

Preface

Why a Handbook on Cervix Cancer Screening ?

Cervix cancer is an important public health problem. It is the third cancer in frequency in women worldwide and the most or second most common cancer among women in developing countries. The conventional screening modality for cervical squamous intraepithelial lesions is the cytological test, or Pap smear. This was introduced as a routine screening modality in much of Europe, North America and Oceania without formal evidence on efficacy from randomized trials. However, data on time trends in countries with centrally organized programmes that started in the 1960s and 1970s have provided convincing evidence that cervical cytology screening, by the identification and treatment of preinvasive lesions, can prevent a large proportion of invasive cervical cancers.

In 1985, the IARC, in collaboration with the UICC, published a monograph on cervical cancer screening, which included a detailed analysis of the effectiveness of different screening policies, including the frequency of screening and the age at which it should start. That volume has been widely used, particularly in Europe, to define national screening policy. Since 1985, there have been two notable advances. The most important is the identification of certain oncogenic types of human papillomavirus (HPV) as the major cause of cervical cancer; indeed it may be that the disease does not occur in the absence of HPV infection. With the development of vaccines against these oncogenic HPV types, it is becoming

possible to envisage the primary prevention of most cases of cervical cancer. It will be several decades, however, before most women in the relevant age groups will benefit from such vaccines, since they will already have been at risk of exposure to the virus. Of more immediate potential benefit is the role of high-technology HPV testing in screening, either as an adjunct to cervical cytology or as the primary screening modality. The second advance has been the development of low-cost, low-technology cervical screening modalities. These may be appropriate as alternatives to cytology in many developing countries that have a high incidence of cervical cancer and limited infrastructure and health-care resources, as well as other competing health priorities. Furthermore, in the 20 years since the earlier monograph, the pattern of cervical cancer and its precursor lesions has changed in many countries, with rapidly increasing incidence in younger age groups and some evidence that the natural history may be age-dependent. Such age-dependence could have implications for screening policies.

The purpose of this Handbook is to consider the implications for cervical cancer screening of the advances that have been made over the past 20 years, and of the changing patterns of cervical cancer incidence. In particular, it gives an evidence-based critical evaluation of the efficacy and effectiveness of the modalities currently available for cervical cancer screening, and of their rela-

tive appropriateness depending on the resources available and competing priorities. Further aims are to provide recommendations for the public health implementation of screening, including the frequency of screening and the age groups that should constitute the target population, and to identify areas for further research.

Public health authorities in middle- and low-income countries are following closely the debate on the role of new screening technologies. Vaccination against HPV infection for primary prevention of cervical cancer opens a new avenue for control of cervix cancer. Between the fear of increased health-care costs associated with the adoption of new technologies or boosting available efforts on the one hand and the promising results coming from the research front on HPV vaccines on the other, it is tempting to take a wait-and-see attitude concerning cervical cancer prevention. This posture could lead to decreased funding for cervical cancer screening in the false hope that HPV vaccines will be available soon to eradicate the disease. This scenario could prove disastrous by abolishing the hard-earned gains made in the last half century through cytological screening in reducing cervical cancer morbidity and mortality. Prophylactic vaccines offer great hope for future generations, but women who have initiated sexual intercourse will largely have to rely on screening for the prevention of cervical cancer for the foreseeable future.