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# Health Care Cost Trends: Price & Utilization

## State and Market Level Data in Oregon, 2013-2019

November 2022

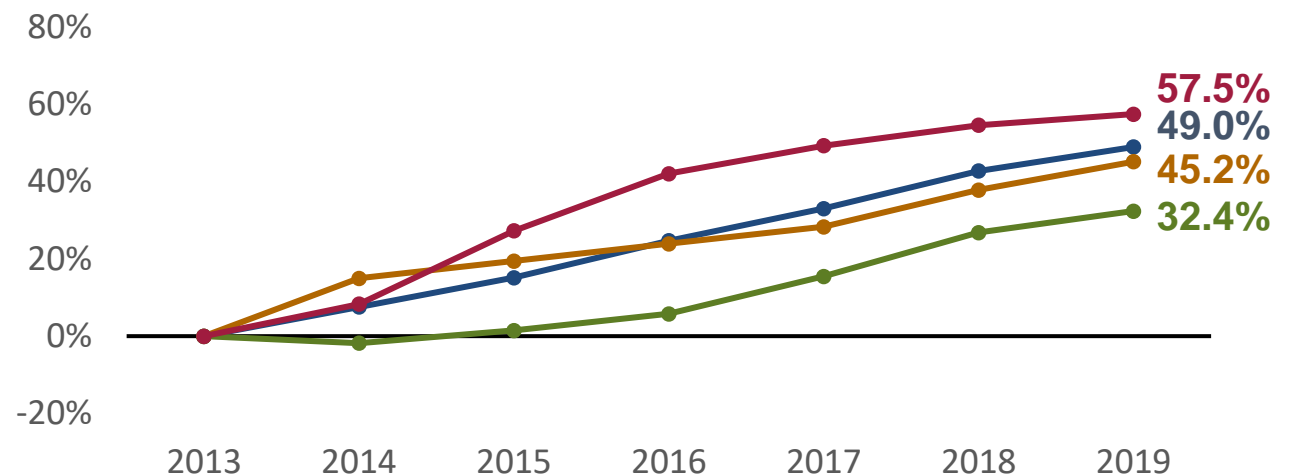


# Introduction

# Statewide per person health care costs in Oregon grew 49% from 2013 to 2019

From 2013 to 2019, per person costs in **Medicare Advantage** grew the most (57.5%), while **Commercial** and **Medicaid** grew 45.2% and 32.4%, respectively.

Cumulative growth in per person health care costs, by market  
**Statewide** | **Commercial** | **Medicaid** | **Medicare**



In July 2022, Oregon Health Authority used the All Payer All Claims (APAC) database to publish the first [Health Care Cost Trend Report \(2013-2019\)](#), which presented per person health care costs in Oregon for each market – Commercial, Medicaid, and Medicare Advantage.

# What's driving health care cost growth?

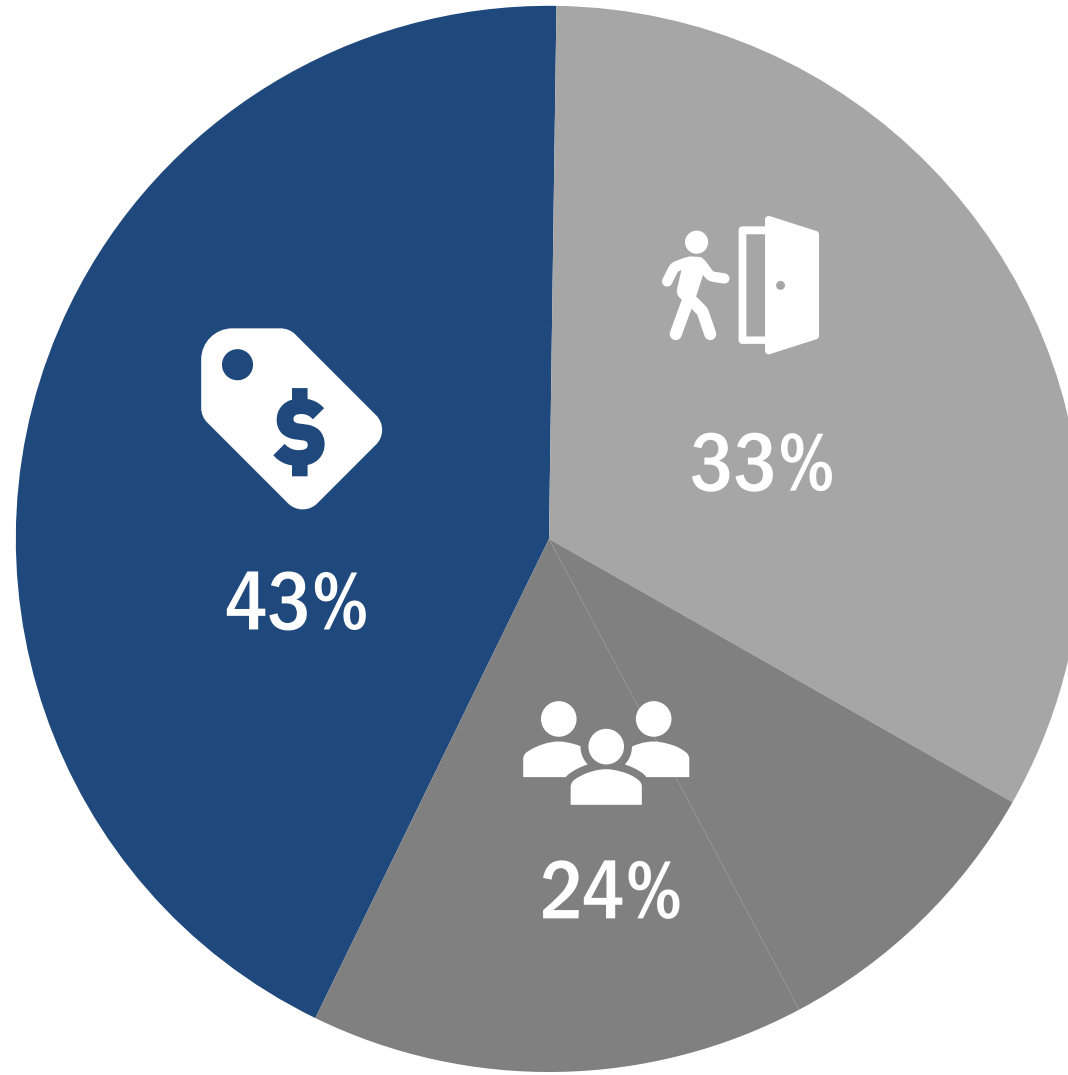


Are costs increasing because the **price** for health care services is going up?



Or are costs increasing because there are more health care services being provided to people (also known as **higher utilization**)?

**Nationally,  
rising prices  
are the  
largest driver  
of health care  
cost growth**



**43% Prices**  
(cost per service)

**33% Utilization**  
(number of services,  
type of services)

**24%**  
**Demographics**  
(aging population,  
population growth)

Source: National Health Expenditure Projections, 2019-2028. *Health Affairs*, 2020.  
Demographics includes both age/sex composition changes and population growth

This Price & Utilization Report uses data from Oregon's All Payer All Claims database to explore what was driving health care cost growth in Oregon between 2013 and 2019:

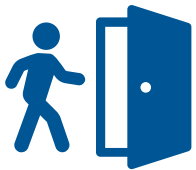
rising prices or more services provided?



# Key Findings



**Price increases** were the primary driver of cost growth in Oregon's **Commercial** health care market. The number of services provided either decreased or stayed approximately the same over time.



However, cost growth in Oregon's **Medicare Advantage** and **Medicaid** health care markets was mostly because the **number of services provided increased**.

Note: The term **Medicare** in this report refers to **Medicare Advantage**

# Note: there are many ways to look at health care costs & this report uses *per service costs*

The previously published Health Care Cost Trend Report (2013-2019) analyzed the growth of *per person* health care costs, which are the total costs divided by the number of people.

This report uses *per service* costs, which are the total cost for each service divided by the number of times people received the service.

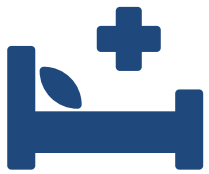
This allows us to separate the effects of the number of services vs the price for the service.

For example:

$$\begin{array}{ccc} \text{Total Costs of} & & \\ \text{hospitalizations for patients} & = & \\ \text{with pneumonia} & & \\ \\ \text{Number of} & \times & \text{Average price per} \\ \text{hospitalizations} & & \text{hospitalization} \\ \text{for patients with} & & \text{due to pneumonia} \\ \text{pneumonia} & & \end{array}$$



# This report presents trends by service categories, or ways to group different types of health care services



## **Inpatient Care**

Hospital-based care after being admitted. Examples include childbirth and complex surgeries. Includes drugs that are administered to patients admitted in a hospital.



## **Outpatient Care**

Services provided in clinic settings; specifically excludes services that are rendered to patients admitted in a hospital.



## **Retail Pharmacy**

Retail drugs obtained at a pharmacy, drug stores, or other location. This category does not include physician-administered medications.



## **Professional Services**

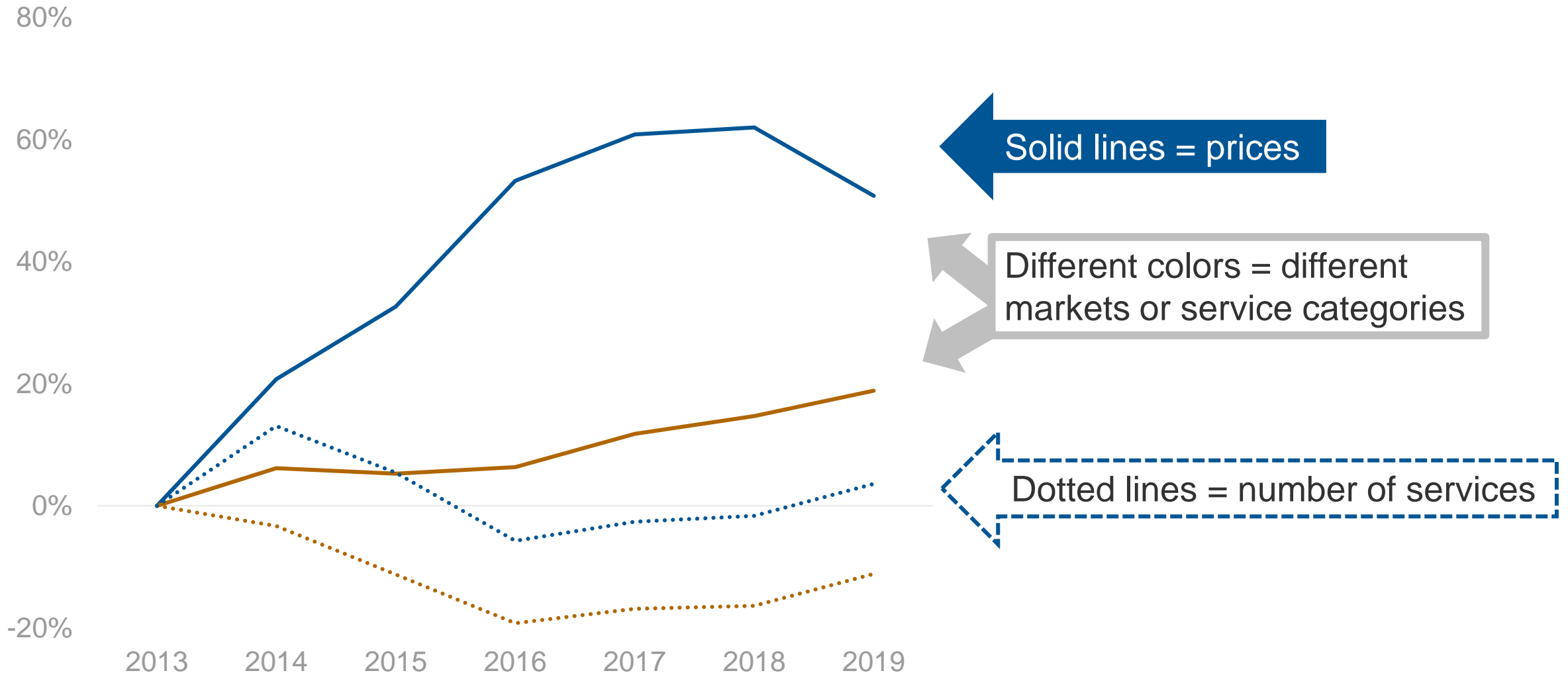
Services provided by independent and hospital-affiliated physicians, nurse practitioners, physician's assistants and more. Includes costs associated with diagnosing and treating patients' medical issues.



## **Emergency Department (ED)**

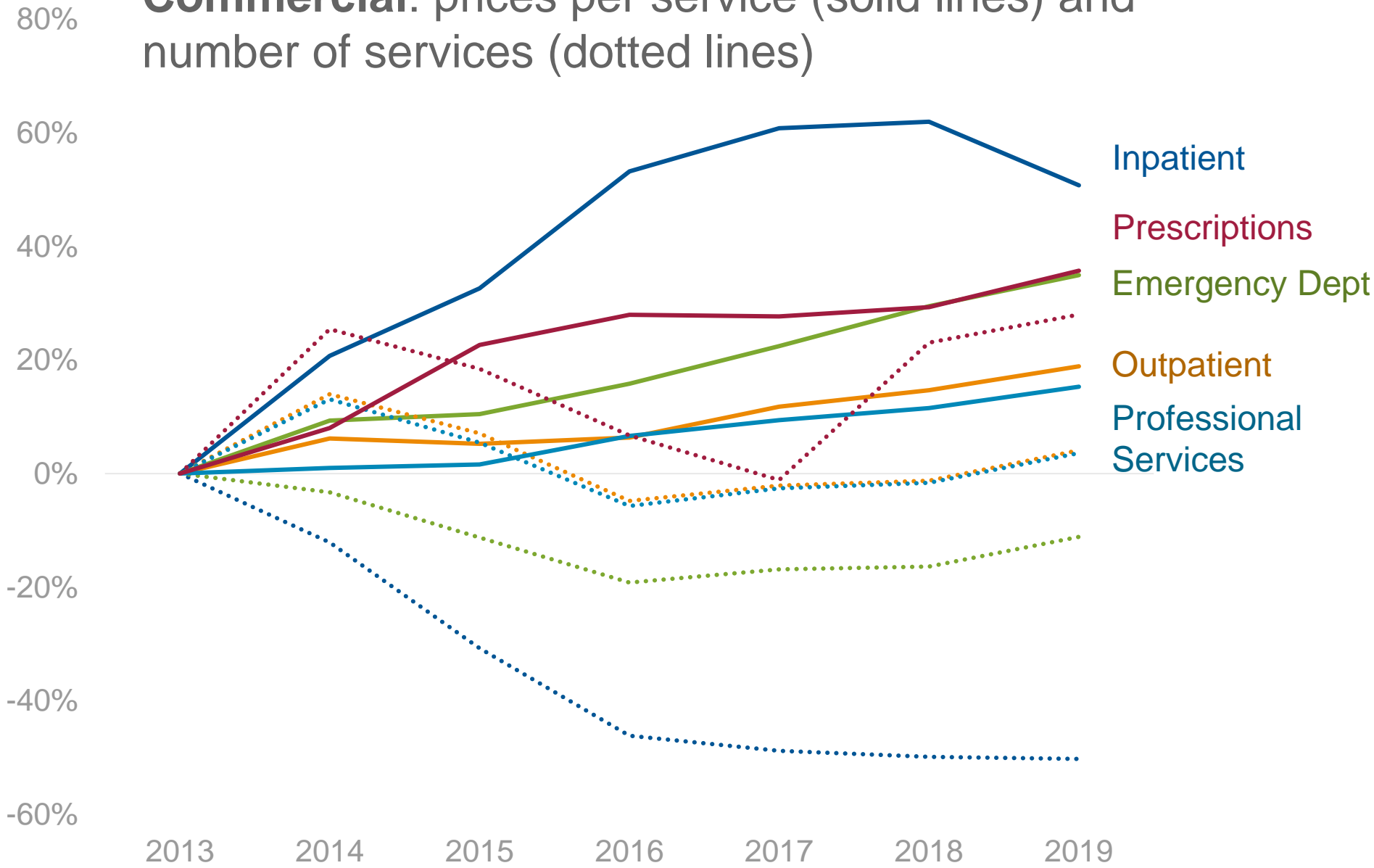
Services provided in emergency departments. For hospital visits that started in the emergency department and resulted in an inpatient stay, costs are reflected in the inpatient care category.

# How to read graphs in this report



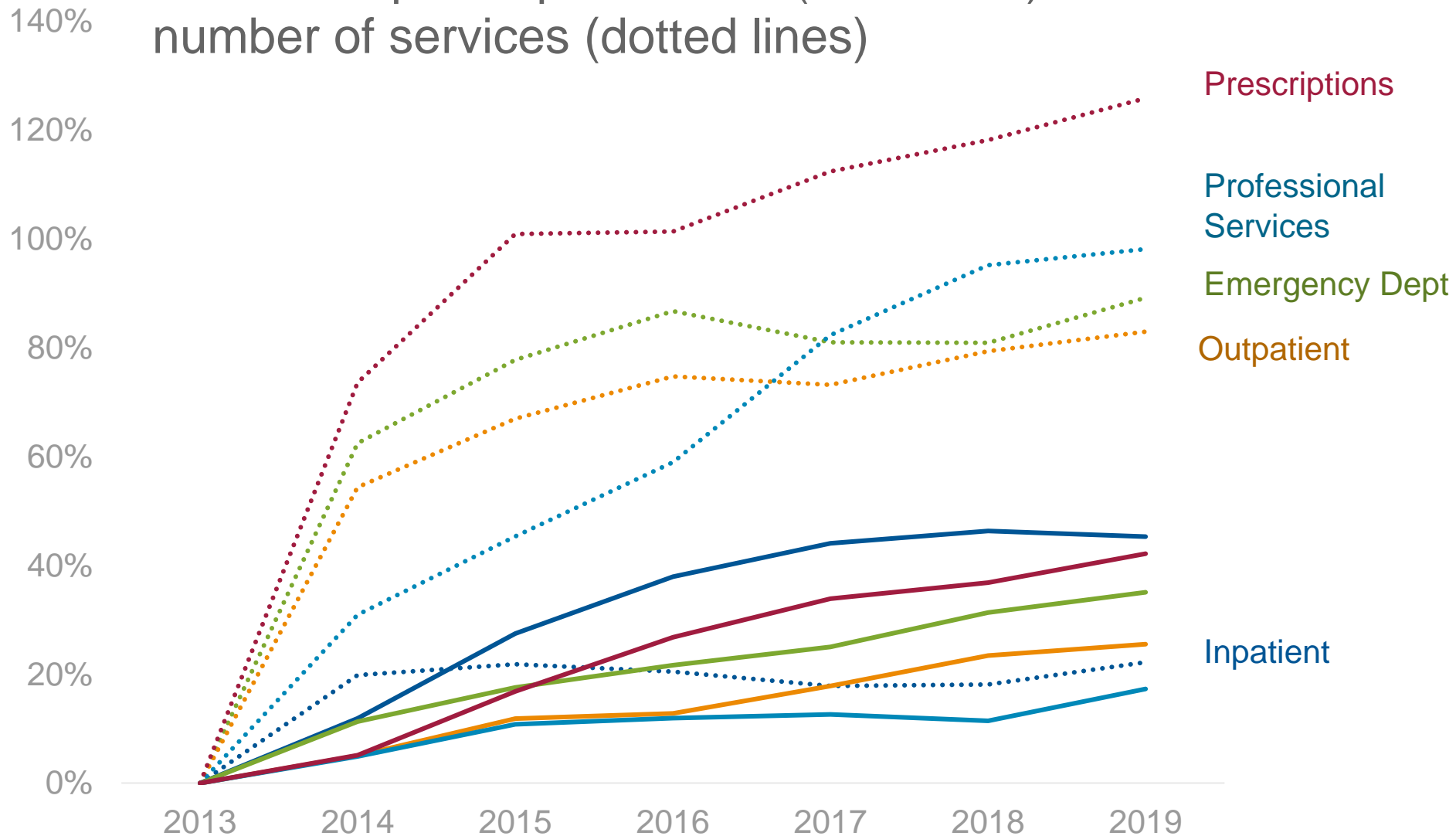
# Health Care Prices and Utilization of Services in Oregon, 2013-2019

# Commercial: prices per service (solid lines) and number of services (dotted lines)



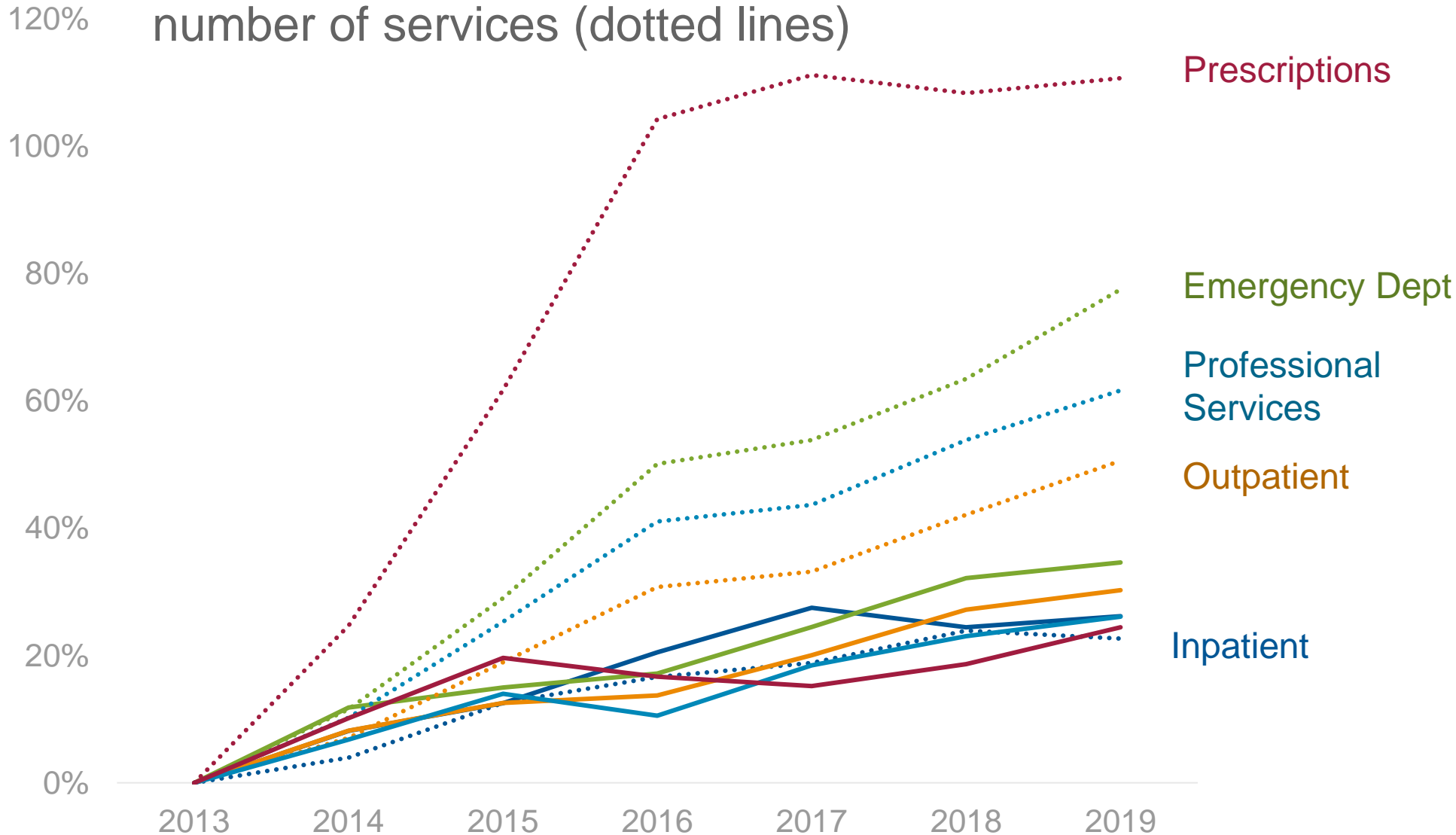
**In the commercial market, health care cost growth was driven by price growth, while the number of services decreased or was flat over time**

# Medicaid: prices per service (solid lines) and number of services (dotted lines)



**In the Medicaid market, health care cost growth was driven by an increase in the number of services; prices per service grew more slowly**

# Medicare: prices per service (solid lines) and number of services (dotted lines)


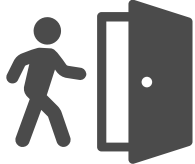







**In the Medicare market, health care cost growth was driven by an increase in the number of services; prices per service grew more slowly**

# Trends by Service Category

Prices & Utilization

# Key Findings for Each Service Category

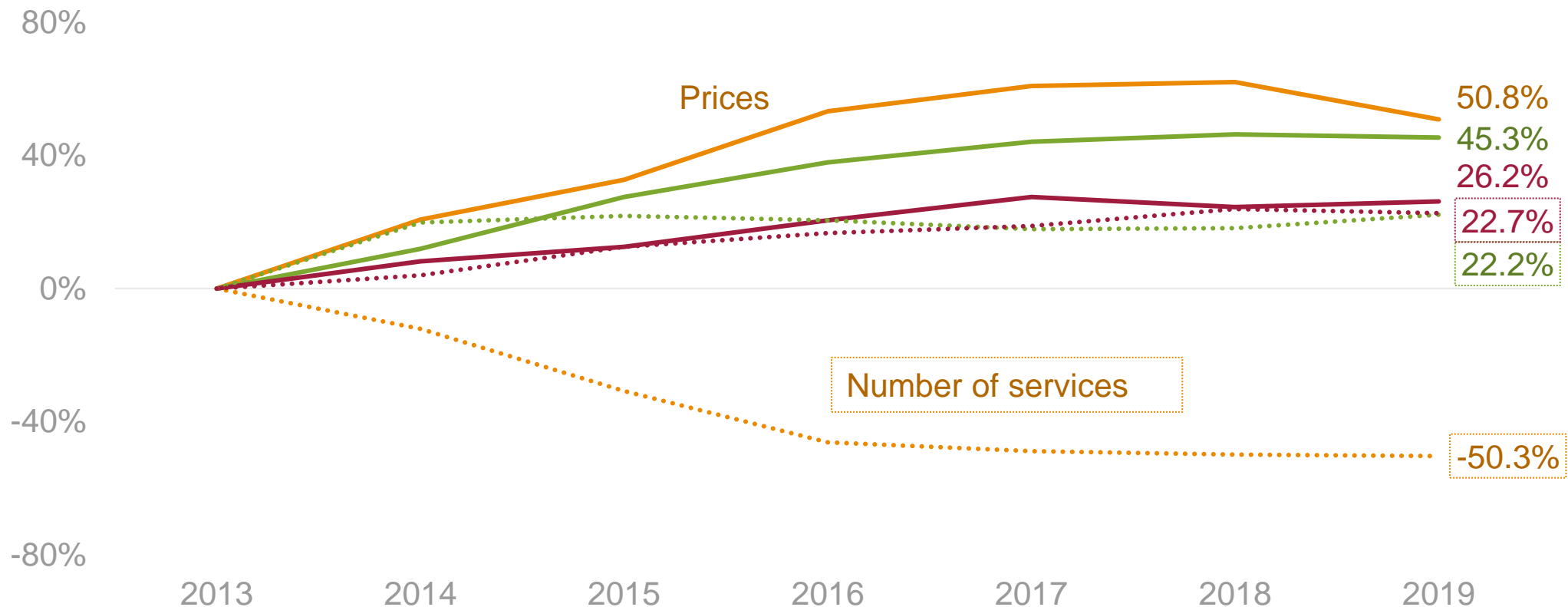
		
	<b>Inpatient</b> prices grew more than utilization for every market. Commercial prices grew the most.	Commercial utilization of inpatient services dropped by 50% while Medicare and Medicaid utilization increased.
	<b>Emergency department</b> prices grew similarly in every market.	Emergency department utilization increased for Medicaid and Medicare but declined for commercial.
	<b>Outpatient</b> prices grew the most for Medicare and the least for commercial.	Outpatient utilization increased for Medicaid and Medicare but remained flat for commercial.
	<b>Professional</b> prices grew the most for Medicare and the least for commercial.	Utilization of professional services increased for Medicaid and Medicare but was flat for commercial.
	<b>Retail prescription</b> prices grew the most for Medicaid and the least for Medicare.	Prescription utilization increased for Medicaid and Medicare, and less so for commercial.



# For inpatient services, prices increased more than the number of services provided in all three markets.

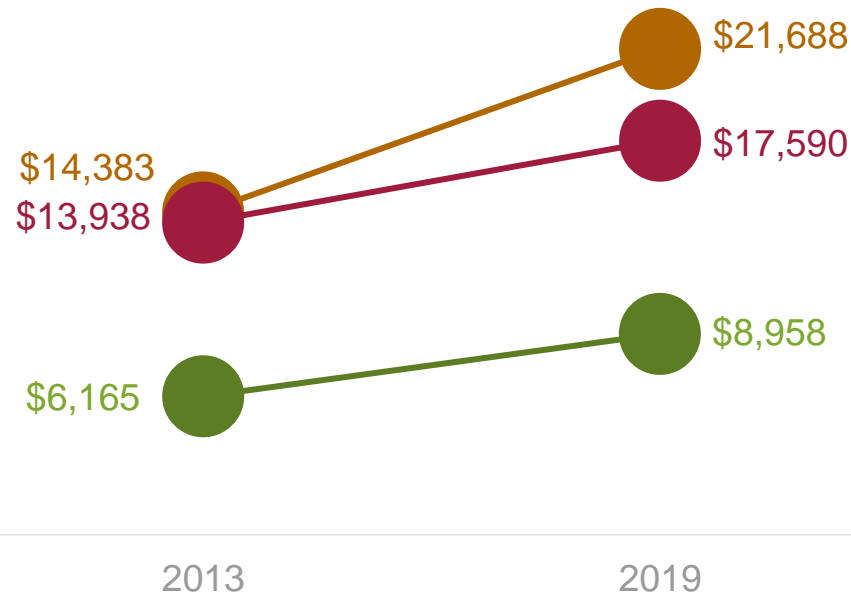


Inpatient prices and services for **commercial**, **Medicaid** and **Medicare**

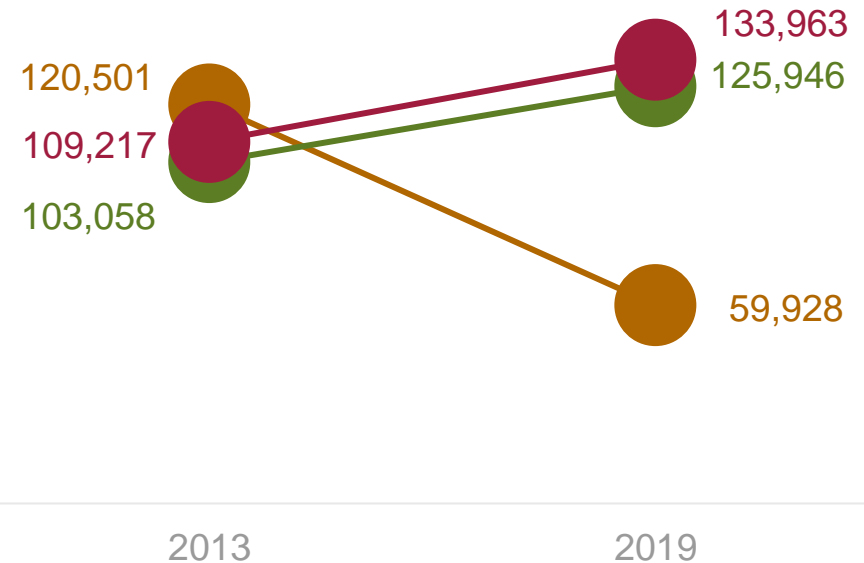


# For inpatient services, **commercial** prices grew the most while the number of services provided grew for **Medicare and Medicaid**.

 Average price per inpatient service



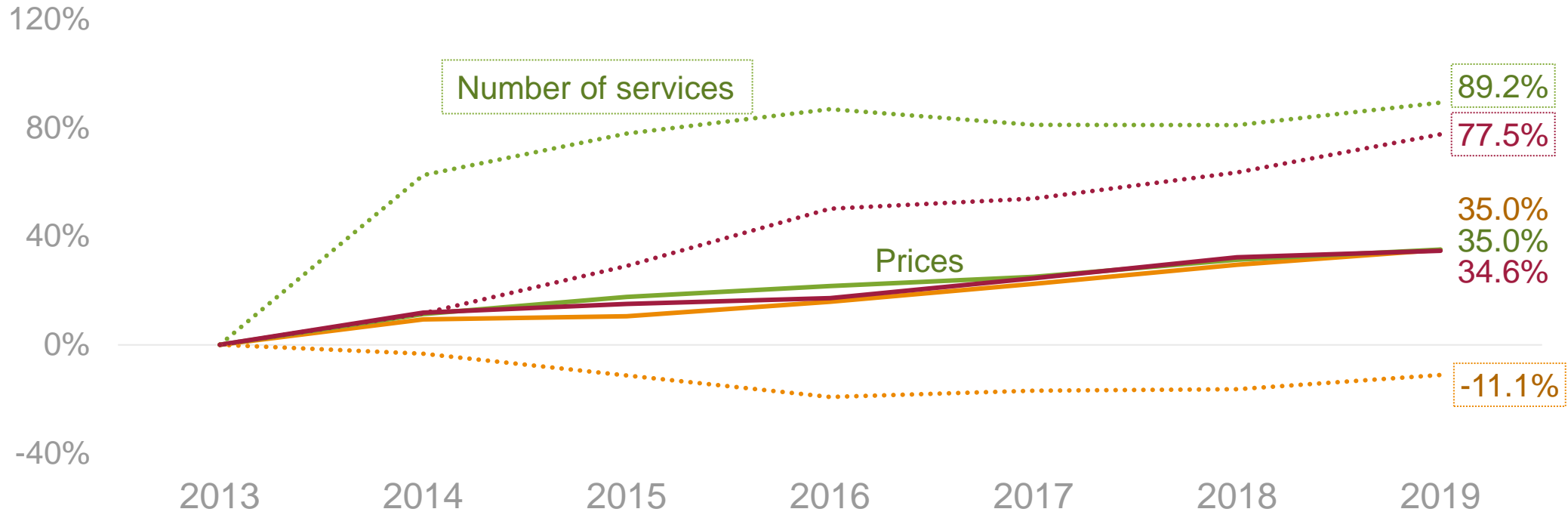
 Number of inpatient services



**For Emergency Department services, price growth was the same for all three markets, yet the number of services provided for commercial dropped while it increased significantly for Medicaid and Medicare.**



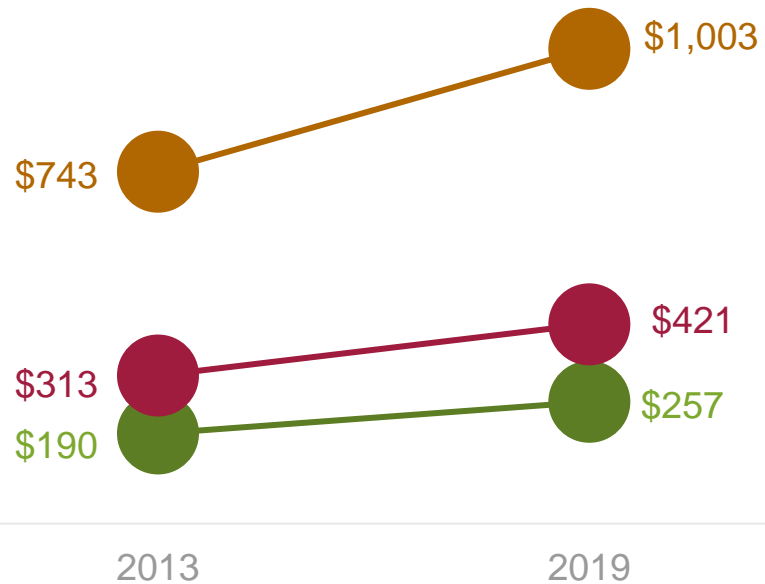
Emergency Department prices and services for **commercial**, **Medicaid** and **Medicare**



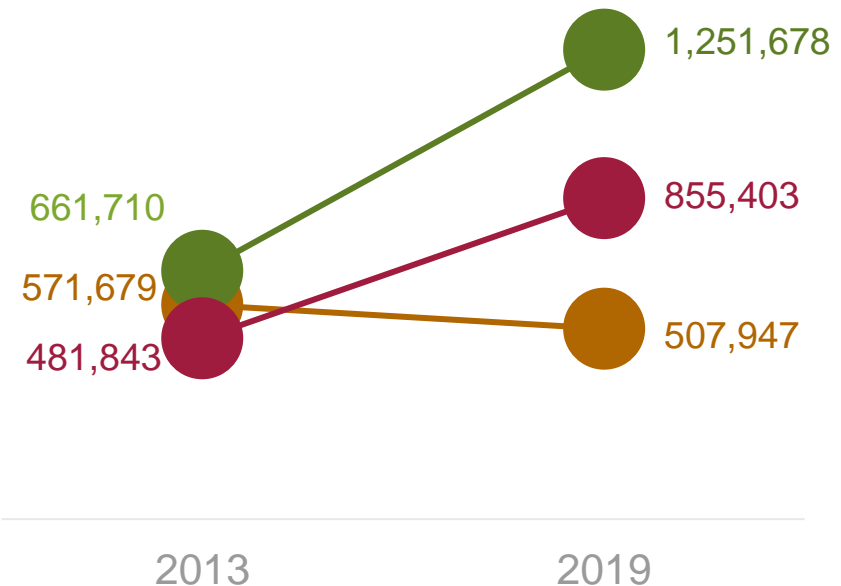
# For Emergency Department services, **commercial** prices grew the most while the number of services provided grew for **Medicaid** and **Medicare**.



Average price per ED service



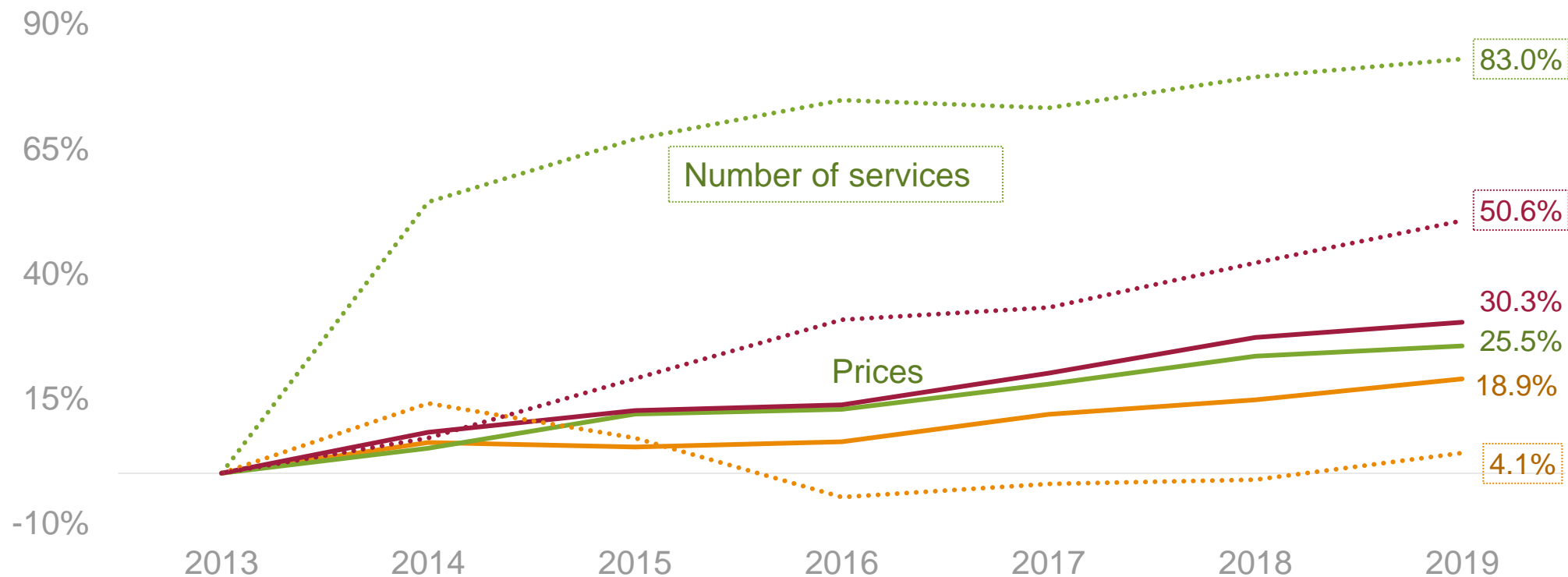
Number of ED services provided



**For outpatient services, the number of Medicaid services provided grew significantly, while commercial services provided remained flat. Medicare price growth was the highest.**



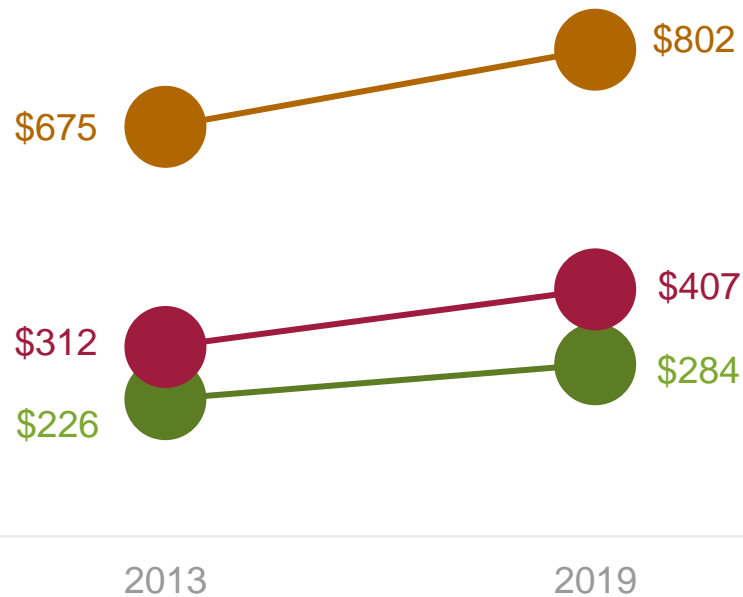
Outpatient prices and services for **commercial**, **Medicaid** and **Medicare**



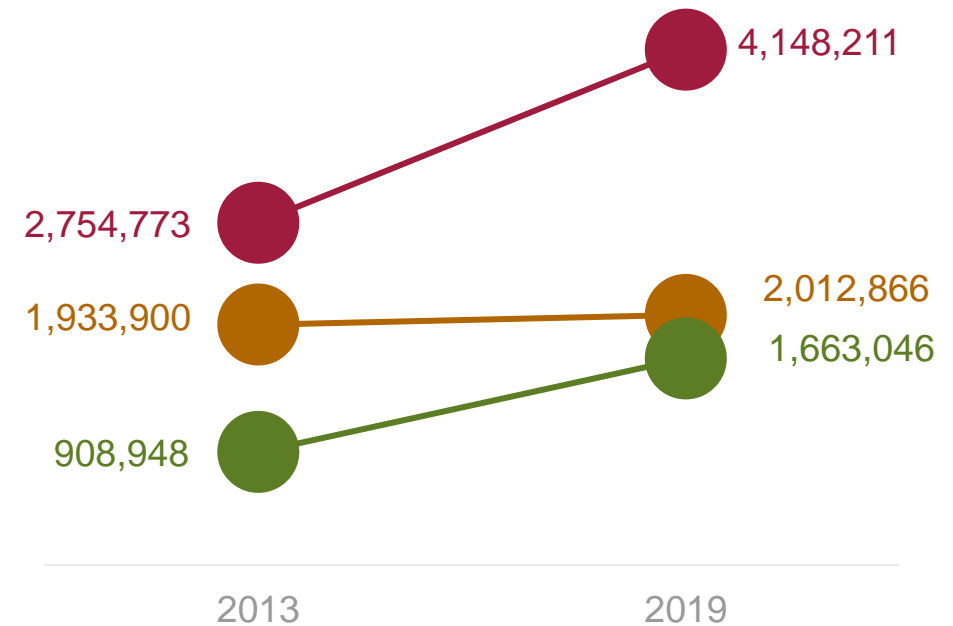
# For outpatient services, **commercial** prices grew the most while **Medicare** and **Medicaid** saw more growth in the number of services provided.



Average price per outpatient service



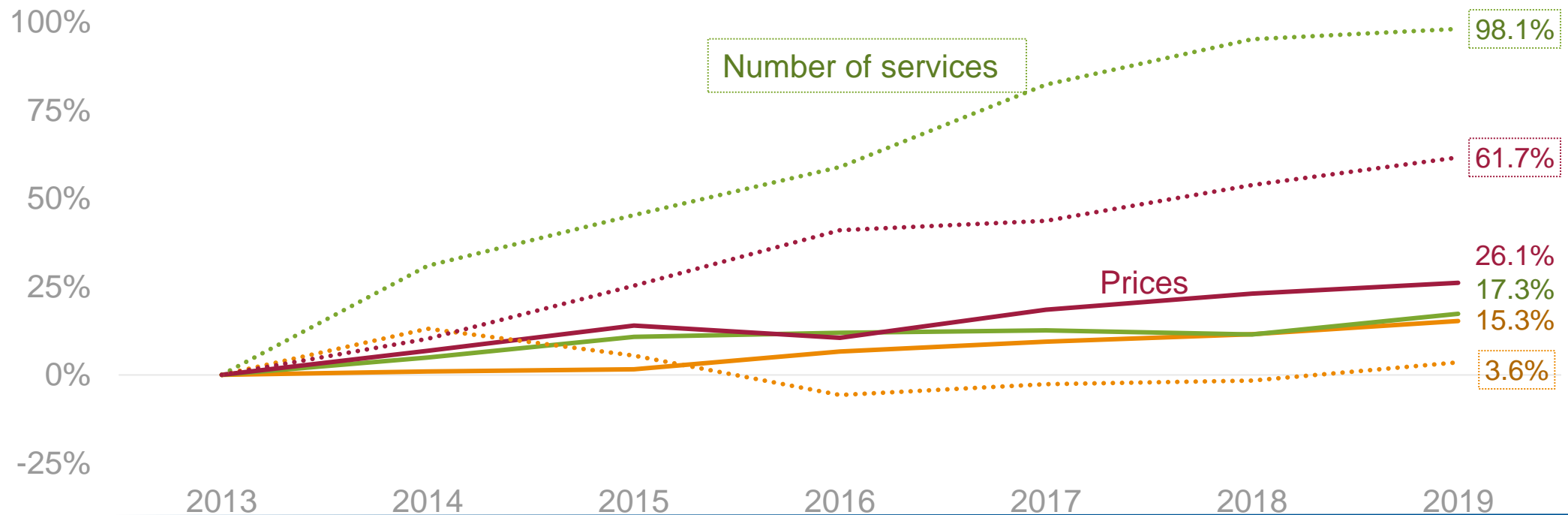
Number of outpatient services provided



**For professional services, the number of services provided grew significantly for Medicaid, followed by Medicare. Medicare's prices grew the most, while prices for Medicaid and commercial had similar growth.**

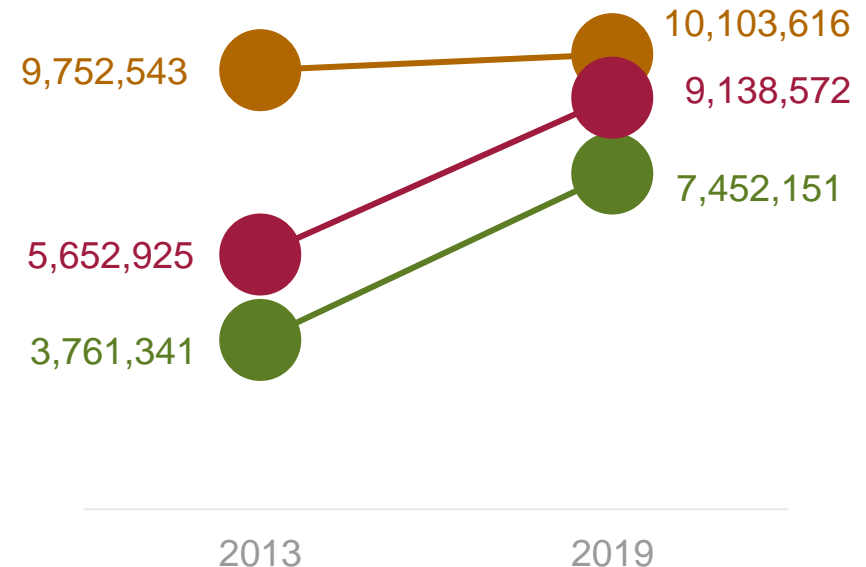
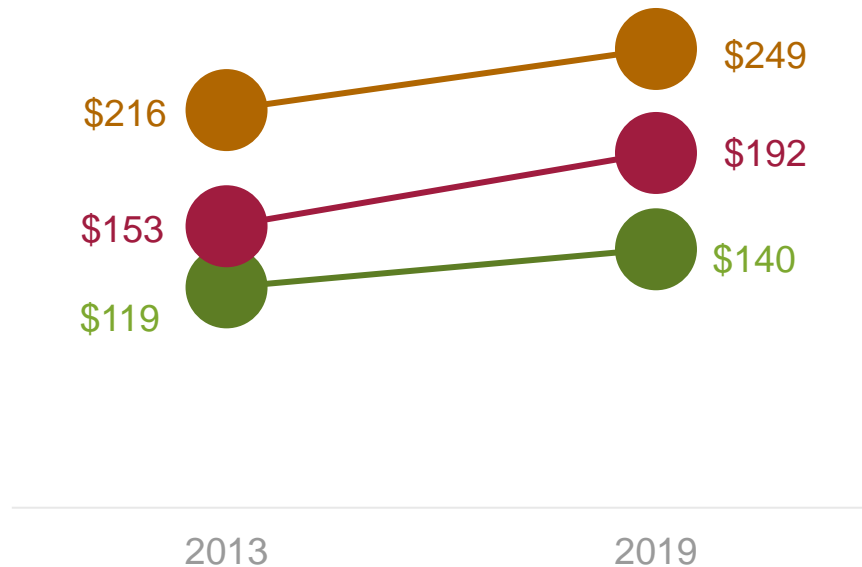


Professional services prices and services provided for **commercial**, **Medicaid** and **Medicare**



For professional services, prices grew similarly in all three markets, but the number of services provided grew the most for **Medicare**. **Medicaid** services grew the second most and **commercial** services were flat.

 Average price per professional service       Number of professional services provided

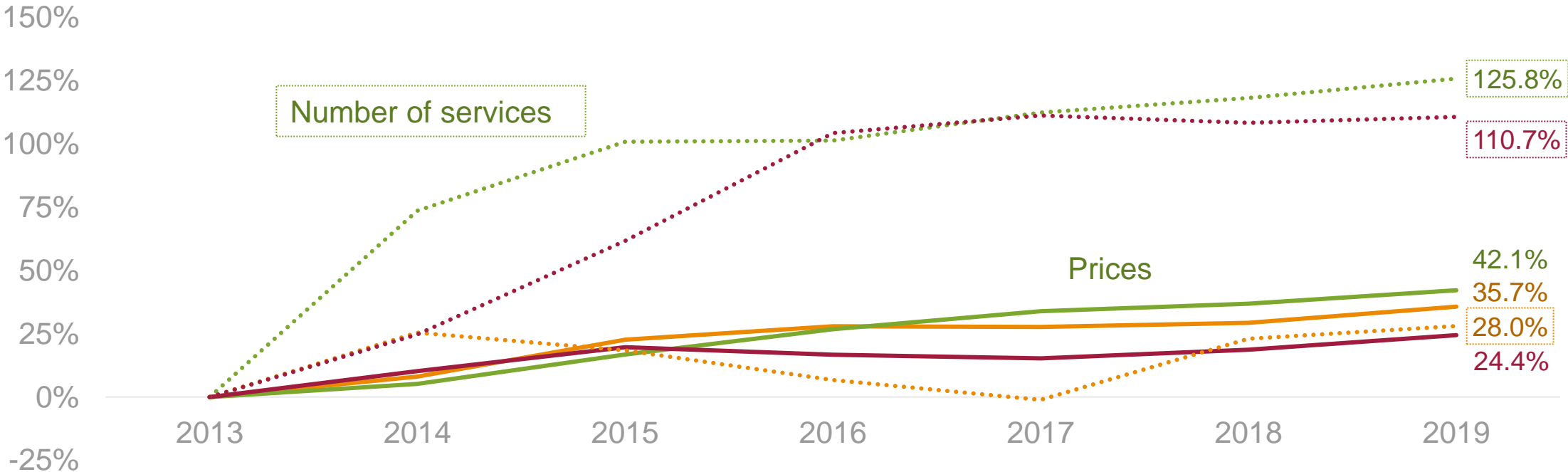




# The number of retail prescriptions provided grew significantly for Medicaid and Medicare. Prices for prescriptions grew the most for Medicaid, followed by commercial.



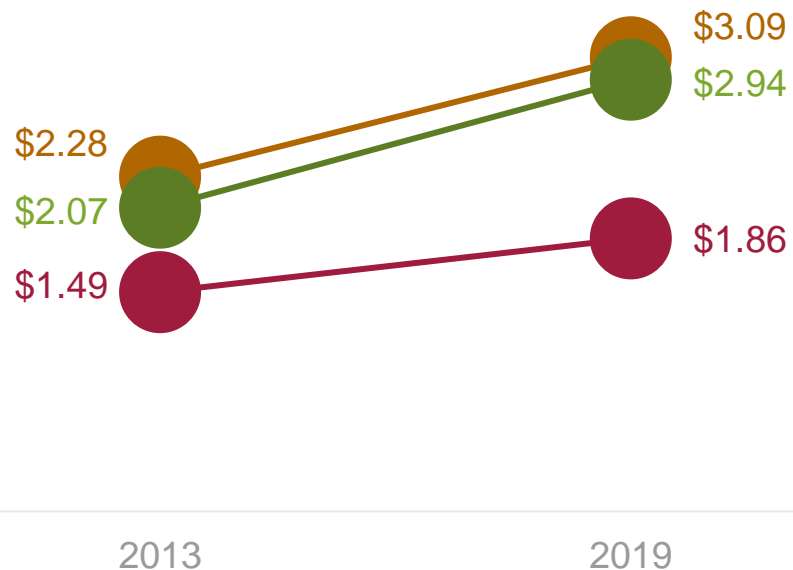
Prescription prices and services provided for **commercial**, **Medicaid** and **Medicare**



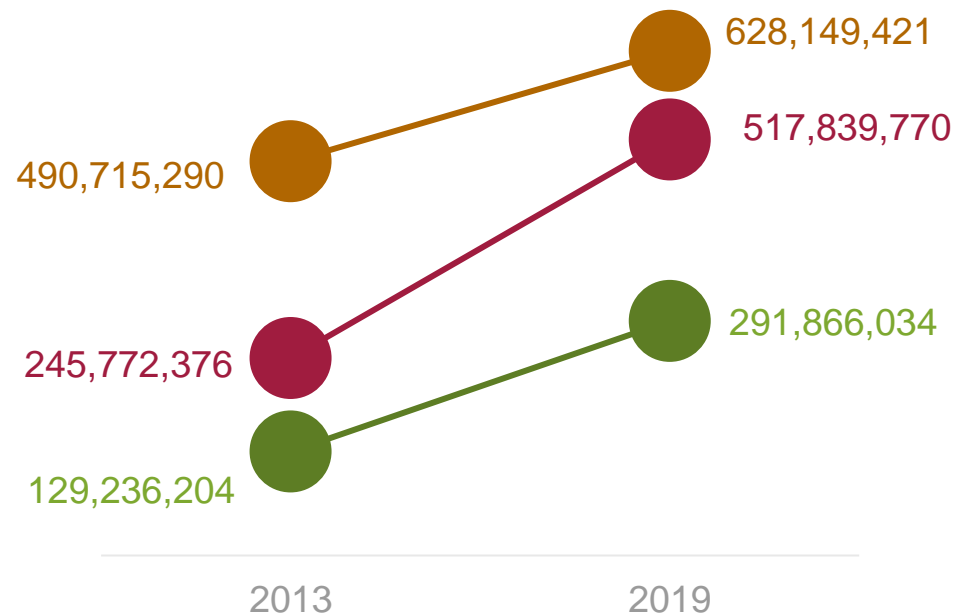
# Prices for retail prescriptions grew similarly for **commercial** and **Medicaid**, while the number of prescriptions increased the most for **Medicare**.



Average price per prescription (daily supply)





Number of prescriptions provided (daily supply)



# Methodology

# Data Source

OHA uses different data sources for cost growth and cost driver analysis. This price and utilization analysis uses Oregon's All Payer All Claims data.

Data	Purpose
<p>Oregon's APAC database</p> 	<p>Analyses of cost drivers and cost trend drivers; analyses that can support cost growth reductions and quality improvement</p>
<p>Payer-submitted Cost Growth Target data files</p> 	<p>Calculating total health care expenditures and total medical expenditures for comparison against the cost growth target</p>

# About APAC

Data used in this report are from Oregon's All Payer All Claims (APAC) database and represent claims-based and enrollment/eligibility data. The APAC database contains medical and pharmacy claims, demographic data, monthly eligibility data, billed premium data and provider data reported by commercial insurers, Medicaid, and Medicare. These data represent 5,891,642 people total or 3.4 to 3.9 million people annually, compared with the current state population of approximately 4.3 million people. About 1 percent of the people in APAC do not reside in Oregon but are included because they were insured by the Oregon Public Employee or Educator Benefit Board (PEBB or OEBB).

For 2018, APAC contains data representing 92 percent of Oregon residents. Those not in APAC are uninsured or covered by federal employee health benefit plans, Department of Defense, Indian Health Service, Tricare or Veterans Affairs, self-insured plans not reporting to APAC, commercial insurers or third-party administrators with fewer than 5,000 Oregon lives, departments of correction, or the Oregon State Hospital. APAC also excludes other lines of business such as workers compensation and long-term care.

APAC receives medical claims, dental claims, pharmacy claims, payment amounts, member demographics, billed premiums, and provider information. Data are received from insurance companies, third party administrators, and pharmacy benefits managers identified as mandatory reporters.

For more information about Oregon's APAC program, visit <https://www.oregon.gov/oha/HPA/ANALYTICS/Pages/All-Payer-All-Claims.aspx>.

# Calculating Prices & Utilization

OHA calculated price trends by first categorizing all services into service categories and then summing all paid amounts for a given year and dividing by the total number of times those services were provided to patients. The result was the average mean paid amount for that year.

For utilization trends, OHA used the number of times the services in a service category were rendered to patients that year.

- Pharmacy utilization was calculated as days supply to account for prescriptions that are higher or lower dosage.
- Inpatient utilization was calculated by the number of discharges.

# Exclusions

Two service categories were excluded from this analysis:

- **Medical in Pharmacy**, which reflects medical visits provided in a pharmacy setting such as a pharmacist engaging with a patient seeking birth control. This category was excluded because it was very small and does not fit neatly in either the pharmacy category or the professional services category.
- **Other Services**, which includes all services not already included in any other service category. Other services include ambulance rides, laboratory tests, and more. The Other Services category was excluded because it was very small and consists of many different types of services.

Individuals who were covered by both Medicare and Medicaid, known as dual eligible, were excluded from this report because some services are paid for by Medicare and other services are paid for by Medicaid.

# Defining Service Categories (1)

The service categories were defined by place of service, bill type and revenue codes. All spending was categorized as inpatient, emergency department, outpatient, professional service, and pharmacy. Then, any remaining costs were considered as other. These categories are mutually exclusive and exhaustive.

First, we identified **inpatient** claims by using the bill type (or type of service). All claims that had a facility value of hospital and a value for inpatient (including Medicare Part A and Medicare Part B), hospital intermediate care, as well as specialty facilities like hospital-based hospice were included. Inpatient was also defined using hospital revenue codes such as those associated with all-inclusive rates for room and board, private room, semi-private room, private deluxe room, room and board in the ward, other room and board, and nursery. Inpatient was also defined by place of service such as inpatient hospital, inpatient psychiatric facility, partial hospitalization in psychiatric facility, inpatient critical access hospital, residential substance abuse treatment facility, psychiatric residential treatment facility, and comprehensive inpatient rehabilitation facility.

Any claims that contain values indicating inpatient services were classified as inpatient, regardless of any other services (such as emergency room) on the same claim; claims were not split.



# Defining Service Categories (2)

**Emergency department** was defined by place of service of emergency department or when the revenue code equals emergency department. Claims that originated in the emergency department but resulted in an inpatient stay are classified as inpatient. Emergency department professional fees are captured in this category and not in the professional services category.

**Outpatient services** were defined by the bill type (or type of service) for claims that were outpatient, clinic-setting, home health, hospital referenced diagnostic service or home health that was not under a plan of treatment. Outpatient services were also defined by place of service as outpatient hospital.

**Professional services** were defined by place of service as school, office, walk-in retail clinic, urgent care, ambulatory surgical center, independent clinic, Federally Qualified Health Center, Community Mental Health Center, non-residential substance abuse treatment facility, mass immunization center, comprehensive outpatient rehabilitation facility, end-stage renal disease treatment facility, state or local public health clinic, and rural health clinic. Professional services were also defined when the place of service is home and when the bill type (or type of service) is not inpatient, outpatient, or other.

# Defining Service Categories (3)

**Pharmacy** was defined by place of service of pharmacy or claim type of pharmacy. Notably, this category includes only retail pharmacy. Physician-administered drugs are not included in this service category; they are captured in the service categories corresponding to the setting where the drugs were administered. Pharmacy costs also do not include rebates because that information is not available in APAC.

**Medical services provided in a pharmacy** were defined as procedure codes in a pharmacy place of service. These costs were separated from pharmacy spending.

The category titled **other**, which was not presented in this report, was defined by all the remaining claims left over after categorizing claims in the other groups. These claims include ambulance services, independent laboratories, and other miscellaneous services.

# Data Tables



# Data Tables – Average Prices Per Service

<b>Inpatient Price</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Commercial	\$14,382.87	\$17,364.84	\$19,076.21	\$22,039.78	\$23,132.88	\$23,297.57	\$21,687.87
Medicaid	\$6,164.71	\$6,899.32	\$7,860.10	\$8,501.79	\$8,881.72	\$9,019.97	\$8,957.87
Medicare	\$13,937.96	\$15,078.13	\$15,684.57	\$16,793.66	\$17,769.74	\$17,345.59	\$17,590.02
<b>Emergency Dept Price</b>							
Commercial	\$743.47	\$812.98	\$821.39	\$861.01	\$910.44	\$962.65	\$1,003.45
Medicaid	\$190.35	\$211.85	\$223.86	\$231.56	\$237.98	\$249.98	\$257.06
Medicare	\$312.81	\$349.80	\$359.73	\$366.59	\$389.38	\$413.46	\$421.13
<b>Outpatient Price</b>							
Commercial	\$674.90	\$716.61	\$710.42	\$717.63	\$754.51	\$774.10	\$802.33
Medicaid	\$226.00	\$237.36	\$252.84	\$254.98	\$266.40	\$278.98	\$283.68
Medicare	\$312.34	\$337.98	\$351.59	\$355.22	\$375.02	\$397.35	\$406.88
<b>Professional Price</b>							
Commercial	\$215.66	\$217.79	\$219.16	\$230.01	\$235.97	\$240.53	\$248.66
Medicaid	\$119.49	\$125.37	\$132.38	\$133.77	\$134.58	\$133.18	\$140.17
Medicare	\$152.60	\$163.00	\$173.97	\$168.69	\$180.77	\$187.77	\$192.43
<b>Pharmacy Price</b>							
Commercial	\$2.28	\$2.46	\$2.79	\$2.91	\$2.91	\$2.94	\$3.09
Medicaid	\$2.07	\$2.17	\$2.41	\$2.62	\$2.77	\$2.83	\$2.94
Medicare	\$1.49	\$1.64	\$1.79	\$1.74	\$1.72	\$1.77	\$1.86



# Data Tables – Cumulative Growth of Prices

	2013	2014	2015	2016	2017	2018	2019
<b>Inpatient Price</b>							
Commercial	0%	20.7%	32.6%	53.2%	60.8%	62.0%	50.8%
Medicaid	0%	11.9%	27.5%	37.9%	44.1%	46.3%	45.3%
Medicare	0%	8.2%	12.5%	20.5%	27.5%	24.4%	26.2%
<b>Emergency Dept Price</b>							
Commercial	0%	9.3%	10.5%	15.8%	22.5%	29.5%	35.0%
Medicaid	0%	11.3%	17.6%	21.6%	25.0%	31.3%	35.0%
Medicare	0%	11.8%	15.0%	17.2%	24.5%	32.2%	34.6%
<b>Outpatient Price</b>							
Commercial	0%	6.2%	5.3%	6.3%	11.8%	14.7%	18.9%
Medicaid	0%	5.0%	11.9%	12.8%	17.9%	23.4%	25.5%
Medicare	0%	8.2%	12.6%	13.7%	20.1%	27.2%	30.3%
<b>Professional Price</b>							
Commercial	0%	1.0%	1.6%	6.7%	9.4%	11.5%	15.3%
Medicaid	0%	4.9%	10.8%	12.0%	12.6%	11.5%	17.3%
Medicare	0%	6.8%	14.0%	10.5%	18.5%	23.1%	26.1%
<b>Prescription Drug Price</b>							
Commercial	0%	8.0%	22.6%	28.0%	27.7%	29.3%	35.7%
Medicaid	0%	5.1%	16.8%	26.8%	33.9%	36.8%	42.1%
Medicare	0%	10.2%	19.7%	16.7%	15.2%	18.6%	24.4%



# Data Tables – Utilization

<b>Inpatient Utilization - # of discharges</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Commercial	120,501	105,891	83,437	64,851	61,681	60,393	59,928
Medicaid	103,058	123,530	125,577	124,158	121,438	121,752	125,946
Medicare	109,217	113,558	122,919	127,416	129,784	135,336	133,963
<b>Emergency Department Utilization - # of claims</b>							
Commercial	571,679	552,863	507,348	461,836	475,273	478,124	507,947
Medicaid	661,710	1,074,873	1,176,201	1,235,419	1,197,657	1,197,007	1,251,678
Medicare	481,843	537,590	621,697	723,315	741,400	787,700	855,403
<b>Outpatient Utilization - # of claims</b>							
Commercial	1,933,900	2,204,755	2,070,490	1,841,182	1,892,880	1,909,478	2,012,866
Medicaid	908,948	1,403,083	1,517,401	1,588,328	1,574,119	1,630,323	1,663,046
Medicare	2,754,773	2,949,384	3,276,486	3,602,202	3,669,363	3,915,235	4,148,211
<b>Professional Utilization - # of claims</b>							
Commercial	9,752,543	11,028,380	10,284,295	9,194,132	9,499,220	9,592,745	10,103,616
Medicaid	3,761,341	4,925,625	5,465,896	5,978,643	6,857,518	7,341,047	7,452,151
Medicare	5,652,925	6,233,016	7,084,942	7,973,789	8,122,712	8,697,962	9,138,572
<b>Pharmacy Utilization - # of days supply</b>							
Commercial	490,715,290	615,465,463	581,243,838	523,621,729	485,121,436	603,811,105	628,149,421
Medicaid	129,236,204	224,324,497	259,594,932	260,192,593	274,472,081	281,958,180	291,866,034
Medicare	245,772,376	306,535,051	397,457,984	502,084,929	519,058,901	512,091,832	517,839,770



# Data Tables – Cumulative Growth of Utilization

<b>Inpatient Utilization - # of discharges</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Commercial	0.0%	-12.1%	-30.8%	-46.2%	-48.8%	-49.9%	-50.3%
Medicaid	0.0%	19.9%	21.9%	20.5%	17.8%	18.1%	22.2%
Medicare	0.0%	4.0%	12.5%	16.7%	18.8%	23.9%	22.7%
<b>Emergency Dept Utilization - # of claims</b>							
Commercial	0.0%	-3.3%	-11.3%	-19.2%	-16.9%	-16.4%	-11.1%
Medicaid	0.0%	62.4%	77.8%	86.7%	81.0%	80.9%	89.2%
Medicare	0.0%	11.6%	29.0%	50.1%	53.9%	63.5%	77.5%
<b>Outpatient Utilization - # of claims</b>							
Commercial	0.0%	14.0%	7.1%	-4.8%	-2.1%	-1.3%	4.1%
Medicaid	0.0%	54.4%	66.9%	74.7%	73.2%	79.4%	83.0%
Medicare	0.0%	7.1%	18.9%	30.8%	33.2%	42.1%	50.6%
<b>Professional Utilization - # of claims</b>							
Commercial	0.0%	13.1%	5.5%	-5.7%	-2.6%	-1.6%	3.6%
Medicaid	0.0%	31.0%	45.3%	58.9%	82.3%	95.2%	98.1%
Medicare	0.0%	10.3%	25.3%	41.1%	43.7%	53.9%	61.7%
<b>Pharmacy Utilization - # of days supply</b>							
Commercial	0.0%	25.4%	18.4%	6.7%	-1.1%	23.0%	28.0%
Medicaid	0.0%	73.6%	100.9%	101.3%	112.4%	118.2%	125.8%
Medicare	0.0%	24.7%	61.7%	104.3%	111.2%	108.4%	110.7%

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Contact the Sustainable Health Care Cost Growth Target Program at 503-385-5948 or email [HealthCare.CostTarget@dhsoha.state.or.us](mailto:HealthCare.CostTarget@dhsoha.state.or.us).

