HEALTH EQUITY IS NOT PIPEDREAM

FINDINGS FROM THE KPNC SCREENING PROGRAM

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Prevent Cancer Foundation
Arlington, VA

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PRESENTATION OBJECTIVES

1. Describe colorectal cancer health disparities in the United States
2. Describe an exemplar of advancing cancer health equity through screening and equitable continuum of care support
3. Convince you that “health equity is not a pipedream”
Ms. J. is 53 years old and non-English-speaking. Her fecal colorectal cancer screening test was positive, but she “declined” colonoscopy.

4 months later, an incidental liver lesion was found during work-up for appendicitis, but she “declined” to have a biopsy. She then lost insurance and had no further follow-up.

1 year after the positive screening test, she presented with right-sided abdominal pain from cancer in the right colonic/cecum that has spread extensively, including the liver and lung, and was placed on palliative care.
COLORECTAL CANCER IN THE US

Estimated (2022)

151,030 New Cases
52,580 Deaths

65.1% overall 5-year relative survival
Most cases arise from adenomas

Colorectal carcinogenesis: adenoma—carcinoma sequence.

*ACF=Aberrant crypt foci

Lots of Opportunities to Fall Through the Cracks

Time to follow-up colonoscopy after positive fecal test, PROSPR, 2011–2012.

Time from index colonoscopy to subsequent colonoscopy in PROSPR by healthcare system


Chubak, et al. CEBP. 2019

Abbreviations: KPNC = Kaiser Permanente Northern California; KPSC = Kaiser Permanente Southern California;
KPWA = Kaiser Permanente Washington; Parkland = Parkland Health & Hospital System
Screening Process Failures are Consequential

### Screening Process Failures are Consequential

<table>
<thead>
<tr>
<th>Cases %</th>
<th>Controls %</th>
<th>OR</th>
</tr>
</thead>
<tbody>
<tr>
<td>33.8</td>
<td>25.4</td>
<td>2.46</td>
</tr>
<tr>
<td>32.8</td>
<td>26.6</td>
<td>2.36</td>
</tr>
<tr>
<td>8.1</td>
<td>1.2</td>
<td>7.26</td>
</tr>
<tr>
<td>1.3</td>
<td>2.2</td>
<td>2.15</td>
</tr>
<tr>
<td>24.1</td>
<td>44.6</td>
<td>Ref</td>
</tr>
</tbody>
</table>

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RACE AND ETHNICITY AND COLONOSCOPY QUALITY

In a study of Medicare beneficiaries:

• More Black persons received colonoscopy from physicians with lower polyp detection rate (PDR, lower quality) than White persons

• Black persons had a 31% higher risk of interval CRC than White persons
  • The difference was about 74% on metastatic cancers, and was apparent for cancers in the left colon but not in the right colon

• The disparity varied according to PDR (or quality)

No Black-White difference in interval cancer risk among those receiving care from lower PDR (quality) endoscopists

The difference was among people who received colonoscopy from physicians in the highest quality group

- **35-47% higher interval CRCs risk**

Adjusted for age, sex, colonoscopy year, geographic region, poverty level, urban/rural status, comorbidity, diverticulitis, polyp removal, PDR, physician specialty

COLORECTAL CANCER DISPARITIES, US, 2017

IMPROVEMENTS BUT DISPARITIES PERSIST

Rates per 100,000

- Hispanic/Latino
- AI/AN
- AA-PI
- Black
- White

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WHY DO DISPARITIES PERSIST?

Social determinants of health
Structural barriers to care
Health Inequities
Health disparities
(systemic racism – societal & interpersonal)


JAMA. 2017;317(4):388-406
MANIFESTATIONS OF INEQUITIES

- Compared to White people, Black and Hispanic/Latino people had worse care

- 40% of Measures
  - Black people
    (worse care on 76 of 190 measures)

- 35% of Measures
  - Hispanic people
    (worse care on 58 of 169 measures)

HOW DO WE ELIMINATE DISPARITIES → EQUITY?

• We know the causes: it is in the definitions we use
  • **Disparities**: avoidable or preventable differences in health and health outcomes
  • **Health Equity**: attainment of the highest level of health for all people (HP 2030), not predestined by social circumstances.

• We know the solutions
  • **Understand**: Use disaggregated data and track overtime; across the continuum
  • **Act**: intentional, guided by principles of equity
  • **Focus on the system-level first**: tracking systems, etc.
  • **Iterate and take a long-term view**.
  • **Work across the continuum of care**.
THE KAISER PERMANENTE NORTHERN CALIFORNIA (KPNC) STORY

1960s
Fecal occult blood test

1994
Sigmoidoscopy

2006-2008
Population-based Mailed FIT outreach + on-request colonoscopy + systematic tracking

2019

2020---

Pandemic

Colorectal Cancer Screening and Mortality Rates at Kaiser Permanente Northern California

1. Year 2000: 38.9% Screened
2. Year 2006: Screening Outreach Started
3. Year 2015: 82.7% Screened

Gastroenterology 2018 1551383-1391.e5DOI: (10.1053/j.gastro.2018.07.017)
KPNC REGIONAL CRC TEAM

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CRC Clinical Lead

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TPMG Consulting Services

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Health Engagement Manager
TPMG Consulting Services

Noreen Jesani, MPH
Health Engagement Consultant
TPMG Consulting Services
COUPLED WITH A RESEARCH ENGINE

Each project inform, care delivery and other research and the knowledge is shared
## COHORT CHARACTERISTICS, KPNC 2000-2019

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2010</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>White persons</td>
<td>Black persons</td>
<td>White persons</td>
</tr>
<tr>
<td><strong>Total cohort</strong></td>
<td>474,350</td>
<td>52,051</td>
<td>567,899</td>
</tr>
<tr>
<td><strong>Age (years)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50-64</td>
<td>62%</td>
<td>68%</td>
<td>64%</td>
</tr>
<tr>
<td>65-75</td>
<td>30%</td>
<td>26%</td>
<td>29%</td>
</tr>
<tr>
<td>76-79</td>
<td>8%</td>
<td>6%</td>
<td>7%</td>
</tr>
<tr>
<td><strong>Female</strong></td>
<td>53%</td>
<td>55%</td>
<td>53%</td>
</tr>
</tbody>
</table>

Dynamic retrospective cohort of people 50-75 years with follow-up through age 79
## COHORT CHARACTERISTICS, KPNC 2000-2019

<table>
<thead>
<tr>
<th>KPNC membership duration (years)</th>
<th>2000</th>
<th>2010</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td>Total cohort</td>
<td>474,350</td>
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<td>567,899</td>
</tr>
<tr>
<td>1-5</td>
<td>11%</td>
<td>7%</td>
<td>9%</td>
</tr>
<tr>
<td>6-10</td>
<td>14%</td>
<td>11%</td>
<td>16%</td>
</tr>
<tr>
<td>11-15</td>
<td>17%</td>
<td>16%</td>
<td>14%</td>
</tr>
<tr>
<td>16-20+</td>
<td>58%</td>
<td>66%</td>
<td>61%</td>
</tr>
</tbody>
</table>
# COHORT CHARACTERISTICS, KPNC 2000-2019

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<th>2019</th>
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<tr>
<td>Total cohort</td>
<td>474,350</td>
<td>52,051</td>
<td>567,899</td>
</tr>
<tr>
<td>% adults 25+ years with a high school diploma or higher educational attainment, quartiles (Q)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q1</td>
<td>19%</td>
<td>46%</td>
<td>18%</td>
</tr>
<tr>
<td>Q2</td>
<td>24%</td>
<td>23%</td>
<td>24%</td>
</tr>
<tr>
<td>Q3</td>
<td>26%</td>
<td>19%</td>
<td>28%</td>
</tr>
<tr>
<td>Q4</td>
<td>29%</td>
<td>10%</td>
<td>30%</td>
</tr>
<tr>
<td>Missing</td>
<td>2%</td>
<td>2%</td>
<td>0.2%</td>
</tr>
</tbody>
</table>
SCREENING DELIVERY

• Similar rates of participation in screening between Black and White people

• There was a greater increase among White people after 2006 in tandem with the roll out of the outreach program.

SCREENING OUTCOMES AMONG BLACK PERSONS AND WHITE PERSONS, 2000–2019

COMPARATIVE PLOT OF SCREENING AND OUTCOMES

<table>
<thead>
<tr>
<th>Study year</th>
<th>Incidence for Black vs. White persons, per 100,000</th>
<th>Rate ratio for Black relative to White persons (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>163.4 vs. 134.6</td>
<td>1.21 (1.07-1.38)</td>
</tr>
<tr>
<td>2011</td>
<td>161.1 vs. 115.2</td>
<td>1.40 (1.23-1.59)</td>
</tr>
<tr>
<td>2019</td>
<td>82.1 vs. 77.5</td>
<td>1.06 (0.91-1.23)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Study year</th>
<th>Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>54.2 vs. 32.6</td>
</tr>
<tr>
<td>2011</td>
<td>50.4 vs. 31.0</td>
</tr>
<tr>
<td>2019</td>
<td>20.9 vs. 19.3</td>
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</tbody>
</table>
“Sustained efforts to intentionally enable equitable delivery of effective interventions across the care continuum can decrease, or even eliminate, related health disparities over time.”
“SEC. 2713. COVERAGE OF PREVENTIVE HEALTH SERVICES.

“(a) IN GENERAL.—A group health plan and a health insurance issuer offering group or individual health insurance coverage shall, at a minimum provide coverage for and shall not impose any cost sharing requirements for—

“(1) evidence-based items or services that have in effect a rating of ‘A’ or ‘B’ in the current recommendations of the United States Preventive Services Task Force;

“(2) immunizations that have in effect a recommendation from the Advisory Committee on Immunization Practices of the Centers for Disease Control and Prevention with respect to the individual involved; and

“(3) with respect to infants, children, and adolescents, evidence-informed preventive care and screenings provided for in the comprehensive guidelines supported by the Health Resources and Services Administration.

Nothing in this subsection shall be construed to prohibit a plan or issuer from providing coverage for services in addition to those recommended by United States Preventive Services Task Force or to deny coverage for services that are not recommended by such Task Force.
EQUITY IS NOT A PIPEDREAM

• We need to create different narratives than Ms. J’s and many others like her
• Embrace the ideal that everyone deserves to “attain his/her full health potential”
• Design our systems of care and health promotion through the primacy of equity.
  • Understand, Engage, and Act
  • Take a long-term approach
  • Address from multiple angles – “system first”
• Screening is an important step, but should not be done without having processes for follow-up care
MOVING FROM INTENTION TO ACTION

Some of the greatest obstacles to change are the ingrained cultures, incentives, policies, and laws that maintain systems of racism and inequities (and no one wants ownership).

“Language is very powerful, language does not just describe reality, language creates the reality it describes”

– Archbishop Desmond Tutu

QUESTIONS & DISCUSSION