College of Public Health

The Role of Rural Health Clinics in Cancer Care across the Continuum

Holden Comprehensive Cancer Center Grand Rounds
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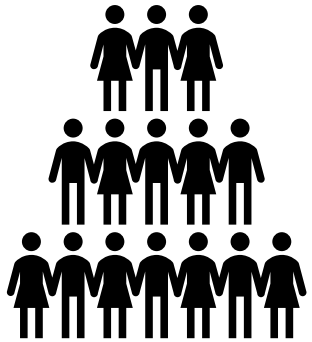
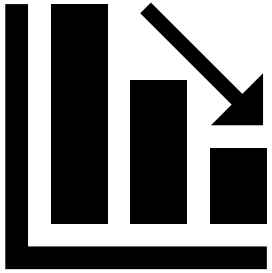
December 17, 2021

Background-Rural Cancer Disparities



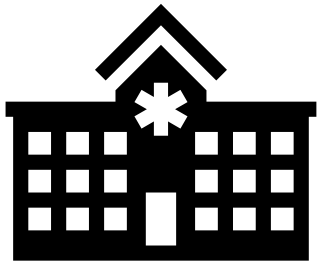
Sociodemographic Characteristics

- 15-20% of Americans live in rural areas
- ~40% of Iowans live in rural areas
- Older and poorer than urban populations



Cancer Outcome Disparities

- More prevalent “risky” health behaviors, overall and among survivors
- Higher incidence rates of preventable cancers
- Lower screening rates
- Higher mortality rates



Cancer Care Disparities

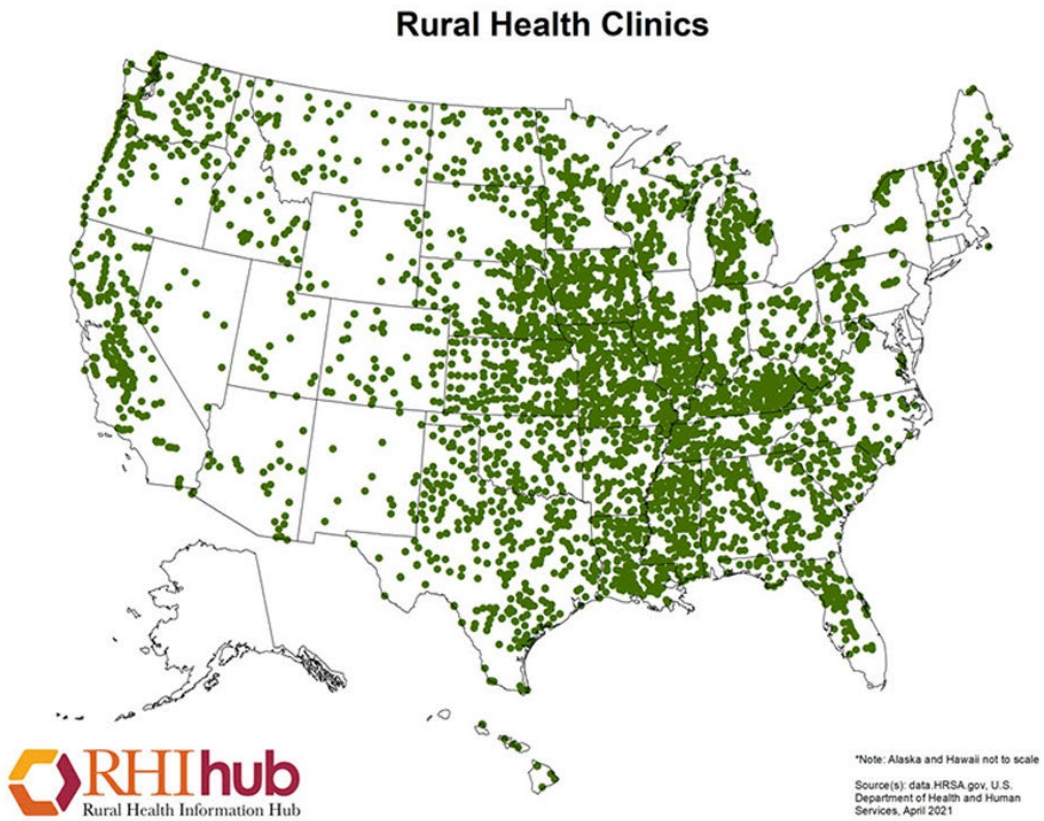
- Less access to cancer specialists, NCI-designated cancer centers
- Less likely to receive guideline-concordant treatment

Sources: U.S. Census Bureau. Rural Health Information Hub. Matthews et al. MMWR Surveill Summ 2017. Henley et al. MMWR Surveill Summ. 2017. Zahnd et al. Cancer Epidemiol Biomarkers Prev. 2018. Cole et al. Cancer Med. 2012. Onega et al. Cancer. 2017. Hung et al. Cancer. 2019. Chow et al, Dis Colon Rectum. 2015.; Charlton et al, Oncology, 2015.

Background-Rural Health Clinics

- Rural health clinics (RHC) are important sources of primary care in rural areas
  - 4,500+ RHCs across 44 states
  - 205 RHCs in Iowa
  - Team-based approach
  - Required to be staffed 50% of the time with a non-physician provider
- Received enhanced Medicare and Medicaid reimbursements
- No minimum services requirements or preventive service mandate
- No ongoing quality assurance program

Source: CMS

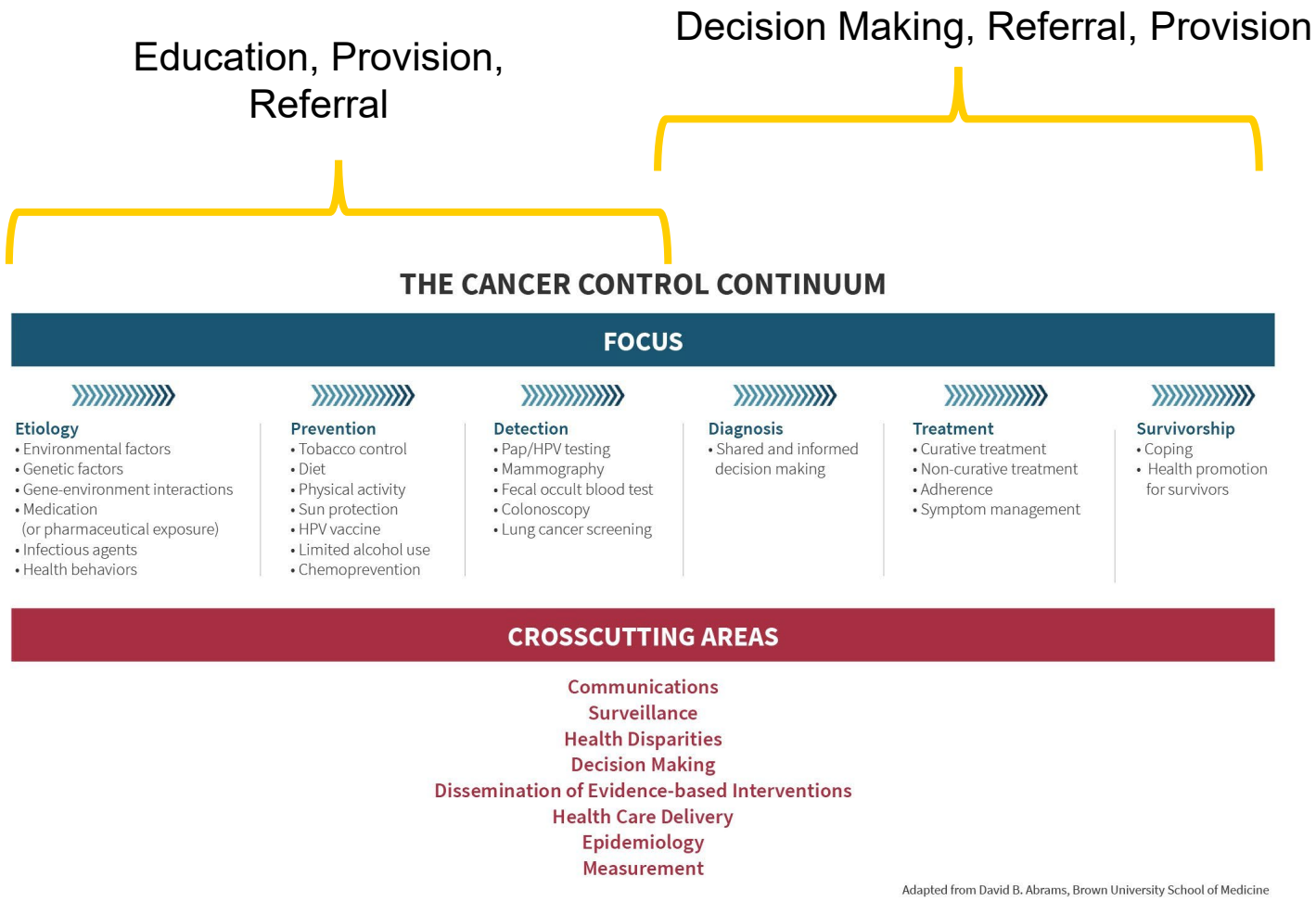


Background-COVID-19 and Cancer

- The pandemic has affected operations of hospitals, federally qualified health centers, and other providers
  - Lack of PPE
  - Temporary closures
  - Suspension of specific services (e.g., elective surgeries)
  - Provider shortages
  - Provider and staff burnout
- The pandemic led to a large drop initial in preventive services, including cancer screening that has yet to fully rebound
- The NCI predicts an additional 10,000 breast and colorectal cancer deaths in the next decade due to delayed screenings

Sources: DeGroff et al, 2021, *Prev Med*. Fedewa et al. 2021, *Cancer.* Sharpless, 2020, *Nature*.

Background-RHCs and Cancer Care



Objective

1. **To describe the scope of cancer-related services provided or referred by RHCs from primary prevention to cancer survivorship before and during the COVID-19 pandemic.**
2. **To determine the extent to which RHCs are involved in their patients' cancer treatment and survivorship care decisions.**
3. To identify how cancer-related activities at RHCs aligned with current evidence-based guidelines and strategies.

Methods-Survey Development

- Survey components adapted by the study team:
  - HRSA Health Center COVID-19 Survey
  - Primary Care Collaborative survey on primary care providers
  - Survey of Physician Attitudes Regarding the Care of Cancer Survivors (SPARCCS)
  - ACS/NCI Survey on Primary Care Physician's Role in Cancer Care
- Survey components developed by the study team:
  - RHC Characteristics
  - Additional COVID-19 questions
  - United States Preventive Services Task Force (USPSTF) recommended services (Pre- and peri-pandemic)
  - Use of Community Services Task Force evidence-based strategies
  - Professional guidelines followed
- Several iterations reviewed and modified by study team with expert feedback and limited pilot testing with local RHCs

Methods-Recruitment and Survey Administration

- Identified a stratified random sample of 1,900 RHCs (stratified by U.S. Census Region)
- Employed a modified Dillman approach:
  - Sent an informational postcard to each clinic (April 2021)
  - One week later: Sent hardcopy survey with cover letter with short link and QR code (April 2021)
  - Two weeks after survey: Sent reminder postcard (May 2021)
- $50 incentive for completion
- Amended follow-up strategy (June-August 2021):
  - Called non-responding RHCs
  - Re-sent hardcopy survey to non-responding RHCs
  - National Association for Rural Health Clinics (NARHC) board member sent a reminder through listserv
- 153 RHCs responded (8.0% response rate)

Statistical Methods

- Percentages and frequencies for categorical variables
- Means and standard deviations of continuous variables
- McNemar's test to examined differences in pre- and peri-pandemic cancer prevention and screening services

The Effect of the COVID-19 Pandemic on RHC Cancer Prevention and Control Activities

Results-RHC Characteristics

Table 1: Participating RHC Characteristics

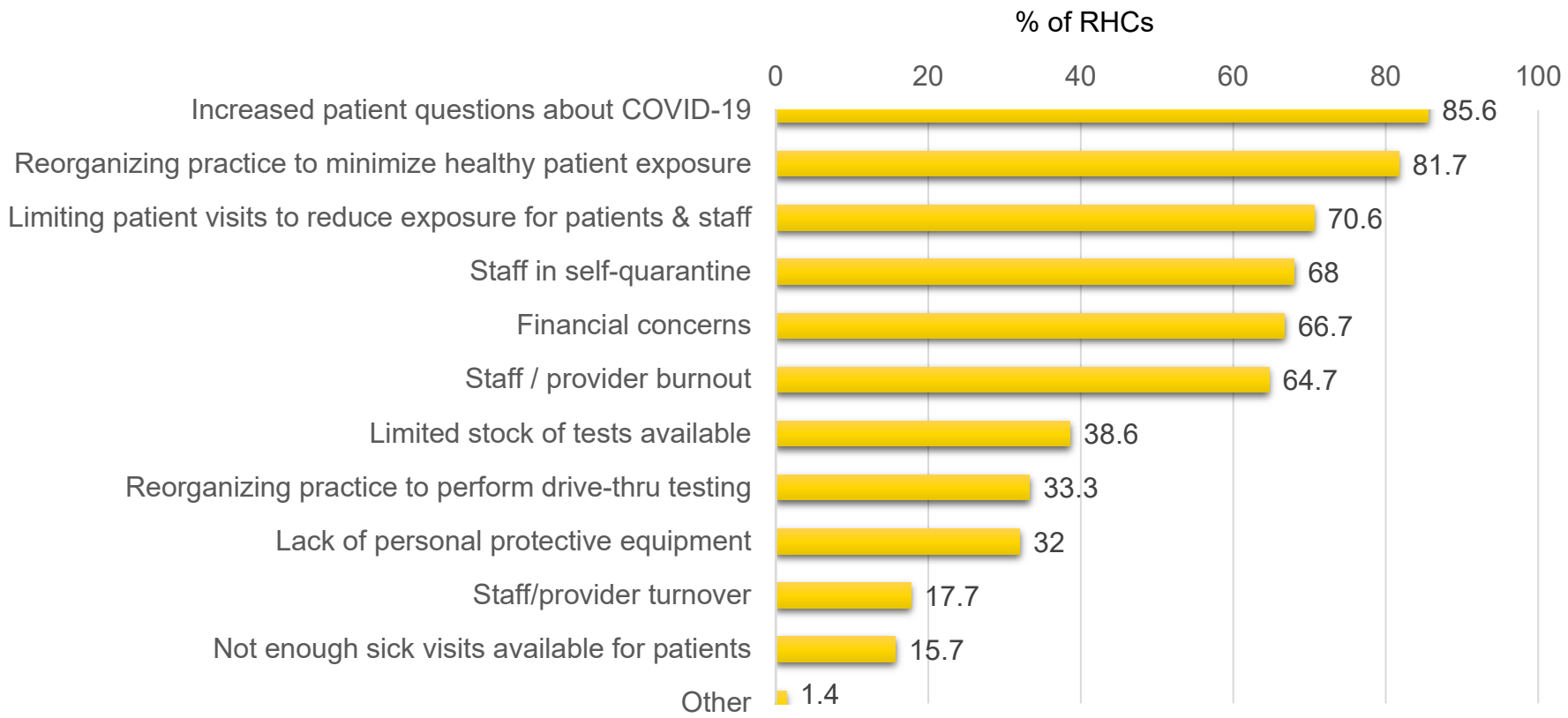
	N (%) or mean (Standard Deviation) (n=153)
Region	
Northeast	6 (3.9%)
South	63 (41.2%)
Midwest	63 (41.2%)
West	21 (13.7%)
RHC Type	
Provider-Based	93 (60.8%)
Independent	60 (39.2%)
Number of practicing clinicians, Mean	
Physicians (MD or DO)	2.2 (1.8)
Advanced Practice Nurses	2.1 (1.5)
Physician's Assistants	1.3 (1.1)
Primary Source of Patient Coverage, Mean	
Medicare	28.2 (16.5)
Medicaid	24.2 (17.5)
Dual-eligible	6.6 (9.4)
Private insurance	23.7 (15.2)
Other	3.1 (3.9)
Uninsured/self-pay	6.3 (7.5)
Patient-Centered Medical Home, yes	41 (29.9%)
Accountable Care Organization, yes	51 (43.2%)

Note: Percentages are calculated based upon the number of RHCs responding to a given question, which may be fewer than 153 RHCs completing the survey.

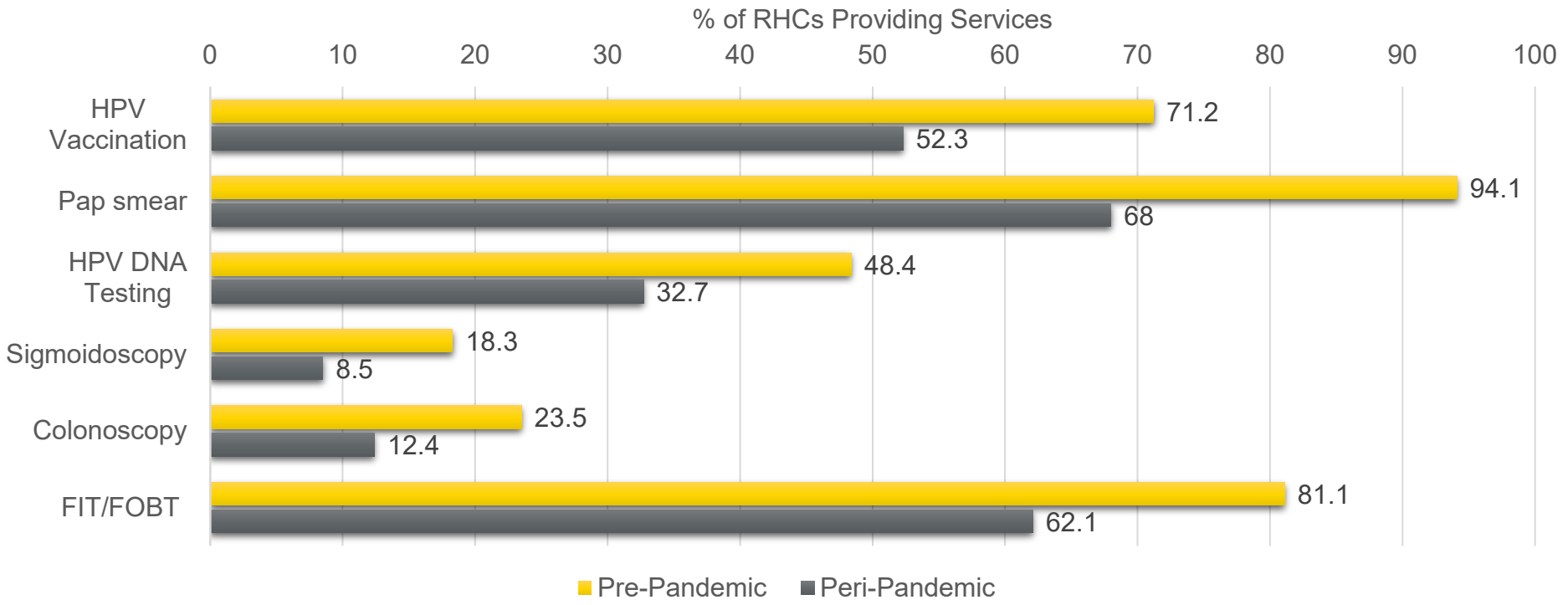
Results-COVID-19 Care

- → 88.7% of RHCs provided testing services
- → 19.1% of RHCs temporarily closed due the pandemic
  - 57.1% of closures were due to COVID-19 among staff/clinicians
- → 23.0% of RHCs provided telehealth services pre-pandemic→92.2% of RHCs provided telehealth services peri-pandemic
  - 69.3% provided telehealth via video and phone
  - 10.5% provided telehealth via video only
  - 12.4% provided telehealth via phone only

Results-COVID-19 Stressors

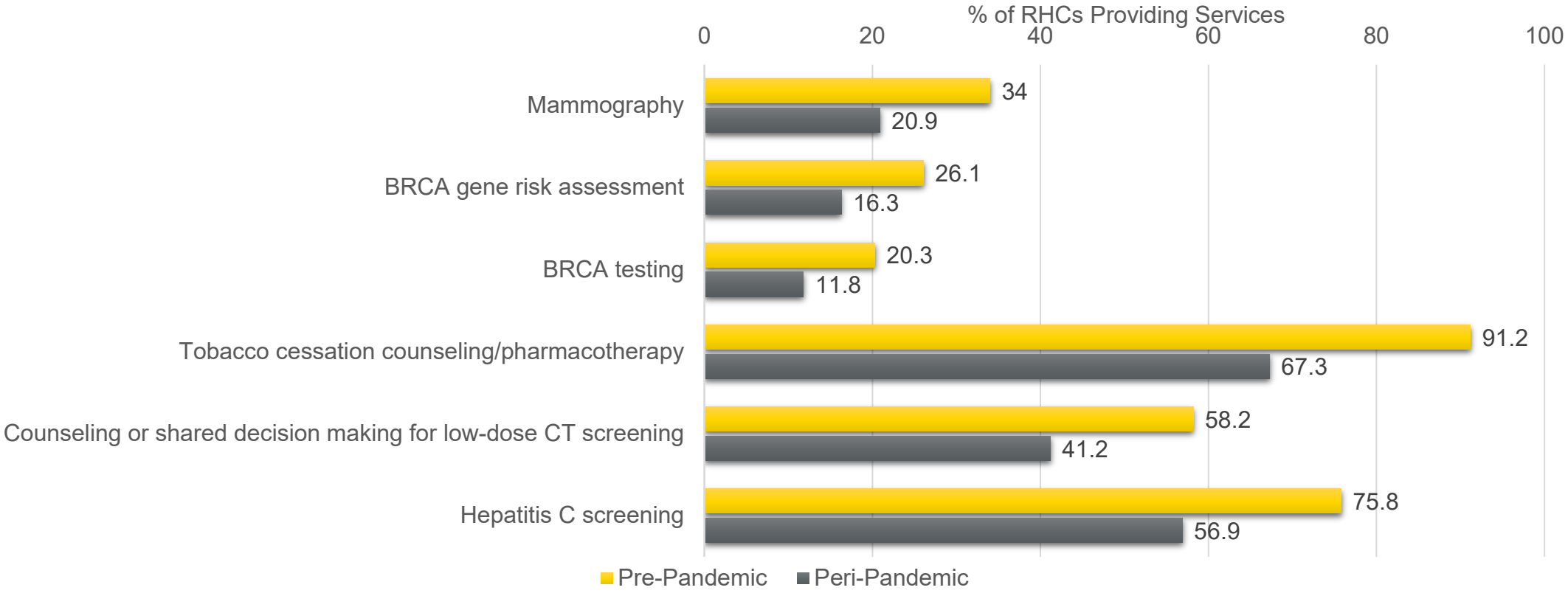


Results-Impact on Cancer Prevention and Control Services



P<0.05 for all McNemar tests

Results-Impact on Cancer Prevention and Control Services



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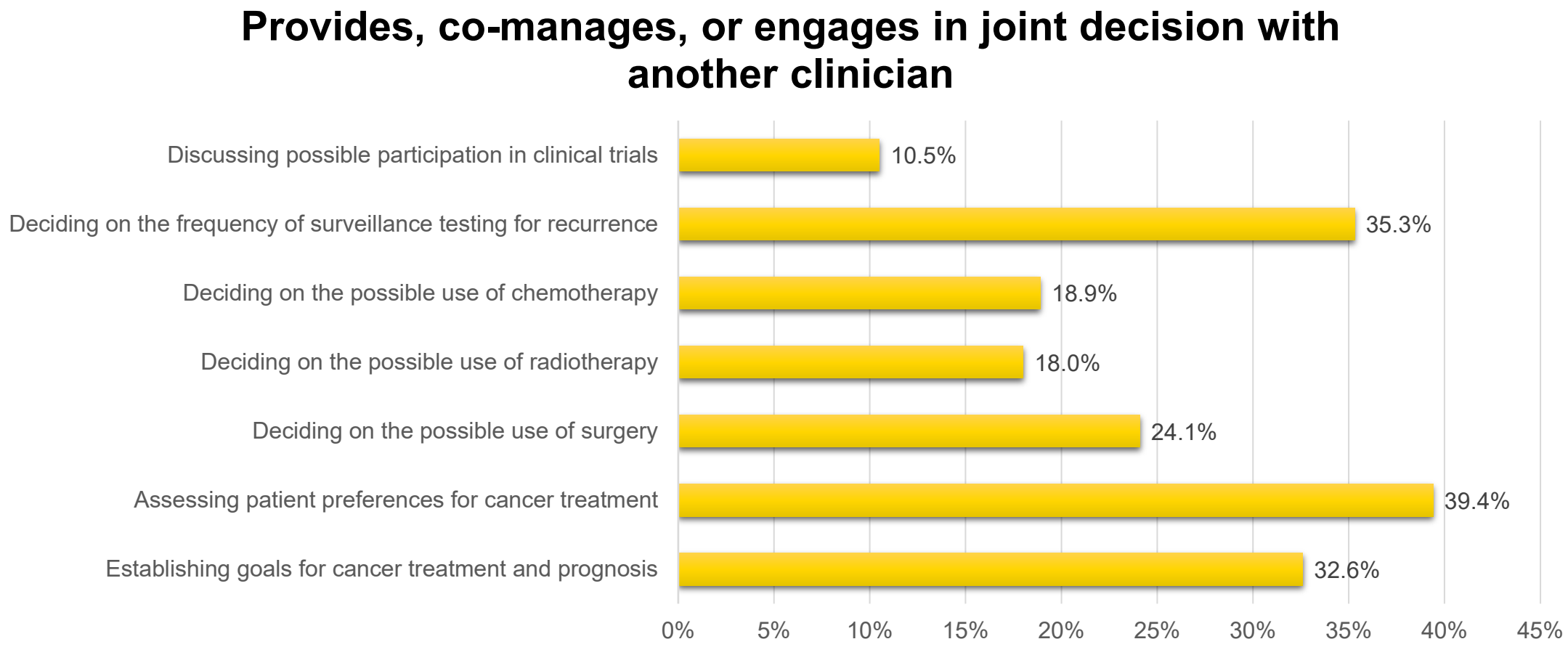
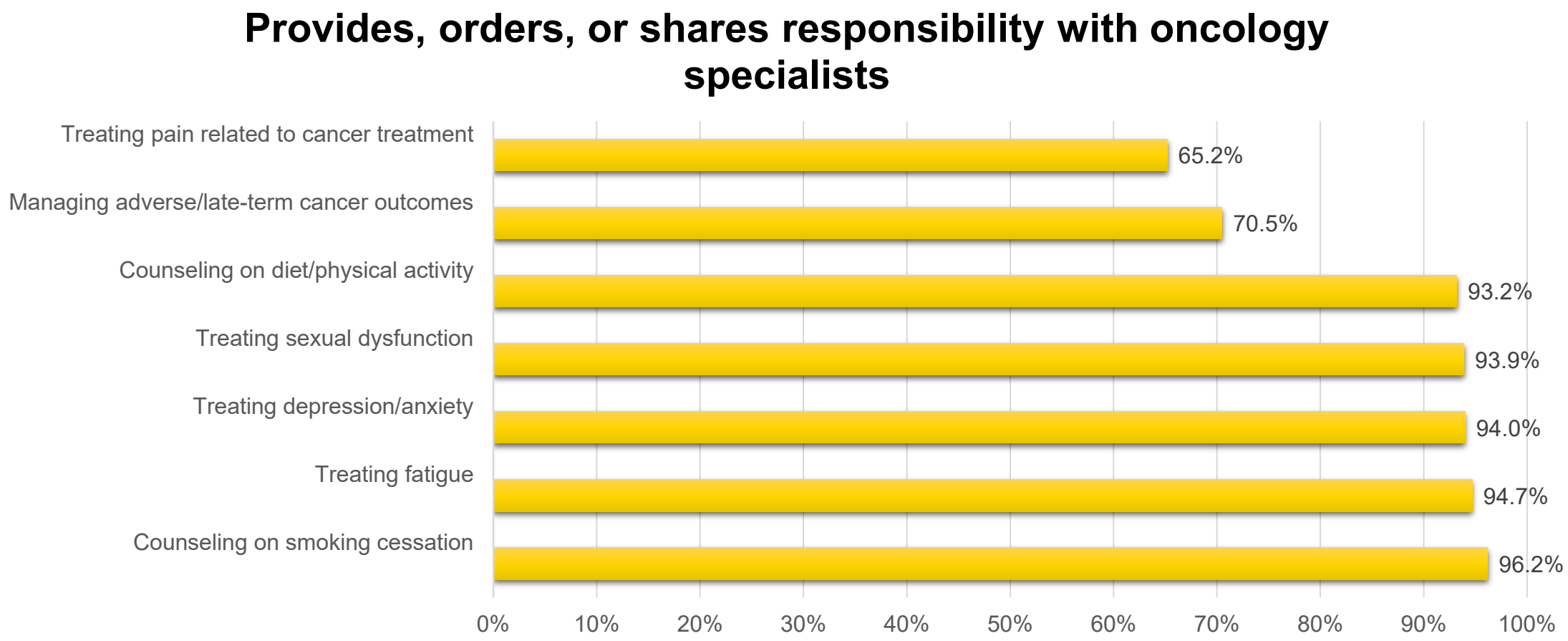
The Role of RHC Providers in Cancer Treatment and Survivorship Care

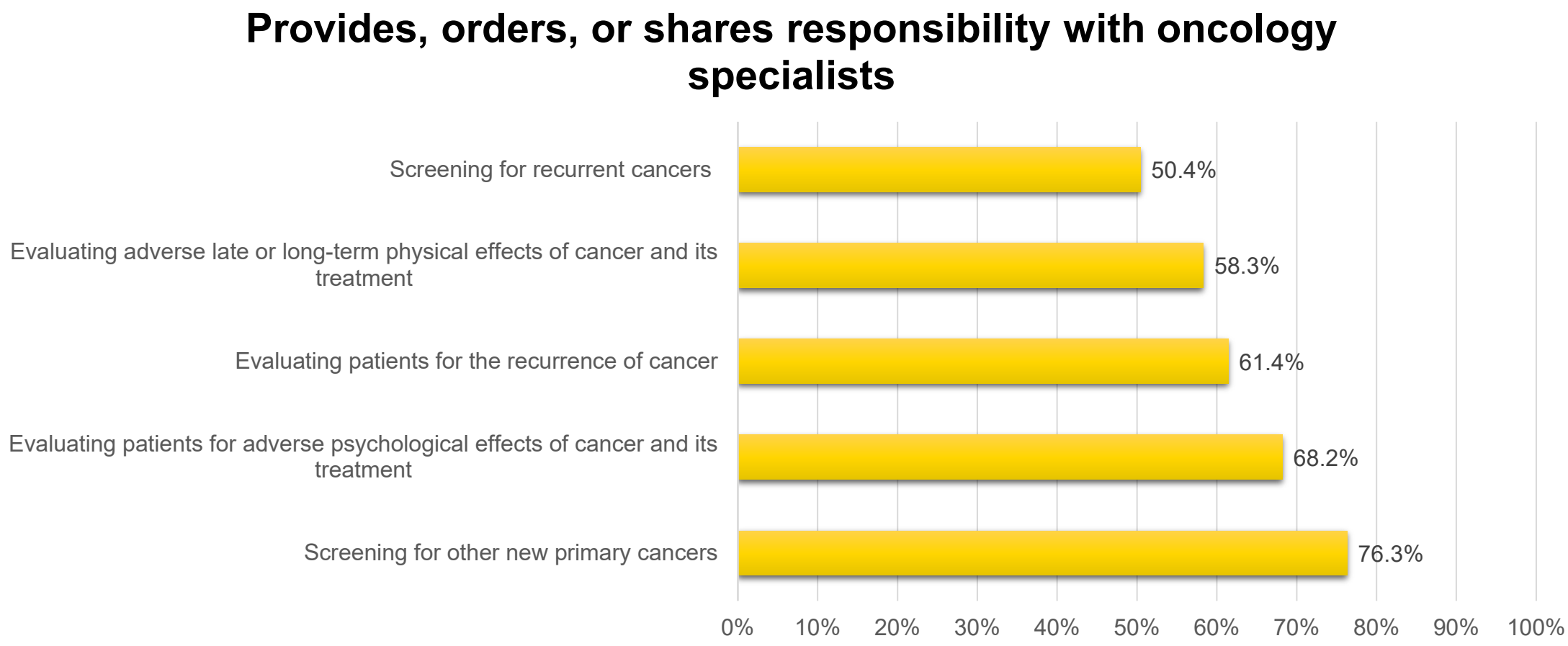
RHC Providers Role in Treatment Decisions



RHC Provider Role in Survivorship Care



RHC Provider Role in Survivorship Care



Experiences with Follow-Up Care

	% Always/Almost Always/Often
Receive a treatment summary from the oncology team	72.8%
Provide a non-cancer history to the oncology team	72.5%
Experience difficulties in transferring responsibilities between you and oncology team	12.4%
Receive an explicit follow-up care plan documenting recommendations for future care/surveillance	62.1%
Have a specific discussion with the patient about future care/surveillance	61.4%

Implications of Findings

Summary and Implications of Findings

- RHCs experienced closures and many other stressors due to the pandemic
- Percent of RHCs providing telehealth more than tripled
  - Continued flexibility and coverage by Medicare?
- Cancer-related prevention and screening services were reduced in rural health clinics
  - Mirrors FQHC and large system EHR data
- RHC providers are involved at some level in treatment decisions and survivorship care, important opportunity for intervention

Proposed and Potential Next Steps

- Identify factors associated with cancer care across the continuum in RHCs
- Further analyze survey data to examine the use of evidence-based strategies for screening
- Interview RHCs to elucidate survey findings
- Examine individual-level data (e.g., Medicare) to examine the role of RHCs in aspects of cancer prevention and control service provision

Study Team and Acknowledgements

- Research Team:
  - Co-PIs: Whitney Zahnd and Jan Eberth
  - Collaborators: Peiyin Hung, Swann Adams, Nabil Natafgi, Shaun Owens, Melinda Merrell, Elizabeth Crouch, Stella Self
  - Student research assistants: Allie Silverman, Christopher Marshall
  - Administrative support: Janie Godbold
- Acknowledgements: Shannon Chambers, Fairfield Medical Center
- Funding: HRSA Rural Health Research Center Cooperative Agreement (2U1CRH30539-05)

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Thank you! Questions?

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