PORTLAND-METRO’S HEALTH CARE
A growing sector delivering health care efficiently

2014
A look into Portland-metro’s health care industry

There is hardly a sector of the economy that has been discussed more in recent years than the health care industry. At virtually every level of government, policy makers have debated how to make care more affordable and accessible to all Americans, and delivery systems are changing to adapt to this new reality.

In Portland-metro, as in nearly every major U.S. metro region, the health care industry is one of the fastest growing sectors of the economy. The job growth is impressive, but, for this industry at least, jobs are a secondary part of the story. More important are health outcomes and the efficiency of the health care delivery system.

This new report by the Value of Jobs Coalition shows that, for Portland-metro, health care is, on the whole, a good news story. The region is home to a population that is relatively healthy compared to other major U.S. metro areas, and it is supported by a smaller-than-expected health care industry that, by most measurements, delivers service efficiently and effectively. Portland-metro already is known for low per capita spending on Medicare, but other, lesser known measurements also demonstrate the effectiveness of the health care delivery system. Looking ahead, the region is on its way to forming coordinated care organizations (CCOs) as part of the national health care transformation, and, over time, these CCOs, as well as other innovations, should deliver even more efficiencies.

And, finally, a little known story is the growing importance of the health care sector as a traded-sector industry – an industry that exports goods and services outside of the region, bringing new dollars to Portland-metro. Traded-sector industries are the important foundational base of the regional economy. This report shows how health care is a key component of that foundation and one that can be expanded. Today the region has a unique opportunity to dramatically expand the traded-sector component of its health care economy through the OHSU Knight Cancer Challenge.

What is the “health care” sector?

In this report, the health care industry has four primary parts.

1. **HOSPITALS**, including all activities that originate at health care facilities, such as physician and nursing services, surgeries, diagnostic exams, medical research, etc.

2. **AMBULATORY HEALTH**, including activities at physician offices, medical imaging, ambulatory surgery centers, lab analyses, etc.

3. **NURSING RESIDENT CARE**, including nursing, supervisory and other types of care required by residents of care facilities.

4. **OTHER BUSINESSES**, including insurance, pharmaceutical production and retail pharmacies.

What are Hospital Referral Regions?

Hospital Referral Regions (HRRs) represent regional health care markets for specialized medical care that generally requires the services of a major referral center. The regions were defined by determining where patients were referred for major cardiovascular surgical procedures and neurosurgery. Each hospital service area (HSA) was examined to determine where most of its residents went for these services. The result was the aggregation of the 3,436 hospital service areas into 306 to 308 HRRs, depending on type of medical service. Each HRR has at least one city where both major cardiovascular surgical procedures and neurosurgery are performed.


Portland-metro in this report refers to the Metropolitan Statistical Area of Portland-Vancouver-Hillsboro, OR-WA MSA.

The report relied on the County Business Patterns (CBP) database collected by the U.S. Census Bureau for data on employment and payroll at the county and Metropolitan Statistical Area (MSA) level, and used the Oregon Employment Statistics data on projected job growth by occupation type from 2012 through 2022. The Dartmouth Healthcare Atlas, produced by the Dartmouth Institute for Health Policy and Clinical Practice, has data on the quality and quantity of services provided by healthcare providers, as well as data on capacity of healthcare facilities. The Center for Medicare and Medicaid collects data on the prevalence of chronic medical conditions at the HRR level.
The health care industry

The most important measurement: the health of Portland-metro residents

While other Value of Jobs reports started with statistics related to jobs and incomes, this report is different. Hospital beds per 1,000 residents, number of physicians, or number of health care workers are important measurements, but they are not the goal. Rather they are the means to an important end, and that is a healthier population.

A survey of data collected by the U.S. Center for Medicare and Medicaid Services from hospital referral regions (HRRs) throughout the U.S. shows that Portland-metro ranks well below the median in occurrence of chronic medical conditions. In fact, for most of those conditions, Portland-metro ranked in the healthiest 20 percent of all regions surveyed.

This demonstrates that Portlanders are relatively healthy compared to residents of other metro regions. Portland also compared well to Seattle, Denver and Minneapolis on health outcomes, and, in fact, health care is one area where Portland holds pace with those “aspirational” regions identified in other Value of Jobs reports.

(For data comparing Portland to Seattle, Denver, Minneapolis and other regions, see the detailed Portland-Region Health Care Report at www.valueofjobs.com.)

BY THE NUMBERS

113,000.
Number of Portland-metro health care jobs

$6.9 billion.
Total annual Portland-metro health care payroll

13.4%.
Percentage of region’s jobs related to health care

15.6%.
Percentage of regional payroll related to health care

47,000.
Number of people employed at the region’s four largest health care providers

22%.
Percentage growth expected in middle-wage health care jobs between 2012 and 2022

$1.9 billion.
Revenue generated by traded-sector activities in Portland-metro health care industry

16,000.
Traded-sector jobs in regional health care industry

These positive health outcomes undoubtedly are the result of a number of factors including not only a robust, effective and efficient health care industry, but also an intrinsically healthy lifestyle in the Northwest and public policy and industry leaders who started well ahead of the rest of the nation to proactively address the efficient delivery of health care services.

Figure 1: Health outcomes in Portland-metro (ranking within all HRRs)

**Jobs: A large industry footprint**

Health care is a big generator of jobs in Portland-metro. Four of the top 10 employers in the region are health care providers: Oregon Health & Science University (OHSU), Providence Health and Services, Legacy Health and Kaiser Permanente. Together, those four employers support approximately 47,000 jobs. Add in other large health care institutions like Tuality Healthcare, Adventist Medical Center, and Peacehealth Southwest Medical Center; emerging nontraditional players like ZoomCare, the multi-faceted and multi-state health plan provider Moda Health, and the family of health transformation companies under the Cambia Health Solutions umbrella and the jobs number more than doubles. In total, on an annual basis, Portland-metro’s health care industry employs approximately 113,000 individuals, generating over $6.9 billion in total payroll and over $13.6 billion in revenue.

Portland-metro’s health care sector accounts for 13.4 percent of the region’s overall workforce and 15.6 percent of its payroll. Looking across all employers, the sector supports one out of every eight jobs in the region.

Looking at all industries, Portland-metro’s health care sector employs more people and pays more payroll than any other sector, including retail trade, wholesale, manufacturing, construction and finance.

But, while the jobs numbers are big, the concentration of health care workers in Portland-metro is lower than expected, given the region’s population and the numbers seen in other major metro areas. Portland would need to add 12,000
additional health care workers – a 10 percent increase – to be considered “average” among major metro areas.

An industry’s concentration in a local economy is typically compared to its concentration at the national level. Concentration measures of greater than 1 (see Figure 5) mean the concentration in the local economy is greater than the national average; less than 1 mean the local concentration is less than the national average. Concentrations can be calculated for employment, payroll and other measures.

For this report, the employment concentration of the health care sector of Portland’s economy was calculated and compared with the median concentration for the health care sectors in the top 50 U.S. metro areas, as measured by population. The employment concentration of Portland’s health care sector was less than 1, and it was less than the median for all 50 metro areas. These results show that Portland’s health care industry delivers service with fewer employees compared to other major metro areas.

Average wages in Portland’s health care sector are higher than the average for other metro areas, with the exception of the nursing residential care subsector. As a whole, the evidence suggests Portland-metro health care industry is delivering positive health outcomes with fewer workers, but, on average, those workers are earning better paychecks than their counterparts in other regions.

These factors point to comparable efficiency in the Portland-metro health care sector, but understanding how the region’s health care costs compare to other regions is difficult because there is not a consistent industry practice for measuring and reporting costs. As the Affordable Care Act is implemented, there are efforts afoot at all levels of government to develop a system to compare costs region to region. Oregon is one of 18 states compiling a data base of medical claims that will be used to analyze the major cost drivers behind health care delivery, as well as the effectiveness of various treatments.

**Figure 4: Annual Portland-metro economic impact**

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<th>PAYROLL</th>
<th>EMPLOYMENT</th>
</tr>
</thead>
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Source: County Business Patterns, U.S. Census, 2007-2011 Metropolitan Area Files.

Health care innovations

**HealthSparq is shedding light on health care costs**

The rapid shift of millions of Americans into high-deductible and consumer-directed health plans is helping change the way health care costs are perceived. With more individuals and families footing a larger portion of their medical bills, consumers are demanding new ways to shop for health care services.

Cambia Health Solutions recognized this need and created HealthSparq, a online tool empowering consumers to compare treatment options according to provider quality measures and cost estimates. HealthSparq is one of more than 20 companies in the Cambia family transforming the way people experience healthcare.

To date, HealthSparq has contracted with 60 health plans across the country. A recent study conducted with the largest health plan in the Pacific Northwest showed a potential savings of $49 million based on the use of HealthSparq’s Treatment Cost Estimator tool by members. The same members chose less expensive treatment options for digestive conditions at nearly a 2-to-1 margin.

“Reports indicate that 53 percent of consumers are uninformed about health care costs and are calling for online shopping technology to make health care choices,” says HealthSparq General Manager Torben Nielsen. “Our solutions are just what the health plan and employer markets need.”
Job growth: Generating much-needed middle-wage jobs

As metro regions across the nation, including Portland, struggle with an erosion of middle-income jobs, the Value of Jobs review of the region’s health care industry identified a heartening discovery: health care is an industry that is actually adding important middle-wage jobs at a rate faster than the regional economy as a whole.

Middle-wage jobs – careers that pay between $25,000 and $50,000 – account for the majority of jobs in Oregon. They are the backbone of the state and regional economy, which is why economists raised concerns when they noted in recent years that most growth in the state and region was occurring in the low-wage (under $25,000/year).

Growing middle-wage jobs

Portland’s health care sector has more than 25 middle-wage job occupations, including:

- Pharmacy aides
- Nursing assistants
- Physical therapist aides
- Orderlies
- Medical appliance technicians
- Phlebotomists
- Dental assistants
- Medical transcriptionists
- Emergency medical technicians
- Medical equipment repairers

Source: County Business Patterns, U.S. Census, 2007-2011 Metropolitan Area Files.
and high-wage (more than $50,000) job sectors, rather than in the middle. The resulting income polarization is a concern because middle-wage jobs traditionally have been the path to economic health for most families, particularly those with workers holding less than four-year degrees, which is most Oregonians.

This study shows the Portland-metro health care sector has bucked that economy-wide trend. Middle-wage jobs in health care are projected to grow faster than low-, mid- or high-wage jobs in the rest of the regional economy. The Oregon Employment Department projects that, between 2012 and 2022, occupations in the region’s health care sector that pay middle-wages will grow approximately 22 percent, compared to a projected 15 percent increase in the rest of the regional economy. Low-wage jobs are projected to grow 16.5 percent in the region as a whole during that timeframe, while high-wage jobs are projected to grow 16.8 percent.

The growth of middle-wage jobs in this sector may reflect the ongoing evolution in the health care industry, as providers adjust services to address affordability. The growth is occurring in many disciplines that require less than a four-year degree, including some areas that have specially designed community college training programs, like pharmacy aides, phlebotomists, emergency medical technicians and medical equipment repairers. As the region looks at the need for effective workforce training, ensuring adequate training programs for these skilled medical disciplines should be a primary focus because of their potential to lead to quality, middle-wage jobs.

**Productivity: An efficient system produces healthier outcomes**

The most important measurement in any look at the health care system is the health of the region’s population. The next consideration is whether those health care services are being delivered efficiently. A productive sector means better management of health care costs, which impact individuals, businesses and government. And that, in turn, means more money to spend on salaries, education, infrastructure and other critical investments.

According to data collected by the Dartmouth Healthcare Atlas on the efficiency of hospital provided health care services, Portland-metro ranks among the most efficient regions in the nation when it comes to the provision of health care services.

Looking at some of the indicators for the cost of health care, such as hospital re-admittance, end-of-life and surgical cares, Portland ranks at the low end on most metrics compared to other hospital referral regions nationally. Hospitals in Portland-metro are among the lowest in the nation in terms of beds per capita, and they are among the fewest in surgical discharges. Finally, Portland also compares favorably to other regions on the important metrics of hospital re-admission rates. This has an important impact on regional health care costs, since re-admission rates are one of the key drivers of increased health care spending nationally.

**Health care innovations**

**OHSU: Creating a cancer curing economy**

Dr. Brian Druker changed cancer treatment when he proved that a once-a-day pill could turn a deadly cancer into a manageable disease. Now he’s working to revolutionize the early detection of cancer, so the disease can be found when it is most treatable.

Nike Co-founder Phil Knight and his wife, Penny, believe in Dr. Druker and his team at Oregon Health & Science University and have pledged $500 million when OHSU raises another $500 million. The prospects are good. The Oregon Legislature approved $200 million in bond financing for needed laboratory and clinical space. The OHSU Foundation already has raised more than $86 million.

OHSU’s focus is improving health, but its work also contributes $2.4 billion annually in net economic activity to the state. OHSU’s traded-sector impact includes $350 million a year in research grants, as well as income from out-of-state patients and students. The $1 billion investment in the Knight Cancer Institute for early detection will generate $134 million in economic output annually and support 860 jobs, according to ECONorthwest. This is in addition to the $892 million impact and 6,835 jobs (FTE for one year) supported by the two-year construction phase.
**Health care innovations**

**Kaiser Permanente focuses on prevention**

Diabetes provides one of the clearest examples of how chronic conditions drive up health care expenses in the United States. In a typical business of 500 employees, an average of 42 have diabetes. That translates to nearly $470,000 in direct medical costs and lost productivity every year.

Yet Type 2 diabetes is largely preventable – and Kaiser Permanente’s focus on prevention and its use of technology to understand and improve population health has actually reduced the rate of diabetes among its members.

Kaiser Permanente’s HealthConnect® electronic health record system identifies members at risk for diabetes or pre-diabetes and refers them to the Diabetes One Stop team for help managing their condition. HealthConnect® helps everyone in the health care system (including dentists) know when services such as blood sugar control rechecks or cholesterol checks are needed, so the care team can get the member back on track – by making appointments, scheduling screenings, or enrolling them in health coaching.

Data shows this approach works. A 2013 study in the "Journal of the American Medical Association" showed a 5 percent decrease in emergency department visits for diabetes patients whose care was managed using HealthConnect®, along with a 5 percent decrease in hospitalizations.

**Traded-sector activity: A growing role for the health care sector**

Health care, in most instances, is a local-sector industry. Doctors, hospitals, clinics and insurance companies all provide services that are bought and sold by local consumers and used within the local economy. However, as the delivery of services evolves, and as research in the biotech field and the commercialization of research outcomes become more prevalent, the Portland-metro health care sector has established a growing role as a traded-sector industry; that is, an industry that brings new dollars into the region.

This Value of Jobs research uncovered that the traded-sector component of the regional health care industry is responsible for 16,000 jobs, $1 billion in payroll and $1.9 billion in revenue, and expectations are that the sector’s contribution to the regional traded-sector economy may grow over time.

Portland’s health care sector attracts money from outside the region in a number of ways. First, the region’s sophisticated health care providers offer specialized health services not available in other regions that attract patients from outside the area. This impacts not only large institutions like Providence with its cancer center, but also smaller ones like Tuality, with its geriatric psychiatric center in Forest Grove. Some 17 percent of adults and 25 percent of children treated as inpatients at the region’s hospitals come from outside of the Portland-metro region. Additionally, Portland is home to health solutions headquarter companies

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**Figure 7: Health care efficiency measures for Portland (rank among all Hospital Referral Regions)**

- ICU/CCU days per decedent during last six months of life
- Hospital days per decedent during last six months of life
- ICU/CCU charges per decedent during last six months of life
- Acute care hospital beds per 1,000 residents
- FTE hospital employees per 1,000 residents
- Re-admittance rate within 30 days of congestive heart failure
- Re-admittance rate within 30 days of medical discharge
- Re-admittance rate within 30 days of surgery
- Re-admittance rate within 30 days of heart attack
- Re-admittance rate within 30 days of pneumonia
- All surgical discharges per 1,000 medicare enrollees

Source: Dartmouth Health Care Atlas.
like Cambia and Moda, which deliver products and services outside of the region.

The region’s health care industry also attracts a significant amount of research funding from outside Portland-metro. In 2012, for example, OHSU received more than $350 million in National Institutes of Health and other grant funding. But OHSU is not the only health care provider attracting research dollars; Legacy Research Institute, Providence Research and Kaiser Center for Health Research all conduct research funded by outside dollars. That research can lead to the development of new courses or treatment and medical tools, which, in turn, can be commercialized.

Finally, Portland is a major center for health care education and training. These educational facilities attract students and funding from outside the region for both training and research activities.

### Health care innovations

#### Legacy Health’s advancements in rib-plating device

A blind curve, a large truck and 124 feet of skidding before a crash into a guard rail left a 48-year-old Corbett man with 12 broken ribs. The injuries resulted in a life-threatening condition called “flail chest,” where the rib cage detaches from the chest and interferes with breathing.

“It was one of the worst cases of flail chest I’ve seen in 15 years of practice,” says Steven Madey, M.D., an orthopedic surgeon on the trauma team at Legacy Emanuel Medical Center. If anything was fortunate that day, it was that the accident victim was taken to Legacy Emanuel and put in the care of Dr. Madey, who happens to be one of the inventors of a medical innovation known as a “rib plating system” that is improving the lives of those who have flail chest.

The rib-plating device holds the rib in place to assist with healing and reduce pain during breathing. Surgeons from all over the United States, as well as Canada and Europe, come to Legacy Research Institute to learn how to use it.

The rib plating system is one of several innovations developed in recent years by doctors at Legacy Emanuel, and researchers and engineers at Legacy Research Institute, one of the country’s largest non-academic medical research centers. Bringing together front-line doctors with their colleagues in research to develop medical devices is a unique combination that can result in broad benefits.
**A significant contributor to the region’s economic vitality**

Portland-metro’s health care industry is a significant contributor to the region’s economic vitality, not only in terms of the large number of jobs it generates, but also because of its growing role as a generator of traded-sector activity. More importantly, the region is seeing positive health outcomes from an industry that delivers services in an overall efficient manner.

As health care delivery evolves in the years ahead, the region must focus on policies and practices that enable this industry to grow on its successes and become more efficient. Policies that have the effect of penalizing Portland-metro and Oregon for historic health care successes – such as the low Medicare reimbursement rates from the federal government – should be re-examined and replaced with policies that encourage innovation rather than punishing success.

Recognizing that this is an industry that will continue to grow – and one that generates valuable middle-wage jobs – there must be continued focus on ensuring there is a trained and ready workforce, and that training evolves to meet the changing needs of the industry.

And, finally, the community must come together to maximize the research potential at all of the region’s health care institutions, starting with achieving the OHSU Knight Cancer Challenge to raise $1 billion for cancer research. Additionally, policies must ensure there is a potential to commercialize research outcomes and then retain the emerging private businesses, growing the important biotech sector. This is an industry that will always be a significant part of the region’s economy and is poised to grow its potential positive impacts.

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**Moda’s passport to health**

When the city of Portland recognized that as few as 5 percent of its employees were consuming as much as 50 percent of its health benefit budget, it knew it had to do something.

The problem was not that these employees were such heavy utilizers of health care. The problem was that these employees weren’t seeing much improvement in their health. That’s when the city turned to Moda for help.

The company created Healthy Foundations, a program that provides high-touch, personal care to city employees living with chronic diseases. Because social determinants greatly impact chronic conditions, expert teams -- affectionately dubbed “Modavators” -- visit members in their homes and interact with them in their daily lives, using innovative cognitive behavioral techniques to improve lifestyle and medication adherence, enhance nutrition and fitness, and reduce stress.

To eliminate cost as a barrier to getting this kind of care, employers may offer enhanced benefits, including waived copays and deductibles, to those who enroll in these programs. By customizing benefits, aligning them with plan design and cost-sharing incentives, Moda develops a model that enhances both the health of the employee and the financial well-being of the employer.

The bottom line: better outcomes and lower costs.

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**Coordinated Care Organizations**

A new health care delivery system in Oregon, Coordinated Care Organizations (CCOs), were designed to achieve a triple bottom line for Oregon’s Medicaid (lower income) population: improving health outcomes, providing better medical care and lowering costs. Initial data points to success: between January and June of 2013, compared to a 2011 baseline; this report found:

- Visits to emergency departments were down 9 percent, and spending was down 18 percent.
- Treatment through primary care facilities grew: Primary care visits increased 18 percent, and enrollment in patient-centered primary care homes increased 36 percent.
- Hospitalization for chronic conditions declined: Admissions for congestive heart failure were down 29 percent; for chronic obstructive pulmonary disease 28 percent, and for adult asthma 14 percent.
Thank you to our partners

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- Oregon Health & Science University
- Providence Health & Services

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- Miller Nash LLP
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- Portland-Metro's Health Care
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- Portland-Metro's Manufacturing Sector
- Land Availability: Limited Options
- Portland-Metro's Traded Sector
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- International Trade
- 2010 Check-up on the Portland-Region's Economic Health

**About the Value of Jobs Coalition**

The Value of Jobs Coalition is based on the premise that in order to have a prosperous, healthy Portland region with a good quality of life, we need more private-sector jobs. The coalition began with an economic study in the fall of 2010, which uncovered troubling economic data about the Portland-metro region. A number of other studies have followed that highlight the region's economic opportunities and challenges. Find out more at: [www.valueofjobs.com](http://www.valueofjobs.com).