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
Cancer Care in the Medicaid Population
HICOR Medicaid Supplement 2020

Veena Shankaran, MD, MS
Co-Director, Hutchinson Institute for Cancer Outcomes Research

Christopher Chen, MD
Medical Director, Medicaid
Washington State Health Care Authority
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

Paying for volume (fee-for-service) vs. Paying for value
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


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.

**GENDER**
- Male: 29.8% Commercial, 42.5% Medicaid
- Female: 70.2% Commercial, 57.5% Medicaid

**RACE**
- White: 86.7% Commercial, 75.8% Medicaid
- Black: 2.2% Commercial, 6.4% Medicaid
- Hispanic: 2.6% Commercial, 5.8% Medicaid
- Asian/PI: 6.7% Commercial, 9.2% Medicaid
- Other/Unknown: 1.8% Commercial, 2.8% Medicaid
Medicaid insured patients are more likely to live in a more deprived neighborhood, as measured by Area Deprivation Index (ADI).

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.

[Image: Map showing the distribution of Area Deprivation Index values across different regions, with key indicators for Commercial and Medicaid.]
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.
Breast cancer was more likely to be diagnosed at later stage among Medicaid patients.
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)

# Quality Measures

<table>
<thead>
<tr>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Recommended Cancer Treatment for breast, lung, and colorectal cancer</td>
</tr>
<tr>
<td>2. Hospitalization During Chemotherapy</td>
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<td>2a. Emergency department visits</td>
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</tr>
<tr>
<td>3. Follow-up Testing After Cancer Treatment</td>
</tr>
<tr>
<td>4. End of Life Care</td>
</tr>
<tr>
<td>4a. Chemotherapy</td>
</tr>
<tr>
<td>4b. 2+ Emergency Department visits</td>
</tr>
<tr>
<td>4c. ICU stays</td>
</tr>
<tr>
<td>4d. Hospice</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Measure</th>
<th>Tumor site</th>
<th>Commercial</th>
<th>Medicaid</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended Cancer Treatment</td>
<td>Breast, lung, colorectal</td>
<td>89%</td>
<td>84%</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td></td>
<td>Breast</td>
<td>89%</td>
<td>83%</td>
<td>0.01</td>
</tr>
<tr>
<td>Anti-nausea medication during chemotherapy</td>
<td>Breast, lung, colorectal</td>
<td>98%</td>
<td>98%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Breast</td>
<td>98%</td>
<td>99%</td>
<td></td>
</tr>
</tbody>
</table>
Hospitalization during Chemotherapy

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

<table>
<thead>
<tr>
<th>Measure</th>
<th>Commercial</th>
<th>Medicaid</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency department visits during chemotherapy</td>
<td>23%</td>
<td>39%</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Inpatient stays during chemotherapy</td>
<td>27%</td>
<td>37%</td>
<td>0.01</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Commercial</th>
<th>Medicaid</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>EoL: Chemotherapy</td>
<td>9%</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>EoL: 2+ ED visits*</td>
<td>18%</td>
<td>20%</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>EoL: ICU stay*</td>
<td>26%</td>
<td>21%</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>EoL: Hospice</td>
<td>37%</td>
<td>43%</td>
<td>0.01</td>
</tr>
</tbody>
</table>
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
The Impact of COVID-19 on Cancer Care in Washington State

Scott Ramsey, MD, PhD and Veena Shankaran, MD, MS
Director and Co-Director, Hutchinson Institute for Cancer Outcomes Research
Funding Acknowledgement

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

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

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

<table>
<thead>
<tr>
<th>Stage</th>
<th>2017-2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>30%</td>
<td>16%</td>
</tr>
<tr>
<td>II</td>
<td>17%</td>
<td>16%</td>
</tr>
<tr>
<td>III</td>
<td>33%</td>
<td>38%</td>
</tr>
<tr>
<td>IV</td>
<td>19%</td>
<td>27%</td>
</tr>
</tbody>
</table>
In-person visits declined, but telehealth visits increased

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

- 2017 - 2019: 2.08 visits/month
  - In-person (other): 1.3
  - In-person (chemo): 0.79
- 2020: 2.01 visits/month
  - In-person (other): 0.93
  - In-person (chemo): 0.82
  - Telemedicine: 0.26
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)

<table>
<thead>
<tr>
<th>Year</th>
<th>In-person (chemo)</th>
<th>In-person (other)</th>
<th>Telemedicine</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017-2019</td>
<td>0.8</td>
<td>1.29</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>0.86</td>
<td>0.93</td>
<td>0.3</td>
</tr>
<tr>
<td>2017-2019</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>0.71</td>
<td>0.94</td>
<td>0.17</td>
</tr>
</tbody>
</table>

2.09 visits/month 2.10 visits/month 1.82 visits/month
Chemotherapy increased as an initial treatment

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

Average # of infusions/month

<table>
<thead>
<tr>
<th></th>
<th>2017 – 2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemotherapy*</td>
<td>1.56</td>
<td>1.57</td>
</tr>
<tr>
<td>Radiation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surgery</td>
<td>15%</td>
<td>20%</td>
</tr>
<tr>
<td>Other/No Tx*</td>
<td>56%</td>
<td>50%</td>
</tr>
</tbody>
</table>

*Significant difference between years
Emergency department visits during chemotherapy trended downward

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

- Emergency Department: 17% (2017-2019), 13% (2020)
- Inpatient: 19% (2017-2019), 19% (2020)
Time between diagnosis and first surgery declined

# of Days from Diagnosis to Treatment

- **Surgery***: 34 vs. 30
- **Radiation**: 35 vs. 34
- **Chemotherapy**: 32 vs. 29

*Significant difference between years
More advanced imaging was performed during diagnosis

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

- **Diagnosis***
  - 2 months before Dx to Tx
  - 2017-2019: 55%
  - 2020: 60%

- **Chemotherapy***
  - First chemo + 3 months
  - 2017-2019: 35%
  - 2020: 37%

*Significant difference between years
CT accounted for the bulk of the increase in imaging during diagnosis

% of the Population with Imaging

- PET: 10% (2017-2019), 12% (2020)
- CT*: 40% (2017-2019), 48% (2020)
- MRI: 26% (2017-2019), 25% (2020)
- Bone Scan: 6% (2017-2019), 5% (2020)

*Significant difference between years
Imaging during chemotherapy trended differently for Commercial versus Medicaid

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

- **Diagnosis* Commercial**: 53% (2017-2019), 60% (2020)
- **Chemotherapy* Commercial**: 31% (2017-2019), 39% (2020)
- **Diagnosis Medicaid**: 61% (2017-2019), 60% (2020)
- **Chemotherapy* Medicaid**: 44% (2017-2019), 32% (2020)

*Significant difference between years
Patients’ travel times did not change

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

<table>
<thead>
<tr>
<th>Time to Provider</th>
<th>2017 – 2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 20 minutes</td>
<td>47%</td>
<td>49%</td>
</tr>
<tr>
<td>21 to 60 minutes</td>
<td>42%</td>
<td>39%</td>
</tr>
<tr>
<td>More than 60 minutes</td>
<td>11%</td>
<td>12%</td>
</tr>
</tbody>
</table>
Patients were less likely to die in the hospital

Place of Death (all cause)

<table>
<thead>
<tr>
<th>Place of Death</th>
<th>2017 - 2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital*</td>
<td>43%</td>
<td>30%</td>
</tr>
<tr>
<td>Home (with Hospice)</td>
<td>29%</td>
<td>30%</td>
</tr>
<tr>
<td>Home* (without Hospice)</td>
<td>26%</td>
<td>40%</td>
</tr>
</tbody>
</table>

*Significant difference between years

Nursing home results are not shown due to small numbers
Changes in Place of Death Were Greatest for Medicaid Patients

Place of Death (all cause)

<table>
<thead>
<tr>
<th></th>
<th>2017 - 2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Hospital</td>
<td>36%</td>
<td>28%</td>
</tr>
<tr>
<td>Home (with Hospice)</td>
<td>29%</td>
<td>33%</td>
</tr>
<tr>
<td>Home (without Hospice)</td>
<td>35%</td>
<td>39%</td>
</tr>
<tr>
<td>Medicaid Hospital</td>
<td>48%</td>
<td>31%</td>
</tr>
<tr>
<td>Home (with Hospice)</td>
<td>30%</td>
<td>27%</td>
</tr>
<tr>
<td>Home* (without Hospice)</td>
<td>20%</td>
<td>41%</td>
</tr>
</tbody>
</table>

*Significant difference between years
Shifts in care at end of life
(No difference is statistically significant)

<table>
<thead>
<tr>
<th></th>
<th>2017 - 2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemotherapy</td>
<td>🟩7%</td>
<td>🟢9%</td>
</tr>
<tr>
<td>Multiple ED Visits</td>
<td>🟩18%</td>
<td>🟢17%</td>
</tr>
<tr>
<td>ICU Stay</td>
<td>🟩26%</td>
<td>🟢20%</td>
</tr>
<tr>
<td>Hospice (3+ days)</td>
<td>🟩35%</td>
<td>🟢30%</td>
</tr>
</tbody>
</table>

Inpatient or Outpatient

There are no significant differences for separate Commercial and Medicaid results
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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