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Cervical cancer screening policies and coverage in Europe

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ABSTRACT

The aim of the study was to compare current policy, organisation and coverage of cervical cancer screening programmes in the European Union (EU) member states with European and other international recommendations. According to the questionnaire-based survey, there are large variations in cervical cancer screening policies and inadequacies in the key organisational elements of the programme such as registration and monitoring required for quality-assurance and fail-safe mechanisms. Based on data from available screening registers, coverage of the screening test taken within the population-based programme was below 80% in all programmes, ranging from 10% to 79%. The screening capacity is satisfactory in most EU member states, however, and there is even over-capacity in several countries. There are also countries which do not have an acceptable capacity yet. Control of proper capacity along with education, training and communication among women, medical professionals and authorities are required, accordingly. The study indicates that, despite substantial efforts, the recommendations of the Council of the EU on organised population-based screening for cervical cancer are not yet fulfilled. Decision-makers and health service providers should consider stronger measures or incentives in order to improve cervical cancer control in Europe.

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1. Introduction

Organised screening programmes for cervical cancer, based on the conventional cytological screening test, have been shown to be effective in decreasing mortality and incidence from the disease.[1,2] Also, opportunistic, non-organised screening affects cervical cancer rates, although not to the same magnitude.[1–7] With non-organised activity, a considerable proportion of the population may be totally or partially under-screened, and at the same time there may be appreciable over-use of services among those served most actively.[5,8–11] There are concerns that adverse effects may become more common, if the clinical and diagnostic work-up of abnormal findings is not of a high quality. Hence these activities must be monitored and evaluated.[11–13]

The European Union (EU) currently recommends that cancer screening should only be offered in population-based, organised screening programmes, with quality assurance at all levels.[13,14] There are also some more detailed European recommendations and comprehensive guidelines describing the organisation and implementation, screening policies (recommended target age groups and screening intervals), as well as registration, evaluation and monitoring of organised cancer screening programmes.[13–15]

The aim of the current study was to assess the screening policy and the organisation of cervical cancer screening programmes in the EU member states, and to compare them with European and other international recommendations.

2. Materials and methods

The study is based on two questionnaire surveys. The first survey was performed within an expert network on cervical cancer screening registration and monitoring and the latter survey among respondents from the health authorities of the EU member states. In addition, materials from earlier published studies were searched and several interviews of experts and expert meetings were conducted in order to check and interpret data.

The first questionnaire survey was circulated between September 2005 and February 2008 among experts from 19 EU member states within a collaborative research project entitled 'Registration and monitoring of cervical cancer screening programmes in the European Union'. This project investigated whether organised cervical cancer screening programmes, or planning or piloting of them, were taking place, whether and how screening registration and monitoring was arranged and, finally, aimed to collect the monitoring results. This part of the work was done within the framework of the Cervical Cancer Screening Work Group of the European Network for Information on Cancer (EUNICE), financially supported by the EU. The overall network was coordinated by the International Agency for Research on Cancer (IARC), Lyon. Included in this project were those countries or regions for which the working group identified on-going screening registration, or where registration was being planned during the activity period.

The structured survey questionnaire along with the minimum data tables required for registration were the same as or corresponded closely with those published in the recently revised European quality assurance guideline for cervical cancer screening (Tables A and B of Appendix 2, Chapter 2, of Ref. [11]). A description of the screening data registration, screening policies, diagnostic work-up and characteristics of the programmes was included in the questionnaire. The screening findings together with further performance indicators, based mainly on the routine screening databases and regularly published statistics, and other summary characteristics of the programmes are reported elsewhere in this Special Issue.[16–23]

Emphasis on information collected on screening policy was on: targeted age range, screening interval with normal results, and number of lifetime tests recommended. Information on the target population, invitations and screening attendance (specifying whether after the invitation, or otherwise) were requested. Furthermore, it was requested whether the invitations and screening attendance were registered on an individual basis. One important structural aspect for screening registration and evaluation was to check availability of cancer registries. In this survey the data on cancer registries was collected from the most current edition of Cancer Incidence in Five Continents (CI5).[24] We also enquired with the expert group whether screening and cancer registry data could be linked with each other for evaluation and quality assurance purposes.

The second questionnaire was sent to the representatives of the national governments of the EU member states in Brussels and was designed to assess the status of cancer screening programmes in the EU.[25] It aimed to clarify broader aspects than screening policies alone, and information on other screening programmes than the cervix (e.g. breast, colo-rectum) was also solicited. Experience and definitions developed in the first survey were instrumental in developing the second questionnaire. The information collected on cervical cancer screening policies in this second survey was used in the current report. The information on screening policies was checked against the data obtained from the expert group of the first survey – who were mostly from countries with national cervical cancer screening coordination committees or national monitoring and evaluation units.

2.1. *Screening volume and coverage*

Different definitions affect the applicability of the concept of coverage.[11,26] Invitational coverage, defined as the proportion of target population invited during a screening round, is a meaningful measure among those programmes which invite all women in the target population or in the eligible target population. In addition, the proportion of women tested at least once within the recommended interval (women covered by the test) is a useful measure which can be computed on the basis of individual-level information from screening registries.

In addition to the smears taken within a programme, spontaneous or diagnostic smears were reported by a few centres. Due to a paucity of information, these could not be included in detail for all member states. For those countries which record all smears of any type, the proportion of women tested at least once during the recommended interval was