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Developing an Emergency Department-Based Platform to Promote Multiple Cancer Screenings

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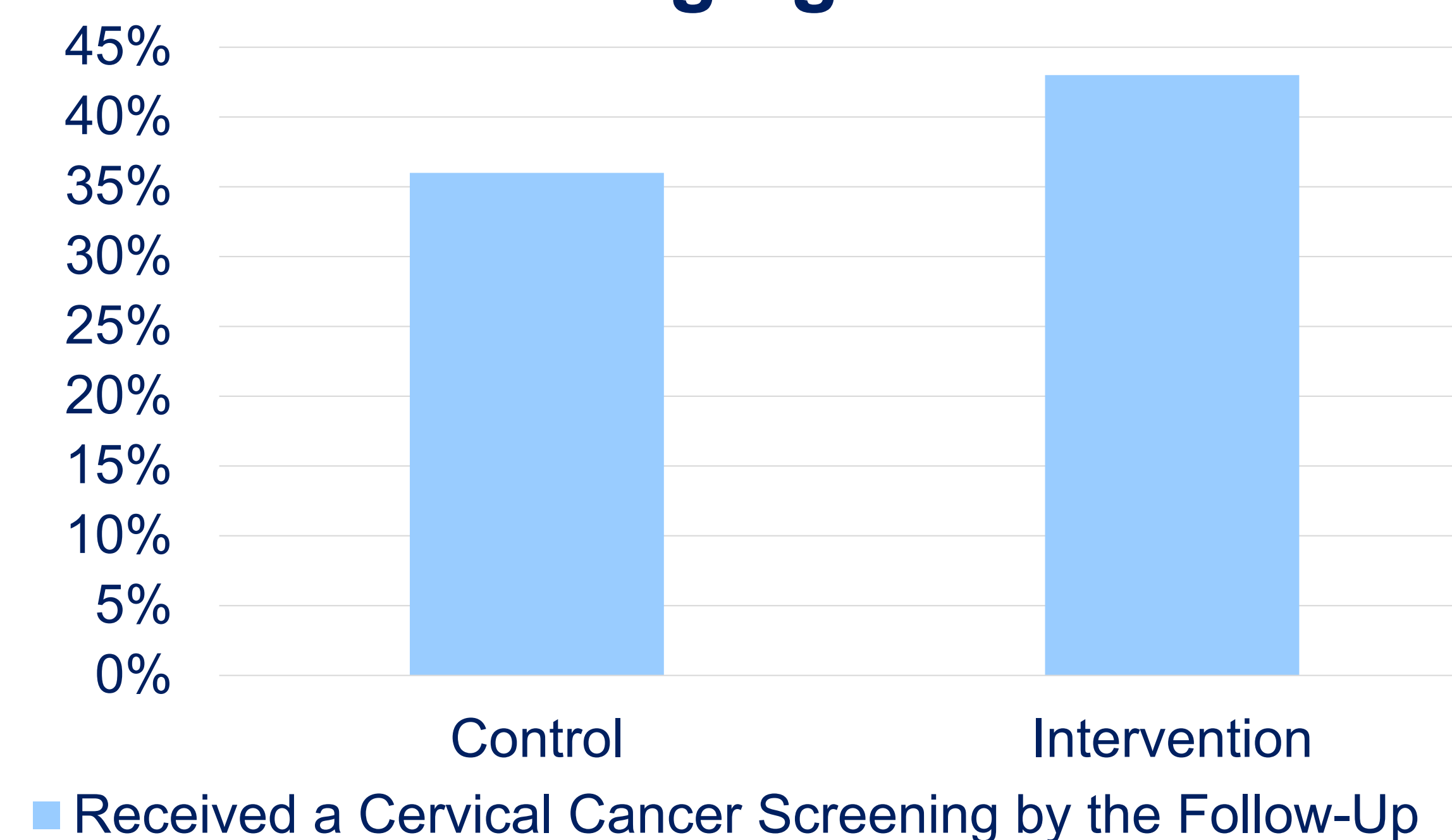
The Emergency Department as the “Front Door” to the Healthcare System

- Although designed to address acute illnesses and injuries, emergency departments (EDs) provide a unique opportunity to advance preventive health efforts
 - ~ 40 visits/year for every 100 persons in U.S.
 - Majority of admitted patients come through the ED
- EDs care for a disproportionate number of patients with the socio-demographic factors (i.e., people of color, Hispanic ethnicity, lower income, and lack of health insurance) commonly associated with non-adherence with regular cancer screening.
- Our work focuses on developing and testing inexpensive and scalable interventions to help limit disparities in screening and, ultimately, in cancer-related mortality

Early Efforts to Bring Cancer Screening Work to the ED

- Our initial work brought together a team with experience in emergency medicine, cervical cancer, and behavioral research to develop a method to catalyze uptake of timely cancer screening behaviors.
- First funded through a pilot award from the UR Clinical and Translational Sciences Institute to evaluate the potential for a text message-based intervention to increase cervical cancer screening uptake among ED patients.
 - Randomized pilot of 95 patients non-adherent to USPSTF recommendations for cervical screening
 - Patients who received a series of 3 theory-informed text messages aimed at increasing screening were 19% more likely to be screened at follow-up than patients who just received a recommendation

Encouraging Pilot Work



Expanding Our Research

- This work was encouraging, and we expanded upon it in three defined ways.
 1. Enhance dosage of the intervention and perform an efficacy trial on cervical cancer screening.
 2. Evaluate screening to identify the most cost-effective way to scale intervention.
 3. Adapt and expand this approach to colorectal and lung cancer screening.
- To accomplish these goals, we required (a) colleagues with defined expertise outside of EM and public health and (b) funding to effectively complete these projects.

Major Funding Breakthrough

- R01 from the National Cancer Institute (Adler PI)
 - Scales intervention and increases to 6 texts
 - Evaluates whether adherence rates differ based on in-person interview vs. self-directed tablet data entry.
 - Expands to include rural recruitment
 - Involves colleagues in Cancer Control and Gynecology, partners in industry and the community.
 - To date, we have evaluated 1,701 patients, enrolling 467 women non-adherent with USPSTF cervical cancer screening guidelines into the trial.

Recent Developments

- Sought out funds to adapt and pilot our intervention platform in the areas of colorectal cancer and lung cancer screening.
- Colorectal cancer represents a natural next step, as it evaluates the intervention with a broader patient population and much more complicated screening procedures
- Received funding through a UR Research Award (Abar PI) to pilot on patients non-adherent with colorectal screening guidelines (beginning 1/22).
- Brought on collaborators in primary care and gastroenterology.
- Lung cancer screening was another high yield direction for expansion, as (a) there are considerable disparities in screening and (b) patients most at risk for non-adherence are over-represented in the ED.
- Awarded a 2021 UR Healthcare Innovation Award (Adler PI) to adapt and pilot our intervention to increase lung cancer screening (19 patients enrolled to date).
- Added a collaborator in thoracic radiology to streamline screening processes.

Vision for the Future

- Long-term goal is to develop a sustainable and effective intervention that can help reduce cancer-related mortality and morbidity among ED patients.
- Provided we show efficacy of the platform for cervical, colorectal, and lung cancers, we hope to develop a multi-cancer screening intervention that can be tested across multiple ED contexts.
- Also looking into creating more streamlined pathways to receive a cancer screening should a patient be found non-adherent with guidelines during their ED visit.



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