

Promoting Comprehensive Cervical Cancer Prevention and better Women Health, in Cameroon



Figure 1 District Hospital, Dschang, in Cameroon. The partnership is committed to determine a context-relevant strategy for Cervical Cancer screening, in Cameroon

Context

Cervical cancer (CC) is the third most common cancer in women worldwide, accounting 2.3 million prevalent cases and 510 000 new cases each year. Annually, around 300 000 women die of cervical cancer, and more than 85% of these deaths occur in low resource countries where it is the most common cancer among women and the most common cause of cancer among middle aged women. Over 80% of cancers in low resource settings are detected in late stages, predominately due to lack of information about the benefits of cervical cancer prevention. Thus, nearly two thirds of healthy years lost by women in developing countries are lost because of cervical cancer and not, as is often supposed, because of problems related to reproductive health. This is particularly disturbing because cervical cancer is a preventable disease

Despite its public health importance there are no effective prevention programs in most developing countries and hence the risk of disease and death from cervical cancer remains largely uncontrolled. The failure of the conventional cytology-based (Pap test) approach to reduce cervical cancer prevalence in developing countries, particularly in Africa is due because only 5% of women have ever been screened for cervical abnormalities. This is because there are too few trained and skilled professionals to implement such a program effectively and achieve high coverage rates. In addition, healthcare resources are not available to sustain such a relative expensive program. Furthermore, many women -particularly those who live in rural areas- are not informed about their results and about when to return for treatment, they become "lost to follow-up". These are some of the barriers that prevent women from ever seeking cytology-based screening or providers from ever recommending it.



Nearly all cervical cancers are directly linked to persistent infection with high-risk types of human papilloma virus (HPV). The most effective way to prevent cervical cancer would be vaccines against HPV. It may be the answer to this important public health problem, particularly in countries where women's healthcare services are limited. However, large-scale vaccine implementation is still several years away in the countries that need it the most. In addition, the currently available vaccines would protect a person against only some types of HPV. This dilemma has led to the investigation of screening tests that use fewer resources and offer rapid results. The WHO guideline for cervical cancer screening recommends visual inspection with acetic acid (VIA) and Lugol's iodine (VILI) or HPV testing as alternative screening techniques.

HPV testing is more effective than cytology with a high sensitivity and high negative predictive value allowing extension of screening intervals up to 5-10 years. In addition, HPV testing permits self-vaginal sample collection and the use of point-of-care test devices. These options make possible a very convenient approach for developing countries: *screening and treatment in one visit*. In the past few years we have developed a strategy called 3T (Test-Triage-Treat in one visit). In this strategy women are subjected the following sequence: first, a rapid HPV test; HPV-positive women undergo a triage with VIA and if positive a treatment is offered. HPV-negative women are reassured and advised to do the next screening 5 years later.

Our project is based in the 3T strategy and will take place in Cameroon, a country with 22 million habitants, who faces the double burden of communicable and non-communicable diseases. Cervical cancer incidence is rising from 24/100'000 cases in 2008 to 30/100'000 cases in 2012 and it accounts for 24% of female cancers. There is no CC prevention (screening, vaccination) program and curative actions are ineffective.

The Dschang and Mfou health district hospitals, serve as referral facilities for 250'000 and 83'977 inhabitants respectively. The study will be set in these two regions. We found gaps in the key elements of the health system of this target hospitals, with respect to cervical cancer.

Project description

This project has the goal to determine a context-relevant strategy for CC screening in Cameroon (sub-Saharan Africa), by investigating the performance of emerging CC screening, triage techniques among women aged 30-49 years and treatment. It will also evaluate the feasibility, acceptability and the security of this approach for implementation of organized HPV-based screening programs.

In order to reach our goal, we will follow seven specific objectives:

1. To estimate the proportion HPV-test positive women referred to VIA/VILI examination in a population of 6000 Cameroonian women aged 30 to 49 years old.
2. To evaluate the feasibility of implementing organized HPV-based CC screening program within the health systems participating in the study. To evaluate the feasibility of implementing a HPV-rapid test in a screen and treat strategy already used in Cameroon, but at a larger scale.
3. To determine the performance characteristics of VIA/VILI and cytology as triage tests for HPV-positive women to detect cervical pre-cancer in a screen-and-treat approach in real life Cameroonian context, using histologically confirmed cervical intraepithelial neoplasia grade 2 or more severe lesion (CIN2+) as gold standard.
4. Create a database of cervical images (native, VIA and VILI) for training health personnel on visual methods of CC screening (teaching material).



5. Create an electronic database with contact information, sociodemographic information, cervical pre-cancer and cancer registries, including information on follow-up for the 6000 included women
6. Reducing the burden of cervical cancer by treating all precancerous lesions detected during the study in the catchment area.
7. To estimate the rate of overdiagnosis and overtreatment using VIA/VILI results for triage of HPV-positive women (histology as gold standard).

Partnership

Our project to promote women's health and fight cervical cancer began about 20 years ago. It could not have been perpetuated without the support and the active collaboration of our partners. In Cameroon, we have the privilege to work with the Ministry of Health, and at the district level, we can rely on the involvement of the Chief manager and the medical staff in Dschang District Hospital (DDH) since 2014 and in Mfou District Hospital.

At swiss level, our major partner is The Geneva University Hospitals (HUG), and we also can count on the alliance with GeneXpert system (Cepheid).

Timeframe

May 2018 to December 2020

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