

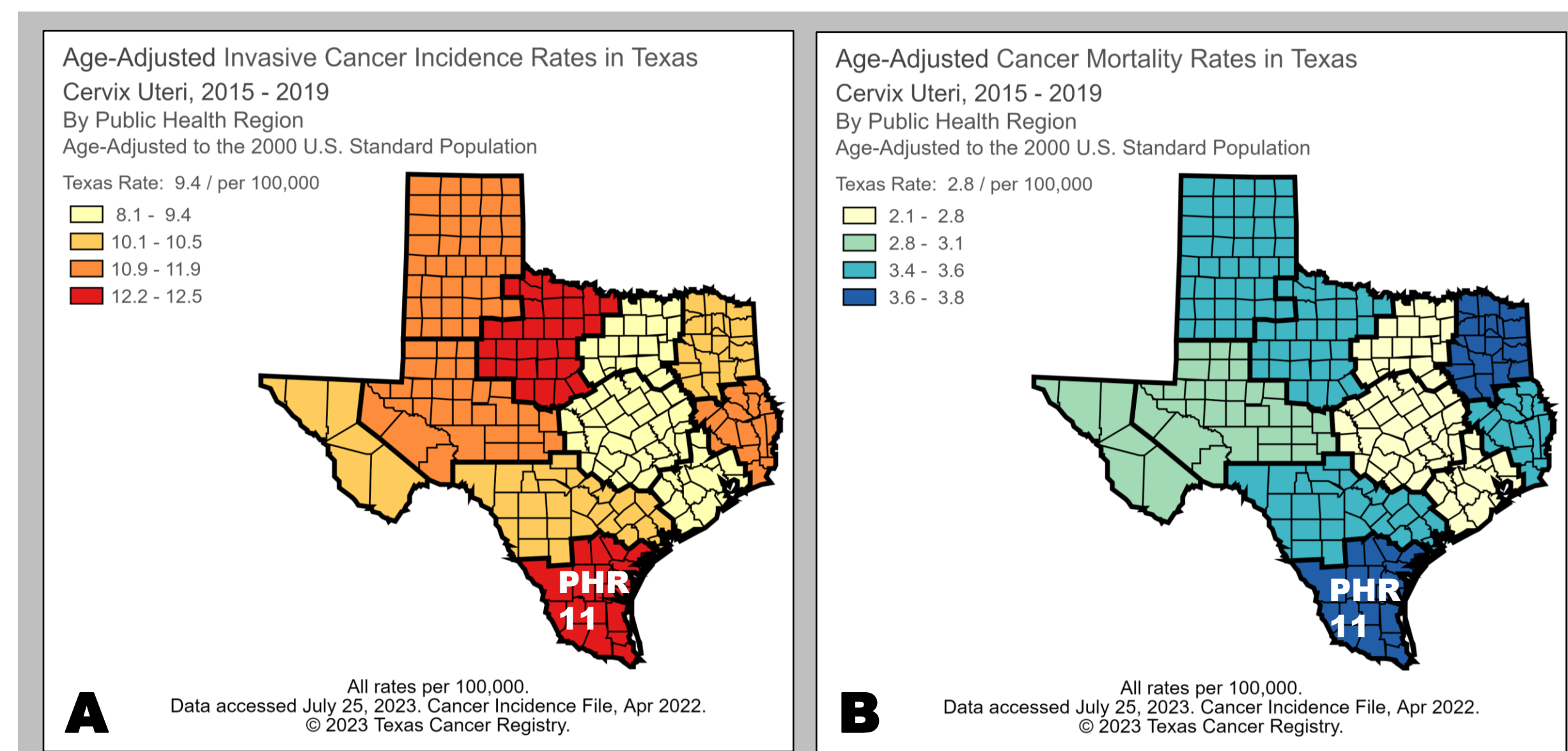
# Integrating Cervical Cancer Prevention Services to Improve Healthcare Access in the Texas Rio Grande Valley

Alaina Le, Kathleen Schmeler, Melissa Lopez Varon, Ellen Baker, Mila Salcedo, Jessica Milan, Monica Pippin, Reina Guerrero, Kidist Daniel

The University of Texas MD Anderson Cancer Center, Department of Gynecologic Oncology and Reproductive Medicine, Houston, TX

## Background

- The Texas Rio Grande Valley (RGV) along the Mexico border consists of 4 counties (Cameron, Hidalgo, Willacy, and Starr) and is part of Public Health Region (PHR) 11.
- The incidence and mortality rates of cervical cancer in PHR 11 are approximately 35% higher than the state and 55% higher than the country (Figure 1) [1].
- 90% of cervical cancers are caused by persistent human papillomavirus (HPV) infection [2].
- Screening (cytology & HPV testing) and the HPV vaccine are effective at preventing cervical cancer but are offered in separate clinical settings to different age groups.
- RGV providers and patients face healthcare barriers and challenges due to scheduling, transportation, financial cost, and low health literacy, among others [3].
- A pilot study to combine cervical cancer prevention services (HPV vaccine & screening) with cancer prevention education on one date, in a clinical setting, was proposed to address these challenges and improve patient outreach in the region.**



**Figures 1A & 1B:** 2015-2019 age-adjusted cervical cancer incidence and mortality rates per 100,000 in Texas PHRs. A) Incidence rate for PHR 11: 12.7. B) Mortality rate for PHR 11: 3.8. These rates for Texas are 9.5 and 2.8, respectively.

## Results

- The events hosted a total of 630 participants. There were 330 visitors educated, 116 patients screened (cytology & HPV testing), and 132 patients HPV-vaccinated (Figure 3).
- 123 survey participants indicated receiving a cervical cancer prevention service.
- 45% of these participants preferred to communicate in Spanish.
- 66% indicated that they were scheduled for a follow-up appointment (Figure 4C).
- 43% of those who were asked about their prior awareness of the combined screening and HPV vaccination offered at the event indicated that they were unaware (Figure 4B).
- Among those who indicated awareness (57%), telephone reminders were most frequently cited as their reason for awareness.

## Conclusions

- Integrating cervical cancer prevention services and education into one clinical setting may be an effective cervical cancer prevention strategy for reaching women who were not previously screened or who were overdue per screening guidelines and patients who were not previously vaccinated against HPV or who needed a follow-up dose.
- Health fairs in the RGV should continue to provide adequate Spanish resources to accommodate the nearly even proportion of Spanish-speakers to English-speakers.
- Clinics hosting these events should be prepared to support patients with future follow-ups.
- Better event planning and advertising is suggested to increase patients' awareness and participation in the services offered. Telephone reminders could become more standardized, and other advertisement forms (e.g. flyers and social media) could be explored and improved upon.

## Acknowledgements

These events were made possible thanks to grant funding from the Raul Tijerina Foundation, the Cancer Prevention Research Institute of Texas, and the Health Resources and Services Administration. Thank you also to our partners in the RGV: Su Clinica, Mid Rio Grande Valley Border AHEC, UT School of Public Health Brownsville, and UTRGV School of Medicine.

## References

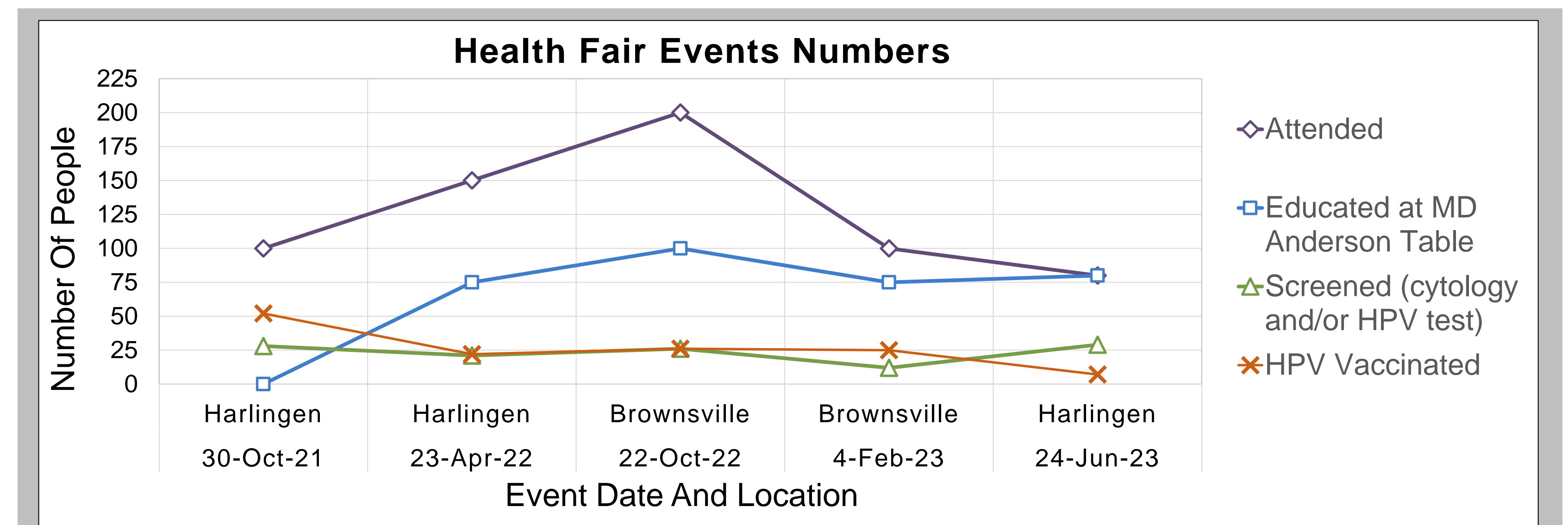
- Cancer Incidence File, Feb. 2023. *Texas Cancer Registry*. <<https://cancer-rates.info/tx/>>.
- Szymonowicz, K.A., Chen J. "Biological and clinical aspects of HPV-related cancers." *Cancer Biol Med*. 2020 Nov 15;17(4):864-878.
- Boom, K., et al. "Perspectives on Cervical Cancer Screening and Prevention in the Rio Grande Valley..." *Perspectives in Public Health* 2019;139(4):199-205.

## Methods

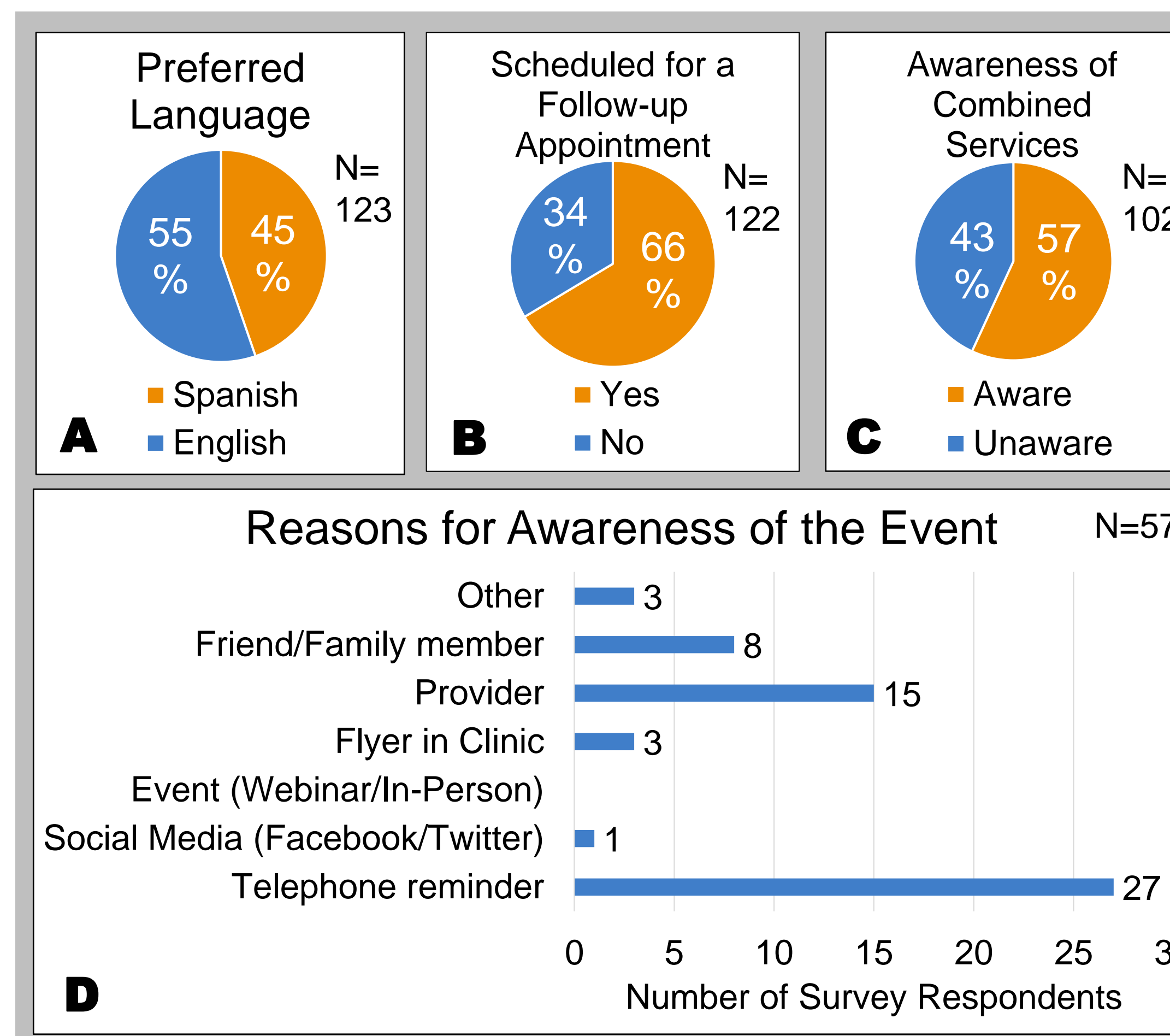
- Five Saturday health fairs were held Oct. 2021 – Jun. 2023 to offer a combination of services at Su Clinica clinics in Harlingen or Brownsville within Cameron County (Figure 2).
- Screening (cytology & HPV test), HPV vaccines, and cancer prevention education were offered with aid from grant funding.
- Patient navigators helped schedule patients in advance by calling patients and sending reminders.
- Most women scheduled did not have a previous screening history recorded in the electronic medical record.
- Most children identified to attend were past-due for 2<sup>nd</sup> HPV vaccine doses.
- MD Anderson's team supported the clinics with planning.
- Educational materials on cervical, breast, and colorectal cancer screening were offered in English and Spanish.
- Trained volunteers surveyed patients to record their satisfaction and receive feedback for improving the program.
- Surveys (Eng/Spa) were developed to assess patients' awareness of the events and satisfaction with this approach.
  - Changes were made from the first health fair to improve quality.
  - Data was collected and managed through MD Anderson-approved Research Electronic Data Capture (REDCap) tools.



**Figures 2A, 2B, 2C, 2D:** Images from Jun. 24, 2023, in Harlingen. A) MD Anderson team and clinic partners. B) Volunteers at Women's Health Clinic. C) Volunteer educating and taking a survey from patient. D) Education table set with souvenir bags and pamphlets in English and Spanish.



**Figure 3:** Clinic-reported numbers for total visitors, visitors educated by MD Anderson personnel, patients screened, and patients HPV vaccinated across 5 health fairs in the RGV.



**Figure 4A, 4B, 4C, 4D:** From survey participants who indicated that they received a service at the event:  
A) Preferred language between English and Spanish  
B) Scheduled for a follow-up appointment (screening or next dose of HPV vaccine)\*  
C) Awareness prior to the event that a combination of services would be offered\*\*  
D) Of those who were aware (Fig. 4C), the indicated reasons for their prior awareness

\*1 answer was missing. The participant may have declined to answer or there was an error in volunteer entry.

\*\*This question was not included on the first event's survey.