Testing New Technologies in the Test-and-Treat Project, Peru: The TATI Intervention

In collaboration with the San Martín Department of Health, Ministry of Health

**TATI** ("Tamizaje y Tratamiento Inmediato de Lesiones Cervicouterinas", or Screening and Immediate Treatment of Cervical Lesions) is a demonstration project that consists of screening women for cervical cancer using Visual Inspection with Acetic Acid (VIA) and offering immediate treatment with cryotherapy at the primary-care level; referring women for histology, colposcopy, LEEP, cold-knife conization or hysterectomy at the secondary level of care; and developing a sustainable referral system for women with invasive disease at the tertiary level. The target population for testing is women aged 25 to 49 years in the San Martin region of Peru, estimated to be 104,296 in 1999. The project coverage goal is to screen and provide follow-up care as needed to 80% of the target population, within three years. Older women are screened with the routine Papanicolaou.

Peru is among those Latin American countries with the highest cervical cancer incidence and mortality rates. In Trujillo, the incidence is 115.4 per 100,000 women aged 35-64 years old. The estimated mortality rate for Peru is 15.8 per 100,000 women. In 1999, the Ministry of Health invited PAHO and PATH to collaborate with the country to improve the cervical cancer situation. In March 2000, the three institutions agreed to evaluate Visual Inspection with Acetic Acid (VIA) coupled with cryotherapy as an alternative or as a complement to Papanicolaou in an effort to prevent cervical cancer. It was decided that the strategy should be evaluated in an area with the most need, where there are serious geographic, economic and socio-cultural barriers to health service access. The San Martin Region was selected.

Baseline assessment of the existing cervical cancer program in San Martin demonstrated that in 1999 only 23% of women with abnormal Papanicolaou had received follow-up diagnosis and treatment. In addition, most of the women treated for pre-invasive lesions were over-treated with hysterectomy. Due to lack of ambulatory treatment services close to 50% of all cases requiring treatment were transferred outside of the region, with significant personal and institutional costs. This situation is far from unique, as it represents the current reality of many other low-resource settings in the Americas. Efforts to increase coverage or accuracy of Papanicolaou alone will not solve this problem. There is a significant need to provide remote regions and low-resource settings with strategies that facilitate access to cost-effective detection and treatment of pre-cancerous lesions.

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Objectives

1. To assess the effectiveness and acceptability of VIA coupled, when required, with immediate cryotherapy.
2. To evaluate the role of magnification to improve the accuracy of VIA.
3. To evaluate the feasibility of incorporating VIA and cryotherapy in the routine primary care services.

The screening program aimed to be comprehensive, universal, equitable, cost-effective and sustainable. Within this framework a two-stage intervention was planned:

- research phase: piloting of different approaches to service delivery and monitoring, implementing the techniques and evaluating the model’s effectiveness
- consolidation and scaling to other regions: San Martin is to become a demonstration and training site for the other regions.

Primary Care Service Delivery Since the Introduction of TATI

The San Martin Region is divided into 10 health system networks. Each network has a health center and several health posts that provide primary care services for a population located in a pre-defined area. Each network is to be self-sufficient in providing screening and immediate treatment to its population. Two professional midwives and one general medical practitioner were selected to be in charge of the project in their respective health area. Midwives perform the gynecological examination, obtain a Pap smear and screen a subgroup of women (5000) with VIA as well as a Human Papilloma Virus (HPV) test and liquid cytology. If the VIA test is abnormal\(^1\), the patient is referred to the general practitioner for re-test with magnification by Aviscope\(^\text{TM}\) (VIAM). If abnormal, women are offered biopsy and immediate treatment with cryotherapy. A consent form has to be signed by all women prior to VIA and prior to cryotherapy, which includes a statement about the real possibility of over-treatment. If the observed lesion is suspected to be invasive, covers a large proportion of the cervix or enters into the canal, the woman is referred to the secondary level for further investigation and treatment.

Follow-Up Policy

Screened women, if both normal on VIA and Papanicolaou, will be reexamined in three years. Women with normal VIA and abnormal Pap will be sent for further investigation/treatment to a specialist. Women who receive cryotherapy are followed at one week and at one month to evaluate tolerance and acceptability of the technique. At three months and one year after treatment they receive VIAM and Papanicolaou to evaluate efficacy.

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\(^1\) Abnormal VIA is defined as presence of acetowhite lesions with clear borders in the transformation zone, close to the squamocolumnar junction, that persists some moments after application of acetic acid.
**Outreach**
Collaboration has been established with local NGOs, women’s organizations and the Ministry of Health to identify and train community facilitators, who will promote the project in their respective communities. Over 160 community leaders and Ministry of Health personnel have been trained to educate women about cervical cancer prevention and raise awareness about the project so that women will voluntarily seek screening. Trained personnel and community leaders will monitor women’s satisfaction with care received to provide ongoing feedback to the health teams throughout the intervention.

**Training in VIA, VIAM, and Cryotherapy**
Thirty professionals have participated in the training. The training consisted of a one-day training in communication, counseling, and quality of care and ethics issues; three days of theoretical and practical review, followed by three days of clinical practice.

**Improving the Quality of Papanicolaou**
Besides training the teams in the correct technique for obtaining Pap smears, there has also been a consolidation of the cytology laboratories in the region. The two cytotechnicians are now being re-trained and the laboratory is being supplied with an adequate information system to expedite its work and facilitate follow-up.

**Secondary Care**
Gynecologic services offering diagnosis and ambulatory treatment for pre-cancerous lesions have been implemented in the two main cities, Tarapoto and Moyobamba. Three gynecologists from the region have been trained and will be responsible for supervising and reinforcing the skills of the ten primary care teams in addition to diagnosing and treating cases and referring invasive cancers.

**Histology Services**
A histology laboratory is being established and a medical pathologist will be hired to serve San Martin and neighbouring regions.

**Monitoring and Quality Control**
The technical quality of VIA, VIAM and Papanicolaou screening methods are being monitored in addition to the quality of treatment and biopsies. Monitoring certain aspects of quality of care is also being done through patient satisfaction surveys.