



FRED HUTCH
Hutchinson Institute for
Cancer Outcomes Research

7TH ANNUAL VALUE IN CANCER CARE SUMMIT 2020

Perspectives on Cancer care in Washington State:
Structural Inequities in Care Delivery and Impact of COVID-19



Andy Hill CARE Fund
Washington's Cancer Research Endowment

Washington State
Health Care Authority



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Cancer Care in the Medicaid Population HICOR Medicaid Supplement 2020

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Washington State Health Care Authority

Washington State's largest health care purchaser

▶ We purchase health care for more than 2.5 million Washington residents through:

- ▶ Apple Health (Medicaid)
- ▶ The Public Employees Benefits Board (PEBB) Program
- ▶ The School Employees Benefits Board (SEBB) Program

**We purchase care for
1 in 3 non-Medicare
Washington residents.**

Our approach to health care purchasing

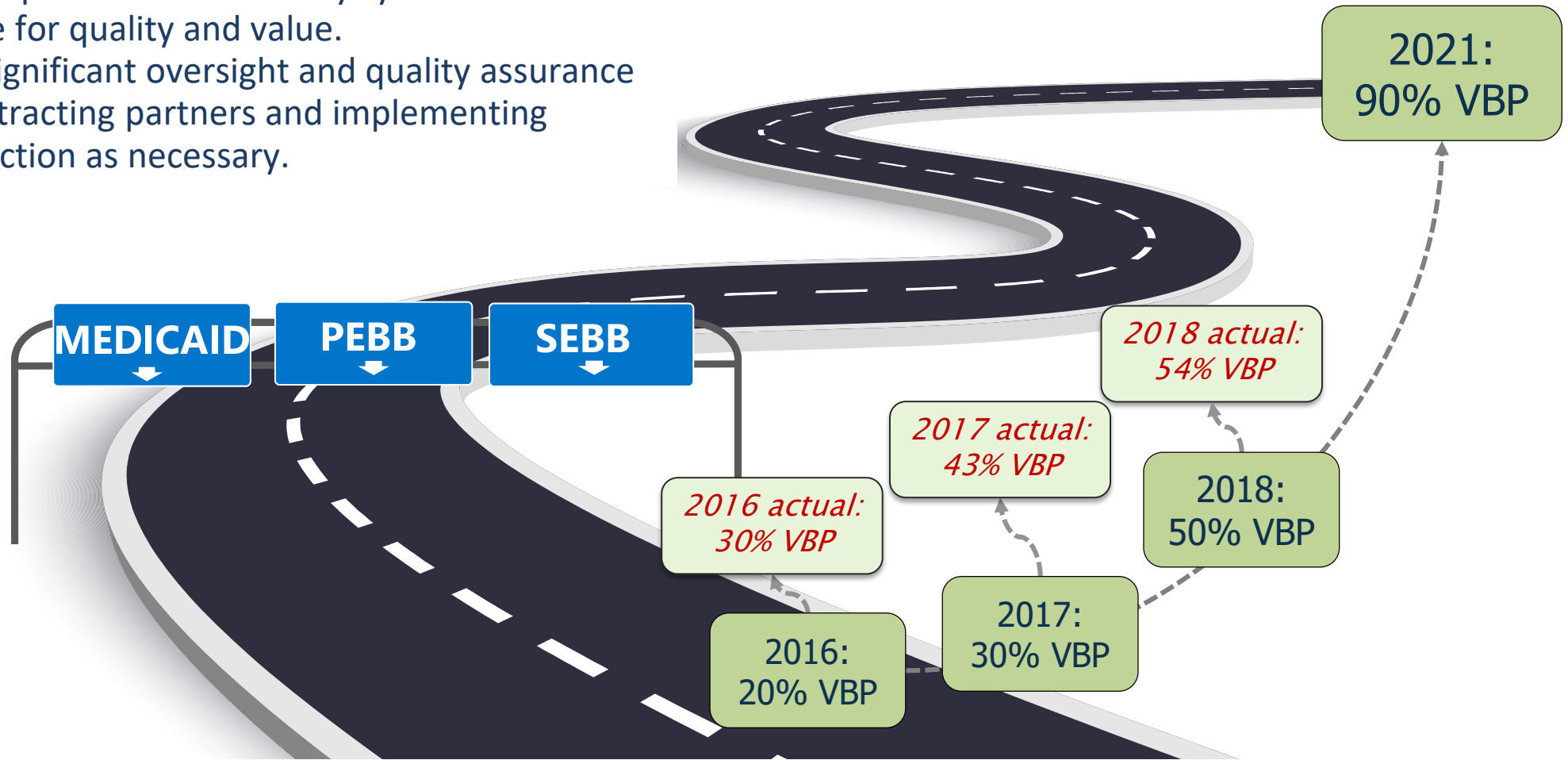
- ▶ **Transforming care:** better health and better care at a lower cost
- ▶ **Whole-person care:** integrating physical and behavioral health services
- ▶ Using **data-informed evidence** to make purchasing decisions



HCA Value-Based Purchasing Roadmap

HCA's vision is to achieve a healthier Washington by:

- Aligning all HCA programs according to a "One-HCA" purchasing philosophy.
- Holding plan partners and delivery system networks accountable for quality and value.
- Exercising significant oversight and quality assurance over its contracting partners and implementing corrective action as necessary.

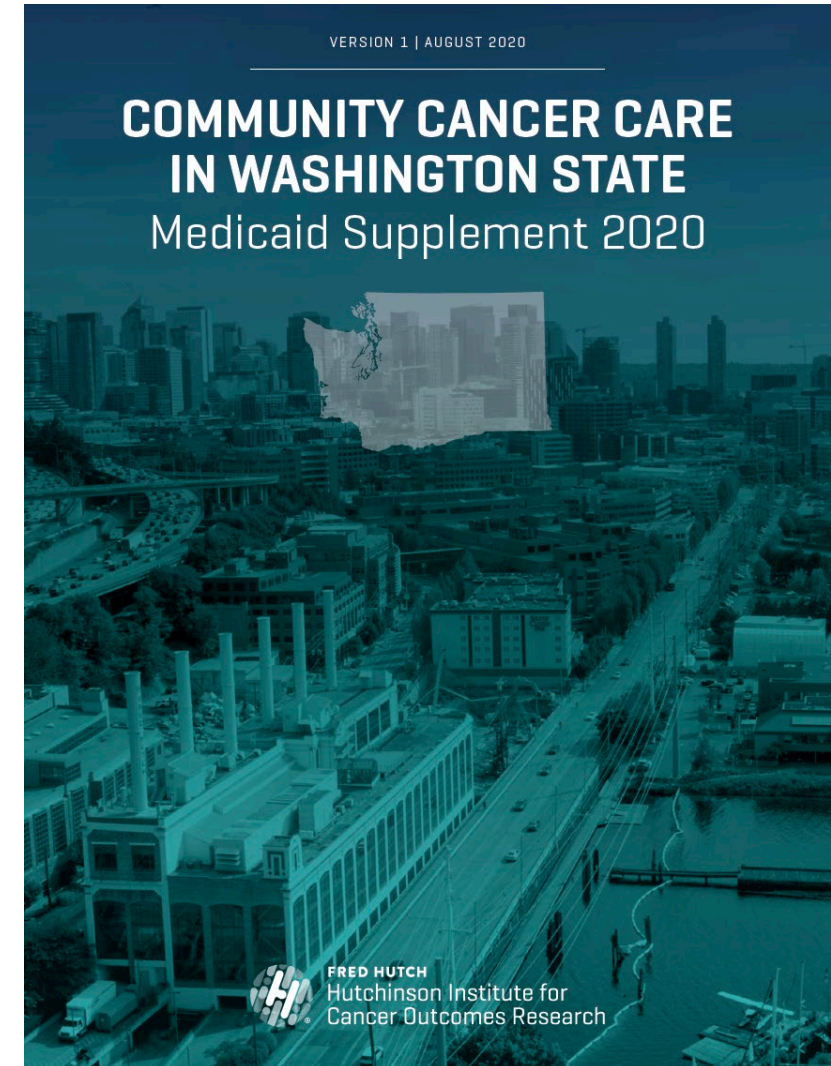


Our approach to clinical quality

- ▶ Goal: **One evidence-informed standard of care** that guides clinical decisions across Apple Health (Medicaid), PEBB, and SEBB.
- ▶ What we do:
 - ▶ Ensure health plans use **science-backed standards** to provide the most effective care
 - ▶ Design **innovative pilot projects** for critical issues like chronic disease management and the opioid crisis
 - ▶ Purchase health care using standardized methods to improve efficiency while **increasing the quality of care**
 - ▶ Measure and improve clinical quality using national and state **measurement systems, evaluation, and analytics**

Medicaid Supplement 2020

- The 2018 and 2019 Community Cancer Care Reports excluded Medicaid patients
- This Supplement compares Medicaid and commercially insured cancer patients
- Results are reported at the state level



What We Know

- Disparities in socioeconomic status (SES) impact stage at cancer diagnosis and survival
- Prior studies suggest differences in care and outcomes in Medicaid versus non-Medicaid cancer patients ^{1, 2, 3}

1. Ellis L, Canchola AJ, Spiegel D, Ladabaum U, Haile R, Gomez SL. Trends in Cancer Survival by Health Insurance Status in California From 1997 to 2014. JAMA Oncol. 2018 Mar 1;4(3):317-323. doi: 10.1001/jamaoncol.2017.3846. PMID: 29192307; PMCID: PMC5885831.

2. Pulte D, Jansen L, Brenner H. Disparities in Colon Cancer Survival by Insurance Type: A Population-Based Analysis. Dis Colon Rectum. 2018 May;61(5):538-546. doi: 10.1097/DCR.0000000000001068. PMID: 29624548.

3. Parikh-Patel A, Morris CR, Kizer KW. Disparities in quality of cancer care: The role of health insurance and population demographics. Medicine (Baltimore). 2017 Dec;96(50):e9125. doi: 10.1097/MD.00000000000009125. PMID: 29390313; PMCID: PMC5815725.

Research Questions

- Are there differences in demographic and clinical characteristics in the Medicaid-insured cancer population?
- Are there differences in care quality (HICOR quality measures) between Medicaid and commercially-insured cancer populations?

Study Population

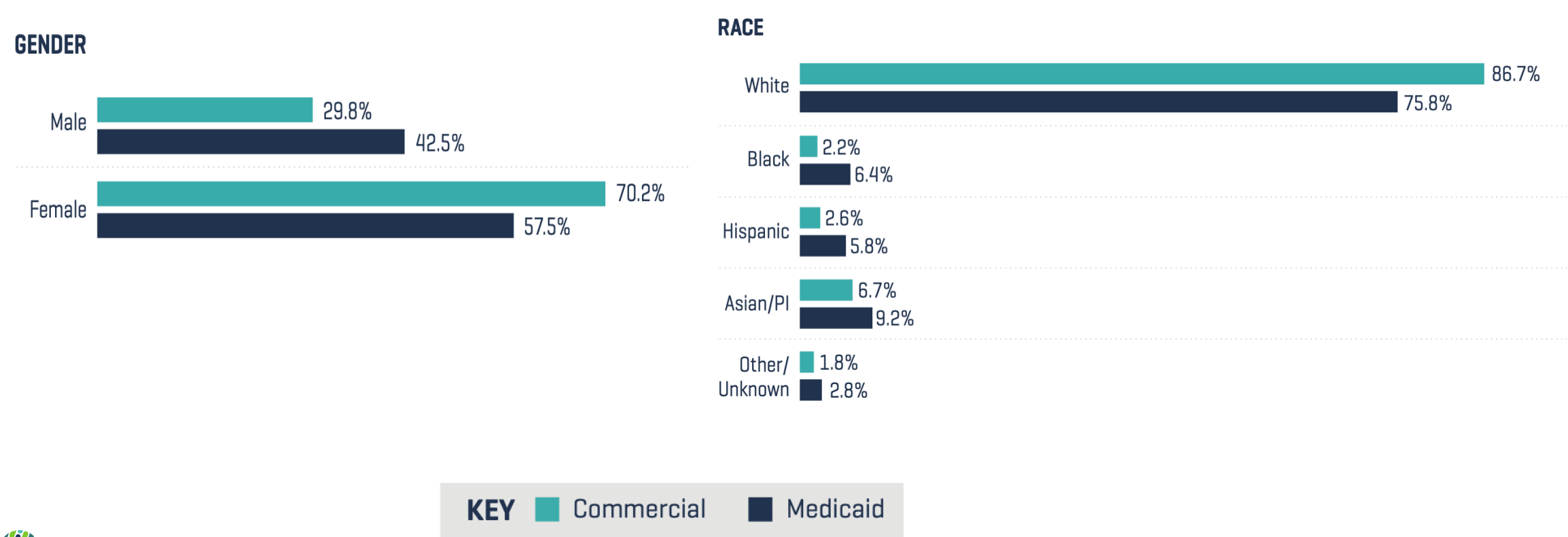
Cohort

- Adults < 65
- Enrolled in either Medicaid or commercial insurance
- Received care between 2015-2017

Quality Measures
1. Recommended Cancer Treatment for breast, lung, and colorectal cancer
2. Hospitalization During Chemotherapy
2a. Emergency department visits
2b. Inpatient stays
3. Follow-up Testing After Cancer Treatment
4. End of Life Care
4a. Chemotherapy
4b. 2+ Emergency Department visits
4c. ICU stays
4d. Hospice

Patient Level Characteristics

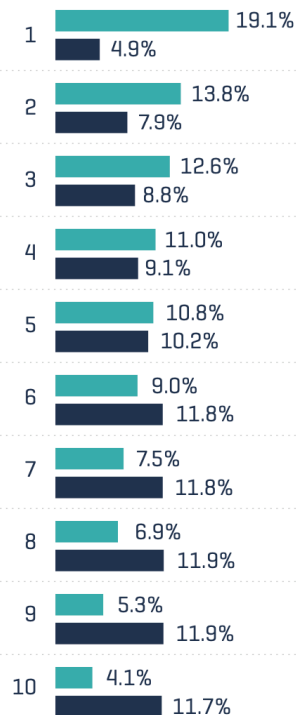
- Compared to commercially insured patients, Medicaid insured patients are more likely to be male and non-white



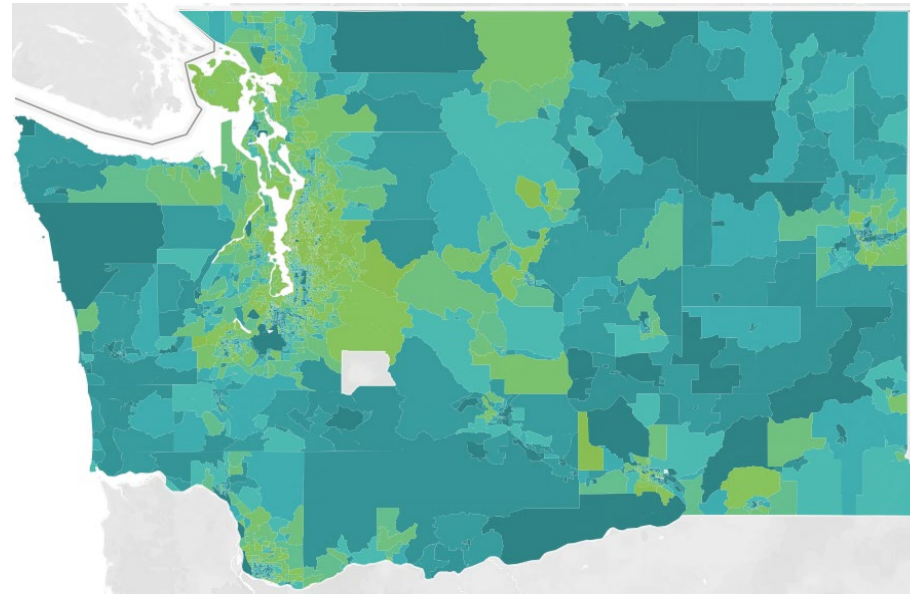
Patient Level Characteristics

- Medicaid insured patients are more likely to live in a more deprived neighborhood, as measured by Area Deprivation Index (ADI)

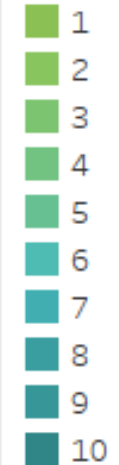
AREA DEPRIVATION INDEX (ADI) 1 - Least deprived 10 - Most deprived



KEY Commercial Medicaid



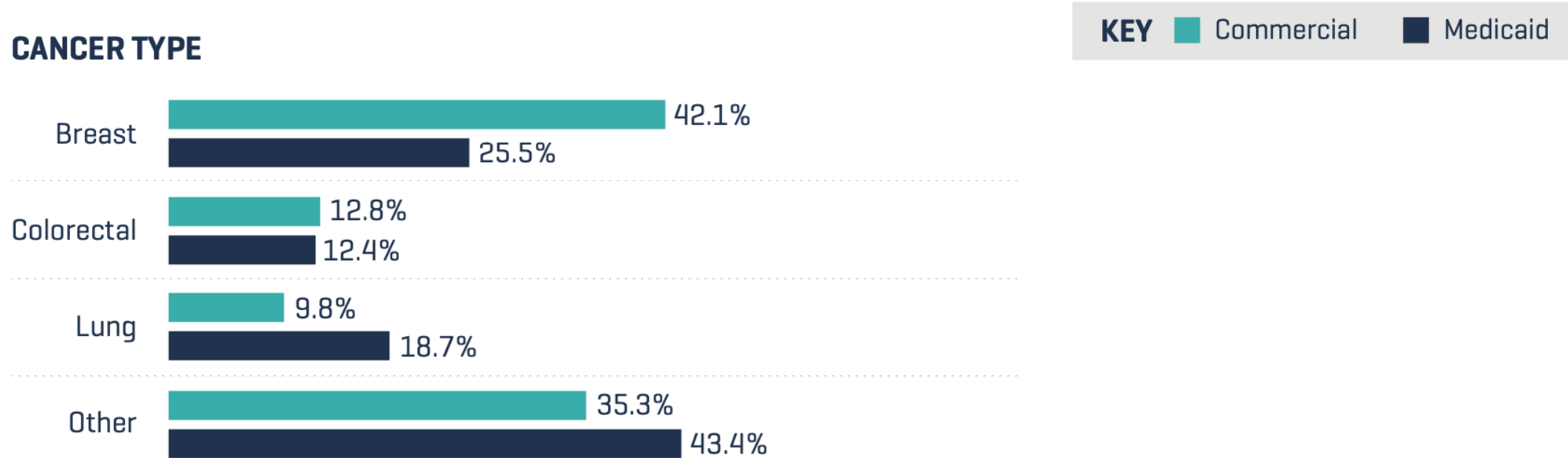
ADI State Rank



Area Deprivation Index (ADI) measures the material deprivation in a person's residence. It includes factors such as income and income disparity, education, employment, and housing costs and quality.

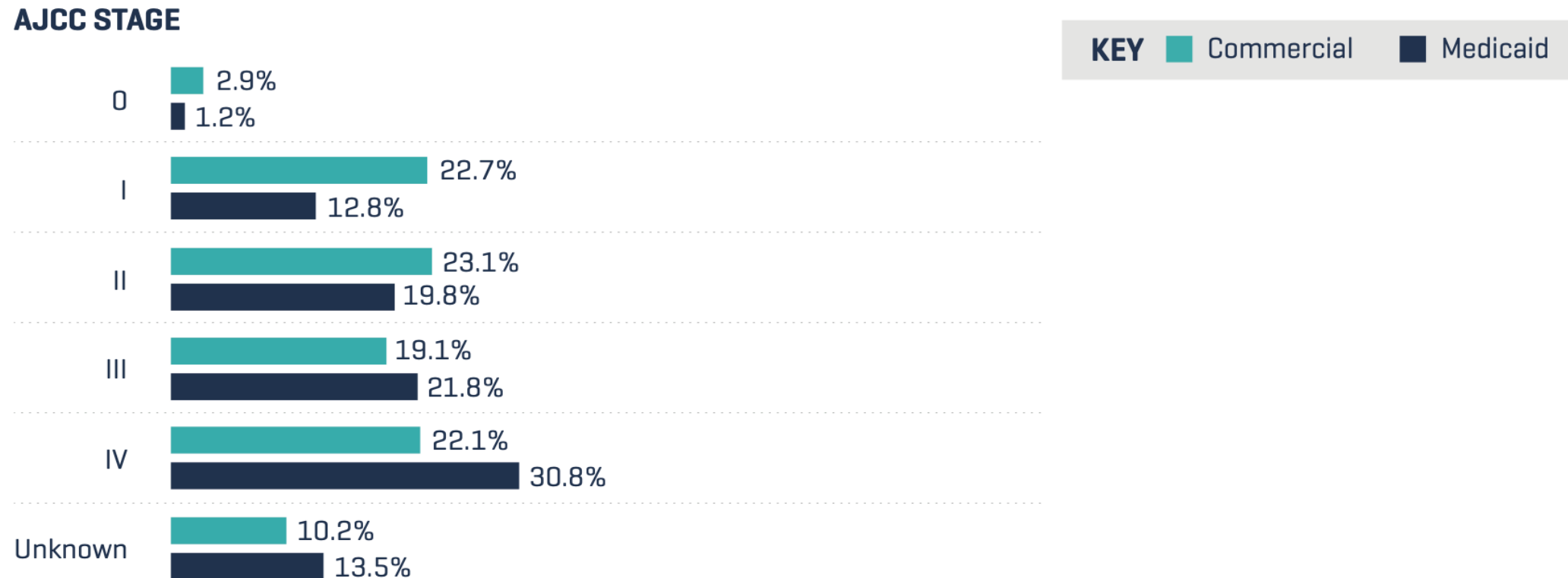
Clinical Characteristics

- Medicaid insured patients had higher proportions of lung cancer and lower proportions of breast cancer than commercially insured patients.

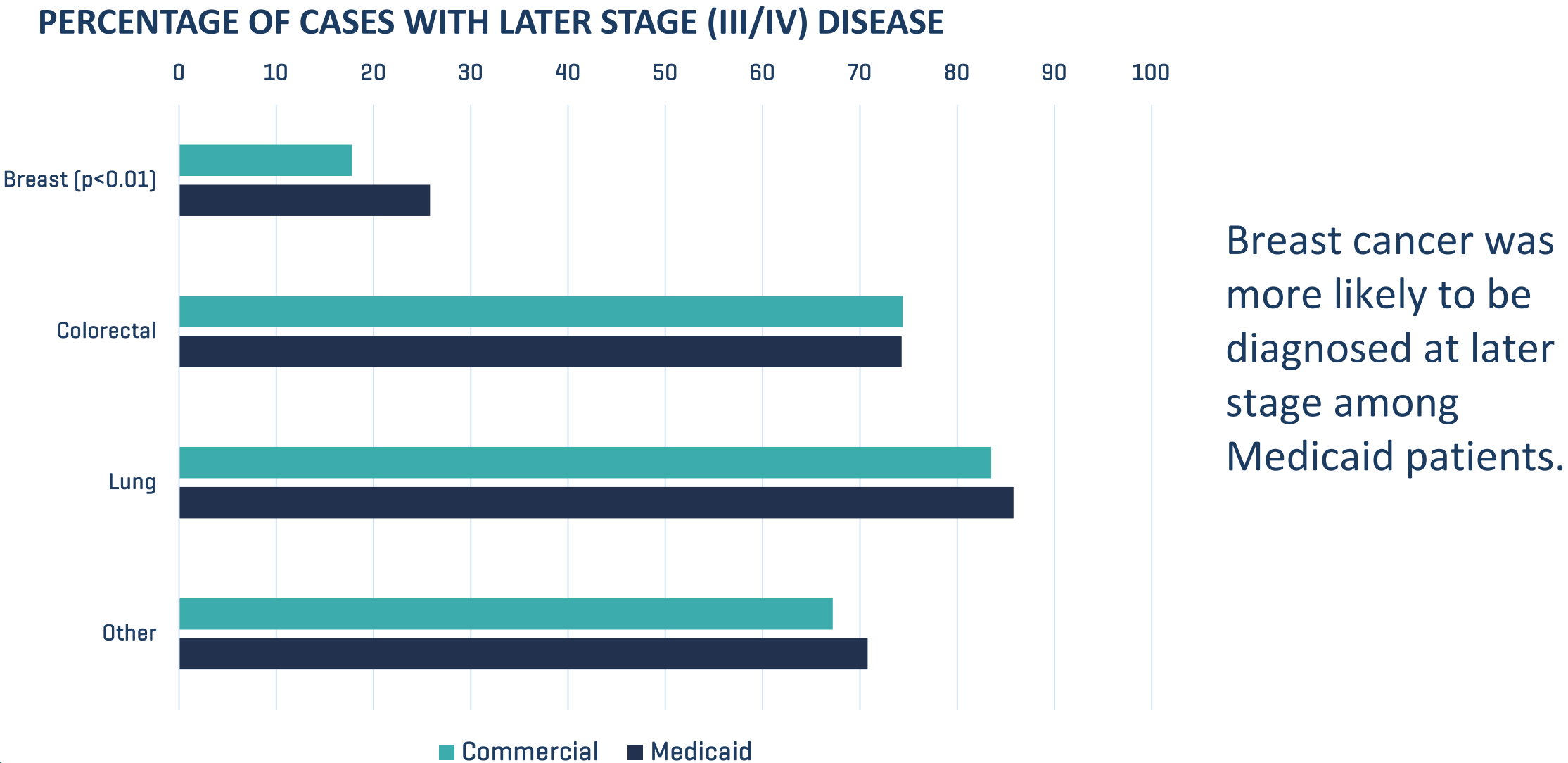


Clinical Characteristics

- Medicaid insured patients are more likely to be diagnosed at a later stage than patients with commercial insurance.



Stage at Diagnosis



Breast Cancer Screening Rates

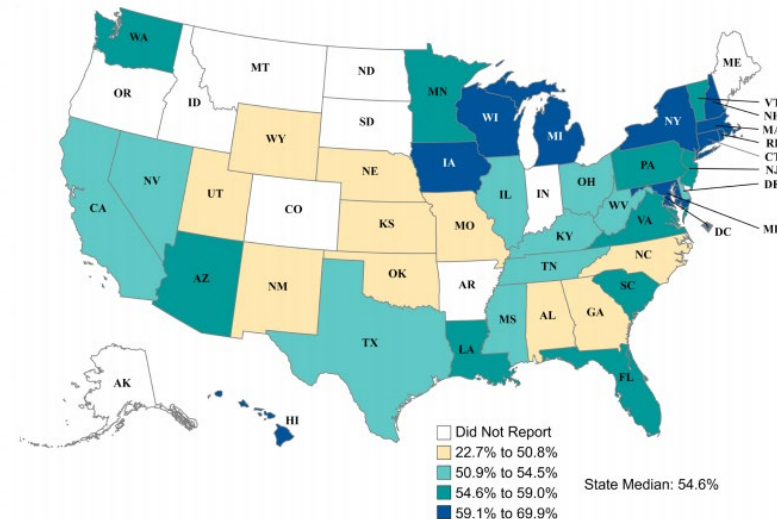
Washington Health Alliance Community Check-up¹

- ▶ **Commercial** state average: **69%**
- ▶ Nat'l 90th percentile for Commercial: **79%**
- ▶ **Medicaid** state average: **51%**
- ▶ Nat'l 90th percentile for Medicaid: **69%**

CMS Adult Core Measures²

Breast Cancer Screening (continued)

Geographic Variation in the Percentage of Women* who had a Mammogram to Screen for Breast Cancer, FFY 2018
(n = 41 states)



Source: Mathematica analysis of MACPro reports for the FFY 2018 reporting cycle.

*Data displayed in this chart include women ages 50 to 64 for 26 states and ages 50 to 74 for 15 states.



20

1 <https://www.wacommunitycheckup.org/reports/2020-community-checkup-report/#Statewide%20Performance%20Compared%20to%20National%20Benchmarks>

2 <https://www.medicaid.gov/medicaid/quality-of-care/downloads/performance-measurement/2019-adult-chart-pack.pdf>

Quality Measures

Measures

1. Recommended Cancer Treatment for breast, lung, and colorectal cancer

2. Hospitalization During Chemotherapy

2a. Emergency department visits

2b. Inpatient stays

3. Follow-up Testing After Cancer Treatment

4. End of Life Care

4a. Chemotherapy

4b. 2+ Emergency Department visits

4c. ICU stays

4d. Hospice

Recommended Cancer Treatment

- Both commercial and Medicaid-insured patients have high levels of adherence to the metrics for receipt of recommended treatment and anti-nausea medications during chemotherapy

Measure	Tumor site	Commercial	Medicaid	P-Value
Recommended Cancer Treatment	Breast, lung, colorectal	89%	84%	<0.01
	Breast	89%	83%	0.01
Anti-nausea medication during chemotherapy	Breast, lung, colorectal	98%	98%	
	Breast	98%	99%	

Hospitalization during Chemotherapy

- Medicaid insured patients have higher rates of ED visits and hospitalizations during chemotherapy than commercially insured patients

Measure	Commercial	Medicaid	P-value
Emergency department visits during chemotherapy	23%	39%	<0.01
Inpatient stays during chemotherapy	27%	37%	0.01

End of Life (EoL) Care

- ICU stays were lower and hospice use was **higher** for Medicaid insured patients
- Chemotherapy use and ED visits were similar for Medicaid and commercially insured patients
- Patient preference for intensity of care at end of life is not measured

Measure	Commercial	Medicaid	P-Value
EoL: Chemotherapy	9%	7%	
EoL: 2+ ED visits*	18%	20%	
EoL: ICU stay*	26%	21%	<0.01
EoL: Hospice	37%	43%	0.01

Future Research Directions: Achieving Health Equity

Future research should:

- Examine the reasons for ED visits and inpatient stays during chemotherapy and whether there are differences between commercial and Medicaid insured patients to identify actionable interventions
- Explore the drivers of differences in ICU stays and rates of hospice use at end of life
- Consider patient preferences at end of life

Future Directions: Medicaid

- ▶ Understanding the data
 - ▶ Exploring drivers
 - ▶ Reviewing benefit utilization
- ▶ Ensuring access to care
- ▶ Ongoing collaboration, engaging partners in improving care
- ▶ Advancing Shared Decision Making



Questions and Discussion



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The Impact of COVID-19 on Cancer Care in Washington State

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Director and Co-Director, Hutchinson Institute for Cancer Outcomes Research

Funding Acknowledgement



Andy Hill CARE Fund
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Washington State COVID-19 and Cancer Research Data Repository

Background

- Washington State: the earliest epicenter of COVID-19 in the United States
- Health care was profoundly impacted
 - Delivery systems retooled for an expected wave of COVID-19 patients
 - Elective procedures curtailed
 - Patients feared visiting health facilities
- Unprecedented public health restrictions on patients and families

Objectives for This Presentation

- Provide a preliminary snapshot of cancer care in Western Washington during the earliest months of the pandemic
 - We highlight areas where there were big differences between commercially insured and Medicaid patients
- Stimulate a dialogue among our community
 - How do you interpret our findings?
 - What should we look at next?
 - How can we act on what we see to help our patients?

What We Measured

- Time Period: March – June 2020
- Care Patterns
 - Physician visits & Telemedicine
 - Treatments
 - Initial treatment
 - Time from diagnosis to first treatment
 - Number of infusions
 - Imaging
 - Distance traveled to primary oncologist
 - Place of death
- Quality Metrics
 - Hospital use during chemotherapy
 - End of life

Cancer Patient Population

- Puget Sound SEER Cancer Registry linked to insurance claims
 - Regence and Premera
 - Medicaid
 - (Medicare will be available in 2021)
- Analysis focused on patients with solid tumors
- 145 patients with a diagnosis of cancer *and* COVID-19
 - No separate reporting of care or outcomes for these patients

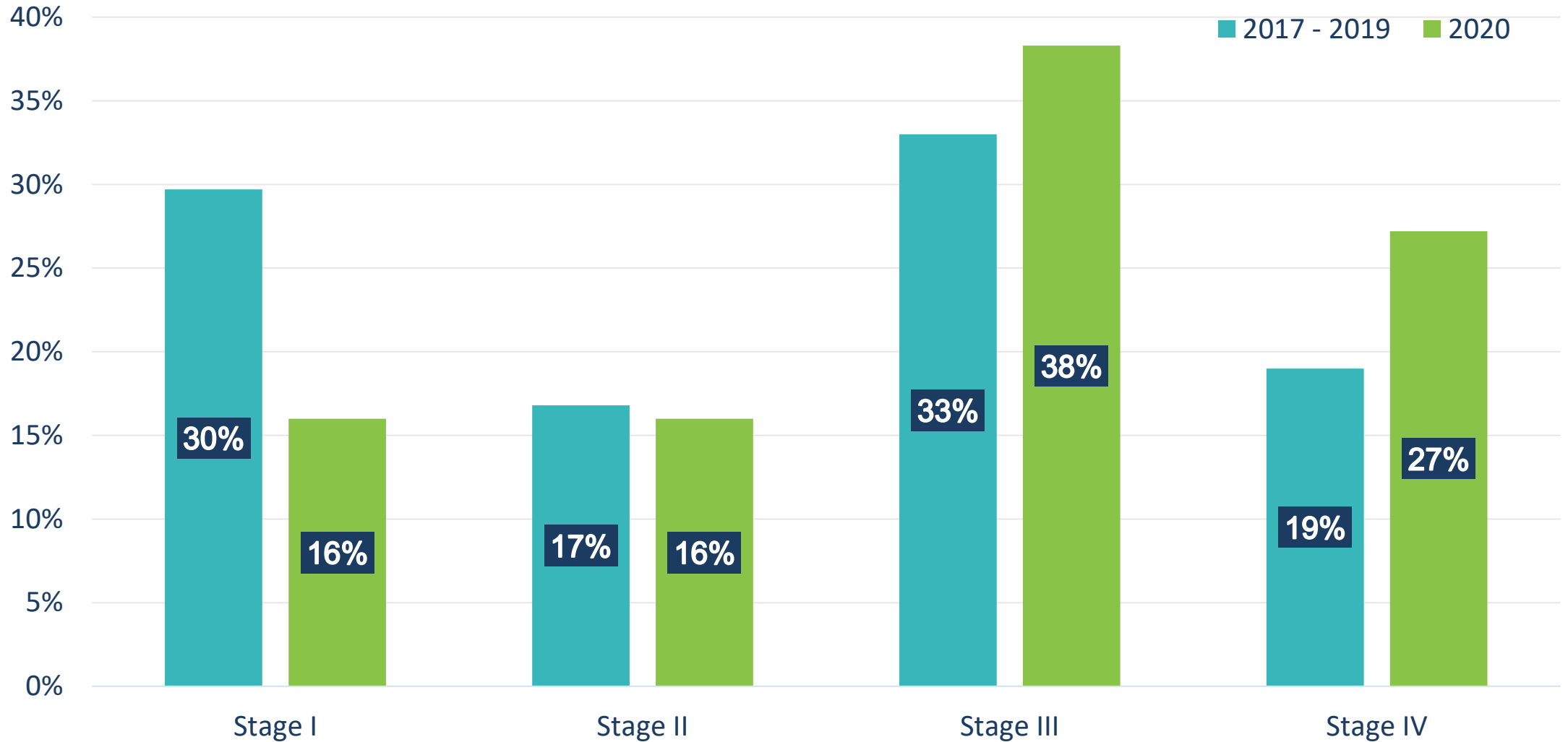
Characteristics at Diagnosis

	2017-2019	2020
Number diagnosed March through June	1,639 (average)	1,501
Age (Mean)	58	60
Stage*		
In situ	17.8%	16.2%
I	42.5%	40.6%
II	13.8%	10.7%
III	12.4%	13.5%
IV	13.6%	18.9%
Tumor		
Breast	22.2%	19.3%
Melanoma	14.4%	10.1%
Prostate	10.8%	11.0%
Lung	7.8%	10.3%
Gynecologic	7.8%	8.6%
Colorectal	6.5%	8.1%
Other	30.6%	32.8%

All comparisons are statistically significantly different between the time periods.

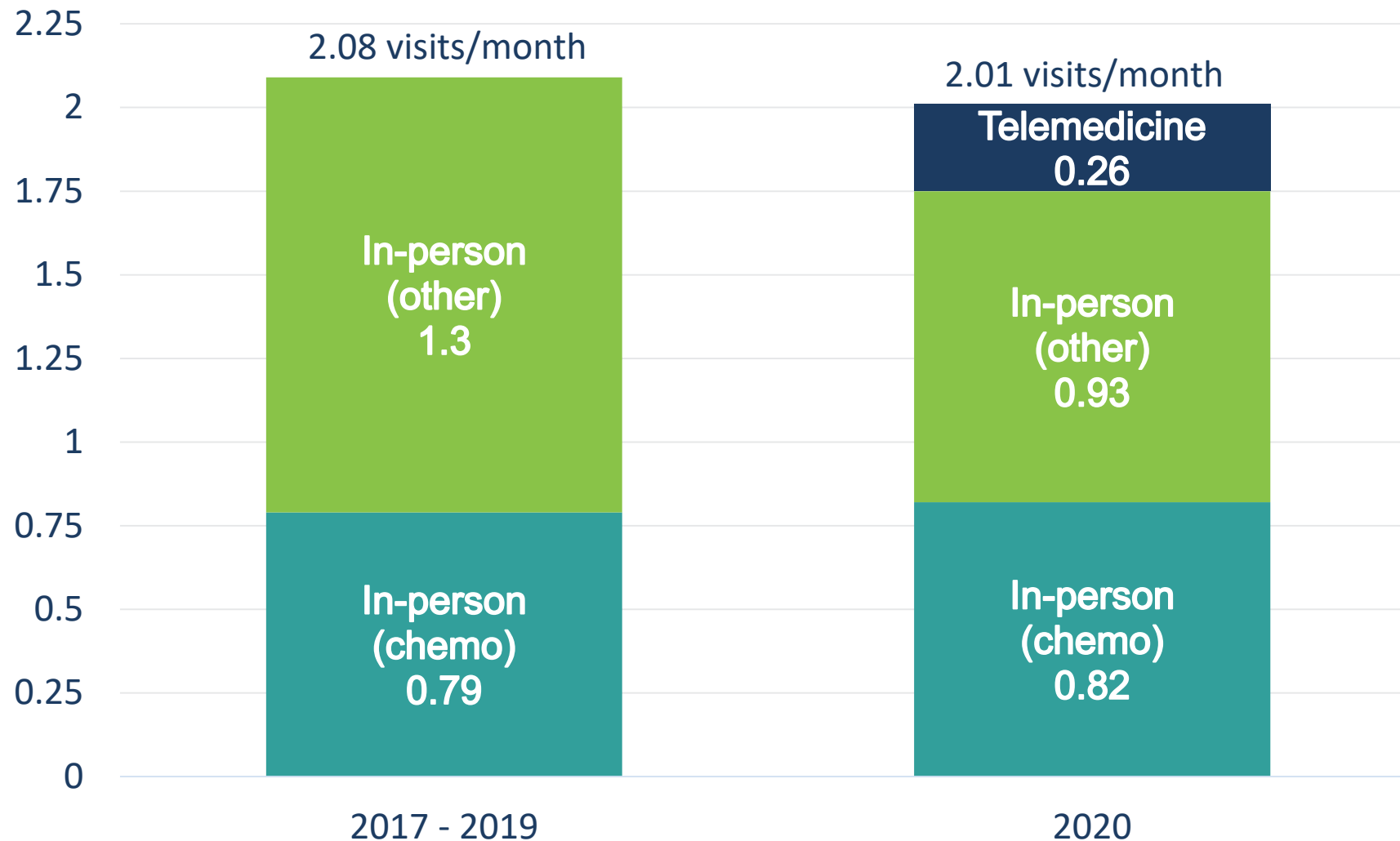
*Unstaged 37% in 2020 vs. 15% in 2017-2019

Colorectal cancers shifted to later stages



In-person visits declined, but telehealth visits increased

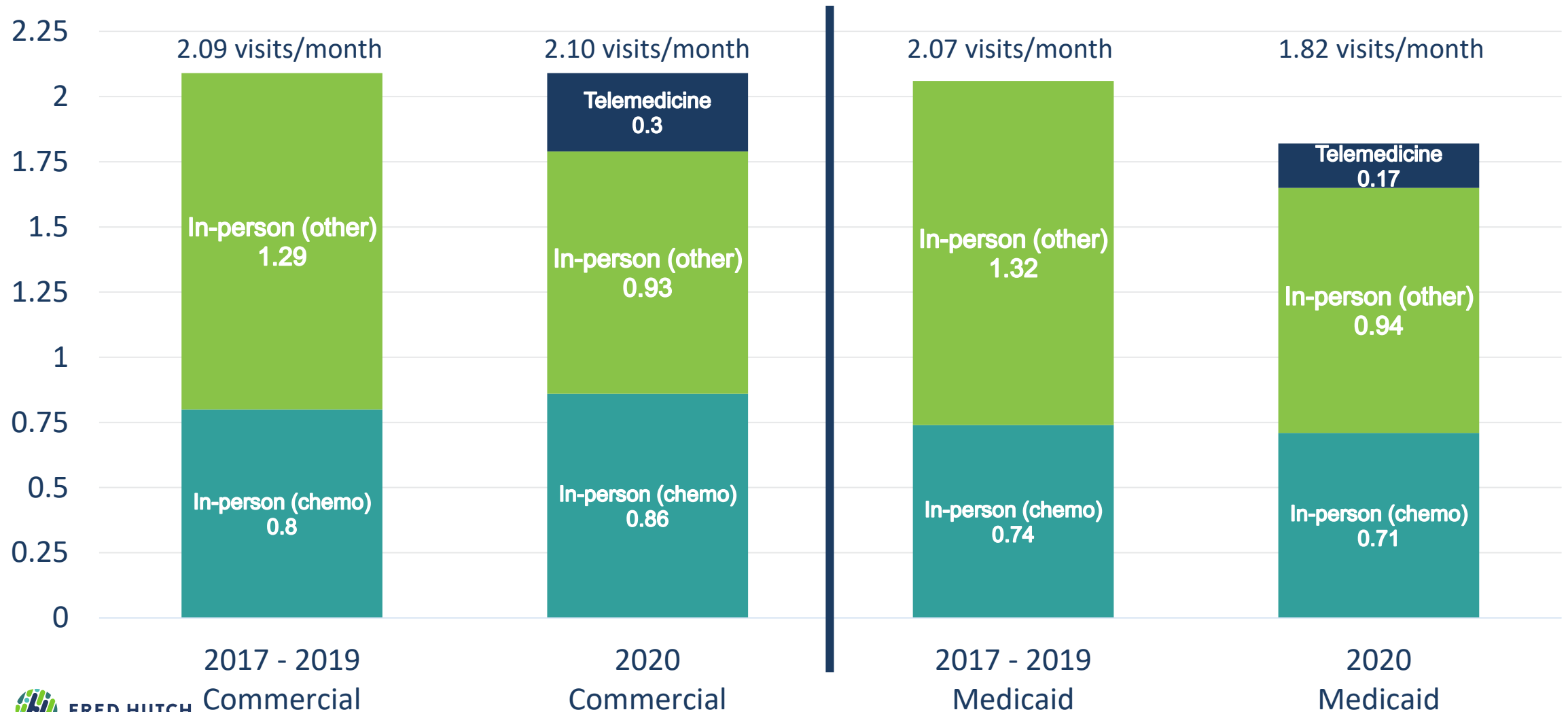
Average Number of Appointments with a Physician per Month
(chemotherapy patients, visits are for any reason)



Medicaid office visits during chemotherapy fell substantially

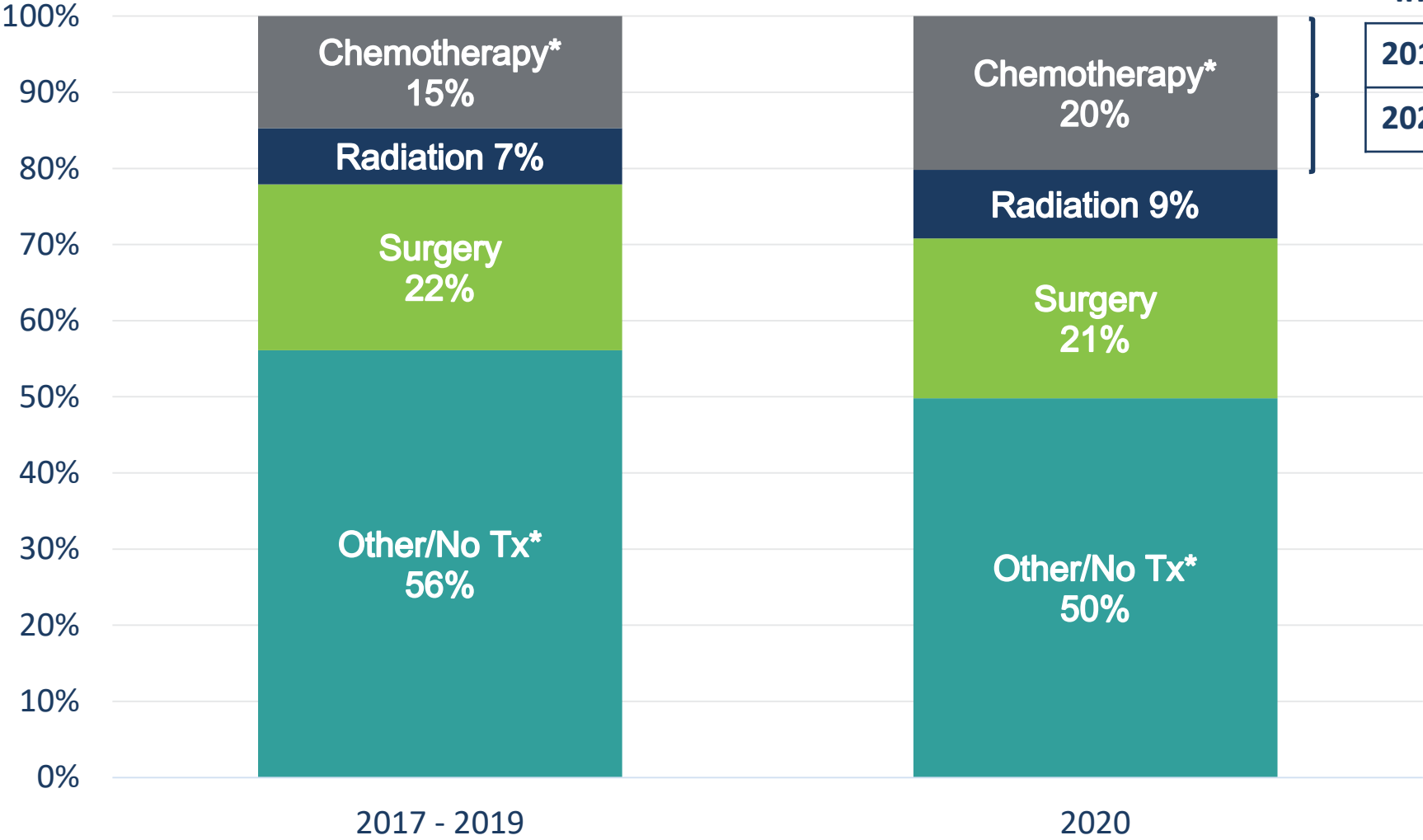
The difference was not made up by telehealth

Average Number of Appointments with a Physician per Month
(chemotherapy patients, visits for any reason)



Chemotherapy increased as an initial treatment

First Treatment for Solid Tumors
(within 4 months of diagnosis)



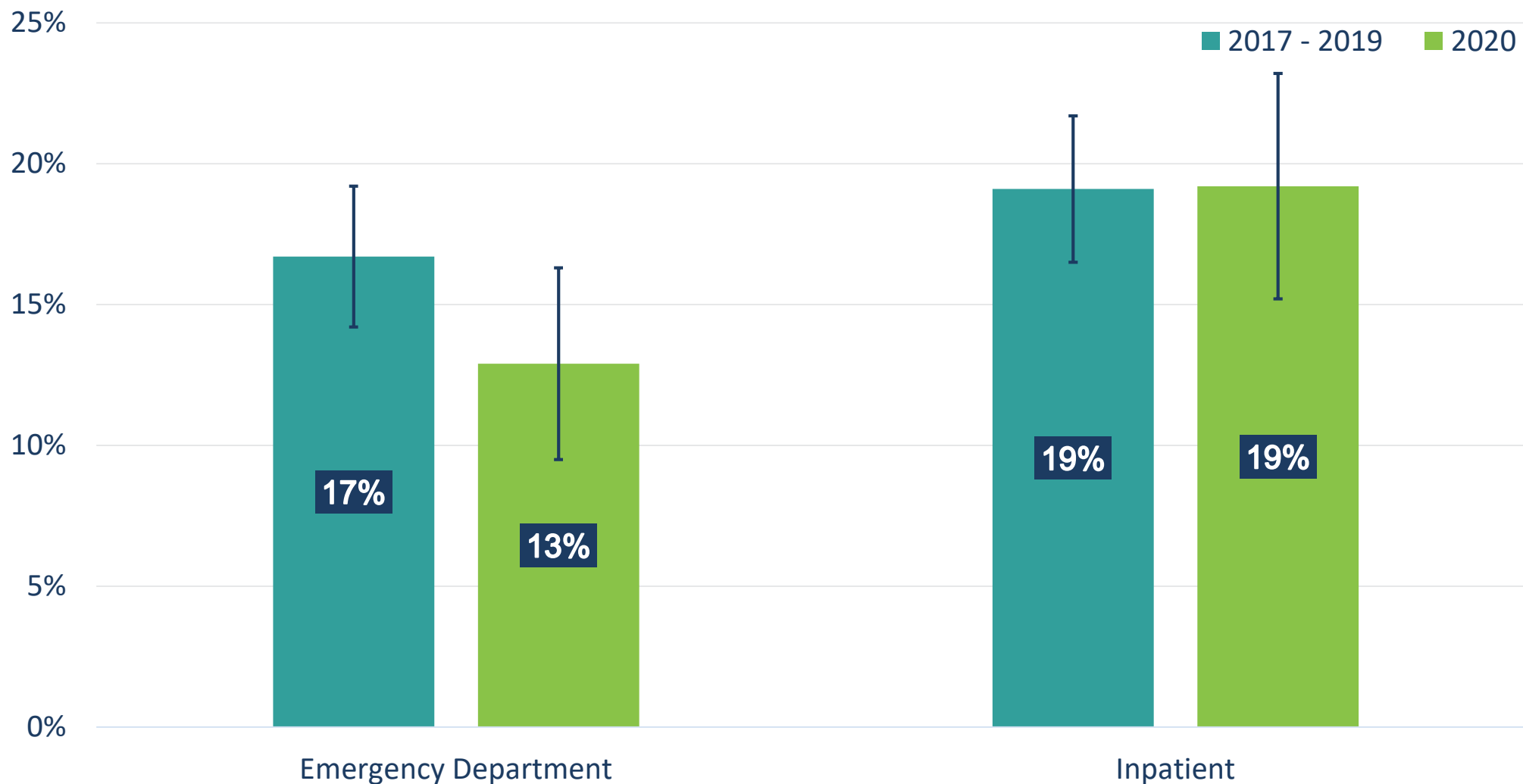
Average # of
infusions/month

2017 – 2019	1.56
2020	1.57

*Significant difference
between years

Emergency department visits during chemotherapy trended downward

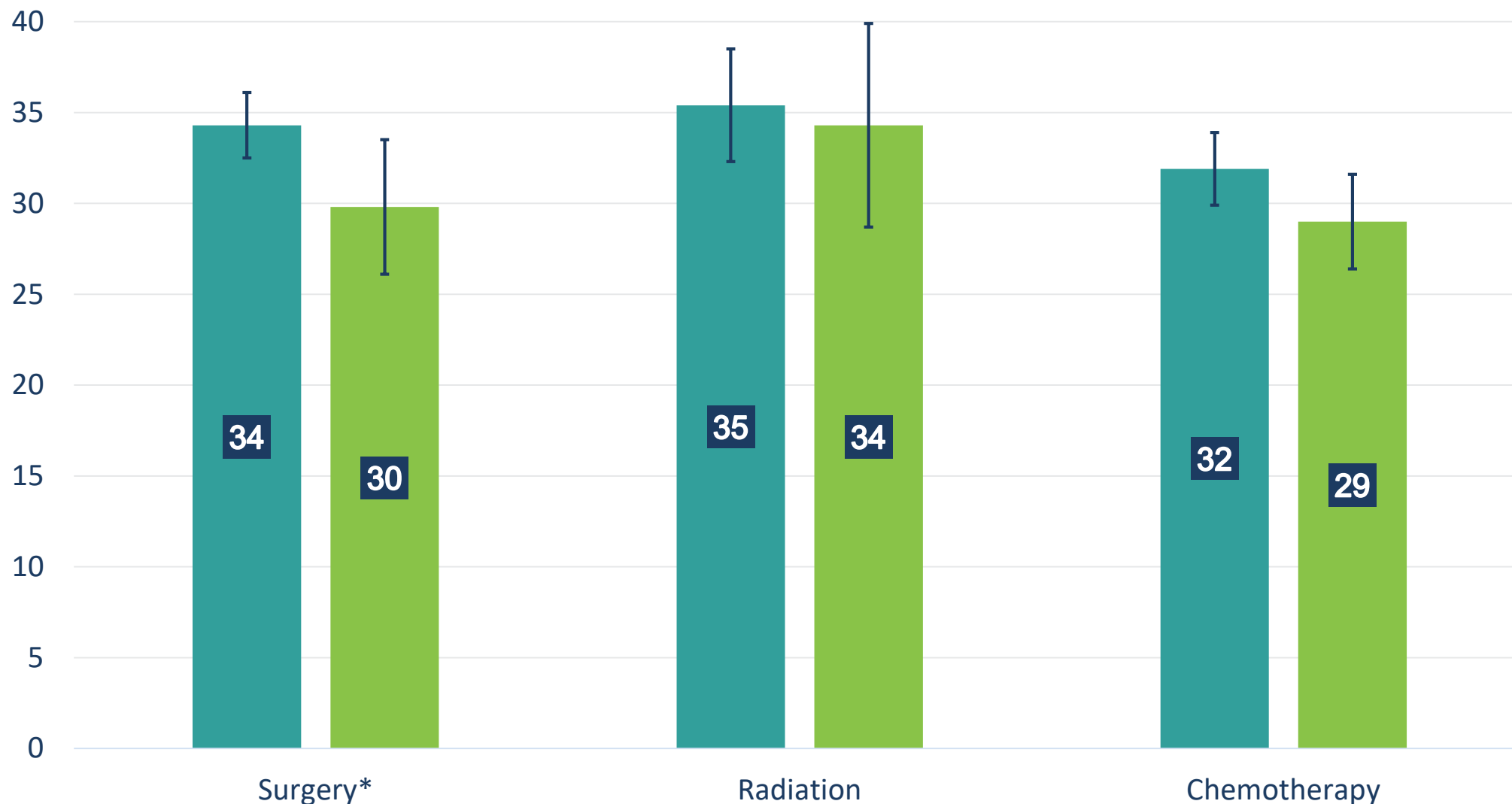
% of the Population with an Inpatient Stay or Emergency Department Visit



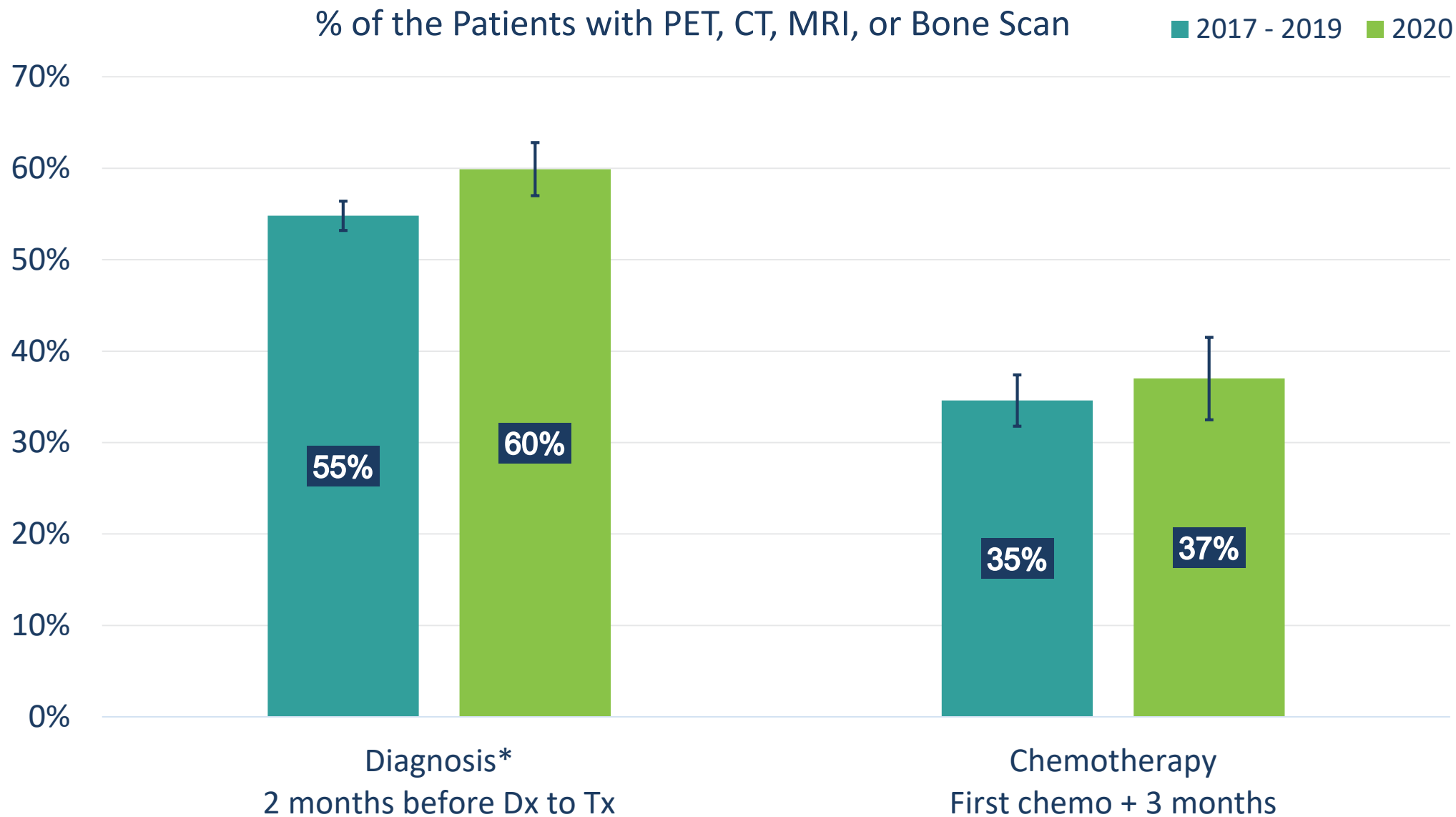
Time between diagnosis and first surgery declined

of Days from Diagnosis to Treatment

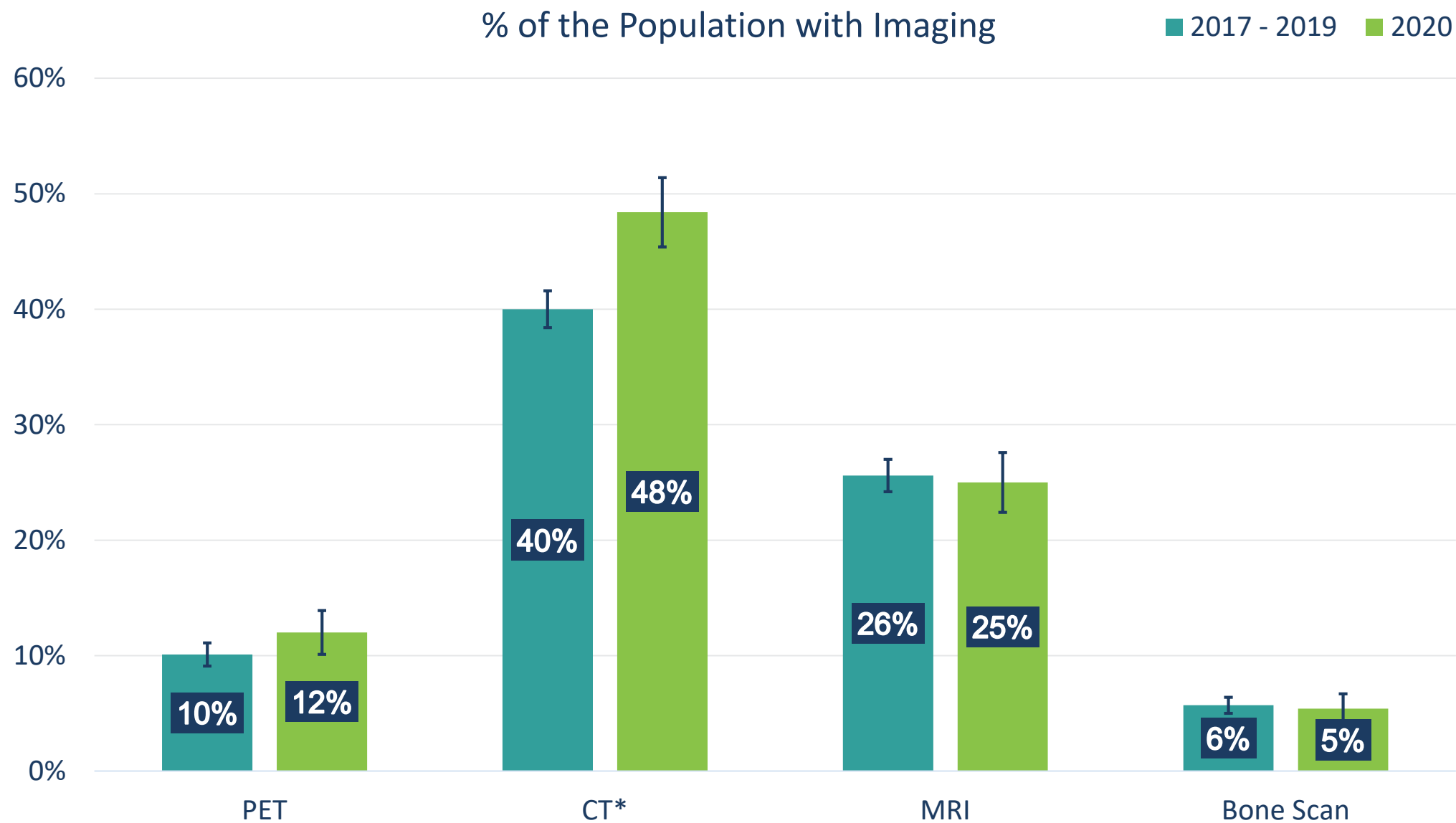
■ 2017 - 2019 ■ 2020



More advanced imaging was performed during diagnosis



CT accounted for the bulk of the increase in imaging during diagnosis

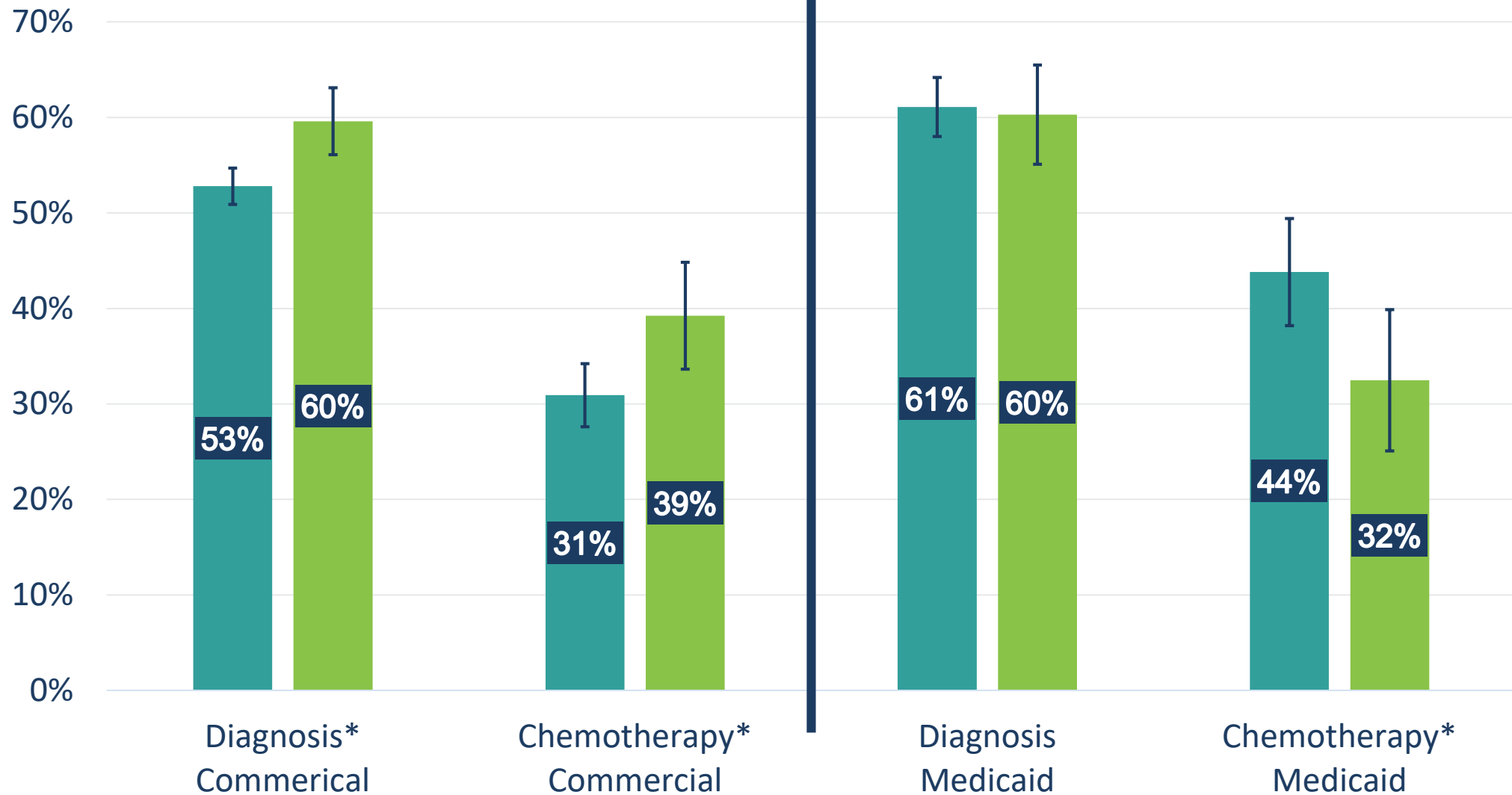


*Significant difference between years

Imaging during chemotherapy trended differently for Commercial versus Medicaid

% of the Patients with PET, CT, MRI, or Bone Scan

■ 2017 - 2019 ■ 2020

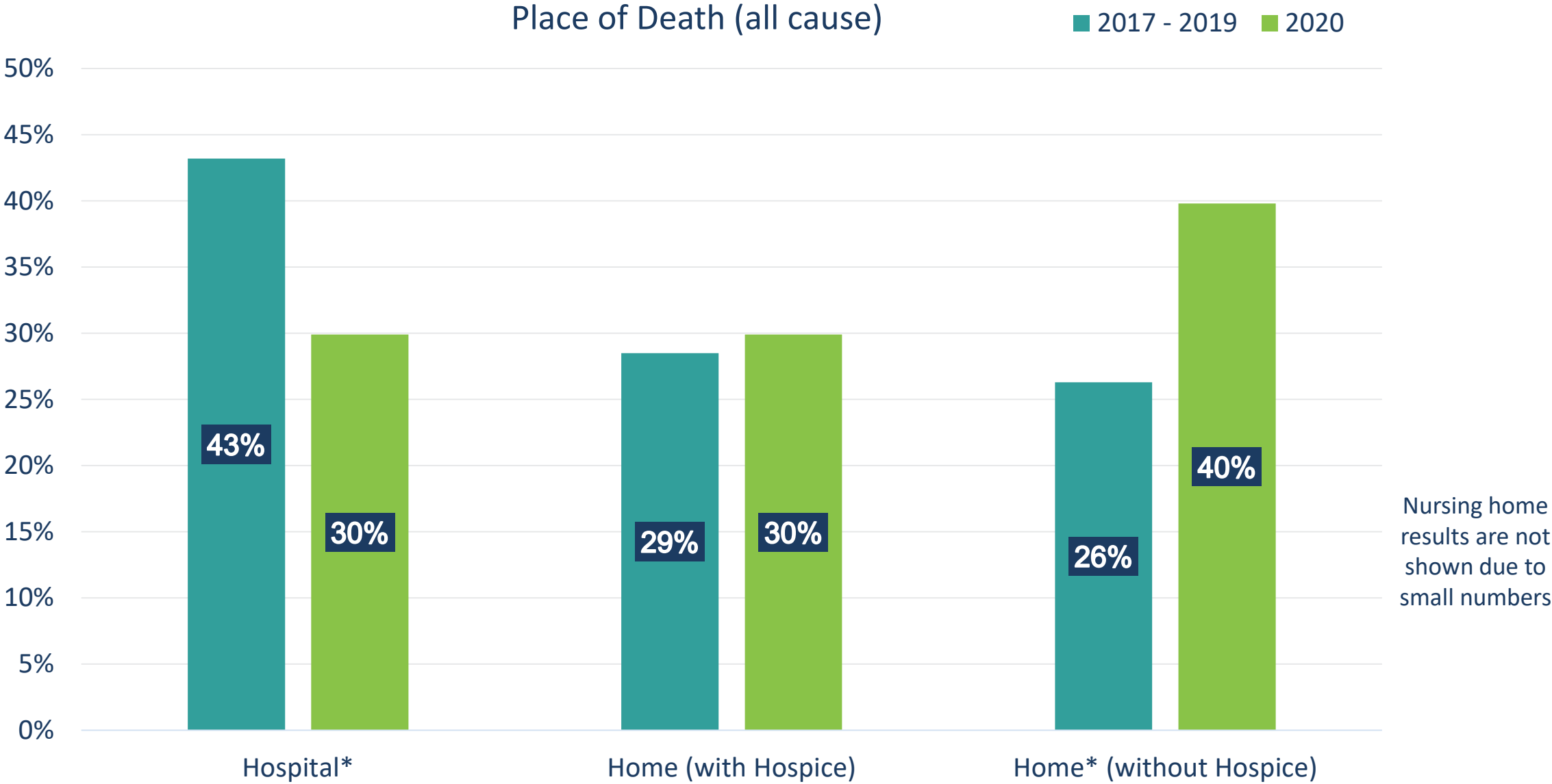


Patients' travel times did not change

- In both 2017-2019 and 2020, patients traveled on average 33 minutes to their primary oncologist

Time to Provider	2017 – 2019	2020
0 to 20 minutes	47%	49%
21 to 60 minutes	42%	39%
More than 60 minutes	11%	12%

Patients were less likely to die in the hospital

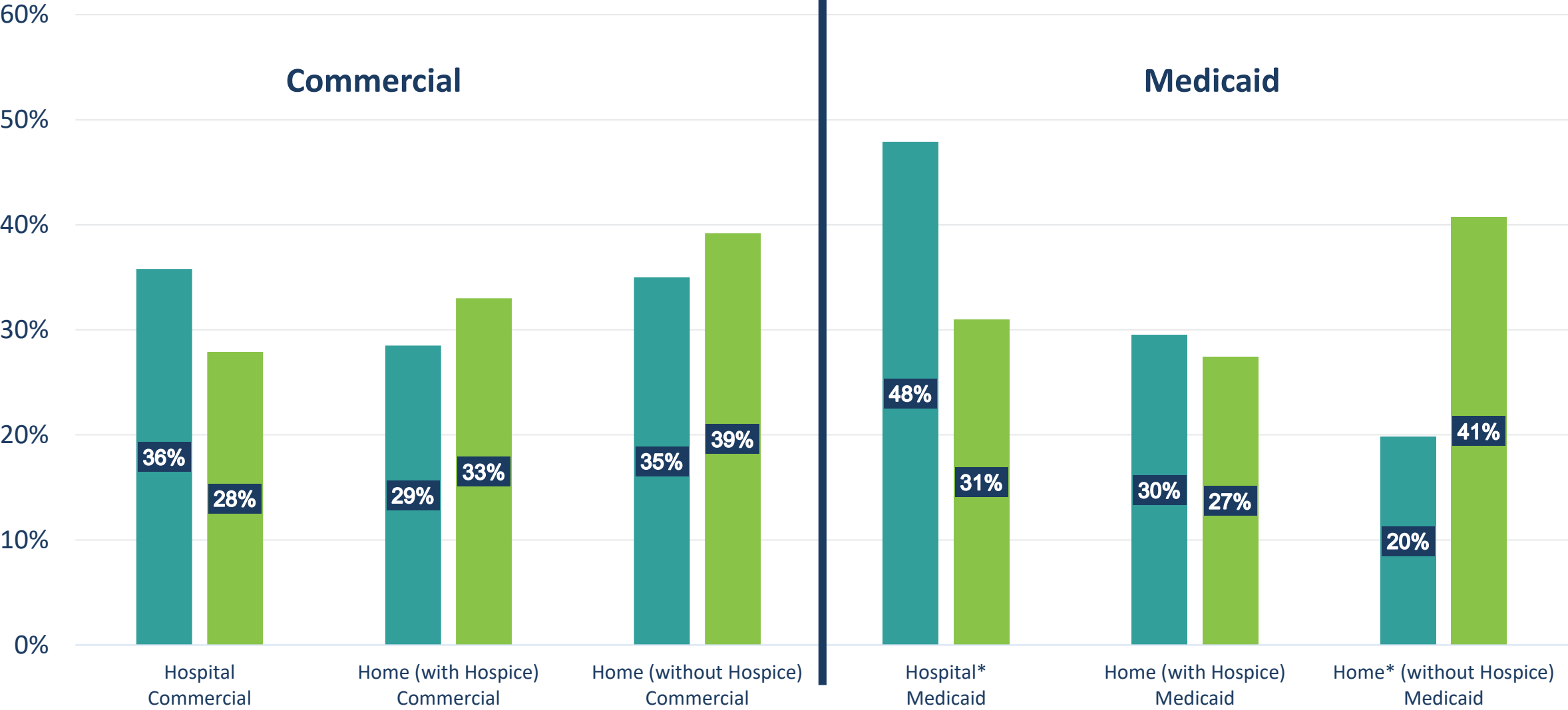


*Significant difference between years

Changes in Place of Death Were Greatest for Medicaid Patients

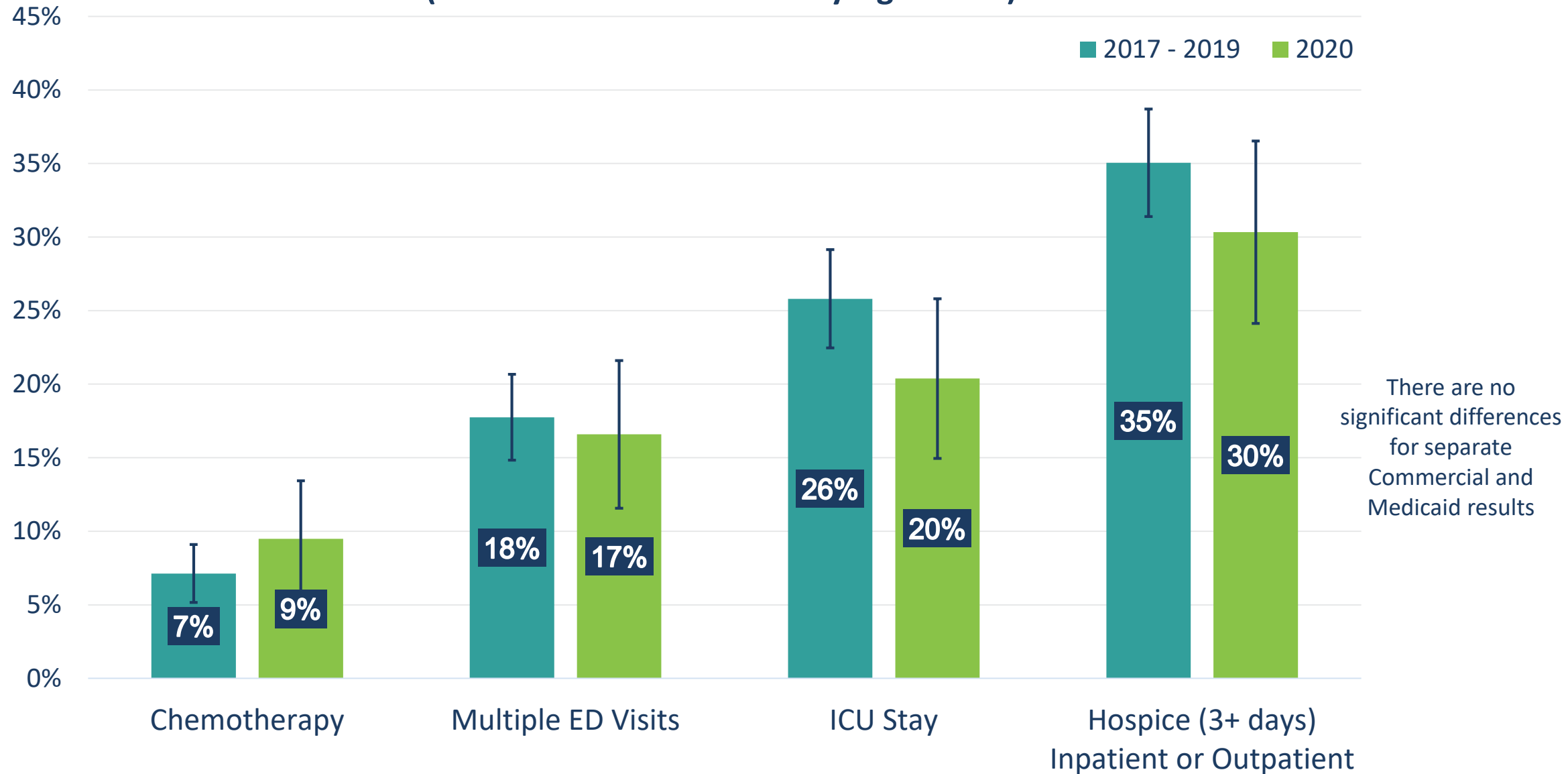
Place of Death (all cause)

2017 - 2019 2020



Shifts in care at end of life

(No difference is statistically significant)



Summary and Interpretation

- Fewer patients were diagnosed with cancer, but those who were diagnosed had more advanced disease
 - Were earlier cancers less likely to be identified due to people avoiding health care?
 - There was not a consistent trend among the "screenable" cancers
- Initial care showed greater use of advanced imaging and chemotherapy
 - This may reflect the fact that patients who did come to oncologists had more advanced and complicated cancers
- Medicaid-insured patients had fewer office visits that were not replaced by telemedicine
- More people died at home versus in the hospital, but hospice use did not keep pace
 - Biggest changes occurred for Medicaid-insured patients
 - Raises concerns about the end-of-life experience

Caveats

- Metrics are a limited snapshot of the cancer patient experience during the pandemic
 - COVID-19 put enormous stresses on patients and their families (fear of infection, financial strain, restrictions on movement, social isolation)
 - No set of metrics will fully capture these challenges
- Missing: The provider experience
 - To be addressed in Phase II of the Andy Hill study!
- The database is not fully mature
 - Cancer stage at diagnosis is not fully accounted for (yet)
 - Small numbers limit our ability to test for pre/post-COVID-19 differences (May change after we add Medicare claims)

Considerations for Performance Measurement

- How to measure cancer care in the “new normal”?
 - Given the changes in care delivery e.g. telehealth
- What constraints has COVID imposed on patients and practices that should be accounted for?
- What measures (existing and new) are most useful and actionable to community?

Now it's time for your input!

- We want to hear your thoughts and experiences
- How has COVID-19 impacted
 - you (patient),
 - your practice (clinicians),
 - your health plan (insurers),
 - our healthcare system (policymakers)?

Please type your questions and comments into the Q&A section in BlueJeans

Thank you



Special Thanks to:

Catherine Fedorenko, Laura Panattoni, Lily Li, Qin Sun, Shasank Chennupati, Annika Ittes, Judy Nelson, Karma Kreizenbeck, and Hayley Sanchez



Questions and Discussion

Thank You for Attending the

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