Population Health Research and Policy in Radiology
A View from the Harvey L. Neiman Health Policy Institute

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POPULATION HEALTH MANAGEMENT

SURVEILLANCE AND PREVENTION
Mammography
Low Dose Chest CT
Virtual Colonoscopy
AAA screening
AI tools

ACUTE CARE
ACR Imaging 3.0
Choosing Wisely
Best Practice Recommendations
Clinical Decision Support
IP Care Coordination
Clinical Pathway Management

CHRONIC CARE MANAGEMENT
Follow-up: AAA, Lung Nodules
Oncology Intervention
Fatty Liver
Metabolic Syndrome
QALY improvements

ACR IMAGING 3.0 · ACO’S/MSSP · SHARED RISK MODELS WITH PAYERS · MIPS · APM · COMMUNITY HEALTH INITIATIVES
Population Health Solutions Span a Broad Range

1. Disparities and Equity
   - Social determinants drive health and well-being outcomes throughout the life course.
   - Place is a determinant of health, well-being, and equity.

2. Screening/Diagnosis
   - The health system needs to address the key demographic shifts of our time.

3. Policy Change
   - The health system can embrace innovative financial models and deploy existing assets for greater value.

4. Collaboration
   - Health creation requires partnership because health care only holds a part of the puzzle.

What creates health?  How can health care engage?
**Big U.S. Goals**

<table>
<thead>
<tr>
<th>Cancer Objectives</th>
<th>Increase Screening Rates</th>
<th>Reduce Death Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female Breast Cancer</td>
<td>![Baseline only icon]</td>
<td>![Improving icon]</td>
</tr>
<tr>
<td>Lung Cancer</td>
<td>![Baseline only icon]</td>
<td>![Improving icon]</td>
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<tr>
<td>Prostate Cancer</td>
<td>![Improving icon]</td>
<td>![Improving icon]</td>
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<tr>
<td>Colorectal Cancer</td>
<td>![Baseline only icon]</td>
<td>![Improving icon]</td>
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<tr>
<td>Overall</td>
<td></td>
<td>![Improving icon]</td>
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</tbody>
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## Screening Objectives

<table>
<thead>
<tr>
<th>Cancer Objectives</th>
<th>Baseline only</th>
<th>2030 Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female Breast Cancer</td>
<td>72.8%</td>
<td>77.1%</td>
</tr>
<tr>
<td>Lung Cancer</td>
<td>4.5%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Colorectal Cancer</td>
<td>65.2%</td>
<td>74.4%</td>
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The Power of USPSTF Recommendations

- **50% increase in screening CT colonography (CTC)** rates after the 2016 USPSTF updated recommendation to include CTC

- CTC rates were steady from 2010 to 2016 despite decreased patient cost sharing from 38% to 10%

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*Introduction:* The Affordable Care Act of 2010 mandated private health plans to fully cover the services recommended by the U.S. Preventive Services Task Force. To June 2016, the Task Force added computed tomographic colonography to its list of recommended tests for colorectal cancer screening. This study evaluated the association among the updated recommendation, patient cost-sharing obligations, and the uptake of colorectal cancer screening through computed tomography colonography in the privately insured population.

*Methods:* Using individual claims from the 2010–2018 IBM MarketScan Commercial Database, monthly screening computed tomography colonography utilization rates per 100,000 privately insured beneficiaries aged 50–64 years and the monthly proportions of those services delivered by in-network providers for which patients had to bear a portion of the procedure costs were calculated, and an interrupted time series analysis was performed. The study was conducted between January and May 2020.

*Results:* Although the proportion of in-network procedure subject to patient cost sharing declined from 90.3% in 2010 to 10.2% in early 2018, the monthly utilization remained nearly constant. The announcement of the updated recommendation was associated with an immediate increase in the monthly screening computed tomography colonography utilization rate from 0.4 to 0.6 procedures per 100,000 individuals but with no change in the proportions of in-network procedures subject to patient cost sharing.

*Conclusions:* In an environment of already largely eliminated patient cost sharing, the release of supportive evidence-based recommendations by a recognized credible body was associated with an immediate increase in computed tomography colonography use for colorectal cancer screening in the privately insured population.

But disparities in access are rampant even among the insured...

black patients were 24% less likely than white patients to have a prostate MRI after receiving an elevated PSA score.
Health Equity Spotlight

Studies Planned on Cancer Screening Equity

- What individual, geographic, population and community- and facility-level factors are sources of disparities?
- Are disparities greater for newer screening technologies? Is access geography and time dependent?

Our Goals:
Elucidate major sources of disparities and provide actionable information for policy
Identify economic incentives that may reduce identified disparities

Breast Cancer
41% higher breast cancer mortality for black compared to white women
Advancing the Radiologist Value Proposition

Population Health

The health outcomes of a group of individuals
Including the distribution of such outcomes within the group

Value-Based Care

A framework for health care systems to improve value for patients, where value is health outcomes per unit of costs

IHI Triple Aim: (Berwick 2008)

- Improve population health
- Reduce per capita cost
- Experience of healthcare

Benefit / Cost = Value

Benefits: Outcome, efficacy, quality, safety, experience

RLI Power Hour Webinar Series
Radiologist participation in ACOs is growing

10% to 35%

Increase in radiologist ACO participation

2013 to 2018

ORIGINAL ARTICLE

Evolving Radiologist Participation in Medicare Shared Savings Program Accountable Care Organizations

Stefan Santavicca, MS*, Richard Duszak Jr, MD*, Gregory N. Nicola, MD*, Lauren Parks Golding, MD*, Andrew B. Rosenkrantz, MD, MPA*, Christian Wernz, PhD†, Danny R. Hughes, PhD*#
Population Health Solutions Span a Broad Range

1. Health and well-being develop over a lifetime.

   Disparities and Equity
   - Social determinants drive health and well-being outcomes throughout the life course.
   - Place is a determinant of health, well-being, and equity.

   Screening/ Diagnosis
   - The health system needs to address the key demographic shifts of our time.

   Policy Change
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What creates health? How can health care engage?
Radiologists are Positioned for Impact

**Roles**
- Increase screening rates
- Follow up / mgmt. of findings
- Incidental findings
- Decision support & appropriate use
- Less invasive treatment (IR)
- Radiation Oncology
- Equitable access and quality
- Research & analysis
- Advocacy

**Tools**
- Technology
- Data
- Registries
- Relationships
ACR Forging Ahead…

ACR Commission on Patient- and Family-Centered Care
Population Health Management Committee

ACR® Blue-Ribbon Panel on Population Health

Will collect, assess, create and distribute resources to empower radiologists to lead efforts to advance population health improvements.

RADILOGY HEALTH EQUITY COALITION

Our Vision

Commit to Act
Pledge to join the community advancing health equity in radiology.

Submit Resources
Share resources to help your colleagues achieve equity in their practice.

Spread the Word
Talk with your colleagues and community partners about how radiology can advance equity in healthcare.

Grow
Utilize solution-oriented tools to bring more of the community into your practice.
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