

Evaluating the Impact of a Student-Run Women's Clinic on Access to Gynecologic Care for Uninsured Women in Rhode Island

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ABSTRACT

Clinica Esperanza/Hope Clinic (CEHC) is a free clinic providing primary care to a predominantly Spanish-speaking, uninsured patient population in Rhode Island with limited access to gynecologic care. In 2015, medical students at the Alpert Medical School of Brown University started the Women's Clinic of Clinica Esperanza (WCCE), a "clinic within the clinic," recruiting physician preceptors and obtaining funding to support WCCE operations. For complex issues, clinic services were supplemented by a subspecialty referral system at a local hospital. Interim results over a two-year period ending in May 2017 are reported here. Medical students organized 48 women's clinics and provided 83 Pap smears, 138 breast exams, 42 mammogram referrals, 35 STI tests, and 19 vaginitis screens, among other activities. As the example of WCCE shows, student-run clinics can utilize medical students' relationships with providers and unique funding sources to expand access to specialty care for uninsured patients.

KEYWORDS: free clinics, health disparities, gynecology, primary care

INTRODUCTION

While the Affordable Care Act (ACA) has improved access to gynecologic care, women who are unable to obtain insurance¹ and women who are eligible but remain uninsured fare no better, and may be faring worse, since ACA passage. Medicaid expansion may be reducing access to care for uninsurable patients at federally qualified health centers, where increasing proportions of patients who seek healthcare appointments are now insured.² In this context, national attention has been drawn to the importance of free clinics that provide primary care to uninsured populations in the United States.

Significant disparities persist in access to gynecologic services for uninsured women. Uninsured women are far less likely to obtain screenings to detect breast or cervical cancer.^{3,4} While many gaps in primary care can be addressed by community health clinics (CHCs) and free clinics⁵, gaps in specialty services persist, particularly for gynecologic care. Only 43% of uninsured women report having either a

gynecologic or obstetric visit in the past year, compared to 58% of women with Medicaid and 70% of women who are privately insured.¹ A survey of 179 free clinics in New York City showed that only 53.1% of these clinics offered either obstetric or gynecologic services.⁶ Nationally, only 54.4% of eligible patients obtained Pap smears at CHCs in 2016.⁷

Student-run clinics, or clinics coordinated and staffed by medical students who are supervised by licensed physicians, can serve as an ancillary route for healthcare delivery to uninsured patients. Nationally, there are more than 100 student-run free clinics, which average 36,000 patient visits annually, affiliated with allopathic medical schools. Published reports on student clinics have focused primarily on their contribution to medical student education rather than their impact on access to patient care.⁸ However, student-run clinics provide preventive services at similar frequencies to other safety net institutions such as CHCs.⁹ Typically, patients of student-run clinics are highly satisfied with their care, although there are frequently long wait times to be seen by a provider once patients are checked in at student-run clinics.¹⁰

Here, we report the impact of a student-run clinic on access to gynecologic care for uninsured patients at a free clinic in Providence, Rhode Island. We describe (a) the range of gynecologic needs of this population, (b) the types and prevalence of services provided by WCCE, and (c) the challenges and strengths of specialized care delivery for this population. Our data indicate that uninsured patients have varied gynecologic needs and student-run clinics can play an important role in expanding access to gynecologic care for uninsured patients.

METHODS

CEHC is a free, volunteer-run clinic that provides primary healthcare to more than 3,000 patients residing in Providence, Rhode Island.¹¹ In May 2015, medical students founded the Women's Clinic of Clinica Esperanza (WCCE) to address the unmet needs of patients seeking gynecologic care, including but not limited to, routine screening (Pap smears and mammograms), contraception, preconception counseling, and management of gynecologic issues such as abnormal uterine bleeding, vaginitis, and infertility. This student-run clinic was established as a "clinic within a

clinic" operating quasi-independently within the preexisting infrastructure of CEHC. Patients were referred from Clinica Esperanza's primary care clinic if they reported any specific gynecologic issues or were eligible for routine gynecologic screening. Depending on preceptor availability, between one to three women's clinics were held each month, with six to ten patients scheduled per clinic.

WCCE operations required close collaboration between medical students, CEHC staff and the physician volunteers at CEHC. Two senior medical students served in both clinical and administrative roles, staffing each clinic, acquiring grant support for clinic operations, and monitoring follow-up needs for patients. These medical students utilized their existing relationships with faculty to recruit preceptors and to build a subspecialty referral system for WCCE, spending between five to fifteen hours per week on WCCE operations. Six preclinical medical students also volunteered in WCCE for five hours per month. Obstetrician-gynecologists, family medicine physicians, and internists served as preceptors, supervising medical students staffing the clinics. Administrative staff at Clinica Esperanza provided operational support, such as reserving space for clinics, reviewing laboratory results, and following up on pending referrals. Community health workers, known as Navegantes at CEHC, assisted with appointment reminders, linked patients to charity care programs at local hospitals for additional services (if needed), and provided culturally sensitive education on contraceptives and family planning.

Funding for WCCE operations was obtained primarily through state-run public health programs and private grant support. The Rhode Island Department of Health's Women's Cancer Screening program provided access to reimbursement for imaging and laboratory services related to performance of Pap smears and mammograms. Grant funding for CEHC supported the work of the CHWs (Navegantes), the nurse manager, the medical assistant, and infrastructure costs (rent, heat, electricity and telephone costs). Medical students were able to obtain additional grants from the medical school to purchase supplies such as specula, lubricant for exams and glass slides for wet mounts. A microscope was donated to the WCCE by the medical school. Oral contraceptives were provided by Direct Relief and other agencies. A grant from Bayer provided free IUDs on a monthly, lottery-based system. March of Dimes funding provided support for small-group education about contraceptives and family planning, which were run by the Navegantes.

We performed a retrospective chart review to summarize the experience from the first two years of clinic operations. Namely, we describe patient demographics and number of encounters, types of medical problems, service provision and referrals made by the WCCE.

RESULTS

From May 2015 to May 2017, the Women's Clinic at Clinica Esperanza (WCCE) served 138 patients. Patients ages 19–73 years old were primarily Spanish speaking (85.2%; **Table 1**) and of Hispanic ethnicity (89.6%), mostly Guatemalan (51.1%). CEHC patients are uninsured; however, 25% of patients at WCCE were able to obtain charity care for laboratory work and specialty referrals at a local hospital (**Table 1**). Only eight patients (5.8%) became insured and were able to transfer their gynecologic care to other institutions during this two-year period (**Table 1**).

Table 1. Patient Demographics (n=138)

Mean Age in Years (range)	42.5 (19-73)
Race/Ethnicity, n (%)^a	
Caucasian	3 (2.2)
African American	1 (0.7)
African	8 (5.9)
Hispanic	121 (89.6)
Guatemalan	69 (51.1)
Mexican	13 (9.6)
Salvadorean	9 (6.6)
Dominican	7 (5.1)
Columbian	5 (3.7)
Bolivian	5 (3.7)
Other	13 (9.6)
Primary Language, n (%)^a	
Spanish	115 (85.2)
English	15 (11.1)
Other	5 (3.7)
Insurance Status, n (%)	
Uninsured	100 (72.5)
Lifespan FreeCare	30 (21.7)
Insured (with subsequent transfer of care)	8 (5.8)

^aDue to missing values, n=135 for these variables.

Table 2. Visit Composition, May 2015–May 2017

Number of clinics	48
Average number of scheduled encounters per clinic	7.3
Number of completed encounters	171
Number of new patient encounters	138
Missed encounter rate (%)	50.7
Types of missed encounters	
No show (n)	137
Cancelled (n)	17
Rescheduled (n)	24

Forty-eight WCCE clinics were held during a two-year period, with an average of 7 scheduled appointments per clinic (Table 2). Over the 48 clinics, 171 appointments were completed and 80.7% of appointments were with new patients (Table 2). The rate of missed encounters was 50.7%. Missed visits were more common than cancellations or rescheduled visits (Table 2).

Patients had a variety of gynecologic needs. Routine gynecologic screening in the form of Pap smears or mammograms was the most prevalent need (88.4% of patients, Table 3).

Table 3. Healthcare Needs and Service Provision at Women's Clinic, May 2015–May 2017

Gynecologic Needs ^a (n=138)	n (%)
Routine gynecologic screening (Pap/mammogram)	122 (88.4)
No other issues	53
Cervical dysplasia among patients with Paps ^b (n=80)	
Atypical squamous cells of unspecified origin	9/80 (11.3)
Cervical intraepithelial neoplasia-1 ^c	3/80 (3.8)
Atypical squamous cells-high grade	1/80 (1.3)
Cervical intraepithelial neoplasia-2,3 ^c	3/80 (3.8)
Invasive carcinoma ^c	1/80 (1.3)
Abnormal uterine bleeding	33 (23.9)
Preconception counseling	20 (14.5)
Contraception management	18 (13.0)
Abnormal vaginal discharge	17 (12.3)
Infertility	16 (11.6)
Breast issues	
Mastodynia	9 (6.5)
Breast mass	3 (2.2)
Nipple discharge	2 (1.4)
Stress urinary incontinence	5 (3.6)
Pelvic organ prolapse	4 (2.9)
Vulvodynia	4 (2.9)
Secondary amenorrhea	3 (2.2)
Vulvar lesions (papillomas, warts)	3 (2.2)
Service Provision	
Pap Smears	83
Initial screen after >3 years	80/83 (96.4)
Mammograms (referrals)	42
Gonorrhea/chlamydia testing	35
Vaginitis testing	19
Wet mount	3
Urine pregnancy testing	6
Urinalysis	3
Gardasil vaccination	3

^a Some patients had multiple gynecologic needs, so n>138 for this section of the table.

^b For patients with >1 pap smear (n=3), only the result from the initial Pap smear is included here.

^c These results are from colposcopy or excisional testing after Pap smear.

A majority of patients who required routine gynecologic screening also presented with additional needs. Common issues included abnormal uterine bleeding (23.9%), preconception counseling (14.5%), contraception management (13.0%), abnormal vaginal discharge (12.3%), and infertility (11.6%).

Over two years, student providers and their mentors at WCCE provided 83 Pap smears, 42 referrals for mammograms, 35 STI testing panels, and 19 vaginitis screens (Table 3). Of patients who got Pap smears, four of 83 patients (5.1%) had high-grade squamous intraepithelial lesions (HSIL) or invasive carcinoma. In addition, patients needed referrals to outside providers for infertility (n=8), colposcopy (n=7), urogynecology (n=5), and oncology (n=1) services. Eight patients requested long-acting reversible contraceptives.

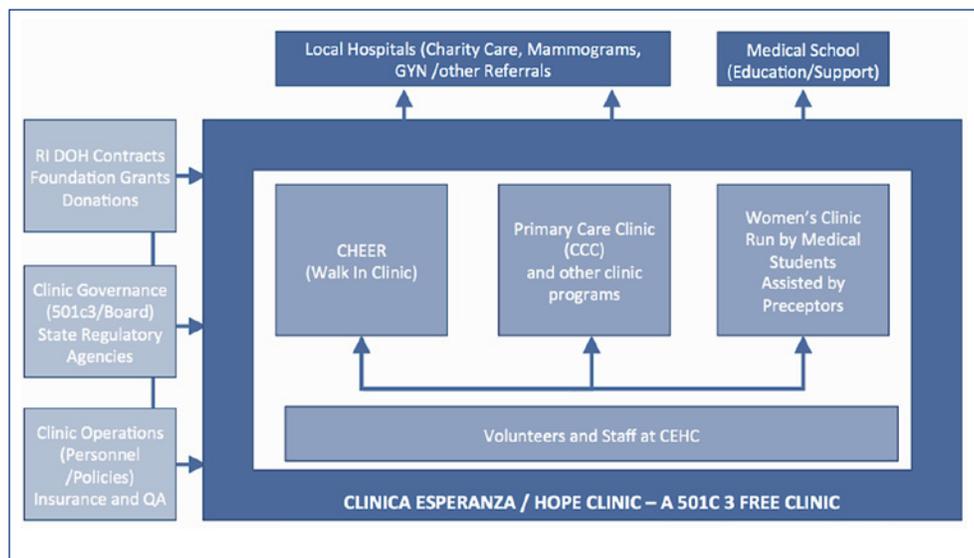
Ongoing challenges to be addressed include the high no-show rates. In addition, patients continued to face significant barriers to seeking care (for mammograms, for example) at referral hospitals primarily due to lack of transportation and language barriers. To address these barriers, we created an instructional sheet on mammogram completion to guide peer-to-peer education by Navegantes during clinic visits. Patients also had brief appointments at WCCE before and after referrals to review their expectations for the visit and address any remaining questions. Referrals to reproductive endocrinology and infertility, the most common referral for WCCE patients, posed a particular challenge for patients because of significant out-of-pocket costs. Finally, WCCE patients faced significant barriers to access to long-acting reversible contraception. WCCE was unable to find consistent sources of funding to support provision of either IUDs or implants. There was insufficient demand for Depo Provera to purchase and store the injections at Clinica Esperanza; interested patients had to purchase the medication at an outside pharmacy.

DISCUSSION

The WCCE supports the principle that student-run clinics are an effective source for specialty care for uninsured patients. Service utilization by clinic patients during the initial two years of WCCE operations demonstrated a high level of unmet needs for gynecologic care. Because of their unique role within the healthcare system, medical students developed relationships with individual providers, practical clinical experience and access to funding sources that supported expansion of clinical services. Altogether, our initiative creating WCCE indicates that student-run clinics have the potential to expand access to necessary specialty care at institutions that otherwise would not be able to provide these services.

Existing literature on student clinics focuses on these clinics' contribution to medical student education, improving medical students' cultural competency, professionalism,

Figure 1.



and clinical skills.⁸ The limited data available on quality of care provided by student-run clinics supports the conclusion that it is equivalent to the services provided in other safety net settings.⁹

Most literature on unmet needs for gynecologic services in safety net populations focuses primarily on screenings for cervical and breast cancer.⁴ Routine gynecologic screening was the most prevalent need for WCCE patients. Five percent of Pap smears completed on an initial visit showed high-grade dysplasia or invasive cervical carcinoma. However, more than half of WCCE patients who presented initially for routine screening had other gynecologic complaints, most commonly abnormal uterine bleeding (AUB). These results highlight the need for comprehensive gynecologic care at safety net institutions. Ideally, gynecologic services would include an established referral system to subspecialists in oncology, urogynecology and reproductive endocrinology.

The success of this intervention depended on several factors, some of which are unique to Rhode Island and others which can be replicated elsewhere. WCCE's unique structure as a clinic within a preexisting primary care clinic provided a steady stream of patient referrals and administrative support from clinic staff to assist with WCCE operations (Figure 1). WCCE served patients in close proximity to a large academic teaching hospital, which employed subspecialists with whom medical students interact during their clinical years; this proximity facilitated the creation of a subspecialty referral system for complex needs. The peer education groups held by Navegantes during each session of the women's clinic provided a culturally-sensitive space for patients to discuss expectations and fears about the pelvic exam and questions about contraception. WCCE also provided routine preventive screenings with the financial support of the Women's Cancer Screening Program.

The small size and predominantly Latina demographic of WCCE patients may limit the generalizability of findings to other populations. The infrastructure and resources available to the WCCE thanks to the CEHC as well as local and state resources in Providence, Rhode Island may also not be generalizable. The limited two-year follow-up period of this study makes it difficult to assess long-term effects of improved access to gynecologic care on patient outcomes.

Despite these caveats, student-run subspecialty clinics are an underutilized solution to address gaps in health equity.

Medical students can play a significant role in expanding the specialty services available to uninsured patients. Further attention should be given to promoting and facilitating the creation of student-run specialty clinics to supplement the existing network of student-run primary care clinics in the United States.

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References

- Salganicoff, A., Ranji, U., Beamesderfer, A., & Kurani, N. Women and health care in the early years of the Affordable Care Act. *Henry J Kaiser Fam Found*, 2014 [online].
- Rosenbaum, S., Paradise, J., Markus, A. R., Sharac, J., Tran, C., Reynolds, D., & Shin, P. Community health centers: recent growth and the role of the ACA. *Henry J Kaiser Fam Found*, 2017 [online].
- Price, C. R., Hatch, L. A., Radisic, A., Palakurty, S. H., Khalil, S., Simoneit, E., Roetzheim, R. Enhancing Adherence to Cervical Cancer Screening Guidelines at a Student-Run Free Clinic. *J Community Health*, 2019: 1-5. doi: 10.1007/s10900-01900724-8
- Emmons, K. M., Cleghorn, D., Tellez, T., Greaney, M. L., Sprunck, K. M., Bastani, R., Puleo, E. Prevalence and implications of multiple cancer screening needs among Hispanic community health center patients. *Cancer Causes Control*, 2011; 22(9): 1343-1349. doi: 10.1007/s10552-011-9807-7
- O'Malley, A. S., Forrest, C. B., Politzer, R. M., Wulu, J. T., & Shi, L. Health Center Trends, 1994–2001: What Do They Portend For The Federal Growth Initiative? *Health Aff*, 2005; 24(2): 465-472. doi: 10.1377/hlthaff.24.2.465
- Weiss, E., Haslanger, K., & Cantor, J. C. Accessibility of Primary Care Services in Safety Net Clinics in New York City. *Am J Public Health*, 2001; 91(8): 1240-1245. doi: 10.2105/ajph.91.8.1240
- Care, B. o. P. H. "Health Center Data, National Report 2016." *HRSA*, 2016 [online].

8. Meah, Y. S., Smith, E. L., & Thomas, D. C. Student-run health clinic: Novel arena to educate medical students on systems-based practice. *Mt Sinai J Med*, 2009; 76(4): 344-356.
9. Butala, N. M., Murk, W., Horwitz, L. I., Graber, L. K., Bridger, L., & Ellis, P. What is the quality of preventive care provided in a student-run free clinic? *J Health Care Poor Underserved*, 2012; 23(1): 414-424.
10. Ellett, J. D., Campbell, J. A., & Gonsalves, W. C. Patient satisfaction in a student-run free medical clinic. *Fam Med*, 2010; 42(1): 16-18.
11. Hindocha, P., Janardhanan Nair, N., Pigoga, J., Barry, K., McCarthy, M., Almeida-Monroe, V., & De Groot, A. S. Bridging the [Health Equity] Gap at a Free Clinic for Uninsured Patients of Rhode Island. *R I Med J*, 2018; 101(9): 27-31

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