

# HUNGARIAN ACADEMY OF SCIENCES



## CANCER SCREENING HYBRID EVENT



# Main barriers in existing cancer screening programmes in the EU: Experience from the EUTOPIA H2020 Project

Zoltán Vokó, György Széles, Marcell Csanádi



# Conflict of interest statement

The authors of the presentation are employed by Syreon Research Institute, which regularly performs research projects and consultancy for the health industry including pharmaceutical and medical device companies.

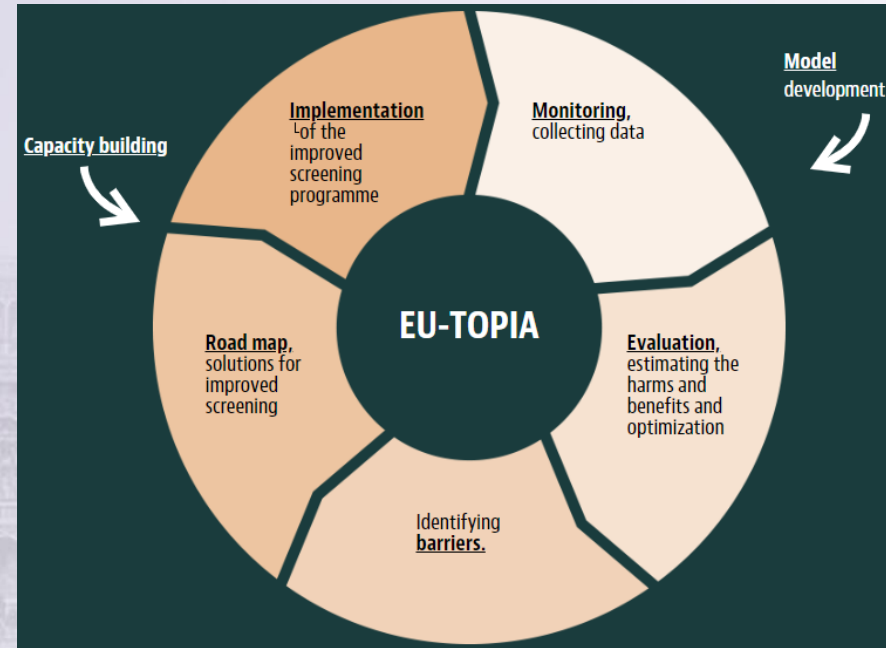


# Complex evaluation of cancer screening programmes

## EU-TOPIA HORIZON 2020

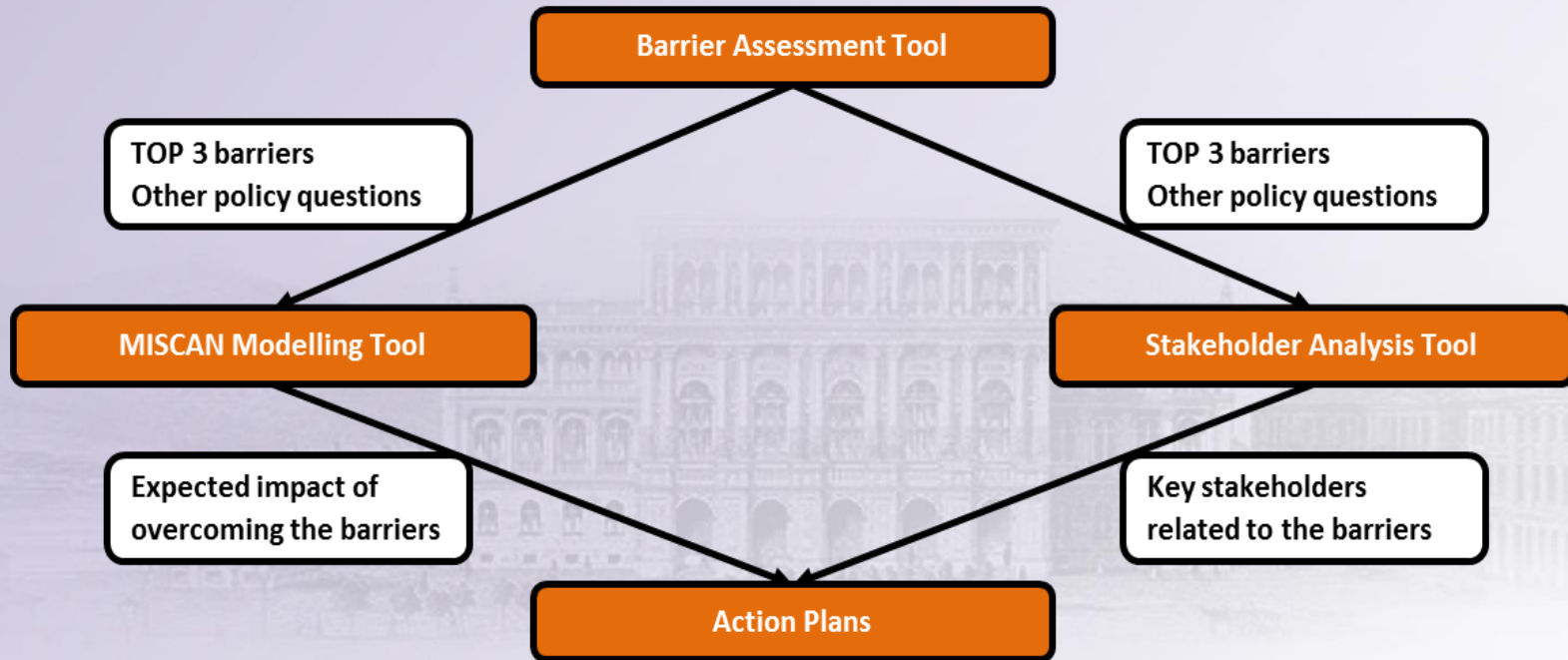
### International consortium with 7 participating countries

- Barriers hindering implementation of optimal screening programs were assessed
- Identified barriers were the basis of building road maps for improved screening
- Two key perspectives: Barriers of effectiveness; Barriers of equity

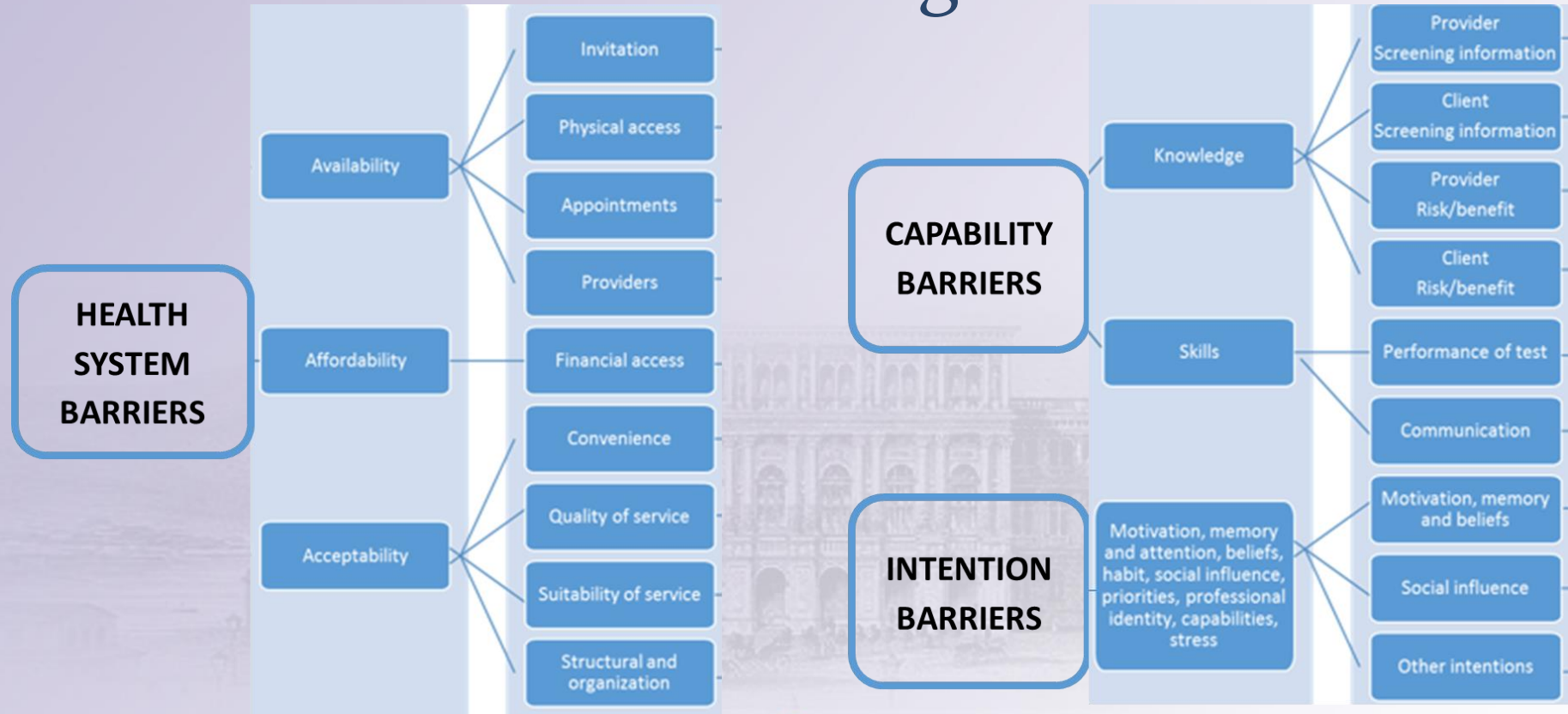


# Process of defining action plans to improve screening

EU-TOPIA Road map development process for one country and one cancer site



# Conceptual framework of barriers in screening



# Most important domains of potential barriers

Category	Attribute
Identification of population at risk	<p>Register used to identify population eligible for screening includes all people who require screening.</p> <p>Register used to identify population eligible for screening is regularly updated with changes of address, death and other criteria.</p>
Generation of knowledge and effectiveness	<p>There is a well-defined national screening organization responsible for assessing needs, evaluating the evidence and system design.</p> <p>Guidelines for cancer screening are up-to-date and evidence-based.</p>
Maximization of uptake	<p>The rate of informed participation is monitored and evaluated systematically, including monitoring equity of access to ensure everyone has the same opportunity to attend.</p>
Operation of the program	<p>A system to assure the quality of screening is in place.</p> <p>Parallel opportunistic screening outside of the population-based screening program is not allowed to take place.</p> <p>Guidelines are adhered to.</p>
Maximization of follow up and treatment	<p>There is a procedure and process for the systematic follow up of screen-detected lesions.</p> <p>Monitoring of long term outcomes is established through a link between screening records and cancer registries.</p>



# Evaluation of cancer screening programmes

## Self-assessment by screening organizers, researchers and policy-makers

- List of 23 predefined barriers
- Same barriers for breast, cervical and colorectal cancer
- Scoring the barriers on a scale from 1 to 5 from the perspectives of effectiveness and equity

## Prioritization after scoring all barriers

- Considering feasibility to overcome the barrier, the impact on overall effectiveness and impact on equity



### **BARRIERS TO EFFECTIVE SCREENING TOOL (BEST)**

#### **Aim of the tool:**

The aim of the tool is to enable screening organisers, researchers and policy-makers to make a self-assessment of their organised breast, cervical and colorectal cancer screening programmes to identify the most important barriers to effectiveness and equity. The tool also allows users to prioritise the most important barriers, also considering feasibility, and identify ways to overcome barriers.





# Barriers of breast cancer screening I.

Based on working with exemplary countries from the EU-TOPIA project  
(in 2016-2017)

	Finland	Italy	Netherlands	Slovenia
Barrier ranked #1	Issues with <b>establishing protocols</b> , processes and legal frameworks	Some people have <b>beliefs and values</b> that lead to <b>non-participation</b> in screening programme	Some people have <b>beliefs and values</b> that lead to <b>non-participation</b> in screening programme	Inadequate adherence by providers to screening guidelines and protocols ( <b>opportunistic screening</b> )
Barrier ranked #2	Screening guidelines and <b>protocols are not regularly updated</b> or updates are delayed	<b>Insufficient</b> human, physical and/or financial <b>resources to operate</b> screening programme	<b>Insufficient</b> human, physical and/or financial <b>resources to operate</b> screening programme	Some people experience <b>practical issues</b> that lead to <b>non-participation</b> in screening programme
Barrier ranked #3	Inadequate adherence by providers to screening guidelines and protocols ( <b>opportunistic screening</b> )	Inadequate adherence by providers to screening guidelines and protocols ( <b>opportunistic screening</b> )	Screening guidelines and <b>protocols are not regularly updated</b> or updates are delayed	Inadequate <b>public promotion</b> of screening programme



# Barriers of breast cancer screening II.

Based on survey results with EU-TOPIA partner countries (n=34) in 2017-2018

Most important barriers from the sample of countries	Counts	1st	2nd	3rd
Some people have <b>beliefs and values</b> that lead to non-participation in screening programme	10	6	3	1
<b>Insufficient human, physical and/or financial resources</b> to operate screening programme (e.g. limited capacity, organisational or logistical issues)	9	4	4	1
Inadequate adherence by providers to screening guidelines and protocols (e.g. <b>opportunistic screening</b> occurs outside the organised screening programme)	9	5	2	2
Inadequate <b>public promotion</b> of screening programme (e.g. primary care physicians are not sharing information or promoting screening)	8	1	3	4
Inadequate <b>response to low levels of uptake</b> (informed participation) and patterns of screening participation (e.g. inequalities among some subgroups)	8	1	3	4
Issues with <b>establishing protocols, processes and legal frameworks</b> (e.g. inadequate national governance structure, professionals with relevant knowledge)	7	4	1	2

Knowledge generation	Successful operation of a programme
Identification (of the eligible population)	Adequate follow-up
Maximising uptake (informed participation)	Effective treatment (for those who need it)



# Barriers of cervical cancer screening I.

Based on working with exemplary countries from the EU-TOPIA project  
(in 2016-2017)

	Finland	Italy	Netherlands	Slovenia
Barrier ranked #1	Issues with <b>establishing protocols</b> , processes and legal frameworks	Inadequate adherence by providers to screening guidelines and protocols ( <b>opportunistic screening</b> )	Some people have <b>beliefs and values</b> that lead to <b>non-participation</b> in screening programme	Screening guidelines and <b>protocols are not regularly updated</b> or updates are delayed
Barrier ranked #2	Screening guidelines and <b>protocols are not regularly updated</b> or updates are delayed	Insufficient human, physical and/or financial <b>resources to operate</b> screening programme	Inadequate <b>system for monitoring</b> treatment information	Some people have <b>beliefs and values</b> that lead to <b>non-participation</b> in screening programme
Barrier ranked #3	Inadequate adherence by providers to screening guidelines and protocols ( <b>opportunistic screening</b> )	Some people have <b>beliefs and values</b> that lead to <b>non-participation</b> in screening programme	Some people experience <b>practical issues</b> that lead to <b>non-participation</b> in screening programme	Some people experience <b>practical issues</b> that lead to <b>non-participation</b> in screening programme



# Barriers of cervical cancer screening II.

Based on survey results with EU-TOPIA partner countries (n=34) in 2017-2018

Most important barriers from the sample of countries	Counts	1st	2nd	3rd
Inadequate <b>response to low levels of uptake</b> (informed participation) and patterns of screening participation (e.g. inequalities among some subgroups)	9	4	3	2
Some people have <b>beliefs and values</b> that lead to non-participation in screening programme	8	4	2	2
Inadequate adherence by providers to screening guidelines and protocols (e.g. <b>opportunistic screening</b> occurs outside the organised screening programme)	8	2	0	6
Inadequate <b>information technology (IT) systems</b> (e.g. disjointed systems)	7	2	4	1
Some people experience <b>practical issues</b> that lead to non-participation in screening programme (e.g. inconvenient appointments, inadequate health insurance)	6	2	1	3
Insufficient <b>human, physical and/or financial resources</b> to operate screening programme (e.g. limited capacity, organisational or logistical issues)	5	2	1	2

Knowledge generation	Successful operation of a programme
Identification (of the eligible population)	Adequate follow-up
Maximising uptake (informed participation)	Effective treatment (for those who need it)



# Barriers of colorectal cancer screening I.

Based on working with exemplary countries from the EU-TOPIA project (in 2016-2017)

	Finland	Italy	Netherlands	Slovenia
<b>Barrier ranked #1</b>	Issues with <b>establishing protocols</b> , processes and legal frameworks	Inadequate adherence by providers to <b>follow-up guidelines and protocols</b>	Inadequate response to people who require <b>follow-up investigations</b> but do not participate	Inadequate <b>public promotion</b> of screening programme
<b>Barrier ranked #2</b>	Inadequate information technology <b>(IT) systems</b>	Insufficient human, physical and/or financial <b>resources to operate</b> screening programme	Some people have <b>beliefs and values that lead to non-participation</b> in screening programme	Some people have <b>beliefs and values that lead to non-participation</b> in screening programme
<b>Barrier ranked #3</b>	Inadequate response to <b>address quality issues</b> relating to the operation of the screening programme	Some people have <b>beliefs and values that lead to non-participation</b> in screening programme	Screening guidelines and <b>protocols are not regularly updated</b> or updates are delayed	Inadequate adherence by providers to <b>follow-up guidelines and protocols</b>



# Barriers of colorectal cancer screening II.

Based on survey results with EU-TOPIA partner countries (n=34) in 2017-2018

Most important barriers from the sample of countries	Counts	1st	2nd	3rd
Some people have <b>beliefs and values</b> that lead to non-participation in screening programme	12	3	6	3
Inadequate <b>public promotion</b> of screening programme (e.g. primary care physicians are not sharing information or promoting screening)	11	5	3	3
Insufficient <b>human, physical and/or financial resources</b> to operate screening programme (e.g. limited capacity, organisational or logistical issues)	9	4	3	2
Some people experience <b>practical issues</b> that lead to non-participation in screening programme (e.g. inconvenient appointments, inadequate health insurance)	7	2	4	1
Inadequate <b>response to low levels of uptake</b> (informed participation) and patterns of screening participation (e.g. inequalities among some subgroups)	6	3	1	2
Inadequate <b>information technology (IT) systems</b> (e.g. disjointed systems)	5	0	2	3



# Summary

## **The project highlighted the need for better understanding barriers**

- Barriers exist even in countries with long history of cancer screening
- Understanding of barriers is a must before implementing new technological developments, screening programmes
- International collaborations like EU-TOPIA H2020 can contribute a lot to reveal the barriers and provide tools for continuous development
- The potential health gain might be even larger in some countries in improving current screening programmes than launching new ones
- Barrier assessment and road map development can facilitate implementation of nationwide screening programme in countries where they do not exist or are in early phase (EU-TOPIA-EAST)



**Thank you for your attention!**

Marcell Csanádi

