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

- Received a Cervical Cancer Screening by the Follow-Up
- Control: 5%
- Intervention: 19%

Expanding Our Research
- This work was encouraging, and we expanded upon it in three defined ways.
  1. Enhance dosage of the intervention and perform a 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 are 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.