturopathic Medicine in Tempe, faculty and graduates are involved in national projects like designing educational curricula for practitioners addressing the opioid epidemic alongside allopathic and ancillary providers and are part of conversations about the economic and social implications of alternative care and its potential.

New Models of Care

Creighton University

In Fall of 2021, Creighton University Health Sciences – Phoenix Campus will become part of the growing downtown Phoenix health care education community. Creighton's Phoenix Campus will enroll approximately 900 students and will include a four-year medical school, nursing school, occupational and physical therapy schools, pharmacy school, and physician assistant and emergency medical services programs.

Creighton's partnership with Arizona is not new; for more than ten years, the University has been sending medical students to Dignity Health St. Joseph's Hospital and Medical Center for rotations. During this time, more than 70% of the students placed in Arizona have remained in Arizona, an important factor in addressing the practitioner shortage that the state faces.

The expansion will create more than 250 jobs and produce more than \$300 million in total economic output, according to estimates from the Greater Phoenix Economic Council.



Trends in Health Care

Direct Primary Care

Direct Primary Care (DPC) is an emerging care payment model wherein a practitioner charges a monthly fee that gives patients access to the practitioner and general care services. President Trump signed an executive order in June 2019 urging the Secretary of the Treasury to increase transparency around DPC and include it as a qualified health expense under IRC Section 213D. There is much support of this model across care providers, patients, and employers in Arizona. Industry experts caution that potential issues with the model could

include lack of scalability, incentives to limit care, and increased patient expense.¹⁹ Another item to further explore is ensuring patients aren't double paying for services, i.e., paying for direct primary care services through their provider when their insurance already covers these costs.

According to the American Academy of Family Physicians, DPC differs from another somewhat-similar model, concierge medicine, in the following ways:²⁰

| DPC PRACTICES | CONCIERGE PRACTICES |
|---|---|
| <ul style="list-style-type: none"> • Monthly membership fees paid by patients or patient's employer • Patient fees cover: extended visits, clinical, lab, consultative services, care coordination, care management • Do not accept insurance or participate in government programs, rely solely on patient fees | <ul style="list-style-type: none"> • Annual patient membership contract with higher fees that can be paid annually or monthly • Membership fees cover an in-depth physical exam and screenings • May continue to accept insurance plans and government programs • Continue to bill patients' insurance company for covered services in addition to membership fee • Cater to higher-income populations |

Large, diversified companies focusing on strengths; emerging organizations re-thinking models

At national and international levels, there are big players in corners of the health care sector that are focusing more on their strengths and divesting the rest, while mergers and acquisitions continue.²¹ In Big Pharma, GlaxoSmithKline (GSK), and Pfizer are merging their consumer businesses, and GSK will separate what remains into two companies, consumer/vaccines, and drug discovery, following the merger. In devices, Medtronic, Stryker, and others

are more closely examining their portfolios. General Electric (GE) recently reiterated its plan to make GE Healthcare into its own corporation and sold its biopharmaceutical arm to Danaher for \$21.4B.²²

However, when looking at those helping us to re-think our existing models, the health care sector is becoming increasingly diverse, encompassing what the Institute for Healthcare Improvement's Triple Aim²³ requires: a focus on the patient experience, health of populations, and reduction in the cost of care.

Conclusion

In this update to the 2017 Phoenix Forward Health Care Industry Overview white paper, the Greater Phoenix Chamber and its community partners have again identified the health care sector as a key industry in Phoenix and the surrounding area. With an expanding population base and increasing needs for care and the systems that support it, the Chamber seeks to continue to facilitate collaboration across academic and industry contributors.

The Greater Phoenix region hosts several world-class hospital systems and continues to grow as a top health care hub. With this sustained growth, Arizona is projected to have a nursing shortage of over 20,000 by 2025. Through the Greater Phoenix Chamber Foundation's Hospital Workforce Collaborative, the region's hospitals are working together to address the growing shortage of specialty nurses. The collaborative is testing apprenticeship opportunities and working toward increasing availability to upskill existing nurses, which would allow higher education partners to participate in the certification of specialty nurses.

The Phoenix Health Care Sector Partnership, led by the Greater Phoenix Chamber, seeks to cultivate robust partnerships that stretch across the health ecosystem in Arizona including organizations and academic institutions that are driving change in the healthcare sector.

The City of Phoenix and its surrounding communities encompass big players and emerging innovators; the Chamber serves as a steward of dialogue and meaningful data collection and usage across these groups, to support the growth of the health sector.



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Economic Development Insider Series

Stay in the know on the hottest economic and workforce development trends in Greater Phoenix. The Chamber's bimonthly Economic Development Insider Series will provide you access to the leaders spearheading some of the largest projects in the region. Attendees will walk away with insider knowledge on hot projects and an understanding of the effects these efforts have on our state's economy.

Join us at an upcoming event!

phoenixchamber.com/edis

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