

Preconceptionscreening for everybody?

Population screening in Flanders

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Kennis / Ervaring / Zorg



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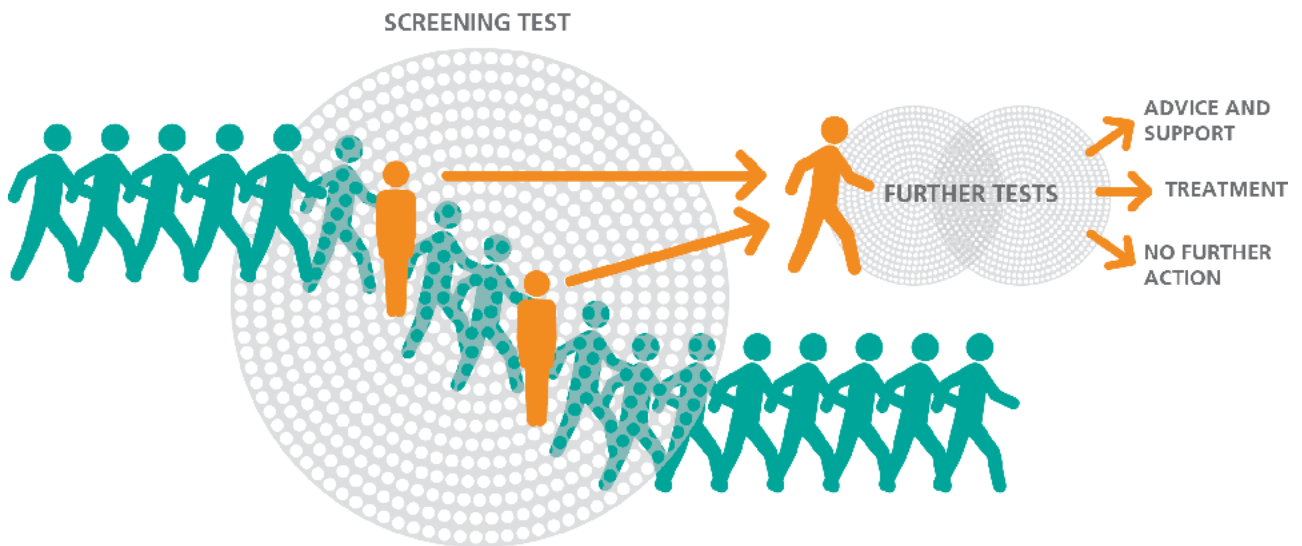
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WHAT IS SCREENING?

- **Screening** is testing of an apparently healthy population in order to identify an undiagnosed disease.
- Screening **aims** to detect disease **before** it becomes symptomatic.
- An important aspect of screening is **prevention**



AIM OF SCREENING

1. mortality ↓ through early detection and early treatment
2. incidence ↓ by identification and treatment of precursors
3. severity ↓
4. choice ↑ through early stage identification with more options

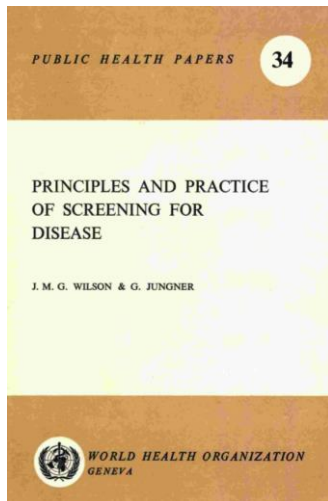


AIM OF SCREENING

- Preventing irreversible health damage
 - Screening for breast cancer, cervical cancer, colon cancer
 - Neonatal screening for PKU, hypothyroidism, SMA, CF, etc.
 - Prenatal screening for Rhesus factor
- Offering reproductive choice
 - Prenatal screening for Down syndrome via NIPT
 - Preconception genetic screening (carrier screening for AR and XLR disorders)



PRINCIPLES OF SCREENING



Public health classics

Almost 40 years ago, WHO commissioned a report on screening from James Maxwell Glover Wilson, then Principal Medical Officer at the Ministry of Health in London, England, and Gunner Jungner, then Chief of the Clinical Chemistry Department of Sahlgren's Hospital in Gothenburg, Sweden. The report¹, published in 1968, was entitled: *Principles and practice of screening for disease* and it has since become a public health classic.

Revisiting Wilson and Jungner in the genomic age: a review of screening criteria over the past 40 years

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Criteria van Wilson & Jungner (1968)

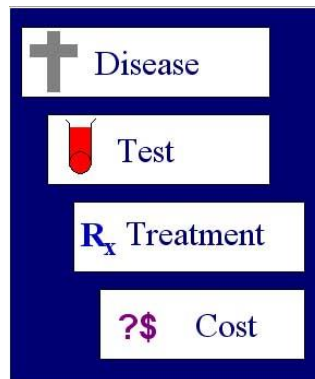
1	The condition sought should be an important health problem .
2	There should be an accepted treatment for patients with recognized disease.
3	Facilities for diagnosis and treatment should be available.
4	There should be a recognizable latent or early symptomatic stage .
5	There should be a suitable test or examination.
6	The test should be acceptable to the population.
7	The natural history of the condition, including development from latent to declared disease, should be adequately understood .
8	There should be an agreed policy on whom to treat as patients.
9	The cost of case-finding (including diagnosis and treatment of patients diagnosed) should be economically balanced in relation to possible expenditure on medical care as a whole.
10	Case-finding should be a continuing process and not a 'once and for all' project.



Additional criteria established by the WHO (2008)

1	The screening program must respond to a recognized need .
2	The purpose of the screening must be established at the start.
3	The target group of the screening must be determined.
4	The effectiveness of the screening program must be scientifically proven.
5	The program should integrate education, training, clinical service and program management.
6	The quality of the program must be assured to minimize the potential risks of screening.
7	The program must guarantee informed choice and respect the privacy and autonomy of the individual.
8	The accessibility of the screening must be guaranteed for the entire target group.
9	The program must be evaluated from the start.
10	The benefits of the screening must outweigh the possible disadvantages of the screening.

PRINCIPLES OF SCREENING



Population screening requires a population approach

population screening: the entire target group is **exposed** to any disadvantages of the screening, only a few individuals will experience the **benefits**

=> before organizing a population screening, one must therefore be sure that the **advantages outweigh the disadvantages**



Think first, act later:

- is everyone in the **target group well informed** about all the advantages and disadvantages?
- has the right **screening tool** been chosen and is it certain that no other approach is more useful than screening?
- has the right **target group** been chosen?
- is it clear to everyone involved what the **cost** of the screening and of any diagnosis and treatment is?
- is society prepared to bear that cost (e.g. via INAMI/RIZIV) (**social acceptability**)? Are all relevant partners involved in the organization?
- are the results of the screening **registered** (with respect for privacy) so that the effect and quality can be evaluated afterwards?



FLEMISH POLICY POPULATION SCREENING

The aim of Flemish policy is to **increase the quality** of screening initiatives or population screening, and to **protect Flemish citizens** against screening or population screening that is not meaningful or harmful.

Vlaamse werkgroep Bevolkingsonderzoek

Samenstelling

Begin 2020 werd de Vlaamse werkgroep Bevolkingsonderzoek opnieuw samengesteld. 25 deskundigen werden voor een periode van vijf jaar benoemd om de minister te adviseren over bevolkingsonderzoek in Vlaanderen. De samenstelling en opdracht van de werkgroep zijn bepaald in het ministerieel besluit van 6 maart 2020 januari 2015 tot oprichting van de Vlaamse werkgroep Bevolkingsonderzoek.

De werkgroep is multidisciplinair samengesteld:

- Karel Allegaert
- Bettina Blaumeiser (voorzitter)
- Irina Dumitrescu
- Bart Garmyn
- Ann Gils
- Matthijs Goossens
- Joeri Guillaume
- Marleen Haems
- Vicky Jespers
- Gert Matthijs
- Ann Meulemans
- Vera Nelen
- Marc Peeters
- Veerle Plessens
- Wim Pinxten
- Koen Putman
- Niko Speybroeck
- Leen Van Brussel
- Jutte Van Der Werf
- Guido Van Hal
- Martine Van Hecke
- Pieter Vandenbulcke
- Johan Van der Heyden
- Corinne Vandermeulen
- Bo Verberckmoes

De leden van de werkgroep zijn gekozen omwille van een specifieke deskundigheid en niet met oog op vertegenwoordiging van een beroepsgroep of organisatie.



Assessment criteria for population screening initiatives

Aanvraag voor toestemming voor een bevolkingsonderzoek in het kader van ziektepreventie

ZG-02-100309



In te vullen door de behandelende afdeling
ontvangstdatum

Criteria:

- the disease or condition
- the target group
- the screening tool and its application
- the diagnosis, treatment or other meaningful and responsible actions
- the full population study

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CONCLUSION: AR/XLR: SCREENING?



- Goal: ↓ mortality, incidence or severity?
- Screening tool/risk stratification?
- Costs and social acceptability?
- Do the advantages outweigh the disadvantages?

• => **ADVICE: KCE study**

