WHO events addressing public health priorities

Detection and screening of priority cancers in the Eastern Mediterranean Region[1]

In its drive to address the importance of early cancer diagnosis, the WHO Regional Office for the Eastern Mediterranean organized a consultative meeting on early detection of priority cancers in the Eastern Mediterranean Region (EMR) on 14–15 January 2016 in Cairo, Egypt. This expert consultation was based on previous regional meetings that identified breast, colorectal, cervical, prostate and oral cavity cancers as the most common cancers in the Region that are amenable to early detection/screening.

Participants included international experts, regional experts, and members of the WHO Secretariat, with significant input and engagement from the International Agency for Research on Cancer (IARC), the U.S. National Institutes of Health and National Cancer Institute (NIH/NCI) and other relevant international partners. Professor Anthony B. Miller, Professor Emeritus in the Dalla Lana School of Public Health at the University of Toronto, was selected as Chair of the meeting.

The objectives of the expert consultative meeting included: 1) reviewing the draft documents and collecting feedback with respect to their content and comprehensiveness; 2) reviewing the evidence on screening of the five priority cancers for early detection in the Region; 3) discussing the proposed strategic approach for early cancer detection in the Region, including a matrix of key components of an early detection programme; 4) discussing policy options as applied to the three groups of countries in the Region; and 5) agreeing on the way forward and next steps for implementing evidence-based recommendations to strengthen early detection of priority cancers.

Dr Asmus Hammerich, Acting Director of Noncommunicable Diseases and Mental Health, opened the meeting by welcoming all participants. In his opening statement, Dr Ala Alwan, WHO Regional Director for the Eastern Mediterranean, reviewed previous WHO initiatives relevant to cancer control. Cancer control programmes that had been launched in the 1990s later became integrated components of WHO's noncommunicable disease agenda, for which a regional framework of action was launched in 2012. This regional framework set four priority actions, i.e. governance; prevention and reduction of risk factors; surveillance, research and monitoring; and health care.

Cancer control was an integral component to each of these four areas and thus critical for a range of stakeholders. Furthermore, it was most relevant to policy-makers within the context of the overarching Sustainable Development Goals adopted by the UN in September 2015, specifically considering the global push towards universal health coverage. As such, the consultation discussed a very specific component of cancer control—early detection. He closed by highlighting two subjects: using cost-effective measures and the best available evidence, including economic evaluation approaches, in light of the health system; and implementation challenges each country faces.

In October 2013, WHO in collaboration with the IARC organized a regional meeting on cancer control and research priorities in Doha, Qatar, which had the following recommendations: strengthening cancer registration and surveillance; carrying out priority research on cancer causation in collaboration with IARC; and strengthening screening and early detection of priority cancers. It was concluded that the most common cancers in the Region that are amenable to early detection are breast, colorectal, cervix, prostate and oral cavity cancers. Furthermore, a preparatory meeting for the high-level ministerial meeting to scale up cancer control, held in Cairo in July 2014, identified early detection as a high priority intervention in the Region, where almost half of all cancers are amenable to early detection and potential cure with adequate treatment and follow-up. Member States also indicated the need for strengthening cancer screening programmes and improving technical capacity for early detection of priority cancers.

Summary of discussions

For this consultation, several documents were presented and discussed, i.e. a working paper on early detection of five priority cancers in the Region; a draft policy statement on breast cancer early detection; and a desk review on early detection of breast cancer in the Region.

Dr Anthony B. Miller, Professor Emeritus, Dalla Lana School of Public Health University of Toronto, introduced two principles for early detection of cancers, i.e. early diagnosis targeting people with early symptoms and signs; and population-based cancer screening programmes targeting

[1] This report is extracted from the Summary report on the Consultative meeting on early detection and screening of priority cancers in the Eastern Mediterranean Region, Cairo, Egypt 15–14 January 2016 (https://extranet.who.int/iris/restricted/bitstream/1/204645/10665/IC_Meet_Rep_2016_EN_16607.pdf)

asymptomatic people. Both approaches need improved public awareness and professional education, efficient and well-developed health services and appropriate health care financing mechanisms.

Dr Sankar Rengaswamy, International Agency for Research on Cancer (IARC), briefly reviewed the burden and pattern of cancers the Region with emphasis on trends in age-specific and age-standardized incidence rates and the projected burden in 2030. The presentation and subsequent discussions focused on the five most common cancers in the EMR, i.e. breast, colorectal and prostate cancers, with high risk in all or most countries, with moderate to high risk of cervix and oral cancer in certain countries/subregions within the Region. He also introduced the contents of the early detection document that emphasized the different early detection tests available for screening and early diagnosis of these cancers and reviewed important regional experiences.

Considering this background, the consultation emphasized three major issues, with reference to national perspectives and experiences. First, participants agreed on definition and components of early detection. Second, they considered the categorization of countries and how best to present recommendations accordingly. Third, specific concerns regarding screening, especially for breast, cervix and prostate cancer, and subsequent recommendations were debated.

For the first issue, early detection is split into two major parts: 1) early diagnosis of symptomatic individuals; and 2) screening of asymptomatic individuals. Early diagnosis is based on awareness (among the public and among health professionals through continued education) of early signs and symptoms of cancer in order to facilitate more effective and simpler therapy. Screening is the presumptive identification in an apparently asymptomatic population of unrecognized disease or defects by means of tests, examinations or other procedures that can be applied rapidly and easily to the target population followed by effective treatment of cancers detected.

In terms of categorization, EMR countries are commonly categorized into three health system groups based on population health outcomes, health system performance and the level of health expenditure.[2]

Some participants expressed concerns over the categorization of countries, particularly the categorization of Group Two countries (as it does not accurately reflect the health service capabilities and development and their readiness to implement screening programmes). This Group is most heterogeneous and present a challenge to experts on how best to fit the recommendations. As such, early diagnosis recommendations based on best international evidence and existing regional experience must take into account the existing resources, challenges and opportunities for each group of countries.

Participants also discussed the importance of clearly distinguishing between screening tools and diagnostic tools within the context of early detection. For example, mammography is best used as a diagnostic tool, not as a screening tool, so breast cancer control programmes must distinguish its use. There was also general consensus that mammography screening is not feasible recommended in Group Three (low income) countries. The group agreed that all existing screening programmes in the Region be reviewed. Group One (high income) countries may consider pilot programmes before national scale-up with quality assurance as an important component of all screening programmes. Mammography screening may be feasible in some Group Two countries but national scale-up should be preceded by pilot programmes and review of ongoing screening programmes. Monitoring and evaluation is also a key component of such programmes and must be included.

Furthermore, the interventions and age specificity for screening and diagnosis were most controversial regarding mammography for breast cancer, human papillomavirus vaccination for cervical cancer and prostate-specific antigen (PSA) screening for prostate cancer. For prostate cancer, there was general consensus that PSA screening for prostate cancer is not recommended.

Finally, all participants agreed that early diagnosis of breast, colorectal, cervix, prostate and oral cavity cancers among symptomatic persons is a core early detection intervention and relevant to all countries of the Region.

The experts concluded that population awareness and health provider training with skilled physical examination is critical. Awareness among people and primary care physicians is vital and prompt referral and investigations are crucial for success of early detection programmes.

Next steps

The following regional documents were considered during the expert discussions and group work.

- Statements on early detection of: breast cancer, colorectal cancer, and cervical cancerStatement on early detection of oral cancer
- Steps for early detection of prostate cancer
- Scope of early detection interventions for priority cancers by three groups of countries of the Region

These will be revised in the light of the meeting's discussions and circulated to participants for comments, before being finalized.

[2] Group 1: high income countries (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates); Group 2: middle income countries (Egypt, Islamic Republic of Iran, Iraq, Jordan, Lebanon, Libya, Morocco, Palestine, Syrian Arab Republic and Tunisia); Group 3: low income countries (Afghanistan, Djibouti, Pakistan, Somalia, Sudan and Yemen)