IARC HANDBOOKS

CERVICAL CANCER SCREENING

VOLUME 18

This publication represents the views and expert opinions of an IARC Working Group on the Evaluation of Cancer-Preventive Interventions, which met remotely, 12–16 October 2020

LYON, FRANCE - 2022

IARC HANDBOOKS OF CANCER PREVENTION

International Agency for Research on Cancer



GLOSSARY

Background incidence rate	The incidence rate expected in the absence of screening.
Cancer detection rate	The proportion of screening examinations (by any means) in which at least one cancerous lesion is detected.
Cancer incidence rate	The rate at which new cases of cancer occur in a population. The numerator is the number of newly diagnosed cases of cancer that occur in a defined time period. The denominator is the population at risk of a diagnosis of cancer during this defined period, sometimes expressed as person-time at risk during that period.
Cancer mortality rate	The rate at which deaths from cancer occur in a population. The numerator is the number of cancer deaths that occur in a defined time period. The denominator is the population at risk of dying from cancer during this defined period, sometimes expressed as person-time at risk during that period.
Cancer register	A record of information on all new cases of cancer and deaths from cancer that occur in a defined population.
Effectiveness	A measure of the extent to which screening, when deployed in the field under real conditions, does what it is intended to do for a specified population. The most important indicator of the effectiveness of a cervical cancer screening programme is its effect in reducing cervical cancer mortality.
Efficacy	The extent to which screening produces a beneficial result under ideal conditions. Randomized controlled trials, which are conducted to initially assess whether screening works, assess efficacy by estimating a primary outcome, such as reduction in cervical cancer mortality in the study arm compared with the control arm.
Eligible population	The adjusted target population, i.e. the target population minus those people who are excluded according to screening policy on the basis of eligibility criteria other than age, sex, and geographical location.
Examination coverage	The number of people screened with the recommended test in a given year divided by the number of people eligible for screening (the eligible target population per screening interval) in the same reference year.
False positive	A test result indicating that a person has cervical cancer when the person does not have cervical cancer.
Invitation coverage	The number of people invited to screening in a given year divided by the number of people eligible for screening (the eligible target population per screening interval) in the same reference year.
Lead time	The period between when a cancer is found by screening and when it would have been detected from clinical signs and symptoms (not directly observable) in the absence of screening.

Opportunistic screening	Screening outside an organized or population-based screening programme, as a result of, for example, a recommendation made by a health-care provider during a routine medical consultation, during a consultation for an unrelated condition, on the basis of a possibly increased risk of developing cervical cancer (family history or other known risk factor), or by self-referral of individuals. Opportunistic screening relies on individual health-care providers taking the initiative to offer screening or to encourage individuals to participate in a screening programme, or to undertake screening outside the context of any programme. Such examinations can be performed according to the public screening policies, where they exist.
Organized screening programme	A screening programme organized at a national or regional level that has an explicit policy with specified age categories, method, and interval for screening; a defined target population; a management team responsible for implementation; a health-care team for decisions and care; a quality-assurance structure; and a method for identifying cancer occurrence in the target population.
Overdiagnosis	The diagnosis of a cancer as a result of screening that would not have been diagnosed in the patient's lifetime if screening had not taken place.
Overtreatment	The treatment of a lesion that would never have progressed to be clinically recognized during a woman's lifetime.
Participation rate	The number of people screened divided by the eligible number of people invited to screening during the reference period (applies only for organized population-based programmes).
Population-based cancer registry	A registry that systematically collects information from multiple sources on all reportable neoplasms occurring in a geographically defined population, to provide information on cancer burden, assess possible causes of cancer, and carry out studies on prevention, early detection and screening, and cancer care. The registry provides a profile of the cancer burden in the population and how it changes over time, and therefore plays an important role in the planning and evaluation of cancer control programmes.
Population-based screening programme	A screening programme at a national or regional level that has a mechanism to identify the eligible individuals according to the screening policy and to send personal invitations to the eligible individuals to attend screening.
Positive predictive value	The proportion of all positive results at screening that lead to a diagnosis of cancer.
Prevalence	The proportion of a population that exhibit a disease (classified as cases) at a single point in time. Approximately the product of the incidence and the average duration of the disease.
Screen-and-treat approach	A strategy in which individuals with a positive screening test result receive immediate treatment without a colposcopy-directed biopsy and histological confirmation of precancer. Ideally, screening and treatment are performed during the same visit.
Screening interval	The time interval between two screening episodes (rounds), within a screening programme or in an opportunistic setting.
Screening policy	A policy for a specific screening programme that defines the targeted age group and sex group, the geographical area, and other eligibility criteria; the screening test and interval; follow-up strategies; and requirements for payment or co-payment, if applicable. At a minimum, the screening protocol and repeat interval and determinants of eligibility for screening are stated.
Screening programme	Cancer screening performed in the framework of a publicly mandated programme. To be considered a programme, there has to be a commitment from the government to provide the screening services to the eligible population as defined by laws, statutes, regulations, or official notifications. At a minimum, the eligible population, the screening test, and the screening interval should be defined, and there should be some mechanism for monitoring and supervision.
Screening registry	An information system (computerized or paper-based) that collects and stores cancer screening data on individual participants to use for programme management and reporting.
Sensitivity	The proportion of truly diseased persons in the screened population who are identified as diseased by the screening test. The more general expression for "sensitivity of the screening programme" refers to the ratio of true positives (cervical cancers correctly identified at the screening examination) / [true positives + false negatives] (cervical cancers not identified at the screening examination, detected as interval cases).
Specificity	The proportion of truly non-diseased persons in the screened population who are identified as non-diseased by the screening test (i.e. true negatives / [true negatives + false positives]).

Stage shift	A shift to a lower stage of the cancers detected.
Target population	The age-eligible population for screening, for example all women offered screening according to the policy.
WHO African Region	Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Equatorial Guinea, Eswatini, Eritrea, Ethiopia, Gabon, The Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, South Africa, South Sudan, Togo, Uganda, United Republic of Tanzania, Zambia, Zimbabwe.
WHO Eastern Mediterranean Region	Afghanistan, Bahrain, Djibouti, Egypt, Iran (Islamic Republic of), Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Pakistan, Qatar, Saudi Arabia, Somalia, Sudan, Syrian Arab Republic, Tunisia, United Arab Emirates, West Bank and Gaza Strip, Yemen.
WHO European Region	Albania, Andorra, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Luxembourg, Malta, Monaco, Montenegro, The Netherlands, North Macedonia, Norway, Poland, Portugal, Republic of Moldova, Romania, Russian Federation, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tajikistan, Turkey, Turkmenistan, Ukraine, United Kingdom, Uzbekistan.
WHO Region of the Americas	Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia (Plurinational State of), Brazil, Canada, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay, USA, Venezuela (Bolivarian Republic of).
WHO South-East Asia Region	Bangladesh, Bhutan, Democratic People's Republic of Korea, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand, Timor-Leste.
WHO Western Pacific Region	Australia, Brunei Darussalam, Cambodia, China, Cook Islands, Fiji, Hong Kong Special Administrative Region, Japan, Kiribati, Lao People's Democratic Republic, Malaysia, Marshall Islands, Micronesia (Federated States of), Mongolia, Nauru, New Zealand, Niue, Papua New Guinea, Philippines, Republic of Korea, Samoa, Singapore, Solomon Islands, Taiwan (China), Tonga, Tuvalu, Vanuatu, Viet Nam.