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Population Health Information Research Infrastructure

EUROPEAN PUBLIC HEALTH CONFERENCE
BERLIN | 9-12 NOVEMBER 2022

Using foresight to anticipate future public health challenges

Workshop

Thursday 10th November 2022

National Institute for Public Health and the Environment
Ministry of Health, Welfare and Sport

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EUPHA
EUROPEAN PUBLIC HEALTH ASSOCIATION
PUBLIC HEALTH MONITORING AND REPORTING

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The Population Health Information Research Infrastructure for COVID-19:

- a **European mechanism**, that aims to
- facilitate and support **data-driven population health research**
- and **exchange of best practices**
- to support **decision making**

41 partners

30 countries

3 years

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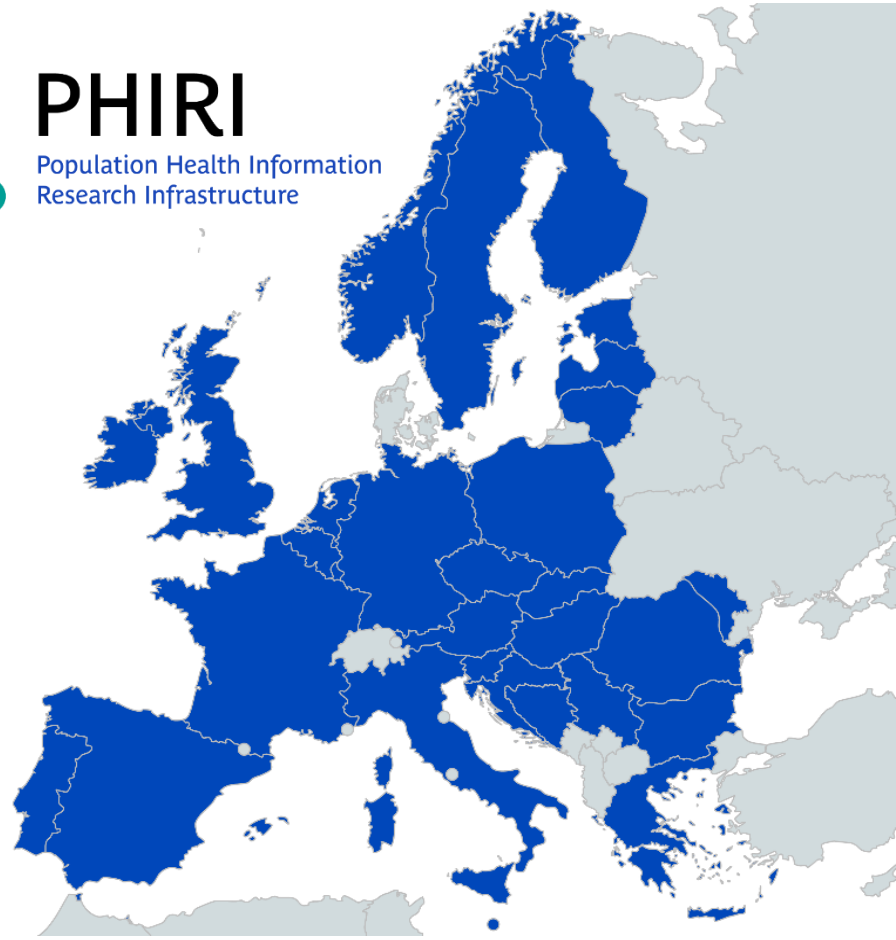

Map of PHIRI Partners

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The European Health Information Portal

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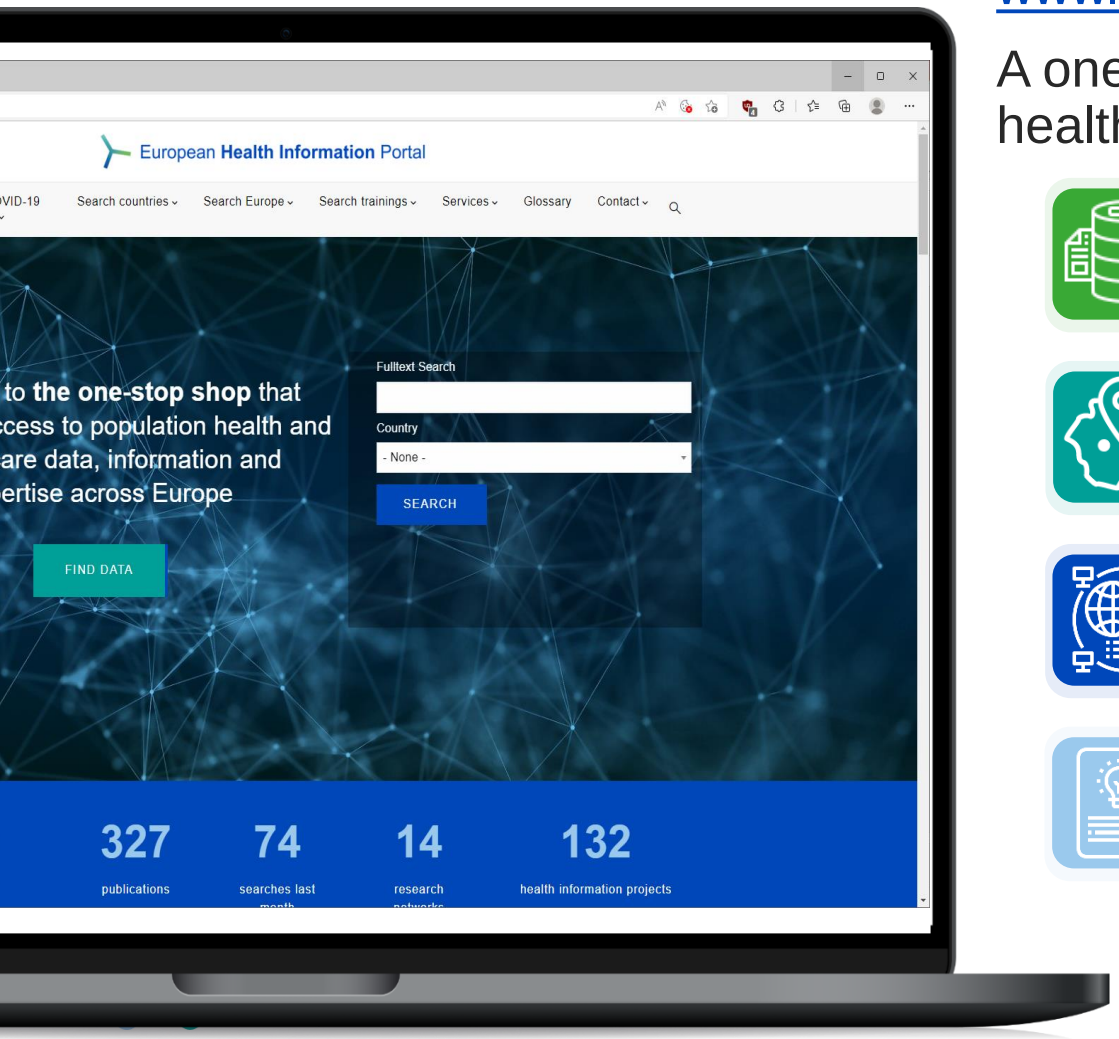

www.healthinformationportal.eu

A one-stop shop that facilitates access to population health and health care data, information and expertise across Europe.

- **Health information (data) sources**
- **Publications**
- **Countries and national nodes**
- **Trainings in all areas of population health**
- **Research infrastructures, Research networks**
- **COVID-19 Policy measures**
- **Health information projects**
- **COVID-19 Rapid Exchange Forum**

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Aim of the workshop

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- To show how foresight can be applied to public health, especially applied to the ling term (direct and indirect impacts of the COVID-19 pandemic
- Show case several application and learn from them to improve application of foresight to public health
- To improve the link between foresight and policy makers: towards foresight-informed policy making

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Speakers

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Using foresight methodologies to tackle SARS-COV-2 related health impacts *Henk Hilderink - Netherlands*

The future of health digitalization: The case of Primary Health Care in Portugal *Mariana Peyroteo - Portugal*

Potential gains by effective early detection of diseases: proposal to approach informing public health policy in the Czech Republic *Ondrej Majek - Czechia*

Foresight methodologies to unravel the indirect health economic impact of the COVID-19 pandemic on cancer care and management in Belgium studied in the HELICON project *Yasmine Khan - Belgium*

Foresight for policy – addressing the challenges for policy impact *Laurent Bontoux - Italy*

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Key messages

- Foresight studies are essential to be better prepared for and to anticipate to future challenges
- Keep on investing in interaction with the policy making process

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@EU_HIS_unit
@PetronilleBo
@PHMRsection

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Some questions with Mentimeter

Please use your mobile

Go to menti.com
(or scan QR code)

Use code **4905 4463**

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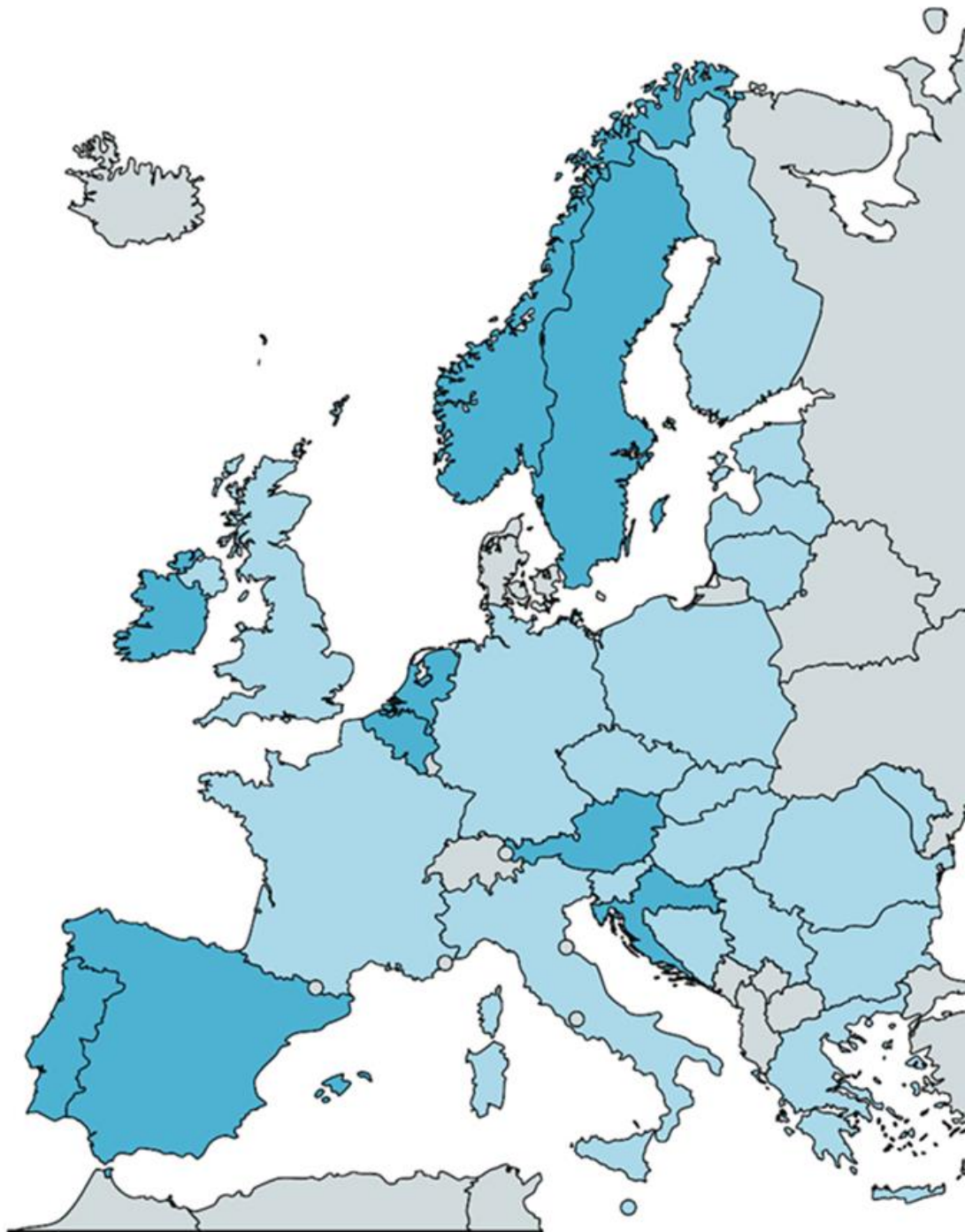
Using foresight methodologies to tackle SARS-COV-2 related health impacts

Henk Hilderink, Daniele Moye, Marlous Rodriguez, Mariken Tijhuis

EPH Berlin 2022



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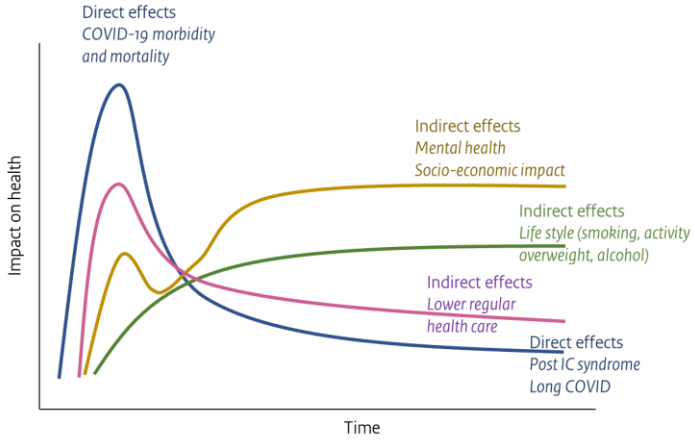
Background and aim

- Importance of foresight
  - direct and indirect health impacts of COVID-19, short and long term
- Foresight in Public Health still lagging behind (compared to e.g. environment and economy)
- In PHIRI:
  - Systematic inventory of foresight activities in Europe (and beyond)
  - Foresight capacity building to level expertise and experience
  - Apply it to new public health foresight studies
  - What lessons can be learned for policy making
- How to better support foresight-informed policy making?



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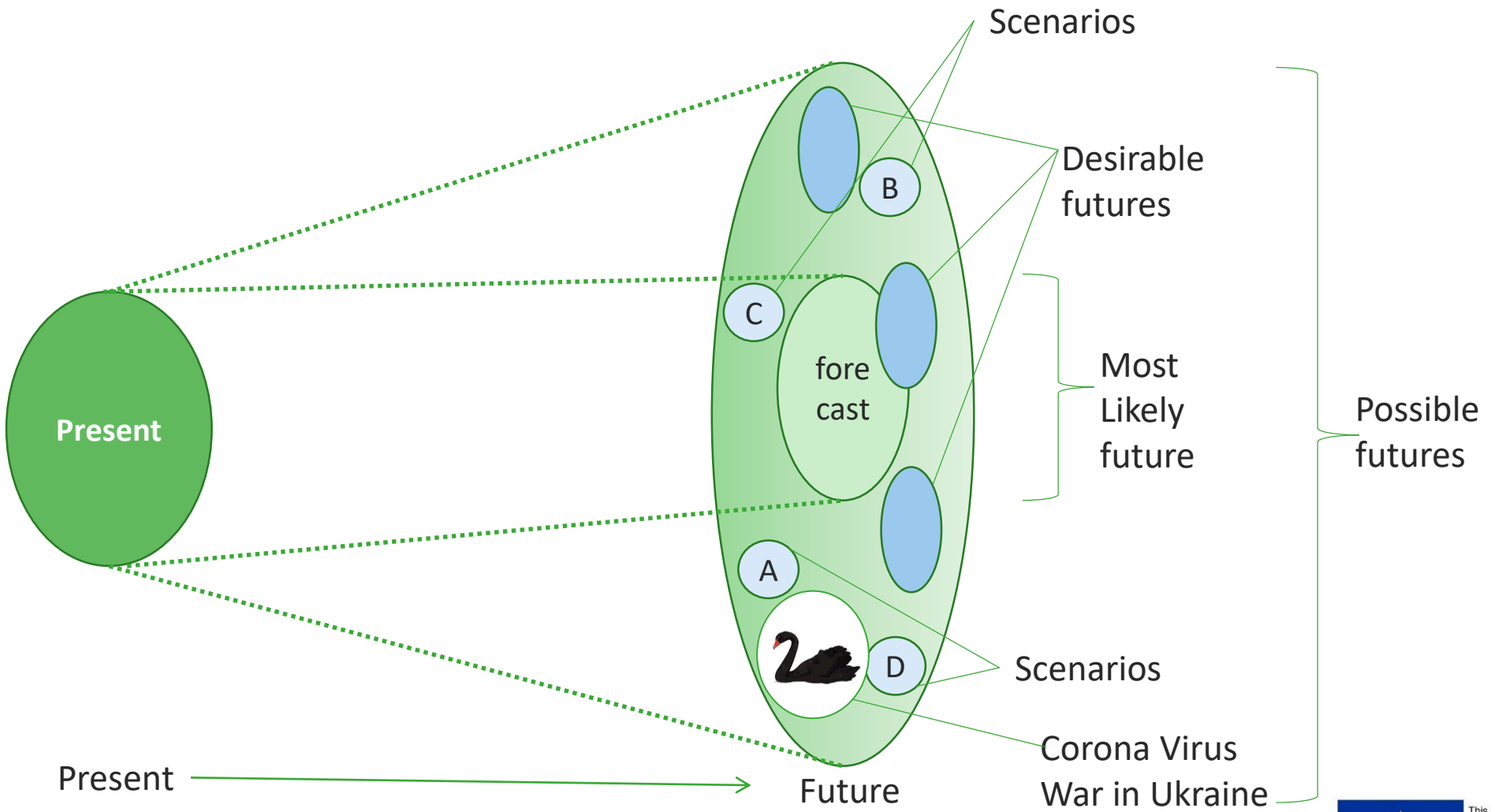
What is foresight?

- “Foresight is a systematic, participatory, future-intelligence-gathering and medium-to-long term vision-building process aimed at enabling present-day decisions and mobilizing joint actions”
- Accommodates different elements such as (horizon) scanning, scenario development, stakeholder workshops, modelling, etc
- We don’t predict the future

From present to future



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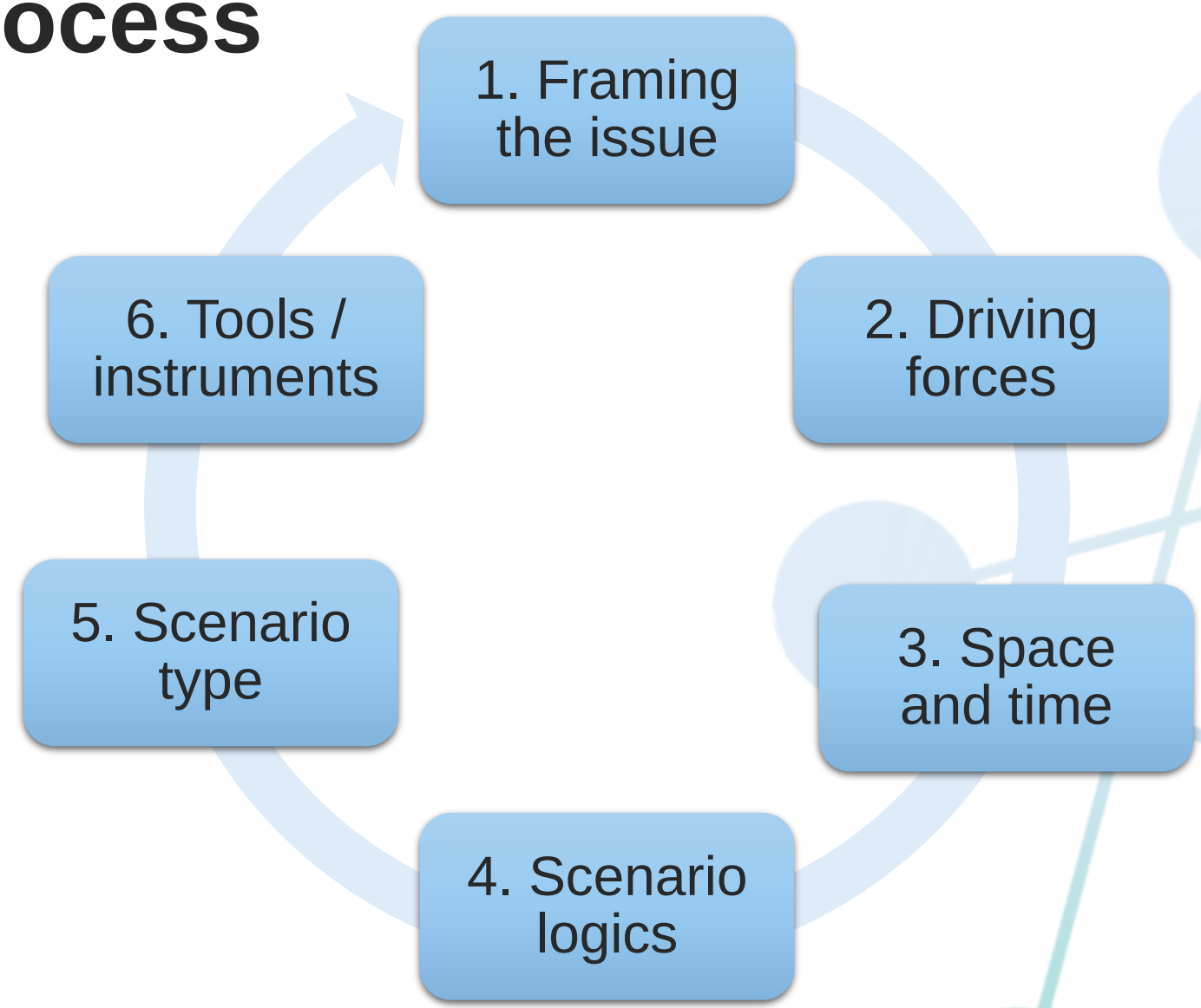
Six step approach
Iterative process



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Doing a Public Health Foresight Study (PHFS)

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- Purpose & Methodology

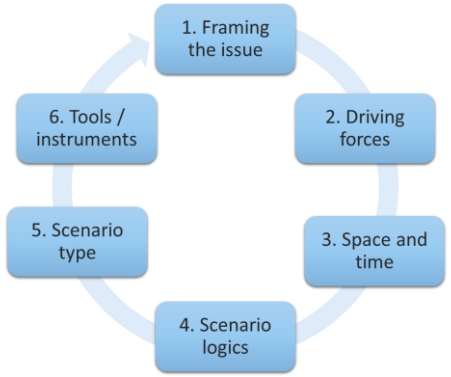
  why and how?

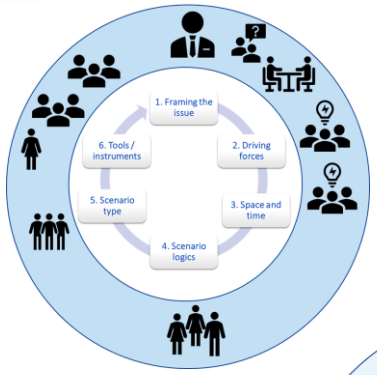
- Process & participation

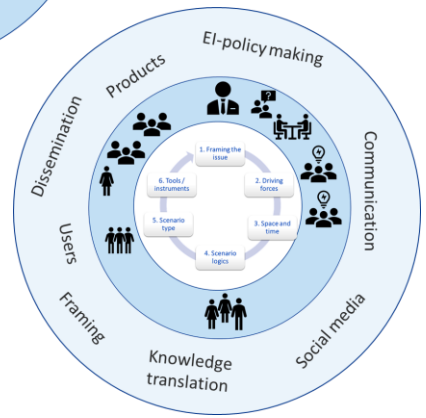
  how and with whom?

- Product & communication

  what and for whom?

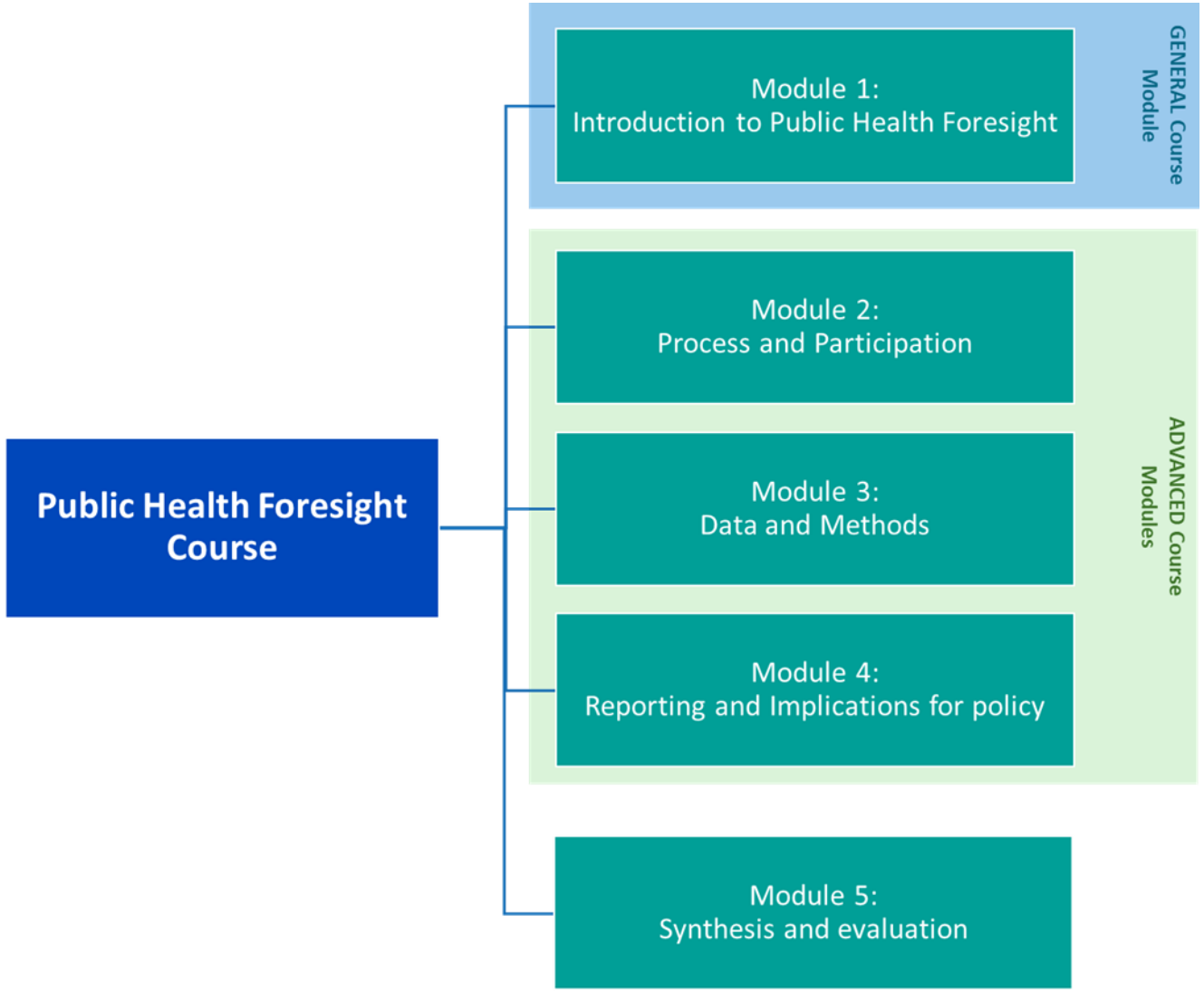






PHIRI Foresight Course

www.phiri.eu/public-health-foresight-studies-training



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Overview of Studies in ‘Develop your PHFS’

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Participant	Study Topic	Goal
Andreja	Control of NCD’s	Planning as exercise
Henk	Update of the 2020 COVID-19 inclusive foresight study	Planning and starting in 2022
Jelena	PTSD/bereavement and cardiovascular disease	Planning and submit as grant proposal
Lisa	Indirect health impact of COVID-19	Planning and executing after 2023
Michael	Long-term care in Austria	Planning as exercise
Maja	Antimicrobial use/resistance	Planning and submit as grant proposal
Mariana	Digitalization of healthcare	Planning and executing in/after 2022
Marie Delnord	Personalized medicine in cancer	Planning as exercise
Ondřej	Effective screening and early detection of disease and treatment	Planning as exercise
Šeila	Mental Health	Planning as exercise
Yasmine	Long-term and indirect health economic impact of COVID-19 on non-COVID-19 patients’ health	Planning and executing after 2022

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Findings and conclusions

- Experiences with foresight growing (but still limited and needs further efforts)
- More effort / investments in interaction with policy makers
- To support broader consideration of measures and to be better prepared in the future: foresight-informed policy making

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The future of health digitalization: a case study in a Primary Health Care Group in Portugal

Mariana Peyroteo & Luís Lapão

NOVA University of Lisbon, Portugal

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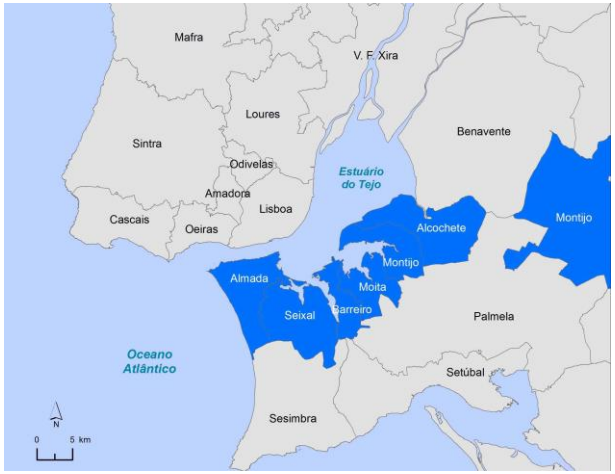
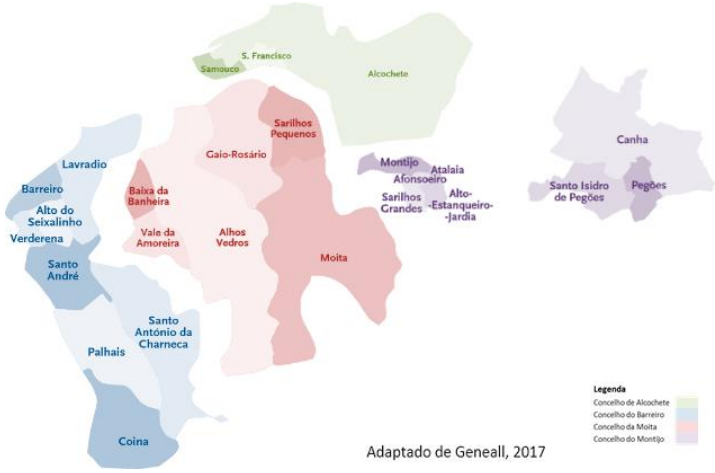
Background





Main Topic: Healthcare

General issue: Role that the digitalization of Primary Health Care can play in the ACES Arco Ribeirinho for 2032

Sub-issues: Measures and actions to be taken so that the Digitalization of PHCs is implemented most effectively, allowing the sustainability and efficiency of health care delivery to chronic patients.

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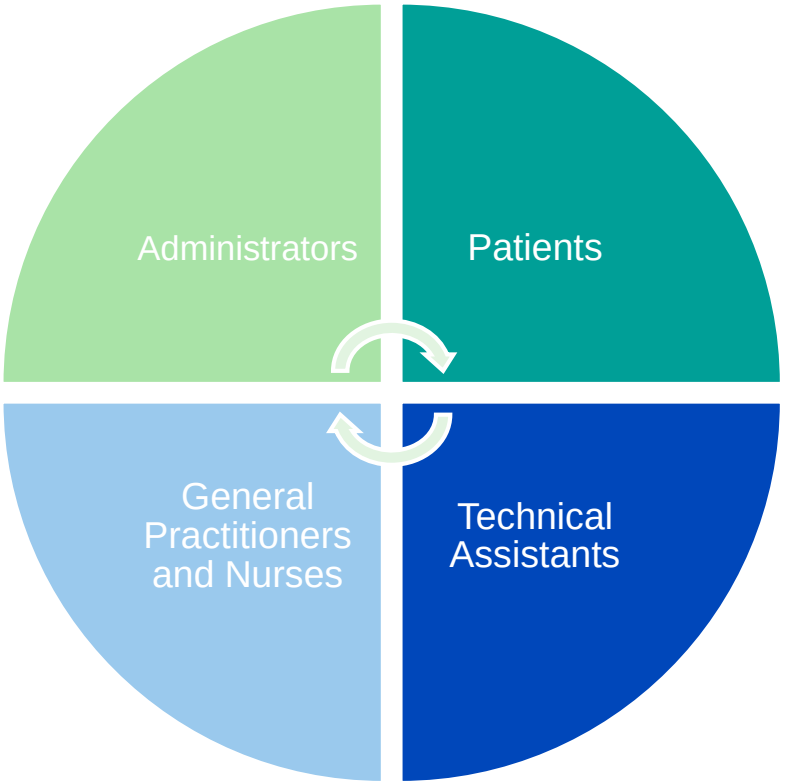
Methodology



1st Focus Group

Identify uncertainties and driving forces

2nd Focus Group

Validate the scenarios

3rd Focus Group

Suggest measures and actions

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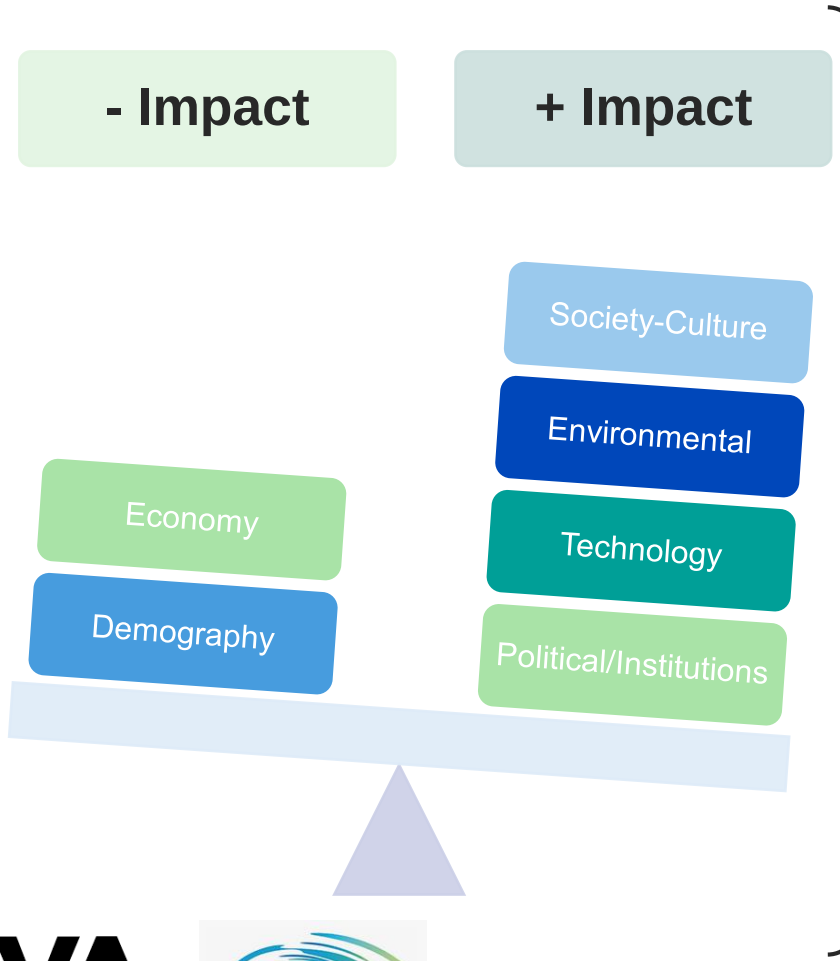
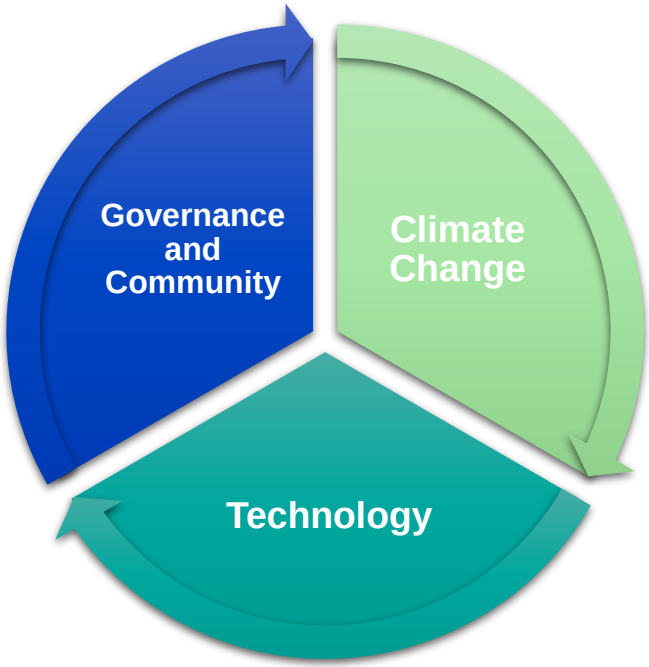
Trends and Uncertainties





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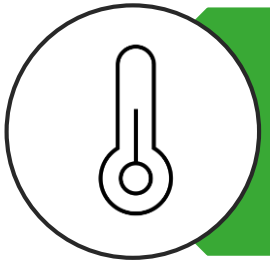
Scenarios

Digital PHC and Active Patients

- Investment in PHC technologies and digitalization
- Reorganization of teams and structures to respond to chronic disease management
- Greater involvement of the community and the patient in their health

NHS Disruption

- Loss of response capacity due to lack of human resources (doctors, nurses, health professionals, technicians)
- Growth of private health services and/or non-profit hospitals
- Creation of front-line general clinics



Climate Exigency

- Increased Demand for Health Services
- Epidemiological transition (tropical, re-emerging and communicable diseases due to lack of sanitation, thermal insulation)
- Migration by populations from different parts of the world

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Conclusions and (Policy) Recommendations

Main insights

- How to benefit from technologies in a sustainable way for organizations
- Training of PHC health professionals needs to be adapted to the new reality
- The professional teams must be multidisciplinary and new specialties must be integrated into the PHC

Main conclusions

- Climate change is coming - we must seize the political opportunity and understand its impact.
- **We found a Black Swan!** The construction of a new airport in the Montijo/Alcochete region in 2026 could change everything.

Thanks to the whole ACES Arco Ribeirinho team for their support and active participation in this study

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Potential gains by effective early detection of diseases
Czech Republic

Ondřej Májek, Ondřej Ngo

National Screening Centre (NSC)
Institute of Health Information and Statistics of the Czech Republic

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Background

- Significant amount of disease burden could be averted by early detection and treatment of diseases (or their precursors or risk factors)
- **Main Topic: potential gains by effective early detection of diseases**
- General issue: screening and early disease detection
- Sub-issues: impact of prevention policies, impact of new technology

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Driving forces (DESTEP)

Driving Forces	Trend	Relevance	Uncertainty
Demography	Ageing of the population	very high	medium
	More migration	high	high
	Prevalence of risk factors	high	medium
Economy	Economic growth	high	high
	Inflation	high	high
	Share of productive population	very high	high
Socio-Cultural	Health literacy	very high	medium
	Heatlh inequalities	very high	medium
Technology	Availability of accurate, acceptable, and affordable screening tests	very high	very high
	Digitalization of the society (infrastructure, literacy)	high	high
Ecological	Climate change as a driver of migration, infectious diseases, …	high	high
Political (outside health policy)	Size of public health budget	very high	very high

+ Availability of health workforce

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Be rolling in it

Many new technologies, generous budget

- **New technologies are emerging** in different fields (blood biomarkers including omics, better imaging with AI, utilizing big data for predictive public health). **Favourable macroeconomic situation** and wide consensus on significant public insurance and **investments to prevention** provide financial resources.

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Slow down

Limited new technologies, modest budget

- **No significant scientific breakthroughs** in basic research. Modest economic growth and limited share of public service budget causes **limited health expenditure**, which needs to be spent primarily on curative services.

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Main outcomes and insights

Scenario Name	Main Challenges (and findings)	Policies/Interventions
Be rolling in it: Many new technologies, generous budget	Lack of health workforce with adequate mix of skills	Supporting health workforce education with continuous evaluation of necessary skillsets
	Insufficient implementation capacity for new programmes	Institutions and procedures in place to implement and optimize early detection programmes
	Insufficient funding of other public services, growing inequalities	Strategic planning to assess capacity in other healthcare and public services functions
Slow down: Limited new technologies, modest budget	Limited public capacity for primary and secondary prevention	Prioritising “best buys” for improving public health in all policies
	Ensuring quality of existing programmes	Evaluation and policy-adjustment for existing screening programmes to ensure best cost-effectiveness and affordability
	Prevent low-value care	Reallocating resources from low-value care, systematic assessment of value of health interventions.

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Conclusions

- Foresight study useful approach to synthesise evidence and present evidence product
- Substantial potential to address disease burden through early detection of diseases
- Resilient health system and institutional background necessary to address challenges associated with implementation of organized programmes

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Future health and health economic implications of the COVID-19 pandemic on non-COVID-19 diseases

Yasmine Khan
UGent - Sciensano - VUB

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Background

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- Policy measures & behavioural changes → population's health
  - "non-urgent" care postponement
  - Healthcare avoidance

  → Delayed diagnosis & treatment

  → ↓ prognosis, ↑ aggressive & costly treatments, ↓ patients' quality of life, ↓ productivity and ↓ survival

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Scenarios

- Most important driving forces
  - Mixed and/or unclear messages
  - Strong personal beliefs to avoid care infrastructures
  - Individuals with lower socioeconomic status
  - Individuals with lower educational level
  - Language barrier

- Main identified uncertainty:
  - Increased healthcare avoidance based on beliefs, worry, coping mechanisms

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Scenarios

“Best-worst case scenario approach”

Scenario	Main outcomes	Main challenges
The “missing” patients: • Lack of resources • Lack of healthcare professional availability • Lack of knowledge and understanding of “help-seeking” concept	• ↓ medical appointments • ↓ diagnoses, treatment follow-up, treatment initiation, and surgeries vs pre-COVID-19	• ↓ Patients’ medical condition (stage shift) • ↓ Quality of life • ↑ Aggressive & costly treatment • ↓ Productivity • ↓ Survival • ↑ Health inequalities

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Scenarios

Scenario	Main outcomes	Main challenges
The “catching-up” patients: • Higher educational level • Health literacy, better understanding of healthcare system • Higher socio-economic status • Access to telemedecine	• ↑ medical appointments • ↑ or = diagnoses, treatment follow-up, treatment initiation, and surgeries vs pre-COVID-19 times	• Lack of resources • ↑ cost to reach the whole population • Reach vulnerable groups & make them catch-up

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Conclusions and (Policy) Recommendations

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Main messages:

- Both scenarios face the same challenges: a lack of resources.
  - Worst-case scenario: ↑ treatment costs
  - Best-case scenario: ↑ cost to reach whole population
- Health inequalities might ↑ & need more attention

Main implications and Recommendations:

- Better resource allocation
- Communication improvement on policy measures
- Encouragement of care-seeking behaviours
- Focus on vulnerable groups

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