Barriers to effective cancer screening in Europe

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Background Cancer screening programs in Europe typically operate with their own funding streams, governance systems, and, to varying degrees, staff and facilities. However, they are embedded within and dependent upon a broader network of systems, including healthcare, civil registration, and even education of health professionals. Consequently, they may fail to achieve their full potential for reasons outside the control of those formally responsible for their operation. As part of the European Union funded project EU-TOPIA, we have developed a means of assessing the role of these different systems.
Methods Our approach draws on soft systems analysis, in which each system, such as a screening programme, is embedded within other systems, and which itself contains subsystems. The subsystems were identified from a review of screening guidelines. They included subsystems for creating and maintaining population register, generating and using evidence, maximising informed participation, ensuring the operation of the screening process, ensuring effective follow-up, and ensuring access to effective treatment. In each, a CATWOE framework was used ('Customers, Actors, Transformation, Weltanschauung (vision necessary for the system to operate), Owner, Environment'). This was then applied to 5 countries, the Netherlands, Finland, Hungary, Italy, and the United Kingdom.
Results We identified barriers within subsystems in all countries but they vary greatly. Frequently, they reflected organisational structures, including weak communication and complex systems of ownership, with overlapping responsibilities. In some countries, there were significant weaknesses in maintaining the population register. While those aspects of screening explicitly within the screening programmes were often well-organised, there were identifiable gaps in the process by which screendetected lesions led to effective treatment. There were relatively few examples of monitoring inequalities.
Conclusions Evaluation of cancer screening programs should look beyond the actual screening activities and take account of barriers that arise from the wider systems in which they are embedded.