

28 August 2020

HPV Prevention and Control Board

The Scale-Up Project:

Selected Results & Learnings from Adoption of HPV Testing for Cervical Cancer Screening in Central America

Kerry A. Thomson, PhD, MPH
Research Officer, PATH



PATH
P011AC-11/120

PATH Thomson, Kerry, González

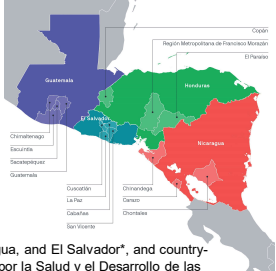
1

Scale-Up Project

Purpose: Introduce and "scale up" HPV testing in selected areas of 3 Central American Countries

Core Activities 2014–2020:

- Transitioning from pap smears/visual inspection with acetic acid (VIA) to HPV testing
- Introduce self-sampling as a viable alternative to clinician sampling
- Establish lab capacity for HPV testing and timely delivery of results
- Strengthening treatment capacity and referral systems for positive women
- Monitoring of core data indicators



Collaboration:
Ministries of health of Guatemala, Honduras, Nicaragua, and El Salvador*, and country-based nongovernmental organizations (La Instancia por la Salud y el Desarrollo de las Mujeres, Asociación Hondureña de Planificación de la Familia [ASHONPLAFA], Fundación Movicáncer, and Basic Health International*), coordinated by PATH


*El Salvador was included in Scale-Up at project onset, and continued as a collaborator, but did not continue as an active project country and contribute data in later years.

PATH
P011AC-11/120

2

HPV Testing

- careHPV: most affordable and suitable molecular test for LMIC settings test as of 2014
- Qualitative diagnostic for 14 high-risk HPV types
- Tests were financed through PATH/BMGF during project period with a goal of transitioning to country procurement.
- Batch processing at referral labs (n=90)
- ~10% plate failures leading to invalid results & waste
- Women had results within ~1 month



Guidelines for Organizing a Quality Assurance Program for Introduction and Routine Use of careHPV in Low-Resource Settings

PATH
P011AC-11/120

Holme F, Jaramila J, Maldonado F, et al. Introduction of HPV testing for cervical cancer screening in Central America: The Scale-Up project. Prev Med. 2020;131:106078.
González, R. et al. Performance of the careHPV test within a routine screening context in Guatemala and Honduras. International Papilloma Virus Conference, 2020

3

Screening Results

Total screened in Guatemala, Honduras, & Nicaragua:

- > 270,000 women 30 – 65 years screened using HPV testing as primary screening in public sector clinics and outreach


Screening history:

- 43% never screened
- 35% screened > 3 years ago

HPV prevalence

- 13.6% positive for HPV
- Peak 28% at 20-24 yo

*An additional 40,000 women were screened in 2019-2020 after the final project analysis




Holme F, Jaramila J, Maldonado F, et al. Introduction of HPV testing for cervical cancer screening in Central America: The Scale-Up project. Prev Med. 2020;131:106078.
Santander M, Holme F, Lobo S, et al. Age patterns of human papillomavirus infection and primary screening test for cervical cancer and subsequent high-grade intraepithelial lesions in Honduras. Salud Pública de México. 2020;62


4

Self-Sampling

- 75% of women screened used self-sampling
 - Nicaragua: 97.1%
 - Guatemala: 90.2%
 - Honduras: 75% (Tegucigalpa)
- Implementation of self-sampling:
 - Clinics
 - Community health outreach in markets, neighborhoods
- Key to increasing testing volume & coverage
 - Avoid provider time, space, pelvic exam
 - Women's agency



Para la Autodetección

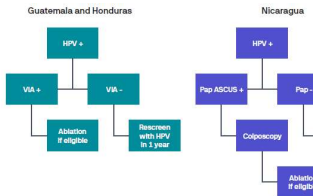


PATH
P011AC-11/120

Holme F, Jaramila J, Maldonado F, et al. Introduction of HPV testing for cervical cancer screening in Central America: The Scale-Up project. Prev Med. 2020;131:106078

5

Triage and Treatment Completion

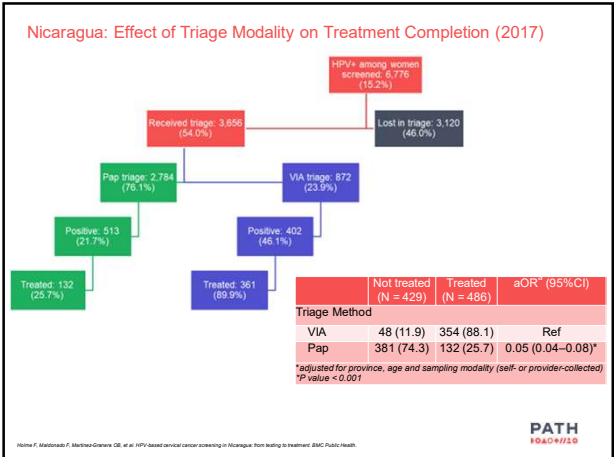


	Guatemala	Honduras	Nicaragua	Total
HPV positive	10,557	10,833	10,476	31,866
Triage test done	8,885 84.2%	5,432 50.1%	8,991 85.8%	23,308 73.7%
Triage positive	3,161 35.6%	2,091 38.5%	2,471 27.5%	7,723 33.1%
Treated	2,676 84.7%	1,230* 58.8%	1,657 67.1%	5,563 72.0%

*Actual treatment numbers increased as a result of treatment campaigns that occurred after final analysis.

PATH
P011AC-11/120

6



7

Thermal Ablation

- Clinical trial of Liger Thermocoagulator within 4 public sector clinics Honduras
- 319 HPV positive VIA positive women 30-49 y/o
- Women rated post-procedure pain rating on Wong-Baker visual pain scale [0 (no pain) -10]
 - Average pain rating was 2.5
 - 85% of women rated pain < 6
 - 100% comfortable recommending to a friend
- Biopsy confirmed at baseline:
 - 239 (75%) normal / CIN1
 - 76 (22%) CIN 2/3
 - 2 cases of cancer
- 126 women completed repeat HPV testing and VIA, and biopsy at 1 year
 - 98 (83.1%) had no evidence of CIN2–3 or persistent low-grade infection
 - 1 case of persistent CIN3

Sandoval M, Slavovskiy R, Bansil P, et al. Acceptability and safety of thermal ablation for the treatment of precancerous cervical lesions in Honduras. Tropical Medicine & International Health. 2019

Slavovskiy R, Bansil P, Sandoval M, et al. One-year follow-up after thermal ablation treatment of pre-neoplastic cervical lesions in Honduras. International Papilloma Virus Conference. 2020

PATH Focus On: Honduras

8

Strategies for Re-screening

- HPV positive triage negative women are a priority group for re-screening at risk of persistent HPV infection
 - 36% HPV positive at ~1 year
- During Scale-Up very few HPV positive triage negative women returned independently for re-screening at 1 year
- Evaluated effectiveness of recall strategies (phone, SMS, phone visit) to remind 558 women to return to the clinic for 1-year follow-up in Honduras
 - 98.6% successfully contacted
 - 75.1% women completed re-screening
 - Mean: 2.1 contacts and within 10 days
- In the absence of screen-and-treat, surveillance of HPV positive women is critical > 1 year, especially with an extended screening interval

Thomson KA, Sandoval M, Bain C, et al. Recall Efforts Successfully Increase Follow-Up for Cervical Cancer Screening Among Women With Human Papillomavirus Infection. Global Health: Science and Practice. 2020

PATH Focus On: Honduras

9

Conclusions

- Government adoption of HPV testing achieved
- Self-sampling well received by women and key to achieving high coverage
- Thermal ablation is acceptable and effective, but treatment completion remains challenging when a triage step is included
- Routine analysis of patient-level data is critical to inform project effectiveness
- Budget allocation and procurement of HPV test by country governments remains a barrier to long-term sustainability
- Low(er) cost and less technical high precision tests needed
- Retention and recall efforts are needed throughout the screening and treatment cascade

PATH Focus On: Guatemala

Honduras Guatemala Nicaragua

10

Acknowledgements

PATH Scale-Up Team, Ministry of Health of Guatemala, Secretary of Health of Honduras, Ministry of Health of Nicaragua, Ministry of Health of El Salvador, Instancia por la Salud y el Desarrollo de las Mujeres in Guatemala, Movicáncer in Nicaragua, Asociación Hondureña de Planificación de la Familia in Honduras, Basic Health International in El Salvador, Bill & Melinda Gates Foundation, the women of Guatemala, Honduras, Nicaragua, who shared their time and experiences with us.

PATH
FOCUS/20

11

Citations

Holme F, Jeronimo J, Maldonado F, et al. Introduction of HV testing for cervical cancer screening in Central America: The Scale-Up project. Prev Med. 2020;135:106076

Slavovskiy R, et al. Performance of the careHPV test within a routine screening context in Guatemala and Honduras, International Papilloma Virus Conference, 2020

Sandoval M, Holme F, Lobo S, et al. Age patterns of human papillomavirus infection as primary screening test for cervical cancer and subsequent triage with visual inspection in Honduras. Salud Pública de México. 2020;62.

Holme F, Maldonado F, Martínez-Granera, O.B. et al. HPV-based cervical cancer screening in Nicaragua: from testing to treatment. BMC Public Health 20, 495 (2020).

Sandoval M, Slavovskiy R, Bansil P, et al. Acceptability and safety of thermal ablation for the treatment of pre-neoplastic cervical lesions in Honduras. Tropical Medicine & International Health, 2019

Slavovskiy R, Bansil P, Sandoval M, et al. One-year follow-up after thermal ablation treatment of pre-neoplastic cervical lesions in Honduras, International Papilloma Virus Conference, 2020

Thomson K, Manuel S, Bain C, Holme F, Bansil P, Figueroa J, Sanjose SD. Recall Efforts Successfully Increase Follow-up for Cervical Cancer Screening among HPV Positive Women in Honduras. Global Health: Science and Practice. 2020

Self-sampling and HPV testing for cervical cancer screening in Central America

A model for cervical cancer prevention in low resource settings

PATH
FOCUS/20

12

For more
information
contact:

Kerry Thomson

kthomson@path.org

Silvia de Sanjosé

sdesanjose@path.org

PATH

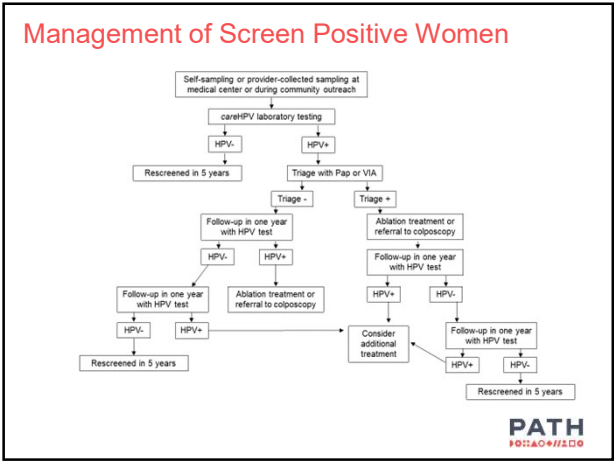
10A04/1120

13

PATH

10A04/1120

14



15