Improving Access to Cervical Cancer Screening Among Somali Refugees

A Quality Improvement Project

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2/26/2025

This paper is submitted in partial fulfillment of the requirements for the Doctor of Nursing Practice degree.

Abstract

Background: Refugee women face significant risks in accessing reproductive care due to displacement and systemic barriers. In the US, these women experience lower cervical cancer screening (CCS) rates compared to non-refugee women. Factors such as limited health literacy, language barriers, religious beliefs, and mistrust of the healthcare system contribute to these disparities.

Aim: The primary aim of this quality improvement project was to improve awareness and knowledge of cervical cancer among Somali women in Portland, Oregon, through gender-sensitive, community-based educational workshops.

Methods: This QI project was implemented at FQHC in Oregon in partnership with community-based organizations. Using a Community-Based Participatory Research approach, the project consisted of three phases: assessing community needs, developing culturally tailored educational workshops, and delivering a 45-minute session focused on improving cervical cancer awareness. To evaluate the intervention's effectiveness, participants completed pre- and post-surveys to measure changes in their knowledge and understanding of CCS and reproductive health services.

Results: 40 participants attended the educational session, with significant improvements in awareness and attitudes toward cervical cancer screening observed in the post-survey. Before the session, knowledge about cervical cancer was limited, with only 52.5% having heard of cervical cancer and 22.5% aware of HPV. Following the session, all participants reported a better understanding of the importance of screening and expressed willingness to discuss it with healthcare providers.

Conclusion: There is a notable disparity in CCS rates among Somali women in the U.S., emphasizing the need for culturally tailored health education. The results demonstrated improved knowledge and awareness, highlighting the effectiveness of this intervention. This intervention can be replicated to reduce disparities and improve health outcomes in other marginalized communities.

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Introduction

Problem Description

Cervical cancer is a prevalent malignancy that has significant implications for women's health worldwide. It ranks as the fourth most common cancer among women globally and is the fourth leading cause of cancer-related deaths (Centers for Disease Control and Prevention [CDC], 2023). In 2020, there were approximately 604,000 new cases of cervical cancer diagnosed globally, with 342,000 deaths attributed to the disease (CDC, 2023). More than 85% of cervical cancer deaths globally occur in underdeveloped nations, where the mortality rate is 18 times higher than in wealthier countries (Zhang et al., 2020). In the United States (U.S.), there is a notable disparity in rates of cervical cancer screening (CCS) and cervical cancer outcomes among racial/ethnic groups, particularly for many immigrant communities (Allen et al., 2019). The rate of cervical cancer in the East African immigrant and refugee community in the U.S., particularly among Somali refugees, remains unknown. Eastern Africa has the highest incidence of cervical cancer worldwide, with a rate of 42.7 per 100,000 and a mortality rate of 27.6 per 100,000. These rates are substantially higher than the global incidence of 14.0 per 100,000 and the mortality rate of 6.8 per 100,000 (Allen et al., 2019).

Refugee women, including Somali refugees in the U.S., face unique social and cultural contextual challenges that impact health outcomes, such as adversity, trauma, and displacement (Abdi et al., 2020). Furthermore, due to a lack of awareness about preventive care, including cancer screening, Somali refugee women have significantly lower rates of breast cancer screening and CCS compared to their non-refugee counterparts (Huhmann, 2020). Various factors, including lack of awareness, language and cultural barriers, religious beliefs, and limited healthcare access, contribute to disparities in CCS among women refugees from Somalia (Allen et al., 2019). Improving access to culturally sensitive healthcare

and implementing tailored health education programs are essential. Collaborating with established community and faith-based organizations is critical for maximizing interventions and enhancing health outcomes among Somali refugee women in CCS (Huhmann, 2020).

This quality improvement project aims to improve cervical cancer awareness among Somali women by conducting gender-sensitive, community-based educational workshops. The workshops aim to identify knowledge gaps, enhance understanding of CCS and its signs and symptoms, and reduce disparities in healthcare access.

Search Strategy

A PICO question guided the literature search, focusing on identifying barriers, knowledge levels, and interventions for cervical cancer screening among Somali refugee women. A systematic search was conducted across PubMed and SCOPUS databases for English language articles published from 2010 to the present. Most reviewed studies included women from Somalia, Muslim women, Asians, and East Africans. The PubMed search builder was utilized, incorporating keywords and Mesh terms such as *cervical cancer, cervical dysplasia, malignancy, neoplasm, reproductive health, refugees, immigrants, Somalia, East Africa, Sub-Saharan, United States, cultural norms, cultural sensitivity, health care accessibility, and cervical cancer screening.* Systematic reviews, a clustered randomized trial (RCT), qualitative studies, and integrative reviews were examined to determine evidence-based approaches for increasing awareness and interventions for reproductive and sexual health, particularly CCS, among Somali women.

Available Knowledge

Research demonstrates that identifying and understanding the underlying factors affecting CCS is crucial for addressing disparities in screening rates among Somali women (Allen et al., 2019; Huhmann, 2020). Low health literacy can prove a substantial barrier to CCS among Somali women.

Studies reveal a considerable gap in awareness; many Somali women were not only unaware of the signs and symptoms of cervical cancer but also lacked familiarity and the value of the concept of screening. Consequently, this lack of awareness can lead to misunderstandings and disregard for reproductive health risks (Abdi et al., 2020; Afsah & Kaneko, 2023; Allen et al., 2019). Furthermore, the lack of female providers significantly impacts the comfort and modesty of Somali women during discussions on sensitive topics such as sexual and reproductive health, including screenings and examinations, highlighting a critical barrier to CCS (Abdi et al., 2020; Adunlin et al., 2018; Ferdous et al., 2018).

Religious beliefs and sociocultural norms pose significant barriers to CCS among Somali women. These include the perception of unmarried women as sexually inactive, the belief that illness is divine punishment, and the pain and fear associated with female circumcision during screening (Afsah & Kaneko, 2023; Ferdous et al., 2018; Huhmann, 2020; Raymond et al., 2014). Several studies highlighted systemic barriers that limit Somali women's access to sexual and reproductive healthcare. These challenges include the complexity of navigating the healthcare system, limited English proficiency, and concerns about the reliability and gender of interpreters (Ghebre et al., 2014; Huhmann, 2020; Raymond et al., 2014). Furthermore, a pervasive mistrust exists among Somali women, who frequently doubt the healthcare system's intentions and are hesitant to trust medical advice provided by healthcare professionals (Ghebre et al., 2014; Huhmann, 2020). Other logistical issues, such as lack of transportation, work commitments, and difficulties securing childcare, impede reproductive care access (Ghebre et al., 2014).

Healthcare providers must demonstrate understanding and patience when treating Somali patients to understand the cultural norms, beliefs, practices, and barriers to reproductive health screening. This approach cultivates trust and facilitates the customization of culturally appropriate

interventions and interactions, enhancing CCS uptake among refugee women, including Somali (Raymond et al., 2014; Power et al., 2022). Evidence suggests various effective intervention strategies, such as workshops and community-based education, have been shown to increase CCS uptake among Somali refugee women. Many participants find that focus groups significantly enhance their understanding of health topics like CCS (Allen et al., 2019; Mohamed et al., 2023). Additionally, religion plays a significant role in the health and wellness of the Muslim community. Adapting screening approaches to include Islamic religious leaders, such as Imams, could help bridge health disparities (Afsah & Kaneko, 2023). Pratt et al. (2019) found that interventions tailored to religious beliefs positively impact Somali American women's engagement in discussions about the value of CCS. Another study by Power et al. (2022) emphasized the importance of co-facilitating with culturally adapted Community Health Workers (CHWs), crucial for connecting healthcare services with refugee communities. CHWs help integrate cultural values and address unique challenges, such as misinformation and specific concerns about CCS. This approach made the participants feel more informed and empowered. Healthcare providers must address the barriers faced by Somali women by prioritizing culturally tailored education to improve access to reproductive health services such as CCS (Huhmann, 2020).

Rationale

Reproductive health disparities significantly impact marginalized communities, including access to preventative care such as CCS (Francis et al., 2014). A root cause analysis and literature review have highlighted Somali women's unique barriers in accessing CCS and proposed culturally tailored interventions to improve health outcomes and bridge the knowledge gap (Huhmann, 2020).

This project will be guided by the Model for Improvement (MFI) and Community-Based Participatory Research (CBPR) frameworks. The Model for Improvement (MFI) is a Quality Improvement (QI) framework adopted by the Institute for Healthcare Improvement (IHI) for healthcare use in

implementing quality improvement practices and improving patient care (IHI, n.d.). MFI is structured around three fundamental questions: defining the project's aim, selecting improvement measures, and identifying ideas for improvement. The model also integrates a four-step Plan-Do-Study-Act (PDSA) cycle crucial for effectively developing, testing, and implementing changes (Langley et al., 2009). CBPR provides a framework for equitable collaboration between community members and researchers. This participatory approach enhances the value of diverse contributions and advances cultural humility, co-learning, and trust, thereby enriching the research process (Jull et al., 2017). As such, CBPR supports patient-centered, transformative, and pragmatic research approaches. It actively addresses injustices and ensures that interventions are culturally sensitive and directly beneficial, aligning effectively with the needs and values of the community (Rustage et al., 2021). Integrating CBPR with the MFI in quality improvement projects enables healthcare teams to effectively promote health equity, improve access to care, and reduce disparities (Rustage et al., 2021).

Specific Aims

This QI project aimed to improve Somali women's awareness and knowledge of CCS in Portland, Oregon, by delivering a culturally tailored, community-based educational workshop on November 16th, 2024. The project's main objective was to increase CCS participation and access to reproductive health services within this community, thereby reducing healthcare disparities among Somali women.

Methods

Context

This QI project was implemented at a Federally Qualified Health Center (FQHC) in Portland, Oregon, which receives funds from state and local sources. The FQHC offers comprehensive services, including reproductive health, mental health care, and refugee screening, to patients of all ages within Multnomah County, Oregon. In 2023, operational data provided by the Medical Director of the FQHC

indicates that the center served 8,486 patients, including 322 Somali patients. The patient demographic includes 56.9% identifying as female, 43% as male, and 0.01% as nonbinary. The FQHC serves a multi-language population, including Somali, English, Russian, Spanish, Arabic, Chinese Cantonese, and Creole French. The FQHC offers medical interpreters. Recent data from the American Health Rankings and State Cancer Profiles (2023) indicate that cervical cancer screening rates in Oregon are 78% for Whites compared to 63% among marginalized communities.

This Doctor of Nursing (DNP) project additionally fulfilled a grant requirement for the FQHC. Program Element 46 (PE 46), titled "Community Partnerships and Assurance of Access to Reproductive Health Services," was developed in collaboration with the Oregon Coalition of Local Health Officials (CLHO) to ensure access to clinical reproductive health services statewide. The FQHC was required to collaborate with community partners to identify service gaps and barriers and develop and implement strategies to increase marginalized populations' access (Oregon Health Authority, n.d).

Intervention

The QI project was structured into three phases and was partially adapted from a successful previous DNP student project with positive outcomes. Phase 1 involved assessing community needs through collaboration with various community-based organizations (CBOs) and partners. Critical discussions during this phase focused on preventive care in reproductive health screening and identifying barriers to such screening. It also included developing a culturally tailored education workshop aimed at identifying knowledge gaps and providing an overview of cervical cancer (Appendix A).

Phase 2 focused on recruiting participants from both community and clinical settings and promoting the workshop. It also involved creating promotional content, including distributing flyers (Appendix B) in the community with the help of community leaders. The Somali community often faces

literacy challenges and relies on oral dialogue in trusted community settings for health education. The final phase consisted of a 45-minute education session on cervical cancer awareness and was held at the Center for African Health.

Study of the Intervention

Participants completed pre- and post-surveys (Appendices C & D) to evaluate the efficacy of the intervention. Surveys measured the impact of the intervention on participants' knowledge and awareness of cervical cancer and improved access to gender-sensitive interventions. Additionally, the collected feedback was used to assess improvements in access to reproductive health services and understanding available resources. The initial pre- and post-surveys were partially adapted from Hassane (2021) and previous work by a DNP student, which was developed in collaboration with CBOs. The surveys were available in English, and both the interpreter and the DNP student assisted in translating them into Somali.

Measures

The primary outcome measure for this QI project was to increase participants' knowledge and awareness of cervical cancer, access reproductive health services, and improve their understanding of available resources. The secondary outcome measure was to increase the utilization of reproductive health services. The process measures included tracking participants' attendance rates at the educational workshop and the survey completion rates.

Analysis

Quantitative data was collected through pre- and post-surveys completed by participants of the education session and organized for analysis. The survey results were entered into an Excel spreadsheet, and the proportions of the responses were analyzed with the assistance of a statistician from Oregon Health and Science University (OHSU). The findings were visually represented using a pie chart and bar

graphs. "Yes" responses were assigned a score of one, while "No" or "Not Sure" responses received a score of two.

Ethical considerations

Ethical considerations for this QI project included ensuring that participation was voluntary and informed consent was obtained. No personal information was collected during the education session, except for demographic questions such as age and the number of years in the U.S. Names were collected exclusively for gift card distribution and were not associated with survey responses. All data from this project was handled securely and de-identified to ensure confidentiality and protect individual privacy. Before commencing the workshop, participation criteria were clearly outlined, and verbal agreement was obtained from all participants. Recognizing the significance of gender sensitivity, the workshop was held at a Somali community center to create a comfortable and safe environment. The project was led by a DNP student who shares the same cultural background, in close collaboration with Somali community leaders, to ensure that all aspects of the project are culturally sensitive. To promote inclusivity, the workshop session was conducted in English with the assistance of a female-certified Somali medical translator, who was present throughout the session. This QI project was submitted to the OHSU Investigational Review Board (IRB) (Study #00027565) (Appendix E) and the MCHD Review Board. Both boards determined that the project was exempt from additional review. The medical director of the clinic site endorsed the project by providing a formal letter of support (Appendix F).

Results

Through collaboration with five CBOs and two community members, the most relevant topic that aligned with PE 46's objectives was identified. The collaborative effort resulted in selecting cervical cancer screening as the focus of the education session, intended to increase community awareness. This concluded phase 1 of the project.

Forty participants attended the educational session and completed the pre-survey, with 39 completing the post-survey. Among these, 36 participants in the pre-survey fully completed demographic questions, including age and the number of years they had lived in the US. The average age of participants was 40.2 years, and 72.5% had lived in the US for more than ten years (Appendix G & H). About 52.5% of participants had heard of cervical cancer before the session, while 47.5% had not. Similarly, 52.5% reported having had a Pap test, whereas 47.5% had never undergone one (Appendix I). Notably, 92.5% of participants reported that they did not know the cause of cervical cancer. Additionally, only 22.5% had heard of Human Papillomavirus (HPV), and a significant 82.5% were not aware that an HPV vaccine is available to help prevent HPV infections. Furthermore, only 30% of participants had discussed cervical cancer screening with a healthcare provider, while 70% reported that they had not. When asked about barriers to cervical cancer screening, respondents highlighted that 40% were not aware of the need for screening, 38% regarded screening as unnecessary, and 20% identified language barriers or the lack of an appropriate interpreter as challenges.

Four of the 39 participants who completed the post-survey did not provide information on their age or years in the US. The post-survey results demonstrated significant improvements in awareness and understanding of cervical cancer. All participants reported 100 % a better understanding of the importance of cervical cancer screening after the educational session (Appendix J). Additionally, all respondents indicated that they would discuss cervical cancer screening with their healthcare providers and recommend the session to others. When participants were asked to suggest topics for future educational sessions, 40% responded. The most recommended topics included reproductive health, diabetes, high blood pressure, and mental health (Appendix K).

Discussion

Summary

This DNP project aimed to promote awareness and knowledge of CCS and its prevention through a culturally tailored educational workshop for Somali women in the Portland metropolitan area. Using the CBPR framework, the project emphasizes collaboration with community leaders and organizations to ensure cultural relevance, build trust, and address systemic barriers. CBPR integrates knowledge with action to foster social change, improve health outcomes, and reduce health disparities (Jull et al., 2017). The intervention's desired outcomes included improving health literacy about CCS and its prevention and increasing access to reproductive health services. This project highlighted the significance of partnering with CBOs to engage marginalized communities and promote reproductive health equity effectively. The workshop was effective, with pre-and post-survey results showing significant improvements in participants' knowledge and awareness of CCS and its prevention.

Interpretation

The pre-survey results revealed significant knowledge gaps among participants about cervical cancer, with a large proportion unaware of its causes. Notably, 77.5% had not previously heard of the Human papillomavirus (HPV), and 82.5% were unfamiliar with the HPV vaccine. These results are comparable to other studies indicating that many female Somali participants also demonstrate limited understanding of CCS and the HPV vaccine (Allen et al., 2019; Huhmann, 2020). Following the intervention, post-survey results showed that 100% of participants reported a better understanding of CCS. Additionally, participants expressed willingness to discuss CCS with healthcare providers and indicated they would recommend this education session to others.

The intervention's success is rooted in strong community involvement, collaboration with CBOs, and the effective delivery of the educational session by a DNP student from a similar cultural background. This cultural congruence helped foster trust, relevance, and a safe environment for open dialogue on sensitive topics such as female anatomy, gynecological exams, and cervical cancer screening

(Huhmann, 2020). Studies by Huhmann (2020) and Allen et al. (2019) highlight the importance of culturally tailored interventions and partnerships with trusted community leaders for effectively addressing healthcare barriers faced by marginalized populations. This project reinforced these findings, emphasizing that community-oriented and culturally sensitive approaches are crucial for improving cervical health literacy and raising awareness of RHS in underserved communities. Furthermore, this intervention can be utilized by healthcare providers aiming to address health disparities in other marginalized groups.

Limitations

The limitation of this project was the loss of participants at the one-month follow-up, resulting in an incomplete long-term survey that was not performed as planned. Additionally, the project involves a small sample size, which restricts the conclusions that can be drawn. Some participants did not complete the demographic section of the survey, leading to incomplete data regarding their age and years of residency in the United States. Furthermore, one participant did not complete the post-survey, which may impact the overall analysis of the dataset.

Conclusion

In summary, there is a notable disparity in CCS rates and outcomes among Somali women in the U.S. (Allen et al., 2019). Somali refugee women face various challenges, including adversity, trauma, and displacement, along with limited awareness of preventive care. Additional factors such as language and cultural barriers, religious beliefs, and mistrust of the healthcare system contribute to lower CCS rates compared to their non-refugee counterparts (Huhmann, 2020; Abdi et al., 2020). Consequently, this lack of awareness can lead to misunderstandings and neglect of reproductive health risks (Abdi et al., 2020; Afsah & Kaneko, 2023; Allen et al., 2019). Addressing these disparities is essential for bridging the knowledge gap in reproductive health and improving CCS uptake. This QI project highlights the

importance of culturally tailored educational workshops and community involvement in empowering Somali women about CCS. The intervention proved successful, as participants reported a better understanding of CCS, expressed a willingness to discuss screening with healthcare providers, and indicated that they would recommend the educational session to others. The health education sessions demonstrate that APRNs play a vital role in collaborating with community organizations and training non-clinicians, such as CHWs, to disseminate health education effectively. Moreover, APRNs are well-positioned to drive significant changes in health equity and improve outcomes in underserved populations.

Other Information

Funding

This project was funded through the PE 46 Reproductive Health Program Element, "*Community Partnerships and Assurance of Access to Reproductive Health Services.*" The total cost of the intervention was $2,920.00, which included $720.00 for food, $2,000.00 for VISA gift cards, and $200.00 for language services

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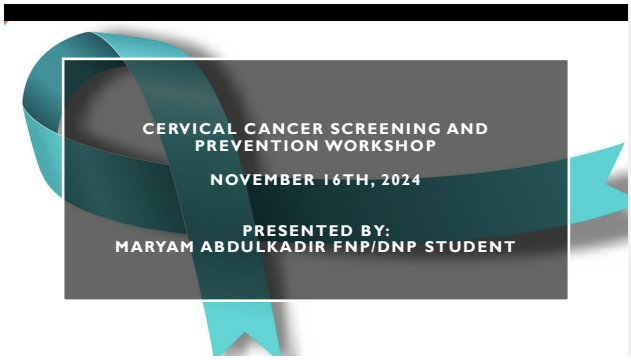
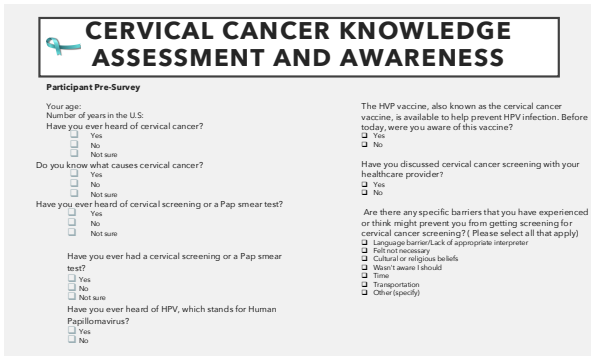
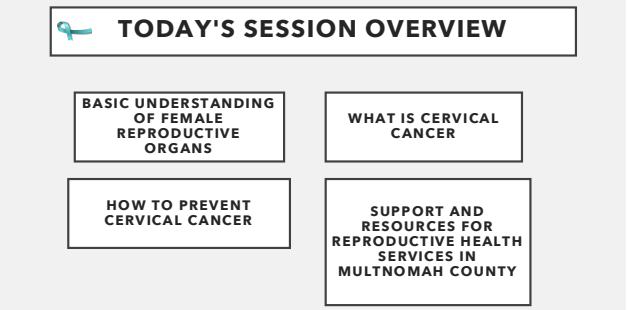
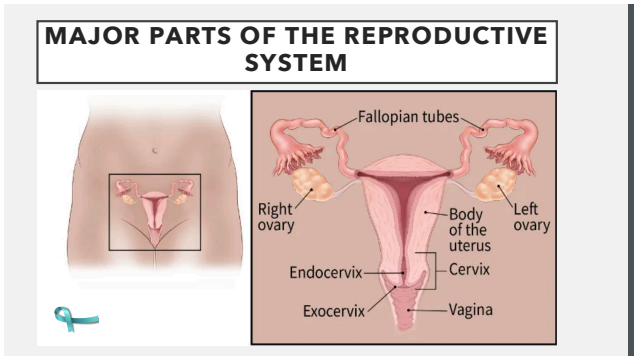
Appendix A

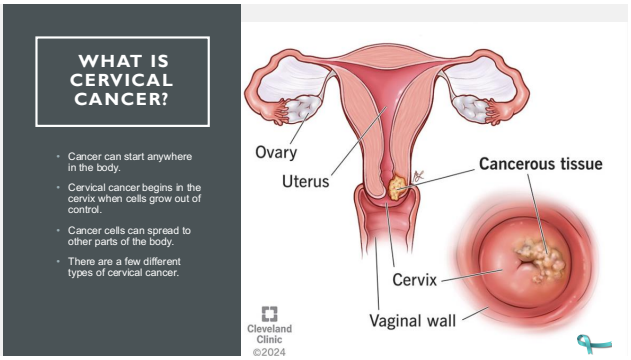

CERVICAL CANCER SCREENING AND PREVENTION WORKSHOP
NOVEMBER 16TH, 2024
PRESENTED BY:
MARYAM ABDULKADIR FNP/DNP STUDENT


SPECIAL THANK YOU
MULTNOMAH COUNTY
Health Department
OREGON HEALTH & SCIENCE UNIVERSITY
OHSU
CENTER FOR AFRICAN HEALTH & EDUCATION
CAHE

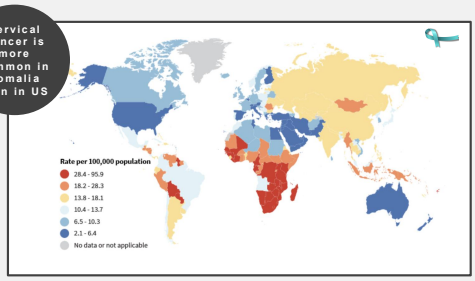

CERVICAL CANCER KNOWLEDGE ASSESSMENT AND AWARENESS
Participant Pre-Survey
Your age:
Number of years in the U.S:
Have you ever heard of cervical cancer?
Yes
No
Not sure
Do you know what causes cervical cancer?
Yes
No
Not sure
Have you ever heard of cervical screening or a Pap smear test?
Yes
No
Not sure
Have you ever had a cervical screening or a Pap smear test?
Yes
No
Not sure
Have you ever heard of HPV, which stands for Human Papillomavirus?
Yes
No
The HVP vaccine, also known as the cervical cancer vaccine, is available to help prevent HPV infection. Before today, were you aware of this vaccine?
Yes
No
Have you discussed cervical cancer screening with your healthcare provider?
Yes
No
Are there any specific barriers that you have experienced or think might prevent you from getting screening for cervical cancer screening? (Please select all that apply)
Language barrier/Lack of appropriate interpreter
Felt not necessary
Cultural or religious beliefs
Wasn't aware I should
Time
Transportation
Other (specify)


TODAY'S SESSION OVERVIEW
BASIC UNDERSTANDING OF FEMALE REPRODUCTIVE ORGANS
WHAT IS CERVICAL CANCER
HOW TO PREVENT CERVICAL CANCER
SUPPORT AND RESOURCES FOR REPRODUCTIVE HEALTH SERVICES IN MULTNOMAH COUNTY


MAJOR PARTS OF THE REPRODUCTIVE SYSTEM
Fallopian tubes
Right ovary
Body of the uterus
Left ovary
Endocervix
Cervix
Exocervix
Vagina


WHAT IS CERVICAL CANCER?
Cancer can start anywhere in the body.
Cervical cancer begins in the cervix when cells grow out of control.
Cancer cells can spread to other parts of the body.
There are a few different types of cervical cancer.
Ovary
Uterus
Cancerous tissue
Cervix
Vaginal wall
Cleveland Clinic
©2024

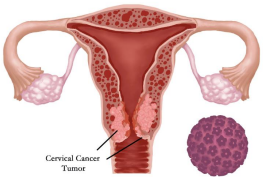
Cervical Cancer is more common in Somalia than in US



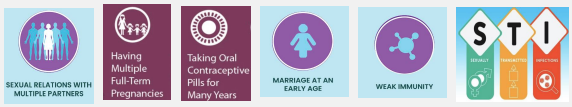
WHAT RAISES A WOMAN'S CHANCE OF GETTING CERVICAL CANCER?

ALMOST ALL CERVICAL CANCERS ARE CAUSED BY HUMAN PAPILLOMAVIRUS (HPV)

HPV 16 and HPV 18



Other factors that increase your risk of cervical cancer

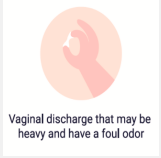


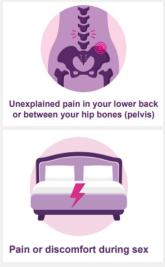
HOW DO YOU KNOW IF YOU HAVE CERVICAL CANCER?

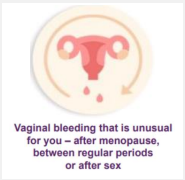
Most of the time, you can't see or feel anything.

Signs appear as the cancer grows and spreads.

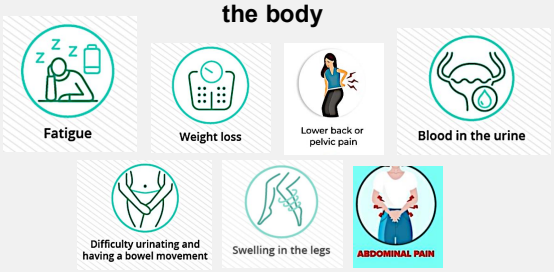
Early signs something could be wrong





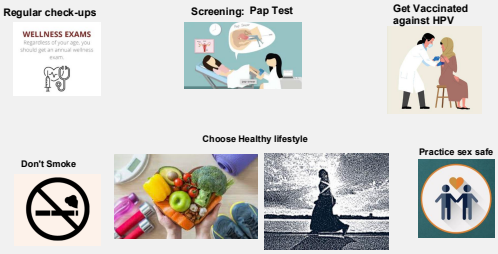


Signs the cancer has spread to other parts of the body



HOW CAN I PROTECT MYSELF?

How Can I Protect Myself?



HPV Vaccine

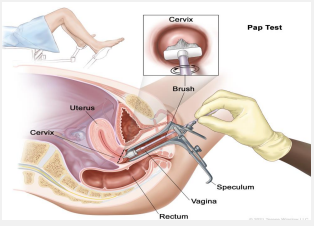
Age Group / Health Condition	HPV Vaccine Schedule
Ages 9 - 14	**Two doses**: 6-12 months apart
Ages 15 - 45 or with weaker immune system	**Three doses**: at 0, 1-2 months, and 6 months

Screening for Cervical Cancer

Screening means checking for cancer in people without symptoms.

A ***Pap test*** is a procedure where your healthcare provider gently collects cells from the cervix to check for changes that could lead to cancer

A ***HPV test*** looks for human papilloma virus, which can cause cell changes in the cervix that can lead to cervical cancer



HOW OFTEN DO WOMEN NEED A PAP SMEAR?

Age Group	Pap Test Every 3 Years	Pap + HPV Test Every 5 Years
Under 21	No	No
21-29 years	Yes	No
30-65 years	Yes	Yes
Over 65 years	No*	No*

- *(*) for women over 65, screening may not be needed if previous results have been normal*

How to prepare for a PAP SMEAR

DOs

- **Schedule appointment**: 5 days after your period ends
- **Dress comfortably**: You would have to remove your clothes from waist down, so wear a dress or skirt if you can

DON'Ts

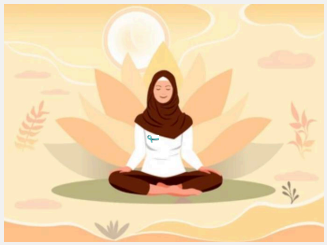
- **No sex**: 48 hours prior to your appointment
- **Lubricants**: Do not use lube at least 48 hours before your appointment
- **Tampon**: Avoid using a tampon 48 hours before getting screened
- **Vaginal douches**: Avoid douching 3 days before your appointment

It's important to know that you should get tested for cervical cancer even if you.....

- Are not currently sexually active or are not married.
- Have received the HPV vaccine.
- Have had the same partner for a long time or have only had one partner.
- Feel healthy and show no symptoms.
- Are beyond childbearing years
- Have had a normal test in the past.

TIPS FOR REDUCING ANXIETY

- **Request a Female Provider**
- **Ask for a Female Interpreter**
- **Express Your Concerns**: Share any fears or anxiety with your provider
- **Bring a Support Person**: A friend or family member can be comforting
- **Use Breathing Exercises**: Deep breaths can help you relax.
- **Remember, You're in Control**: You can stop the test if you feel uncomfortable.
- **Discuss Triggers from Past Trauma**: If you've experienced trauma, let your provider know any words or actions to avoid.



Resources for you

Reproductive Health Services

Oregon Health Authority

Oregon Reproductive Health Program
Call: 971-673-0355

Multnomah County Health Department

General Healthcare Services
Call: 503-988-5558

OHSU Center for Women's Health

Call: 503-418-4500

LEGACY HEALTH

General Women's Health Services
Call: 503-413-7353

MULTNOMAH COUNTY student HEALTH CENTER

Serves grade K-12

Centennial HS Aug. 13 & 14 503-988-5488 3505 SE 182nd Ave Gresham	Parkrose HS Available all summer 503-988-3192 12003 NE Shaver St Portland
Cleveland HS Aug. 12 & 13 503-988-3350 3400 SE 26th Ave Portland	Jefferson HS Aug. 14 & 15 503-988-3360 5210 N Kerby St Portland
Franklin HS Aug. 16 & 19 503-988-3370 5405 SE Woodward St Portland	McDaniel HS Aug. 12 & 13 503-988-3182 2735 NE 82nd Ave Portland
David Douglas HS Tue-Thu July 23-Aug. 21 503-988-3554 1034 SE 130th Ave Portland	Reynolds HS Aug. 14 & 15 503-988-3340 1698 SW Cherry Park Rd. Troutdale
	Roosevelt HS Aug. 16 & 19 503-988-3909 6941 N Central St Portland

References

American Cancer Society. (2024, July 29). Cervical cancer leads cancer deaths for women in 37 countries. https://www.cancer.org/research/acs-research-news/cervical-cancer-leads-cancer-deaths-37-countries.html

American Cancer Society. (2024). Cervical cancer risk factors. https://www.cancer.org/cancer/types/cervical-cancer/causes-risks-prevention/risk-factors.html#:~:text=Several%20factors%20related%20to%20your,slowing%20their%20growth%20and%20spread.

American Cancer Society. (2024). If you have cervical cancer. https://www.cancer.org/cancer/types/cervical-cancer/if-you-have-cervical-cancer.html

Centers for Disease Control and Prevention. (2024, October 22). Hpv vaccine recommendations. https://www.cdc.gov/hpv/hcp/vaccination-considerations/index.html

Cleveland Clinic. (2024). Cervical cancer. https://my.clevelandclinic.org/health/diseases/12216-cervical-cancer

Lexingotn Somali cancer educational project [PDF]. (2019). Department of Health and Human Services. https://dhhs.ne.gov/Documents/Lexington%20Somali%20Cancer%20Education%20Project%20Training%20Slides.pdf

Oregon Health and Science University. (2024). 'it doesn't have to be like this': Cervical cancer is preventable. https://www.ohsu.edu/womens-health/it-doesnt-have-be-cervical-cancer-preventable

National Cancer Institute. (2024, May 17). Cervical cancer screening. https://www.cancer.gov/types/cervical/screening

World Health Organization. (2024). Cervical cancer. https://www.who.int/news-room/fact-sheets/detail/cervical-cancer

Participant Post-Intervention Survey: Knowledge and Awareness

Your age:
Number of years in the U.S:

After the education session, do you feel like you learned more about cervical cancer awareness?
- ❑ Yes
- ❑ No
- ❑ Not sure

After the education session, do you have a better understanding of why it's important to get screened for cervical cancer?
- ❑ Yes
- ❑ No
- ❑ Not sure

After the education session, would you discuss this topic with your healthcare provider?
- ❑ Yes
- ❑ No
- ❑ Not sure

Do you feel the educational session helped you learn about this topic and other reproductive health resources?
- ❑ Yes
- ❑ No
- ❑ Not sure

Was the education session culturally respectful, and did it provide a comfortable environment for discussing reproductive health topics?
- ❑ Yes
- ❑ No
- ❑ Not sure

Was our message and goal of the education session clear to you?
- ❑ Yes
- ❑ No
- ❑ Not sure

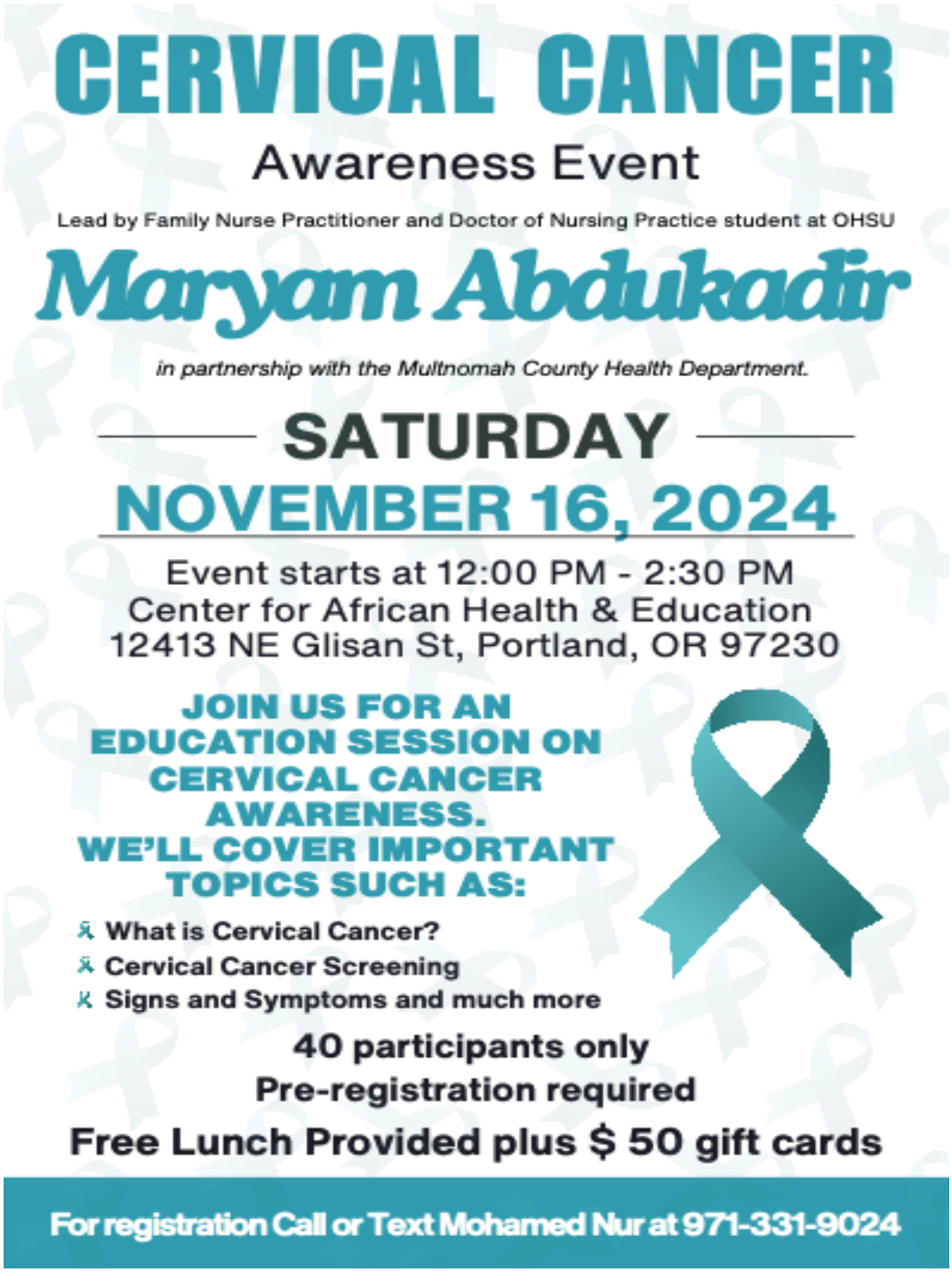
Would you recommend this education session to others?
- ❑ Yes
- ❑ No
- ❑ Not sure

What other topics would you recommend for educational sessions?

THANK YOU

QUESTIONS?

Appendix B


CERVICAL CANCER
Awareness Event
Lead by Family Nurse Practitioner and Doctor of Nursing Practice student at OHSU
Maryam Abdukadir
in partnership with the Multnomah County Health Department.
SATURDAY
NOVEMBER 16, 2024
Event starts at 12:00 PM - 2:30 PM
Center for African Health & Education
12413 NE Glisan St, Portland, OR 97230
JOIN US FOR AN EDUCATION SESSION ON CERVICAL CANCER AWARENESS.
WE'LL COVER IMPORTANT TOPICS SUCH AS:
What is Cervical Cancer?
Cervical Cancer Screening
Signs and Symptoms and much more
40 participants only
Pre-registration required
Free Lunch Provided plus $ 50 gift cards
For registration Call or Text Mohamed Nur at 971-331-9024

Appendix C

Cervical Cancer Knowledge Assessment and Awareness Participant Pre-Survey

Your age:
Number of years in the U.S:

Have you ever heard of cervical cancer?

- Yes
- No
- Not sure

Do you know what causes cervical cancer?

- Yes
- No
- Not sure

Have you ever heard of cervical screening or a Pap smear test?

- Yes
- No
- Not sure

Have you ever had a cervical screening or a Pap smear test?

- Yes
- No
- Not sure

Have you ever heard of HPV, which stands for Human Papillomavirus?

- Yes
- No
- Not sure

Have you discussed cervical cancer screening with your healthcare provider?

- Yes
- No
- Not sure

The HPV vaccine, also known as the cervical cancer vaccine, is available to help prevent HPV infection. Before today, were you aware of this vaccine?

- Yes
- No

Are there any specific barriers that you have experienced or think might prevent you from getting cervical cancer screening?

- Language barrier/Lack of appropriate interpreter
- Felt not necessary
- Cultural or religious beliefs
- Wasn't aware I should
- Time
- Transportation
- Other (Specify)

Appendix D

Participant Post-Intervention Survey: Knowledge and Awareness

Your age:
Number of years in the U.S:

After the education session, do you feel like you learned more about cervical cancer awareness?

- Yes
- No
- Not sure

After the education session, do you have a better understanding of why it's important to get screened for cervical cancer?

- Yes
- No
- Not sure

After the education session, would you discuss this topic with your healthcare provider?

- Yes
- No
- Not sure

Do you feel the educational session helped you learn about this topic and other reproductive health resources?

- Yes
- No
- Not sure

Was the education session culturally respectful, and did it provide a comfortable environment for discussing reproductive health topics?

- Yes
- No
- Not sure

Was our message and goal of the education session clear to you?

- Yes
- No
- Not sure

Would you recommend this education session to others?

- Yes
- No
- Not sure

What other topics would you recommend for educational sessions?

Hopkins, K. (2023). Cervical cancer awareness survey. Adapted by Abdulkadir, M. (2024).

Hassane, N. (2021). Questionnaire for Refugee Women's Health Assessment. Adapted by Abdulkadir, M. (2024).

Appendix E

NOT HUMAN RESEARCH

August 5, 2024

Dear Investigator:

On 8/5/2024, the IRB reviewed the following submission:

Title of Study:	Improving Access to Cervical Cancer Screening Among Somali Refugees
Investigator:	Rebecca Martinez
IRB ID:	STUDY00027565
Funding:	None

The IRB determined that the proposed activity is not research involving human subjects. IRB review and approval is not required.

Certain changes to the research plan may affect this determination. Contact the IRB Office if your project changes and you have questions regarding the need for IRB oversight.

If this project involves the collection, use, or disclosure of Protected Health Information (PHI), you must comply with all applicable requirements under HIPAA. See the HIPAA and Research website and the Information Privacy and Security website for more information.

Sincerely,

The OHSU IRB Office

Appendix F

Letter of Support from Clinical Agency

Date: *08/22/2024*

Dear Maryam Abdulkadir,

This letter confirms that I, *Charlene Maxwell*, allow *Maryam Abdulkadir* (OHSU Doctor of Nursing Practice Student) access to complete his/her DNP Final Project at our clinical site. The project will take place from approximately *July 2024 to March 2025.*

This letter summarizes the core elements of the project proposal, already reviewed by the DNP Project Preceptor and clinical liaison (if applicable):

- **Project Site(s)**: *[List the specific site name(s) and address(es) for all sites which the organization is providing access for the student to implement their project.]*
- **Project Plan: Use the following guidance to describe your project in a brief paragraph.**

Due to relocation and displacement , many Somali women have an increase in significantly increased the risk of inadequate reproductive care. Many Somali women lack awareness of the importance of preventative care and reproductive health services (RHS), particularly cervical cancer screening (CCS). Language, cultural beliefs, and religious barriers further complicate communication with healthcare providers. Inadequate access to vital health services predisposes Somali women to serious health risks, including untreated reproductive health issues such as sexually transmitted infections (STIs), cervical cancer, and complications from unmanaged pregnancies. These conditions lead to poor health outcomes, including increased morbidity and mortality rates.

The project will use the Model for Improvement (MFI) and Community-Based Participatory Research (CBPR) frameworks to increase CCS awareness and knowledge among Somali women through culturally tailored, community-based workshops. The main goal is to improve CCS participation and access to reproductive health services within the community, reducing healthcare disparities among Somali women.

This project will be in partnership with the Multnomah County Health Department Community Health Centers and will fulfill a grant requirement under Program Element 46 (PE 46), titled "Community Partnerships and Assurance of Access to Reproductive Health Services," developed in collaboration with the Oregon Coalition of Local Health Officials (CLHO) to ensure access to clinical reproductive health services statewide. The grant requires collaboration with community partners to identify service gaps and barriers and develop and implement strategies to increase access for marginalized populations.

The project will collaborate with Community-Based Organizations (CBOs) to close the gap and fulfill PE 46's aim to advance health equity for marginalized groups, ensuring that the interventions are effective and inclusive. Collaborating with the Multnomah County Health Department, this project addresses reproductive health disparities among Somali women through culturally tailored educational workshops, strategically aiming to increase participation in CCS and improve access to reproductive health services within the community.

Research highlights the importance of emphasizing culturally sensitive workshops. Collaborating with established community and faith-based organizations is crucial for maximizing interventions and enhancing health outcomes among Somali women. The project consists of four phases and is partially adapted from a successful previous DNP student project with positive outcomes.

***Phase 1:** Assessing community needs through collaboration with various CBOs.*
The key discussions focused on preventive care in reproductive health screening and identifying

barriers to such screening. It also included developing a culturally tailored educational workshop to identify knowledge gaps and provide an overview of cervical cancer.

***Phase 2:** - Recruiting participants*

- *creating promotional content*
- *distributing flyers with the help of CBOs*

Phase 3:

- *Implementation of education session*
- *Pre- and post-surveys to evaluate the efficacy of the intervention*
- *Measure impact on knowledge and awareness of cervical cancer*
- *The data collected will be handled confidentially and de-identified. The educational session will occur at the African Center for Health and Education.*

Phase 4

- *Analysis and dissemination of survey results*

During the project implementation and evaluation, *Maryam Abdulkadir* will provide regular updates and communicate any necessary changes to the DNP Project Preceptor.

Our organization looks forward to working with this student to complete their DNP project. If we have any concerns related to this project, we will contact *Maryam Abdulkadir* and *Rebecca Martinez* (student's DNP Project Chairperson).

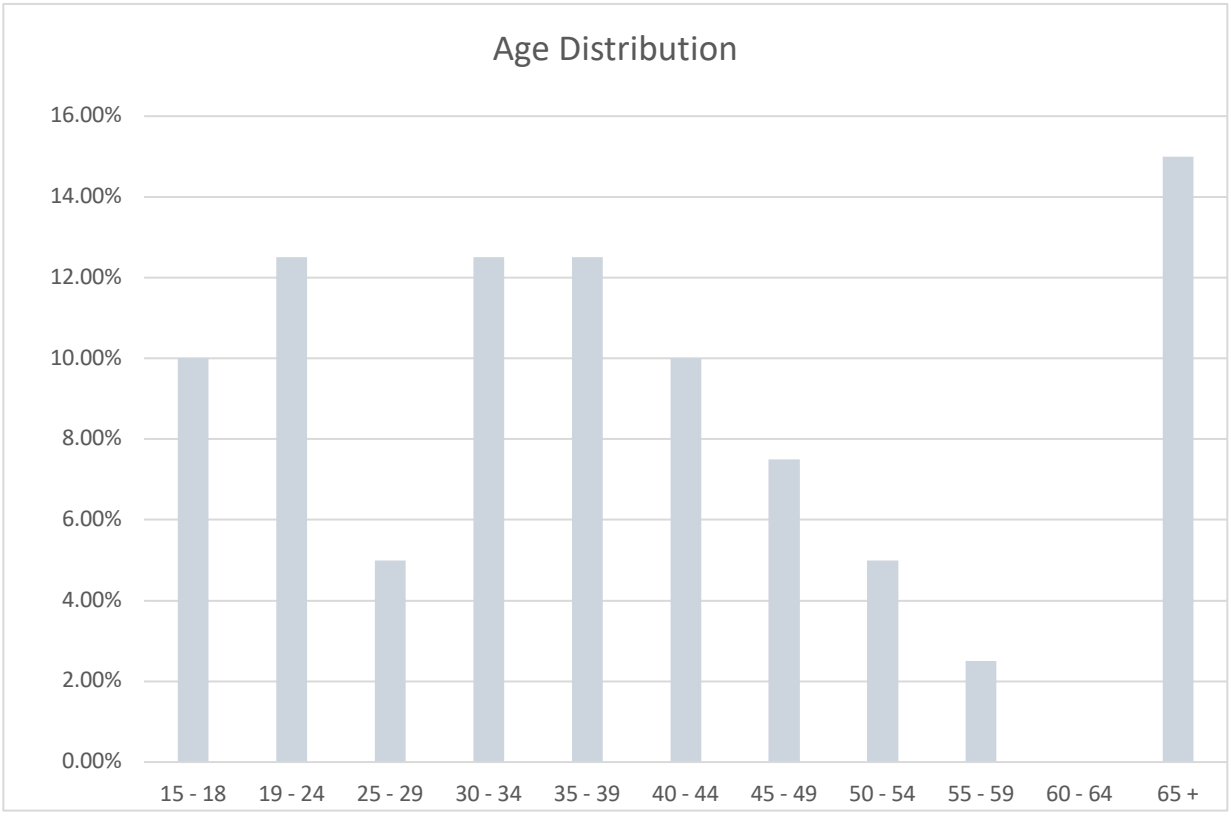
Regards,

Charlene Maxwell, Medical Director, Multnomah County Community Health Center
Charlene.maxwell@multco.us

Signature

9/9/2024
Date Signed

Appendix G


Age Distribution
16.00%
14.00%
12.00%
10.00%
8.00%
6.00%
4.00%
2.00%
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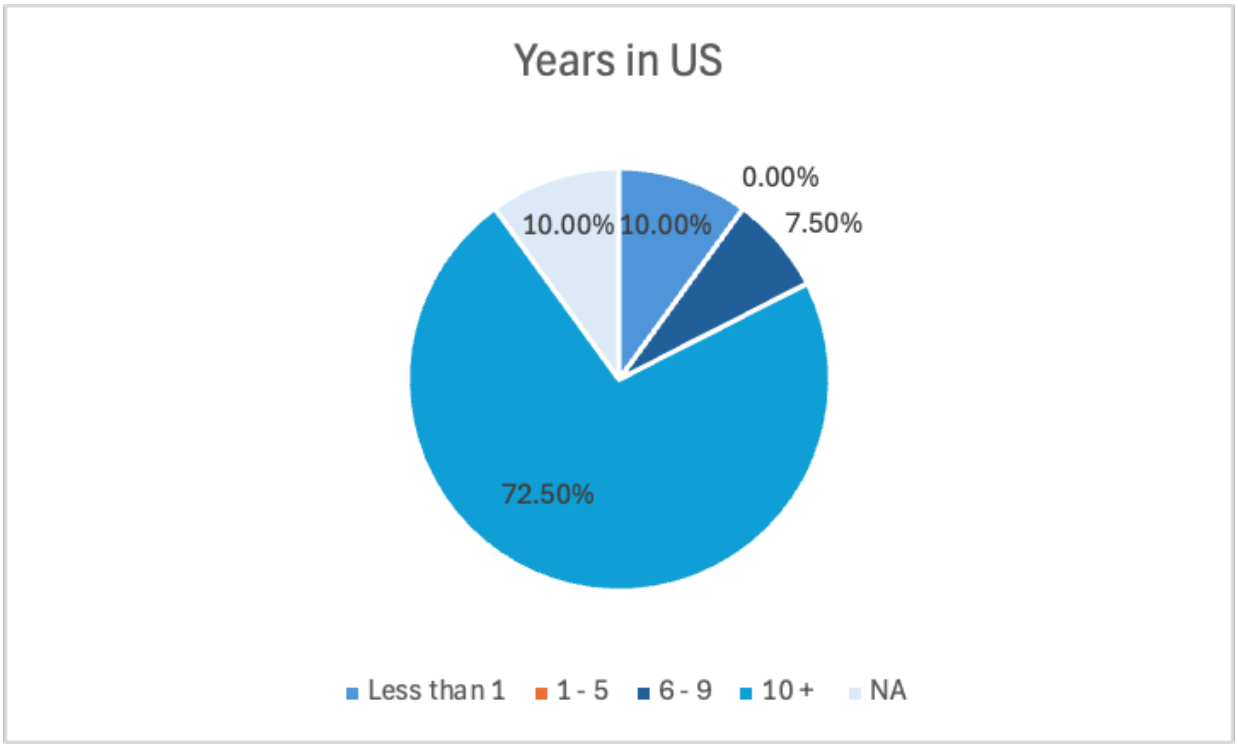
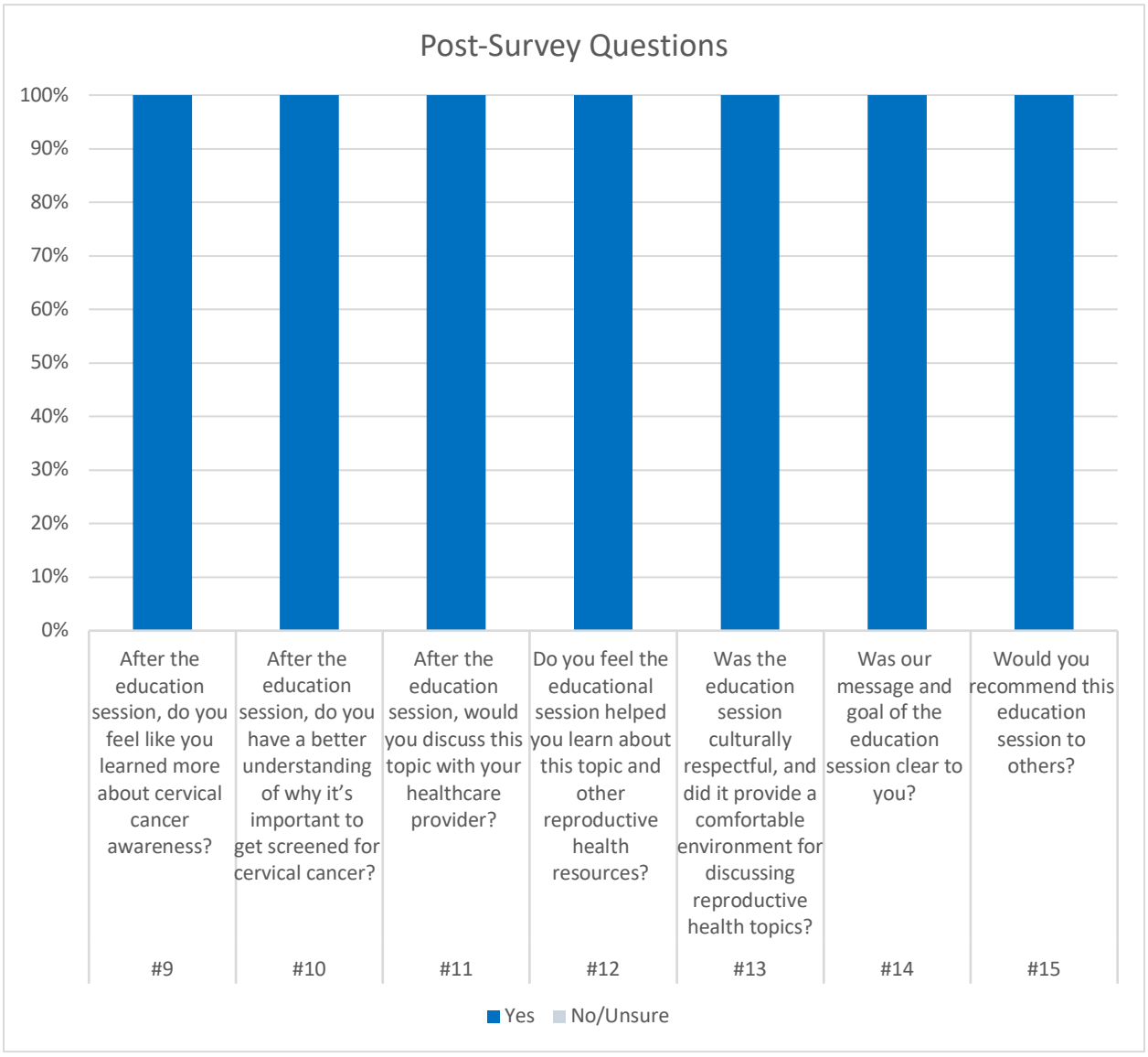
15 - 18
19 - 24
25 - 29
30 - 34
35 - 39
40 - 44
45 - 49
50 - 54
55 - 59
60 - 64
65 +

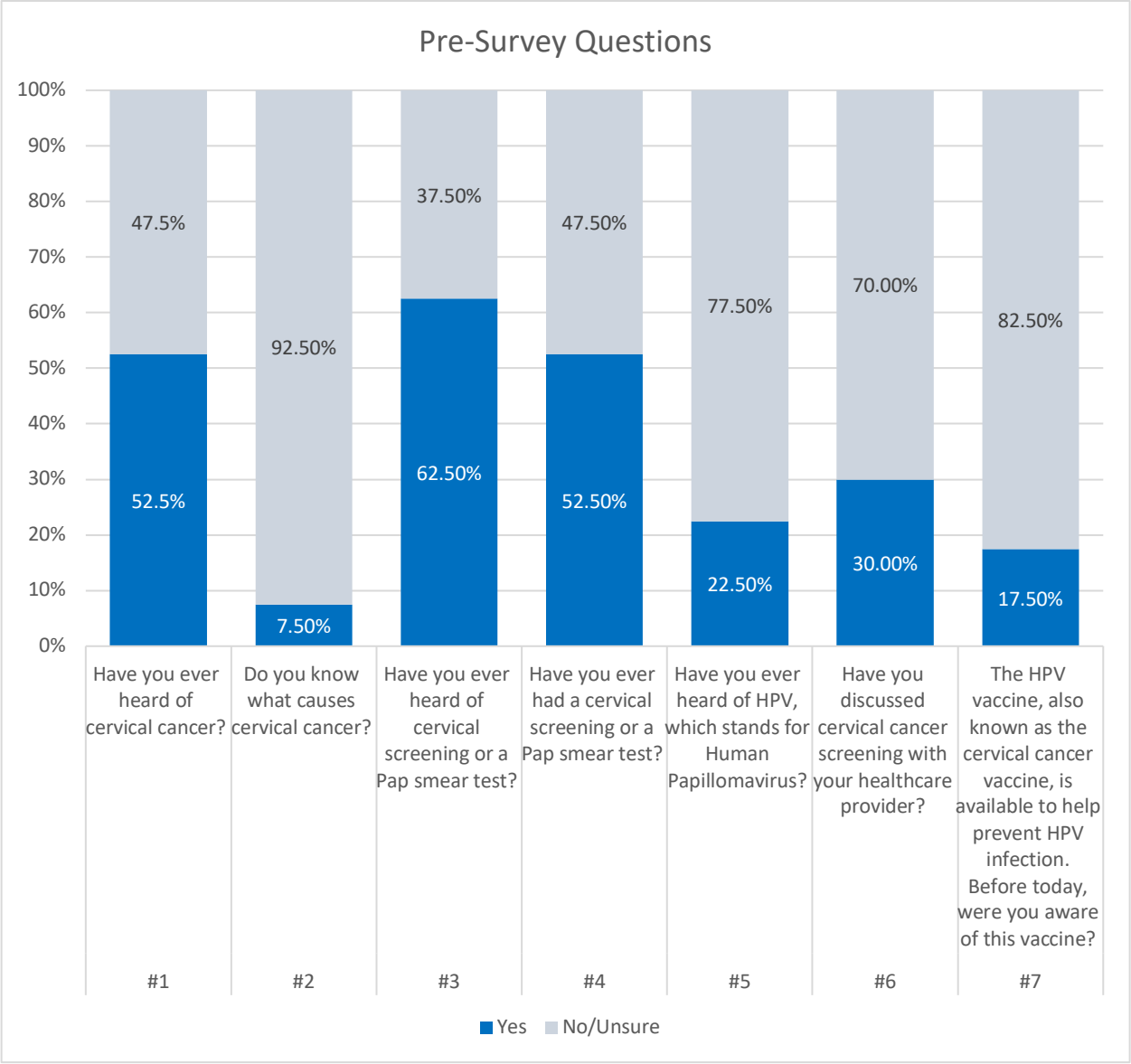
Appendix H



Appendix I


Post-Survey Questions
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
After the education session, do you feel like you learned more about cervical cancer awareness?
After the education session, do you have a better understanding of why it's important to get screened for cervical cancer?
After the education session, would you discuss this topic with your healthcare provider?
Do you feel the educational session helped you learn about this topic and other reproductive health resources?
Was the education session culturally respectful, and did it provide a comfortable environment for discussing reproductive health topics?
Was our message and goal of the education session clear to you?
Would you recommend this education session to others?
#9
#10
#11
#12
#13
#14
#15
Yes
No/Unsure

Appendix J


Pre-Survey Questions
100%
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80%
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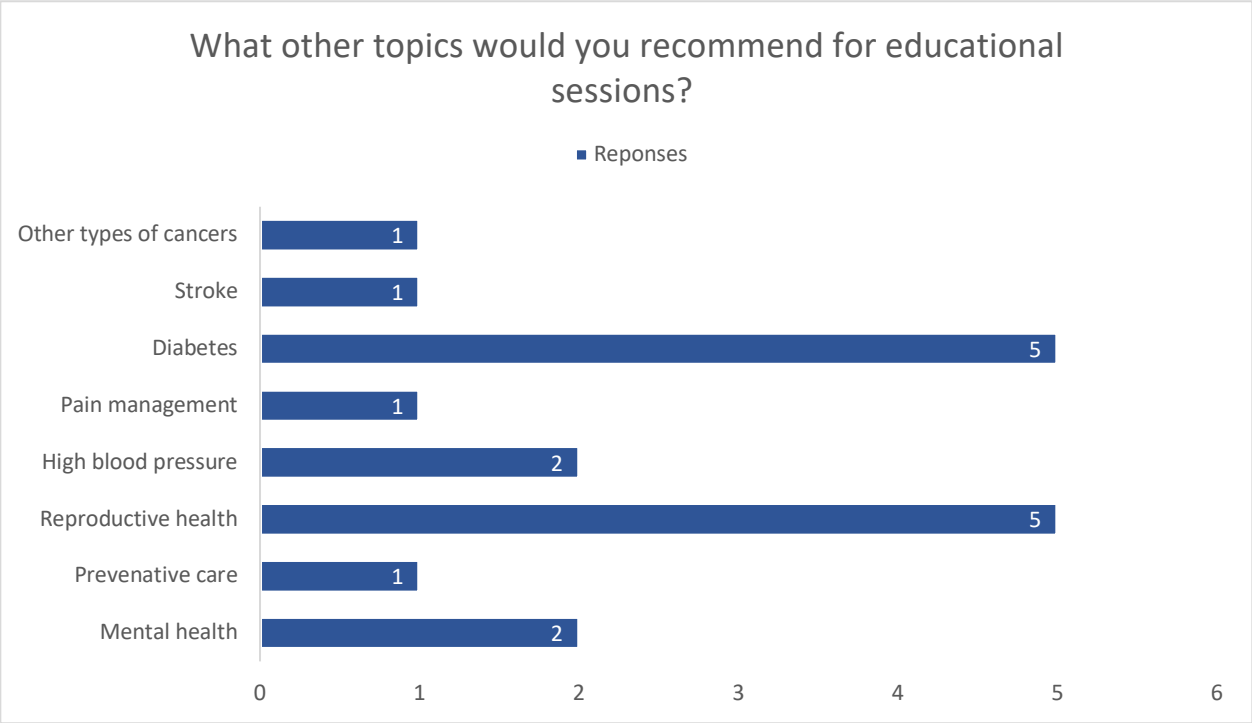
50%
40%
30%
20%
10%
0%
47.5%
52.5%
92.50%
7.50%
37.50%
62.50%
47.50%
52.50%
77.50%
22.50%
70.00%
30.00%
82.50%
17.50%
Have you ever heard of cervical cancer?
Do you know what causes cervical cancer?
Have you ever heard of cervical screening or a Pap smear test?
Have you ever had a cervical screening or a Pap smear test?
Have you ever heard of HPV, which stands for Human Papillomavirus?
Have you discussed cervical cancer screening with your healthcare provider?
The HPV vaccine, also known as the cervical cancer vaccine, is available to help prevent HPV infection. Before today, were you aware of this vaccine?
#1
#2
#3
#4
#5
#6
#7
Yes
No/Unsure

Appendix K


What other topics would you recommend for educational sessions?
Reponses
Other types of cancers
1
Stroke
1
Diabetes
5
Pain management
1
High blood pressure
2
Reproductive health
5
Prevenative care
1
Mental health
2
0
1
2
3
4
5
6

Appendix L

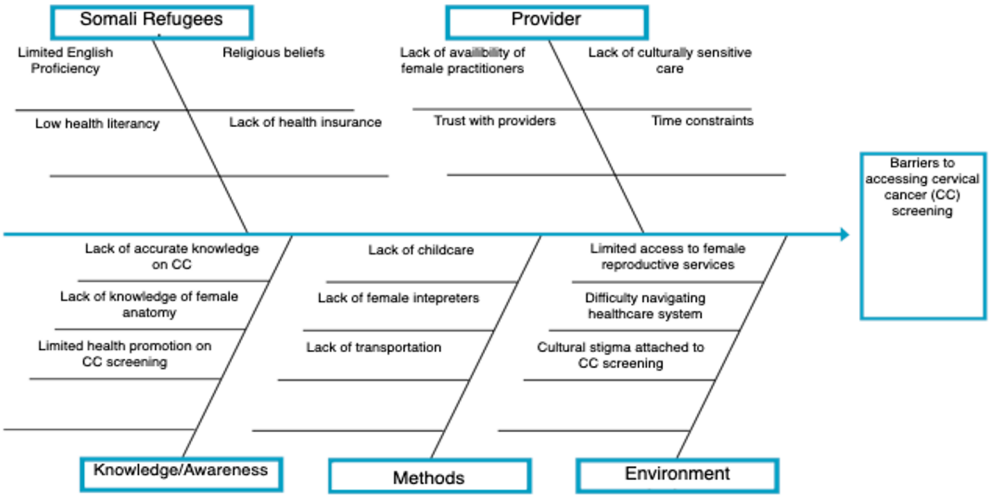
QI ESSENTIALS TOOLKIT: Cause and Effect Diagram

Before filling out this template, first save the file on your computer. Then open and use that version of the tool. Otherwise, your changes will not be saved.

Template: Cause and Effect Diagram

Team: Mid-County Health Department **Project:** Improving Access to Cervical Cancer Screening Among Somali Refugee women

1) Input the effect you'd like to influence.
2) Input categories of causes for the effect (or keep the classic five).
3) Input causes within each category.



Appendix M

	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec-Mar
Finalize project design and approach (703A)	X	X						
Complete IRB determination or approval (703A)			X	X				
Finalize project and design materials (703B)					X	X		
Project Implementation (703 B) Participants complete pre-and post-survey							X	
Final data analysis (703B)							X	X
Write sections 13-17 of final paper (703B)								X
Prepare for project dissemination (703B)								X

Appendix N

Consent Script: Cervical Cancer Screening Education Workshop for Somali Refugees

STATEMENT OF CONSENT FOR PARTICIPATION IN THE EDUCATION WORKSHOP

Purpose: This project aims to improve knowledge and awareness of cervical cancer and available reproductive health services in Multnomah County.

Education Workshop: This will include a 45-minute education for interested Somali women. Participants will receive a $50 Visa gift card. The session will be led by an Oregon Health and Science University Family Nurse Practitioner and Doctor of Nursing Practice Student with support from the Center for African Health and Education community partners. An interpreter will be available during the session to assist with pre- and post-surveys.

Evaluation: You will be asked to complete a pre-survey before the education session to assess your knowledge and a post-survey to help us evaluate if the education session increases awareness of cervical cancer and available reproductive health services. A sign-in sheet will be used for attendance and gift card distribution purposes. It will not affect any services you receive.

Risks: Your participation is entirely voluntary. You are not required to take part if you do not wish to. No personal information will be collected during the workshop. You are not required to answer questions or comment if it makes you uncomfortable. Everyone must agree to respect the privacy and confidentiality of others in the group. Please share only what you are comfortable sharing. The interpreter and facilitator will also respect the privacy and confidentiality of all participants.

Benefits: Participating in this education session and the surveys will assist Multnomah County Health Department and the reproductive health program, PE 46, titled "Community Partnerships and Assurance of Access to Reproductive Health Services," assess how educational sessions can be an effective way to increase awareness of available reproductive health services. The goal is to help improve awareness and access to reproductive health care for vulnerable communities.

Incentives: Lunch from a Somali restaurant, Amaye International Restaurant, will be provided as a thank-you for your participation. The 40 participants who registered for the workshop and completed pre- and post-surveys will receive a $50 gift card.

Questions: Your participation is voluntary; you may leave anytime for any reason. If you have questions about participating in this education workshop and the evaluation. Please feel free to ask.

By participating today, you agree to respect the privacy of all individuals in the session.