Healthcare Disparities in Cancer Patients Receiving Radiation: Changes in Insurance Status After Medicaid Expansion Under the Affordable Care Act

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Background

• The Patient Protection and Affordable Care Act (ACA) was designed to **improve healthcare access** and **decrease disparities**

• For cancer patients this includes improving access to **high quality cancer care** which may include radiation
  
  • Uninsured cancer patients have **worse cancer outcomes** and are more likely to have substandard care including **omission of cancer-directed surgery** and/or radiation

• **2012 Supreme Court ruling** allowed individual states to choose whether to adopt Medicaid expansions
ACA’s Coverage Timeline

2010
Children up to age 26 remain covered as dependents

2011
Employers with <25 employees and average wage less than $50,000 will be eligible for tax credits if they provide health insurance

2012
Not-for-profit insurance cooperatives will be initiated to compete with private insurers

2013

2014
Elimination of pre-existing condition exclusions
Health insurance “exchanges” created for individuals and small businesses
Medicaid expansion to cover people up to 133% of federal poverty line
Citizen and legal residents required to have and maintain health insurance

Moss, Gyn Onc, 2017
Method

- **Retrospective cohort-based study** utilizing the Surveillance, Epidemiology, and End Results (SEER) Database

- Compares insurance status and disparities in coverage before and after Medicaid expansion under the ACA on a state level and compares expanded states to non-expanded states

- **Newly diagnosed cancer** patients ages 18-64 that received radiation from January 2011-December 2014 (patients 2008-2014 assessed for trends in insurance status)

- All cancer types and all radiation therapies were included
Results

2011-2014 (full analysis group) - 197,290 patients

• 73% lived in expanded states at the time of cancer diagnosis

• Median age 55

Significant baseline differences for non-expanded cohort:

• Older age
• More male subjects
• Fewer married/more divorced subjects
• More black subjects/fewer “other” races
• Fewer Hispanic subjects

• Higher rates of uninsurance (double the rate at baseline, 8.3 vs 3.8%)
• Higher rates of prostate and lung cancer
• Higher rates of subjects living in the 4th quartile for poverty (double the rate at baseline, 38.3 vs 19.7%)
Expanded States

53% relative decrease

↓ Uninsured (4.3 to 2.1%)
↑ Medicaid (15.2 to 18.0%)
↓ non-Medicaid (80.4 to 79.9%)

p<0.0001

Non-Expanded States

5% relative decrease

↓ Uninsured 8.4 to 8.0%
↓ Medicaid (15.9 to 14.8%)
↑ non-Medicaid (75.7 to 77.1%)

p=0.0036
White Patients

- Expanded States
  - ↓ Uninsured (4.3 to 1.9%)
  - ↓ Medicaid (14.3 to 17.2%)
  - ↓ non-Medicaid (81.4 to 80.9%)
  - p<0.0001

- Non-Expanded States
  - ↓ Uninsured (7.8 to 7.1%)
  - ↓ Medicaid (12.3 to 11.3%)
  - ↓ non-Medicaid (79.9 to 81.6%)
  - p=0.0015

Black Patients

- Expanded States
  - ↓ Uninsured (6.0 to 3.0%)
  - ↑ Medicaid (22.3 to 26.6%)
  - ↓ non-Medicaid (71.7 to 70.4%)
  - p<0.0001

- Non-Expanded States
  - ↑ Uninsured (9.9 to 10.6%)
  - ↓ Medicaid (24.9 to 24.0%)
  - ↓ non-Medicaid (65.2 to 65.4%)
  - p=0.372
1\textsuperscript{st} Quartile (lowest poverty)

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<tr>
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<td>p&lt;0.0001</td>
<td>p=0.0418</td>
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**46%** relative decrease

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<td>p&lt;0.0001</td>
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**60%** relative decrease

4\textsuperscript{th} Quartile (highest poverty)

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<td>p=0.319</td>
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**27%** relative decrease

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Conclusions

For our cohort of patients who received radiation for a cancer diagnosis...

• **Uninsurance rates dropped significantly** across both expanded and non-expanded states, although with a **greater magnitude** in the states that **fully expanded Medicaid**

• Both **black patients** and patients living in **areas with the highest poverty** levels had a greater level of benefit from full expansion under the ACA

• Future research should focus on how these changes in healthcare disparities may affect **cancer outcomes**

• **National debate** regarding healthcare reform is ongoing...