Introduction

Cervical and breast cancer are the two most common malignancies in women worldwide\(^1\). For Hispanic men and women in the US, colorectal cancer is the second most commonly diagnosed cancer\(^2\). Hispanic women have lower incidence and mortality rates for breast cancer and colon cancer compared to whites and African Americans\(^3,4\). In contrast, cervical cancer incidence and mortality rates are almost double for Hispanic women as that of non-Hispanic white women\(^3\). However, Hispanic women are more likely to be diagnosed at a later stage and have decreased survival rates for all three types of cancer\(^3,4\).

San Antonio has a large population of Hispanics as evidenced by over 75% of the patients I saw at the Southside CentroMed clinic being Hispanic. Since Hispanic people are more likely to die from breast, cervical, and colon cancer then efforts need to be made to increase screening among this population. CentroMed has received multiple grants to help an unlimited number of patients receive affordable Pap smears, mammograms, and colonoscopies. Despite the easy access to screening procedures, many patients do not get screened in the appropriate intervals.

The aim of this study was to implement a system to increase breast, cervical, and colon cancer screening rates among Centro-Med patients. It was discovered that the walk-in patients had the highest rates of screening non-compliance and thus they became my target population. A
pre-clinic form was created which will help providers know which procedures are needed and it will help the referral coordinators contact the patient to set up their screening appointments. Future goals include testing the efficacy of this process.

Background

Cervical cancer screening guidelines have recently changed. The American Congress of Obstetricians and Gynecologists now recommend that women between 21 and 29 years old receive screening with cytology every three years and women 30-65 years old receive screening with cytology and HPV testing every five years if all prior testing has had normal results\textsuperscript{5}. The American Cancer Society (ACS) recommends that all women starting at age 40 receive yearly mammograms and clinical breast exams every three years\textsuperscript{6}. It is also recommended that starting at age 50 all men and women should receive a screening colonoscopy every ten years\textsuperscript{6}.

Hispanic women are more likely to get cervical cancer yet they are less likely than non-Hispanic white women to receive Papanicolaou (Pap smears)\textsuperscript{7}. There are many psychosocial factors that play a role in decreased rates of preventive cancer screening among this population. Some of these factors include fear of cancer, invasive procedures, and pain; lack of knowledge about cancer and its screening methods; attitudes of fatalism; religious or spiritual beliefs; concerns over confidentiality; language barriers and perceived discrimination; embarrassment; and partner disapproval\textsuperscript{3}. External factors such as lack of health insurance and primary care; transportation barriers; cost; and restrictive work policies also make it more challenging for Hispanics to access cancer screening procedures\textsuperscript{3}. CentroMed has tried to combat some of these barriers by having their providers counsel their patients about the facts about cancer in the
patient’s preferred language. They also provide free cancer screenings including colonoscopies, mammograms, and pap smears for patients that qualify.

Much research has been done to find the most effective model to increase cancer screenings among Hispanic populations. One model, called A Su Salud En Accion, was effective at increasing mammogram and Pap smear rates amongLatinas in Nevada. This model used a combination of media (TV, radio, newspaper, etc.) and one-on-one interactions with local volunteers to provide positive reinforcement for health behavior change efforts. This study was highly effective since mammogram and Pap smear rates increased by 58.7% and 51.8% respectively. A second model, called Cultivando la Salud, was effective at increasing screening among Hispanic farmworker women. This model used lay health workers to go into the community to educate women on the importance of breast and cervical cancer screening. Future research should be done to try to implement similar models in San Antonio. There are likely large numbers of people in San Antonio that are not going to CentroMed or any other primary care provider and are not getting screened for cancer. Using lay health workers to educate the community would likely increase the rate of cancer screenings for all of San Antonio.

**Methodology**

Setting- meetings were held at CentroMed Southside Clinic. Additional information was obtained by helping with Saturday morning cancer screenings at Walzem clinic.

Target Audience- CentroMed walk-in patients, triage nurses, providers, referral coordinators.

Timeline:

Week 1- Research the obstacles that patients face in accessing cancer screening procedures.
Week 2- Continued to research why people in San Antonio have an especially difficult time in getting screened for cancer.

Week 3- Worked with site mentor at cancer screening clinic. I learned about the various grants that are available to provide free mammograms, pap smears, and colonoscopies. I realized that once patients are signed up to attend this free screening then the chance of them showing up to their appointment is very high. Obstacle to receiving care was identified as being whether a patient gets referred to the free screenings or not.

Week 4- I met with site mentor and lead nurse to construct a form that can be used to increase rates of referrals for cancer screening procedures. I then showed the forms to various site staff to get their suggestions on how to improve it.

Week 5- Create executive summary, write report, create powerpoints. Site mentor made plans to train appropriate staff to fill out form during office visit.

Tools Used- none

Results- completed form

Pilot:
PRE-Clinic Form for Triage Nurse

Name____________________________________________DOB________________AGE________________
Chart #__________________________________________Telephone ____________________________
US Citizen________________________________________English/Spanish______________________

Has the Release of Information Form been signed? Y / N

Women 21-64: Need pap smear every 3-5 years
Last Pap: ___________________ Where ___________________ Results ___________________

Have you ever had an abnormal Pap smear? Y / N
When ___________________ Where ___________________ Results ___________________
If yes, any cervical Bx or treatment: _______________________________________________________

Hysterectomy: Y / N    Reason for Hysto: __________________________________________________

Women 40-64:            Need mammogram every single year
Last MMG: ________________ Where ___________________ Results ___________________

Have you ever had an abnormal mammogram? Y / N
When ___________________ Where ___________________ Results ___________________
If yes, any Breast Bx done? _____________________________________________________________

Men and Women 50-75:    Need colonoscopy every 10 years
Has patient ever had a colonoscopy? Y / N
When ___________________ Where ___________________ Results ___________________

Has patient ever been tested for HIV: Y / N
When ___________________ Results ___________________

Which procedures are needed? PAP    MMG     C-Scope     HIV
FAX to (---) --- ---- at end of day

Discussion

Due to time constraints I do not have any findings to analyze.
It is difficult to determine if this pre-clinic form was a positive development for the site since no research has been performed to show its effectiveness. First, one would have to see if the form is appealing to the patients and the staff using the form. Many nursing staff was asked to give an opinion of the form and I only received positive feedback. They mentioned that this would make their job easier because they can easily see what information is needed and their hard work tracking down all of the past results will not go in vain since the provider can use the form discuss these results with the patient. Providers were also asked to give an opinion on the form and they liked it since it made it faster to determine if a patient needs to be screened or not. The patients opinions have not been requested yet but I think it is important to ask some patients for how the patient feels about it since they may have new insight into an issue that we as health care providers may not have thought about.

Secondly, to determine if this form is a positive development for the site we would have to show that it is effective in practice. I would start by researching how the form is being received after one month of implementation and make adjustments as needed. Then I would test its effectiveness by comparing the percentage of patients that are receiving the recommended screenings before this form was created and one year after it was implemented.

The final characteristics of a good public health project are whether it is cost-effective and feasible to replicate in a non-research population. The project is cost-effective since it only requires one piece of paper per patient per visit. The time required to fill out the form is minimal and is certainly justified by the increase in health outcomes by having the patient receive the cancer screening. If other community health centers would like to use this form then it is easy for them to replicate it and test its effectiveness on their patient population.
Recommendations

This project did raise many questions that deserve to be looked into further. First, are there any barriers to implementing this pre-clinic form? Many nurses already have difficulty finding time to fill out the necessary paperwork for each patient before the providers sees the patient. It is likely that nurses will consider this form another obstacle to completing their work in time. In order to see if this is actually an issue then I would recommend that the nurses get interviewed one month after implementing the new form in order to see if there are concerns over completing it. I would also recommend that the lead nurses keep track of whether all forms are being filled out completely. At the end of the day, before the form gets faxed to the referral team, someone needs to be in charge of performing a quality assessment to make sure all forms are complete and have been done for every eligible patient.

I would recommend that the site leader check to see if the form was effective in increasing rates of pap smear, mammogram, and colonoscopy screenings. They need to first figure out what percentages of their patients are currently getting screened for these cancers in the recommended time interval. It is not enough to just see how many people have ever had this performed since these imaging/procedures are recommended on yearly to every-decade intervals. In one year after implementing this form they should then calculate what percentage of patients are now getting screened in the recommended interval. If there is a significant difference then it would be wise to make the form a permanent form at all sites. If there is no difference then they would have to look into a possible confounding variable or consider removing the form.
Conclusions

Thanks to the invention of mammograms, Pap smears, and colonoscopies it is easier than ever to identify cancer earlier and to even prevent it. Unfortunately, many low-income populations in the U.S. do not receive these screening procedures at the recommended intervals. I worked with CentroMed to implement a new clinic form that can be used to increase the number of patients that get referred for cancer screenings. Due to the short nature of this program I was unable to test the forms effectiveness. However, I recommend that CentroMed test its effectiveness by comparing now and in one year the percentage of its patients that are currently meeting the recommended screenings.

Acknowledgements

I would like to acknowledge Robert Ferrer, MD, Monika Thornton, RN, and Norma Parra, MD for their help in this project.

Bibliography


Replicating a model to increase utilization of cancer screening among low income