EARLY DETECTION AND SCREENING FOR CERVICAL CANCER

DEVELOP AND IMPLEMENT ORGANISED SCREENING AND EARLY DETECTION PROGRAMMES FOR CERVICAL CANCER FOR DIFFERENT RESOURCE SETTINGS AND INCREASE PUBLIC AWARENESS

FACTS

Cervical cancer kills approximately 275,000 women each year, about 88% of whom live in developing countries with 53,000 deaths in Africa, 31,700 in Latin America and the Caribbean and 159,800 in Asia[1].

Virtually all deaths from cervical cancer are caused by infection with human papillomavirus (HPV). Transmitted through skin-to-skin contact, it is a common infection and most adults are exposed to the virus within a few years of becoming sexually active. A percentage of women develop persistent infections that progress to pre-cancer and, if not treated, invasive cancer.

Effective early screening and treatment, mainly using cytology-based (Pap) testing, has resulted in a steady drop in cervical cancer incidence and mortality in high-resource settings like the US and Europe. However, quality cytology has proven to be difficult to establish or sustain in lower-resource settings[2]. Fortunately, new options are now proving effective for cervical cancer screening and treatment in those areas.

A GLOBAL SOLUTION

The cervical cancer burden in low- and middle-income countries can be significantly reduced through practical interventions that can be tailored to the resource setting and population-based need. These include new alternatives to Pap screening such as visual inspection strategies and HPV DNA testing, along with cryotherapy for treatment of precancer.

Of equal importance is increasing awareness among policy makers, the public, and health professionals that solutions to cervical cancer prevention are at hand in all resource settings.

MEETING THE CHALLENGE

Achieving equity in cervical cancer early detection and treatment is a priority. Cervical cancer rates in wealthier nations plummeted once Pap testing was introduced broadly - and rates continue to be low. With the strong evidence base for use of VIA and cryotherapy, the tools are at hand to reduce cervical precancer and cancer. What is needed is the political will and resources to expand use of these tools in lower-resourced communities. Creating service models that can function in rural areas and be scaled up nationally will ensure that all eligible women have equitable access.

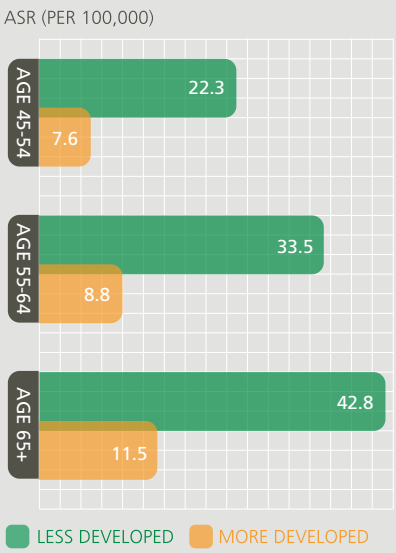
WORLD CANCER DECLARATION TARGET 6

MORE CANCERS DIAGNOSED VIA SCREENING AND EARLY DETECTION

The Political Declaration of the United Nations High-Level Meeting on the Prevention and Control of NCDs adopted unanimously in September 2011 by 193 Member States, contains commitments that are aligned with the targets of the World Cancer Declaration.

The Political Declaration promotes increased access to cost-effective cancer screening programmes.

AGE SPECIFIC CERVICAL CANCER MORTALITY RATES IN 2008



EACH YEAR THERE ARE ABOUT 275,000 CERVICAL CANCER DEATHS WORLDWIDE, WITH 88% IN LOW- AND MIDDLE- INCOME COUNTRIES. THESE DEATHS ARE AVOIDABLE AND REPRESENT A FAILURE TO PROVIDE BASIC PREVENTIVE CARE TO WOMEN.

SUPPORTING EVIDENCE

The critical issue for screening programmes is to select the test that is most appropriate for the context in order to achieve high screening coverage, high quality testing and reliable follow-up care for women.

Raising awareness: Recent experience with screening and vaccination programmes in low resource settings suggests that once people understand basic information about cervical cancer and know how to access services they tend to come for the services[3-7]. Although awareness in lower resource settings remains low, even among health professionals, levels of concern about cancer are high, and the public pays attention to messaging about cancer. Comprehensive prevention programmes that include strategies to improve knowledge of cervical cancer among communities, health professionals and policy makers and that expand access to services have the greatest chance of success.

Tailoring screening and treatment services: Evidence over the past decade has shown that alternatives to Pap, such as visual inspection with acetic acid (VIA), can make screening available to many more women. Building VIA capability can serve the needs of women now, while creating a service platform ready to take advantage of more sensitive HPV DNA (or other biochemical tests) in the future. Cryotherapy, or freezing cervical tissue that is likely to develop into cancer, can be used to treat precancer among women who have been screened using VIA or HPV DNA testing. The procedure is both cheaper and technically simpler than other treatment options, making it more accessible and field-friendly. A screen and treat approach that combines VIA or HPV DNA testing with cryotherapy is a low-cost strategy that can be established relatively close to populations in need.

Unlike in higher-resource settings, some of these programmes have determined that including a diagnostic step prior to treatment creates barriers to programme success. They have found that many women "drop out" of the system when asked to return again and again. Making it easier for women to access screening and treatment, and reducing visits by adopting a screen-and-treat approach for the majority of straightforward cases will improve outcomes and reduce cost and infrastructure demands[2, 8, 9]. For example, in a 'screen and treat' project in Peru, only 9% of women who screened positive failed to receive treatment in the single visit approach, compared with 44% of women who were lost to treatment using a multi-visit model[10, 11].

In some cases, women are reluctant to come for screening because they do not want to undergo a pelvic exam, especially if conducted by a male provider[12-15]. In such a case, a test that allows women to gather a vaginal (not cervical) sample themselves, without a pelvic examination and in a private space using a small brush and storage tube provided by the clinic, could overcome this concern. Early results comparing clinician-gathered versus self-collected specimens for HPV testing showed only a slight decrease in sensitivity for the latter approach. While not yet proven effective, this option could remove another serious barrier to widespread screening[16-19]. Where high-quality cytology-based programmes work, with or without HPV DNA testing, they should be continued.

Optimal Target Population: In a resource-constrained setting, the optimal target population for cervical cancer screening is women above the age of 30[20]. Younger women often present with HPV infection or low-grade cervical lesions, but the vast majority of these cases clear spontaneously within a few months or years, and do not progress to cancer. When HPV infection is found in women over 30, there is a greater chance that the infection is persistent (and therefore at higher risk of progressing to cancer). Studies have shown that even a single screening between the ages of 30 and 40 can reduce a woman's lifetime risk of cervical cancer by 25-36%[2, 21].

CASE STUDY

THAILAND: SHOWING LEADERSHIP IN THE PROVISION OF CERVICAL CANCER SCREENING[8]

Thailand has implemented Pap testing for many years, with success in cities like Bangkok. Over the past decade, the country also became well-known as a proving ground for VIA, especially in the relatively poor region of "Isaan" (in the north-east, near Lao PDR). Successful demonstration projects there resulted in health policy change and in an expanded, VIA-based screening and treatment (or referral) programme reaching 17 of the 75 provinces in the country. Ministry of Health policy now states that all eligible women should be screened with either a Pap smear or VIA and the National Health Insurance system has approved VIA screening as an allowable/reimbursable health care cost. Local health officials see screening, with treatment soon thereafter in a convenient location, (the "screen-and-treat" approach) as a desired, cost-effective alternative to the long-term costs associated with undiagnosed and untreated cervical cancer (for which they now are financially responsible). In addition to country expansion, Thailand has been an active regional advocate, providing both leadership and a model programme for neighbouring countries to adapt to local circumstances.

For further information, go to
http://www.alliance-cxca.org/files/Jhpiego_Thailand_outcomes_2008.pdf

References

Much of the data were generated by partners in the Alliance for Cervical Cancer Prevention. A good source of information about cervical cancer prevention from key agencies worldwide is the RHO Cervical Cancer library at www.rho.org. This fact sheet was prepared by Scott Wittet and Vivien Tsu (PATH, Seattle).

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