Oregon Hospital Payment Report: 2017

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Oregon Health Authority
Health Policy & Analytics Division
Office of Health Analytics

About This Report

The Oregon Hospital Payment Report, codified into Oregon Revised Statutes (ORS) 442.373, is an annual report of the median amounts paid by commercial insurance companies for common procedures performed in Oregon hospitals. This report provides transparency and public accountability for hospital prices. Oregon's efforts were recently recognized in the national Report Card on State Price Transparency Laws, an annual assessment conducted by Catalyst for Payment Reform. Due largely to the Hospital Payment Report, Oregon was ranked fourth in the nation for health care price transparency.

The data source for this report is Oregon's All Payer All Claims database (APAC), a database of health care insurance claims submitted to the state by entities identified as mandatory reporters according to ORS 442.372 and Oregon Administrative Rules (OAR) 409-025-0100 to 409-025-0170. This report includes procedures that occurred in calendar years 2016 and 2017, and only includes payments to hospital inpatient and outpatient facilities. Payments to free-standing Ambulatory Surgical Centers (ASCs) are not included. OHA plans to build on this report in future years to incorporate other health care facilities.

This report uses median paid amounts. A median represents the point where half the observations are below and half are above. Averages are not used because a handful of very high or low priced cases, called outliers, can unduly influence an average. Median amounts are less susceptible to outlier data and more accurately represent the typical paid amount.

Paid amounts represent what a commercial insurance company paid to the hospital performing the procedure, as well as patient paid amounts such as co-pays, deductibles, or co-insurance amounts. In the case of outpatient procedures, the paid amount is inclusive of all elements related to the procedure with the exception of professional fees, which are billed separately. In the case of inpatient procedures, the paid amount is intended to represent the amount paid for the entire hospitalization event. If the attending physician or specialist was not employed by the hospital, the paid amount does not include their professional fees.

Variation in median paid amount among hospitals can be attributed to a variety of factors. Geography often plays a role due to the different costs of doing business. There can also be significant variation in patients' health status or severity of illness that factor into the intensity of care at one hospital compared to another. The contracting and discount arrangements between insurers and hospitals, whether based on volume, types of procedures performed, or specific savings targets, all play a role in the final paid amount. Quality of care, patient satisfaction and patient outcomes are not collected in APAC, making it difficult to link these factors to paid amounts.

Due to the U.S. Supreme Court's March 2016 ruling in Gobeille v. Liberty Mutual Insurance Company, OHA may not longer require self-insured Employment Retirement Income Security Act (ERISA) covered health plans to submit claims to APAC. It is estimated that Oregon's APAC database has over 300,000 fewer covered lives reported from the commercial market since the Gobeille decision. As a result, the number of reported procedures has decreased, which in turn affects whether data can be reported.

For questions or comments about this report, please contact:

Steven Ranzoni, MPH
Hospital Policy Advisor
Oregon Health Authority
Office of Health Analytics
steven.ranzoni@dhsoha.state.or.us

Stacey Schubert, MPH
Director, Health Analytics
Oregon Health Authority
Office of Health Analytics
stacey.s.schubert@dhsoha.state.or.us

Executive Summary

Oregon Hospital Payment Report: 2017

In 2017, the United States spent $3.5 trillion on health care, the equivalent of $10,739 per person. Hospital care accounts for almost 33%, or $1 trillion, of that spending each year. Hospital care also represents one of the fast-est growing sectors of health care. Over the past 10 years, nationwide hospital expenditures have grown at an average annual rate of 5.7%, compared with average annual growth of 4.9% for all health care expenditures.[1]

In 2015, the Oregon legislature passed Senate Bill 900, mandating the annual reporting of median payments from commercial insurers to hospitals for common inpatient and outpatient procedures, using Oregon's All Payer All Claims (APAC) database. This is the fourth release of the Oregon Hospital Payment report, helping Oregonians understand how much hospitals are paid for common procedures across the state.

New! 2013-2017 Trends

The 2017 Oregon Hospital Payment report includes 5-year trend data for three frequent procedures in each major service type. Charts throughout the report display the median statewide paid amount for each of these procedures, as well as the average annual rate of growth between 2013-2017 for each (see table, right).

For context, total health care expenditures in Oregon grew 6.5% between 2013-2017 (across all payers).

Growth since 2016

Over half of the inpatient and outpatient procedures included in this report show growth in the statewide median paid amount between 2016 and 2017.

Out of 110 procedures reported, 63 grew by at least 2% since 2016 and of those 63, more than a third (26) grew more than 10%. See table, next page.

The category that showed the most growth since 2016 is pregnancy-related procedures, which increased by an average of 5.2% (or $412). Six of the 7 pregnancy-related procedures increased since 2016.

Annualized Increase by Procedure

Outpatient Surgical Procedures	
Colonoscopy	1.0%
Upper Endoscopy	2.7%
Hysterectomy	6.9%
Inpatient Procedures	
Knee Replacement	-2.5%
PCTA	6.3%
Spinal Fusion	8.9%
Imaging	
Mammography	4.1%
Ultrasound	0.5%
X-Ray: Chest	3.4%
Radiology and Chemotherapy	
Chemotherapy Injection	1.7%
Chemotherapy IV Infusion	6.2%
Radiation Treatment Delivery	4.7%
Pregnancy-Related Procedures	
C-section w/o complications	1.1%
Normal Delivery w/o complications	2.5%
Ultrasound: Obstetrical	4.1%

[1] National Health Care Spending in 2017: Growth Slows to Post-Great Recession Rates; Share of GDP Stabilizes. Health Affairs. Volume 38, No 1. December 2018.

Executive Summary

Most Expensive Outpatient Procedure

$45,137 heart electrophysiology studies

This was also the outpatient surgery procedure with the highest median paid amounts in 2016 ($38,059).

Most Expensive Inpatient Procedure

$94,437 heart valve replacement

This was also the inpatient procedure with the highest median paid amounts in 2016 ($95,773).

Most Frequently Occurring Procedure

55,000 commercial claims for mammography

The median paid amount for mammography in 2017 was $300, no change from $301 in 2016.

Most Variation in Paid Amounts

Surgery: Spinal Fusion

The procedure with the largest range between the lowest and highest median paid amounts is spinal fusion surgery, with a difference of $65,321.

$100,770

$35,449

One key factor in the variation in median paid amounts for spinal fusion surgery is how many days the patient stays in the hospital for the procedure.

Procedures with most growth since 2016

Procedure	Growth
Outpatient Surgery: Nerve Block	35.5%
Outpatient Surgery: Nasal Endoscopy	31.3%
Imaging: Heart Stress Test	22.1%
Imaging: CT Scan Chest	18.7%
Outpatient Surgery: EPS	18.6%
Imaging: Abdominal MRI with Contrast	18.3%
Imaging: Abdominal CT Scan	18.0%
Imaging: MRI of Head and Neck	17.4%
Outpatient Surgery: Tonsillectomy	16.9%
Imaging: CT Scan Spine with Contrast	16.9%
Imaging: X-Ray of Abdomen	16.6%
Chemotherapy: Chemotherapy Injection	15.2%
Imaging: MRI scan extremities	14.3%
Imaging: CT Scan of Chest w/Contrast	13.8%
Outpatient Surgery: Lesion Removal	13.7%
Nuclear Medicine: Endocrine	13.0%
Inpatient Surgery: Appendectomy	12.9%
Outpatient Surgery: Arthrocentesis	12.9%
Imaging: MRI Scan Extremities w/C	12.3%
Imaging: X-Ray of Extremities	12.1%
Pregnancy: C-section w/o complications	11.7%
Outpatient Surgery: Spinal Laminectomy	11.4%
Outpatient Surgery: Arthrography	11.1%
Imaging: MRI Head and Neck w/Contrast	10.7%
Imaging: CT Scan Abdomen w/Contrast	10.6%
Imaging: X-Ray of Chest	10.5%

More details about each of these categories and procedures are included in five detailed reports, available online at: https://www.oregon.gov/oha/HPA/ANALYTICS/Pages/Hospital-Reporting.aspx

Procedure List

Procedures for 2017 are broken into several smaller reports. All procedures are listed below in the sub-report in which they are contained.

Outpatient Surgical Procedures

- Abdominal Drainage
- Arthrocentesis
- Arthrography
- Big Toe Surgery
- Breast Biopsy
- Breast Reconstruction
- Carpal Tunnel
- Cataract
- Colonoscopy
- Central Venous Catheter
- Cytoscopy Lithotripsy
- Eye Injection
- Gallbladder Surgery
- Heart Catheterization
- Heart Electrophysiology
- Hernia Repair
- Hysterectomy
- Hysteroscopy
- Knee Arthroscopy
- Lesion Removal
- Liver Biopsy
- Mastectomy
- Nasal Endoscopy
- Nerve Block
- Shoulder Arthroscopy
- Spinal Injection
- Spinal Laminectomy
- Sub. Incision & Drainage
- Thyroidectomy
- Tonsillectomy
- Tympanostomy
- Upper Endoscopy
- Wound Debridement

Inpatient Procedures

- Appendectomy
- Blood Transfusion
- Bowel Removal
- Central Venous Catheter
- Chemotherapy
- Coronary Bypass
- Gallbladder Surgery
- Gastrectomy
- Heart Catheterization
- Heart Valve Replacement
- Hernia Repair
- Hip Replacement
- Hysterectomy
- Kidney Removal
- Knee Replacement
- Open Fracture Repair
- Coronary Angioplasty
- Shoulder Replacement
- Subcutaneous Drainage
- Spinal Laminectomy
- Spinal Fusion
- Spinal Tap
- Thoracentesis
- Upper Endoscopy
- Wound Debridement

Diagnostic Imaging and Testing

- Bone Study
- CT Scan: Abdomen
- CT Scan w/ Contrast: Abdomen
- CT Scan: Chest
- CT Scan: Extremities
- CT Scan: Head & Neck
- CT Scan: Spine
- Echocardiograph
- Electrocardiography
- Heart Stress Test
- Mobile Heart Monitoring
- MRI Scan: Abdomen
- MRI Scan: Extremities
- MRI Scan: Head & Neck
- MRI Scan: Spine
- Nuclear Medicine: Heart
- Nuclear Medicine: Endocrine
- Nuclear Medicine: Digestive
- Nuclear Medicine: Muscular
- Ultrasound
- X-ray: Abdomen
- X-ray: Chest
- X-ray: Extremities
- X-ray: Head & Neck
- X-ray: Spine

Outpatient Radiology & Chemotherapy

- Chemotherapy: Injection
- Chemotherapy: Infusion
- Radiation: Devices
- Radiation: Guidance
- Radiation: Consultation
- Radiation: Delivery
- Radiation: Dosimetry
- Radiation: IMRT
- Radiation: Simulation

Pregnancy Related Procedures

- Obstetrical Ultrasound
- Normal Delivery without Complication
- Normal Delivery with Complication
- Cesarean Delivery without Complication
- Cesarean Delivery with Complication
- Newborn Care without Complication
- Newborn Care with Complication

About Amounts Paid

Amounts presented in this report are median amounts paid from commercial insurance companies that report to APAC to one of Oregon's 60 acute care general hospitals. Payments to a hospital from a payer that does not report to APAC, such as small carriers or uninsured, are not reflected in this report. The median paid amounts include patient contributions such as co-pays, deductibles, and co-insurance. Amounts paid reflect the total payment a hospital received and not the price a patient actually paid for the service.

Similar to 2016, amounts paid for procedures performed in Oregon's hospitals showed high levels of variation in 2017. This was seen between hospitals for the same service and within the same hospital for the same service. Reasons for this are complex but generally relate to a few key factors: hospital location, patient volume, patient case mix, and negotiated rates with a given patient's insurance company.

The location of a hospital influences the amounts paid for procedures. Hospitals located in areas with higher costs of living, higher utility costs, and higher rent costs have greater operating expenses relative to hospitals located in areas with lower cost of living. Payroll expenses generally make up about 50% of a hospital's total operating expenses at any given time. When operating expenses for a hospital increase, paid amounts for services provided must also increase to cover costs. A hospital's location can also affect costs due to competition. Hospitals located in remote service areas generally have higher associated paid amounts than hospitals in close proximity to other hospitals.

Hospitals that have high patient volumes for particular services can generally accept lower paid amounts than hospitals with lower patient volumes. High volume hospitals are able to accept a lower price per procedure due to economies of scale. High volume hospitals can make up for accepting lower payments on infrequent procedures by charging slightly more for procedures performed more frequently. Hospitals with low overall patient counts have less flexibility to determine what they must charge for each service and less flexibility to offset losses on some procedures by charging more for other procedures.

Amounts paid are also affected by patient case mix. Patient case mix refers to the types of services a hospital is most likely to perform, based on the types of patients that populate their service area. It also refers to the severity of illness among the patients the hospital serves. Some hospitals serve populations that have a higher burden of disease than other hospitals. Some hospitals service a higher proportion of older people and need to provide higher cost procedures such as joint replacements and bypass surgeries. Hospitals that provide more complex procedures have higher paid amounts for similar procedures.

Negotiated rates also affect the amounts paid. Each hospital in Oregon has individual payment arrangements negotiated with every insurance provider that operates in Oregon. The rate an insurance company pays for a procedure varies from hospital to hospital. Every hospital has different negotiated rates with every insurance provider. All the above factors: hospital location, patient volume, patient case mix influence these rate negotiations.

Findings for 2017

Outpatient Surgical Procedures

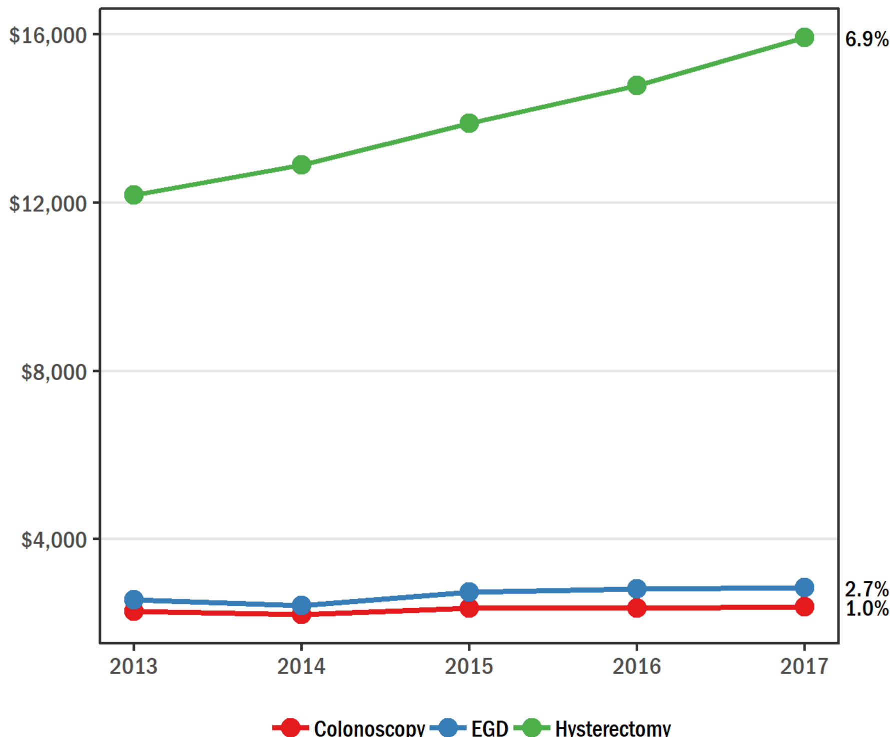
This report contains data on 44,448 outpatient surgical procedures. This is a 2.4% increase from the 43,404 procedures performed in 2016.

Colonoscopy is the most common procedure reported in this section with 12,785 procedures performed in 2017. The median paid amount for colonoscopy increased by $28 in 2017, an increase of 1.2%. Upper endoscopy, or esophagogastroduodenoscopy (EGD), is the second most common procedure with 4,643 procedures performed in 2017. The median paid amount for EGD increased by $27 in 2017, an increase of 1.0%.

Procedures where the median paid amount:	Number of: Procedures	Claims
Increased	21	17,537
Stayed the same	9	24,058
Decreased	6	2,853
Overall	36	44,448

Procedures where the median paid amount:	Avg Change from 2016: Paid Amount	Percent
Increased	$902	10.5%
Stayed the same	$65	1.0%
Decreased	($515)	-10.5%
Overall	$457	4.6%

Increased = > 2% change *Stayed the same = ± 2 %* *Decreased = > -2% change*



The figure below shows 5-year trends in median paid amounts for three of the most significant procedures (either in terms of volume or impact): colonoscopy, Upper endoscopy (EGD), and hysterectomy.

The numbers displayed on the right show the annualized increase for these procedures from 2013-2017. Hysterectomy has the highest 5-year annualized increase at 6.9%. EGD is next at 2.7%. Colonoscopy has the lowest 5-year annualized increase at 1.0%.

Findings for 2017

Inpatient Procedures

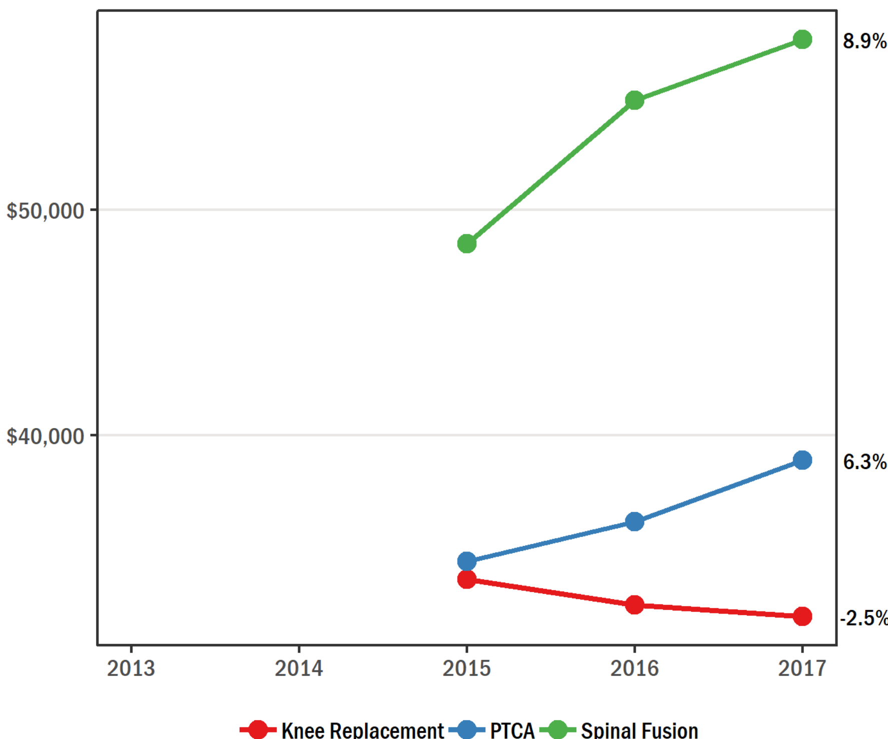
This report contains data on 12,203 inpatient surgical procedures. This is a 5.8% decrease from the 12,960 procedures performed in 2016.

Knee replacement is the most common procedure reported in this section with 1,530 procedures performed in 2017. The median paid amount for knee replacement decreased by $509 in 2017, a decrease of 1.6%. Hip replacement is the second most common procedure with 1,279 procedures performed in 2017. The median paid amount for hip replacement decreased by $367 in 2017, a decrease of 1.1%.

Procedures where the median paid amount:	Number of: Procedures	Claims
Increased	15	4,389
Stayed the same	13	5,408
Decreased	11	2,406
Overall	39	12,203

Procedures where the median paid amount:	Avg Change from 2016: Paid Amount	Percent
Increased	$1,562	5.9%
Stayed the same	($79)	0.1%
Decreased	($2,302)	-8.9%
Overall	($75)	-0.2%

Increased = > 2% change *Stayed the same = ± 2 %* *Decreased = > -2% change*



The figure to the left shows 3-year trends in median paid amounts for three of the most significant procedures (either in terms of volume or impact): knee replacement, percutaneous transluminal coronary angioplasty (PTCA), and spinal fusion. Trending starts at 2015 since inpatient procedure coding switched to the ICD-10-PCS coding system from the ICD-9-PCS system in 2015.

The numbers displayed on the right show the annualized increase for these procedures from 2015-2017. Spinal fusion has the highest 3-year annualized increase at 8.9%. PTCA is next at 6.3%. Knee replacement has a 3-year annualized decrease of 2.5%.

Findings for 2017

Diagnostic Imaging and Testing

This report contains data on 271,026 diagnostic imaging and testing procedures. This is a 4.7% decrease from the 284,286 procedures performed in 2016.

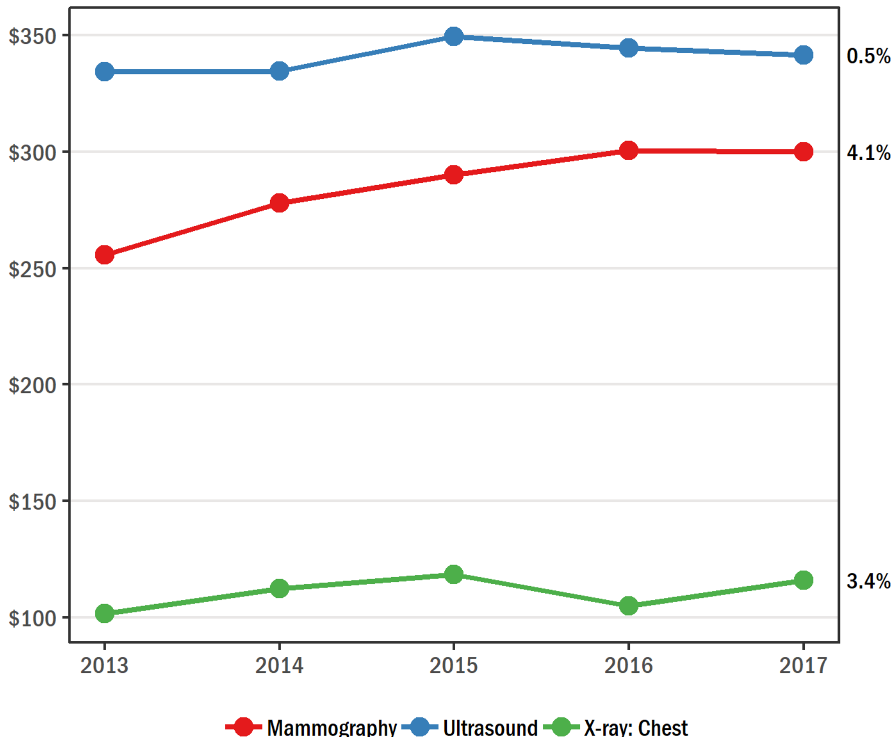
Mammography is the most common procedure reported in this section with 55,168 mammograms performed in 2017. This is a decrease of 19.3% from 68,376 mammograms in 2016 and is a continuation of the large decrease in 2016 from 2015.

In 2016 the US Preventive Services Task Force and the American Cancer Society both issued revised recommendations increasing the age in which women should begin routine mammogram screenings. This policy change could explain some of the observed decrease in mammograms. The median paid amount for mammography decreased by $1 in 2017, a decrease of 0.2%.

Procedures where the median paid amount:	Number of: Procedures	Claims
Increased	26	109,942
Stayed the same	6	128,841
Decreased	10	32,243
Overall	42	271,026

Procedures where the median paid amount:	Avg Change from 2016: Paid Amount	Percent
Increased	$97	11.9%
Stayed the same	$3	0.3%
Decreased	($145)	-12.2%
Overall	$26	4.5%

Increased = > 2% change *Stayed the same = ± 2 %* *Decreased = > -2% change*



The figure to the left shows 5-year trends in median paid amounts for three of the most significant procedures (either in terms of volume or impact): mammography, ultrasound (unrelated to obstetrics), and chest X-ray.

The numbers displayed on the right show the annualized increase for these procedures from 2013-2017. Mammography has the highest 5-year annualized increase at 4.1%. Chest X-ray is next at 3.4%. Ultrasound has the lowest 5-year annualized increase at 0.5%.

Findings for 2017

Outpatient Radiology & Chemotherapy

This report contains data on 40,302 radiation and chemotherapy procedures. This is a 7.2% increase from the 37,609 procedures performed in 2016.

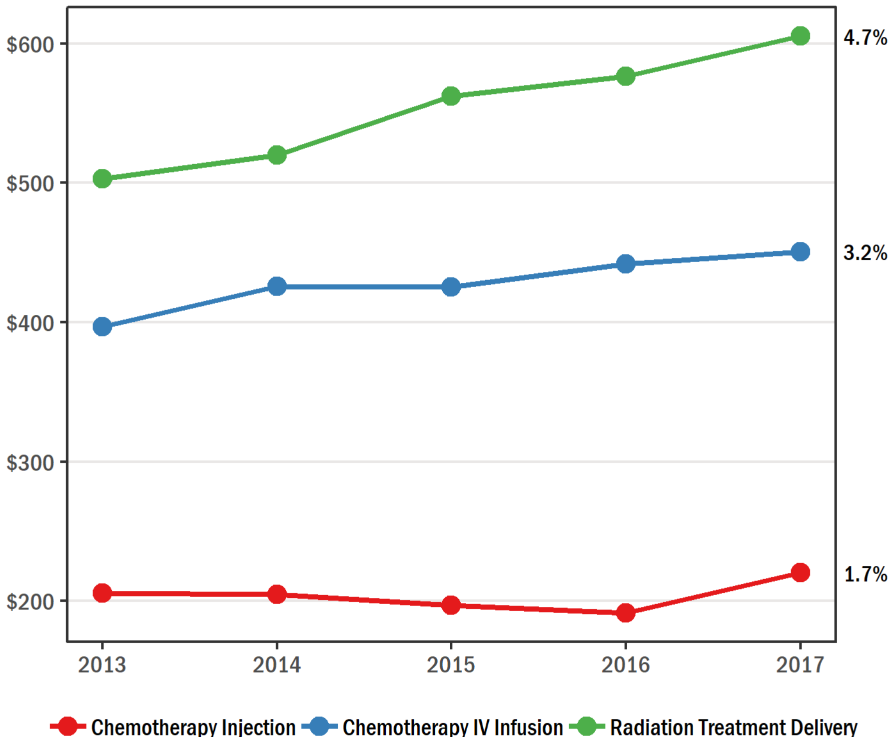
Radiation therapy delivery, the procedure that administers a single session of radiation treatment, is the most common procedure reported in this section with 10,711 radiation treatments performed in 2017.

The median paid amount for radiation therapy delivery increased by $29 in 2017, an increase of 5.0%. An additional 7,578 Intensity Modulated Radiation Therapy (IMRT) treatments were provided in 2017. IMRTs are a relatively new procedure for commercial payers to cover. This procedure has a $58, or 3.4%, increase from 2016 paid amounts.

Procedures where the median paid amount:	Number of: Procedures	Number of: Claims
Increased	5	30,059
Stayed the same	2	4,165
Decreased	2	6,078
Overall	9	40,302

Procedures where the median paid amount:	Avg Change from 2016: Paid Amount	Avg Change from 2016: Percent
Increased	$28	3.7%
Stayed the same	$1	0.6%
Decreased	($19)	-6.4%
Overall	$6	1.8%

Increased = > 2% change *Stayed the same = ± 2 %* *Decreased = > -2% change*



The figure to the left shows 5-year trends in median paid amounts for three of the most significant procedures (either in terms of volume or impact): chemotherapy injection, chemotherapy intravenous infusion, and radiation treatment delivery.

The numbers displayed on the right show the annualized increase for these procedures from 2013-2017. Radiation treatment delivery has the highest 5-year annualized increase at 4.7%. Chemotherapy IV infusion is next at 3.2%. Radiation treatment delivery has the lowest 5-year annualized increase at 1.7%, an increase despite a downward trend until 2016.

Findings for 2017

Pregnancy Related Procedures

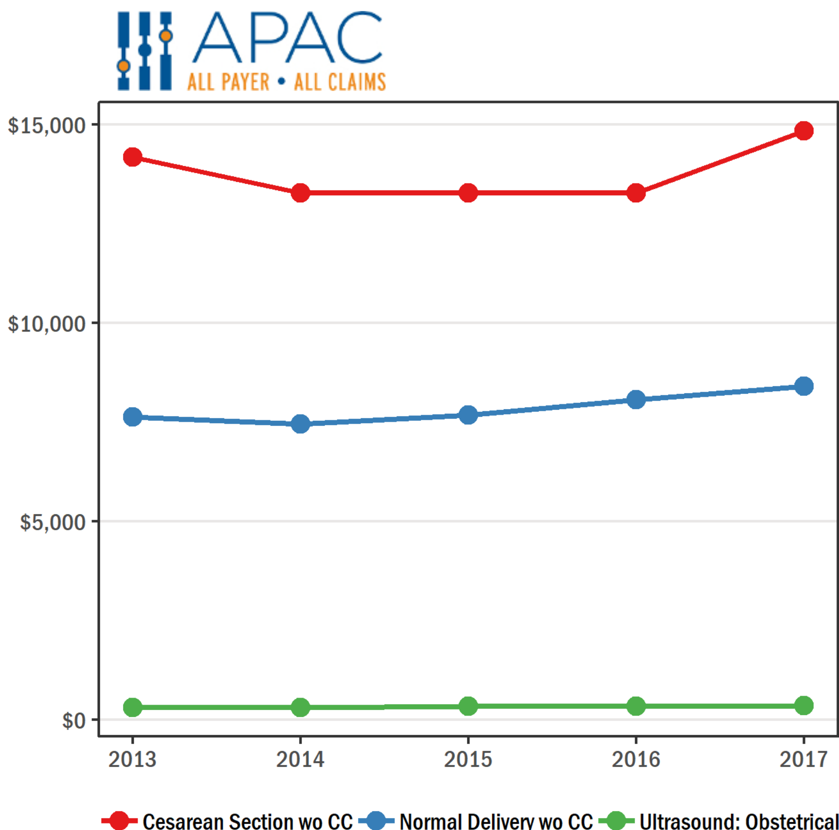
This report contains data on 32,053 pregnancy related procedures. This is a 6.2% decrease from the 34,166 procedures performed in 2016.

Obstetrical ultrasound is the most common procedure reported in this section with 13,129 ultrasounds performed in 2017. The median paid amount for obstetrical ultrasound increased by $21 in 2017, an increase of 6.4%.

Procedures where the median paid amount:	Number of: Procedures	Claims
Increased	6	30,498
Stayed the same	1	1,555
Decreased	0	NA
Overall	7	32,053

Procedures where the median paid amount:	Avg Change from 2016: Paid Amount	Percent
Increased	$515	6.3%
Stayed the same	($208)	-1.2%
Decreased	NA	NA
Overall	$412	5.2%

Increased = > 2% change *Stayed the same = ± 2 %* *Decreased = > -2% change*



The figure below shows 5-year trends in median paid amounts for three of the most significant procedures (either in terms of volume or impact): Cesarean deliveries without complications and co-morbidities, normal (vaginal) deliveries without complications and co-morbidities, and obstetrical ultrasound.

The numbers displayed on the right show the annualized increase for these procedures from 2013-2017. Obstetrical ultrasound has the highest 5-year annualized increase at 4.1%. Normal delivery without complications and co-morbidities is next at 2.5%. Cesarean delivery without complications and co-morbidities has the lowest 5-year annualized increase at 1.1%, an increase despite a downward trend until 2016.

Included in This Report

A number of factors determined whether data were included in or excluded from this report. The summary table below details these decisions. A hospital facility not meeting the inclusion criteria for a procedure is not listed for that particular procedure. This does not preclude the same facility from being reported under other procedures if it meets the inclusion criteria.

	Included	Excluded
Amounts	• Median paid amounts to hospital facilities including patient paid amounts.	• Hospital billed amounts • Allowed amounts • Professional fee amounts
Facilities	• Oregon acute care hospitals	• Non-Oregon facilities • Ambulatory Surgical Centers (ASCs) • Specialized clinics not located within the hospital or that bill as a separate entity
Outpatient procedure codes	• Codes for the 100 most common outpatient procedures	• Codes for procedures performed less than 350 times statewide • Codes for outpatient procedures not in the top 100
Inpatient procedure codes	• Codes for the 50 most common inpatient procedures	• Codes for procedures performed less than 100 times at the state-wide level • Codes for inpatient procedures not in the top 50
Insurance types	• Most commercial insurers	• Public insurers (Medicare, Medic-aid) • Veterans Administration • Workers Compensation • ERISA self-insured plans • Commercial insurance with fewer than 5,000 covered lives
Service volumes	• Procedure was performed 10 or more times at a particular hospital	• Procedure was performed less than 10 times at a particular hospital
Outliers		• Individual paid amounts larger than three standard deviations from statewide median for a procedure

Methods

The data source for this report is the Oregon All Payer All Claims (APAC) database. The Oregon Health Authority contracts with Milliman Solutions (Milliman) to manage and maintain the database. Milliman collects, processes, and applies its Health Cost Guidelines (HCG) grouper logic which identifies and groups different health care services in the APAC data. This report uses the HCG grouper to identify what claims were for hospital inpatient and outpatient services.

Claims data were extracted from the APAC database for services incurred in calendar year 2016, services incurred in calendar year 2017, and for HCG groupers that identify as a hospital inpatient or outpatient service. All non-commercial payers(Medicare, Medicaid, VA) were removed from this dataset. OHA also removed data from all non-Oregon facilities and all non-hospital facilities, including free-standing Ambulatory Surgical Centers (ASCs). All claims that had a "denied" status were excluded.

Claims within APAC are identified by a unique claim ID. This unique claim ID is used to identify all itemized portions of the claim together as one. Using the unique claim ID, the total paid amount is summed to provide the total paid amount for the entire claim. Claims that had a zero total paid amount were excluded.

After procedures were summed to total amounts, OHA identified the primary procedure. The process for this is different for inpatient and outpatient settings. In the outpatient setting, a single procedure can be billed as multiple individual components. For example, an arthrogram of the shoulder will generally have four billed items: a bill for the dye injection to the shoulder, a bill for the x-ray guidance used to place the dye, a bill for the CT or MRI imaging after the services in the outpatient setting and OHA finds it performs well at identifying primary procedures. This unique services flag was used to identify the principle procedure performed in the outpatient setting.

Inpatient claims are required to identify the primary procedure performed in the hospitalization. Inpatient procedure coding makes use of the ICD-10-PCS coding system, which is a significant change from the less detailed and less granular ICD-9 coding system. Inpatient procedures were extracted using ICD-10.

Radiation therapy and chemotherapy differ in reporting from other outpatient procedures. Radiation therapy and chemotherapy are not reported as a summed total claim. Individually billed component amounts are reported. This is due to the high level of complexity and customization in such therapies. Amounts paid for chemotherapy and radiation therapy are "per delivery" of the service.

After identification of the primary procedure, procedures were grouped into larger, related categories. This was done to present the data in a more accessible fashion. Groupings were made on the following three major criteria: similar procedures (X-rays, CT scans, MRIs, etc.), median paid amounts were similar and the individual procedure code was among the most frequently performed procedures in Oregon.

The data are reported as statewide rates and by hospital when possible. A hospital must have performed the procedure ten times to be included. Hospitals that reported paid amounts that varied significantly from the statewide median (three standard deviations or more) were removed to prevent outlier data from affecting median amounts.