



The Importance of Clinical Accompaniment for VIA/Cryotherapy Programs in Low and Middle Income Countries

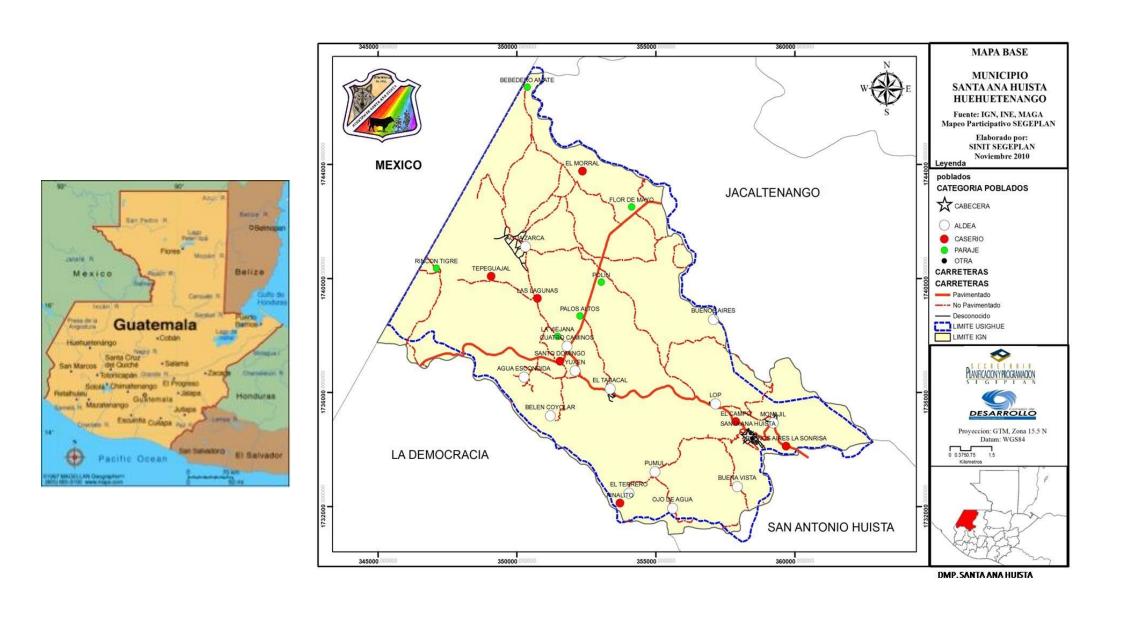
Margaret M Sullivan¹⁻³, Dana DaEun Im^{4,5}, Lindsay Palazuelos¹, Daniel Palazuelos^{1,4,6,7} & Rose Leonard Molina^{6,7} ¹Partners In Health, ²Global Health Delivery Online, ³Boston Health Care for the Homeless, ⁴Harvard Medical School, ⁵Harvard Kennedy School of Government, ⁶Division of Global Health Equity at ⁷Brigham & Women's Hospital, ⁸Massachusetts General Hospital





Introduction

Cervical cancer is one of the leading causes of cancer mortalities for women in low and middle income countries (LMIC).^{1,2} Health system infrastructures in these countries are often limited and lack the capacity to provide the necessary evaluation and follow-up of traditional Pap smears. Visual inspection with acetic acid (VIA) and cryotherapy have been shown to be an alternative inexpensive and effective screening and treatment modality for cervical dysplasia.³⁻⁵ Furthermore, both Pap and cryotherapy have low complication rates and the technique can be taught to nurses in rural areas.⁶ Given the varying level of pre-existing nurse education and training, this project sought to provide integrated and ongoing clinical accompaniment from US-based volunteer clinicians, rather than rely on a single one-time training as is more commonly done.



Objectives

From February 2011 to December 2014:

- Increase cervical cancer screening to 80% for women 30-50 years old in Santa Ana Huista, Guatemala (estimated population 11,137; total number of women 5569, women 30-50 years old 1348).
- Strengthen local capacity to more effectively screen for cervical cancer and refer out when necessary
- Train local health care providers to perform cryotherapy in the appropriate clinical setting
- Foster sustainability and self-sufficiency of the project
- Decrease morbidity and mortality of cervical cancer in this area

Methods

- Rigorous training courses for self-selected clinicians, with both didactic and practicum components
- US-based clinicians provided clinical accompaniment, defined here as in-person and in-clinic presence of experienced clinicians along side of trainees, where demonstration, feedback, discussion and review were utilized to build upon learning.
- Expansion of community clinic and mobile clinic hours
- Coordination of a multi-partnership project, consisting of local NGOs and community health centers





Outcomes and Evaluation

Five nurses and one physician were trained and certified in VIA and three were certified in cryotherapy. In all, approximately 375 training hours were received. A total of 24 weeks of in-country clinical accompaniment was provided (one US-based nurse practitioner spent a total of 20 weeks, a second NP spent three weeks, and a physician spent one week). As a result of the clinical accompaniment, several challenges were discovered, collaborative decision-making was used for problem-solving, and clinical confidence and critical thinking skills progressed over time. In total, the number of women served by this 4-year project was nearly 3000 (2958). However, given the challenges with data management, turn over of staff, coordination between local partners, and influx of women referred from surrounding municipalities, it is difficult to isolate the number of women screened who were 30-50 years old and from Santa Ana Huista. Of the nearly 3000 women seen, nearly 2000 (1998) received VIA screening, of which 66 were positive (3.3%), 59 received cryotherapy, 17 were referred out for further diagnostics and 6 were eventually diagnosed with cervical cancer (4 received treatment and 2 declined treatment). Of the women who did not receive screening by VIA, 842 received Pap tests (usually because of their age) and 118 received consultation only (for their reproductive and gynecologic health concerns).



Discussion

The primary challenge of VIA/cryo program implementation is beyond the actual provision of training. Clinical accompaniment brings to light challenges and difficulties that would not otherwise be known, yet significantly impact effectiveness and reliability of data.

In particular, seamless collaboration between local partners and retention of health professionals, was difficult to successfully maintain over the years. Neither problem would have been identified without ongoing and regular clinical accompaniment. As a result, this project was able to recruit and train new staff, as well as facilitate greater communication between programs. However, given how hard these challenges were, both remained difficult to fully overcome and neither should be overlooked as important components to successful implementation.

Clinical experts, who are able to provide continuity of mentorship over time, can improve the uptake of new clinical skills, ensure that provision of care meets standards, and facilitate problem-solving with local partners. Rather than a limited one-time training, implementation programs should consider longer-term clinical accompaniment in rural and LMICs to ensure provision of high quality of care. Training-only programs run the risk of overlooking numerous clinical and systematic pitfalls, and inadvertently contributing to the perpetuation of inadequate services.

Acknowledgments

Hilda Juarez Cano, Kimberley Chastain, Cheryl Hamlin, Rosalva Hernandez Lemus, Abigail Morales Mérida, Marisa Nadas, Ashley Younger and the Younger Family Foundation, Santiago Pablo Lucas, Humberto Hernandez. And not least, thank you to Basic Health International and Fe en Práctica.

References

- 1. Bray F, Ren JS, Masuyer E, et al. Estimates of global cancer prevalence for 27 sites in the adult population in 2008. Int J Cancer. 2013;32(5):1133-45.
- 2. Maine D, Hurlburt S, Greeson D. Cervical cancer prevention in the 21st century: cost is not the only issue. Am J Public Health. 2011;101(9), 1549-1555.
- 3. Blumenthal PD, Gaffikin L, Deganus S, et al. Cervical cancer prevention: safety, acceptability, and feasibility of a single visit approach in Accra, Ghana. Am J Obstet Gynecol. 2007;196(4): 407.e401-408.
- 4. Gaffikin L, Blumenthal PD, Emerson M, et al. Safety, acceptability, and feasibility of a single-visit approach to cervical-cancer prevention in rural Thailand: a demonstration project. Lancet. 2003;361(9360): 814-820.
- 5. Sherris J, Wittet S, Kleine A, et al. Evidence-based, alternative cervical cancer screening approaches in low-resource settings. Int Perspect Sex Reprod Health. 2009;35(3): 147-154.
- 6. Sankaranarayanan R, Rajkumar R, Esmy PO, et al. Effectiveness, safety and acceptability of see and treat' with cryotherapy by nurses in a cervical screening study in India. Br J Cancer. 2007;96(5): 738-743.

1MS, RN, FNP-BC; Partners In Health, Global Health Delivery Project, Boston Health Care for the Homeless; 2MD/MPP Candidate, Harvard Medical School and Harvard Kennedy School of Government; Partners In Health, 3Partners In Health; 4MD, MPH; Partners In Health, Harvard Medical School; 5MD; Massachusetts General Hospital