



# WHO Collaborating Centre for research and training on complex systems and network science for NCD prevention and control

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## Support the WHO in:

- **building capacity** in the application of complex systems and network science by offering training
- research involving the **application** of complex systems and network science approaches in NCD prevention and control
- development and provision of an online tool for undertaking **stakeholder network analyses** to support implementation research

## Members:

- Ruth Hunter, public/planetary health
- Neil Anderson, computer science
- Mike Clarke, evidence synthesis
- Leandro Garcia, complexity science
- Frank Kee, public health medicine
- Ciaran O'Neill, health economist
- Niamh O'Kane, complexity science
- Sophie Jones, complexity science
- Roisin Corr, administrator



# Building capacity: Systems thinking

## 2025 Summer School: Systems Thinking for Prevention of NCDs in the WHO European Region 4<sup>th</sup> summer school: 15<sup>th</sup> – 18<sup>th</sup> July 2025, Nice, France



- Introduction to systems thinking concepts and methods
- Becoming a systems thinker
- Develop Causal Loop Diagrams and Systems Maps
- Stakeholder Network Analysis
- Lectures, demonstrations, discussion panels, practicals



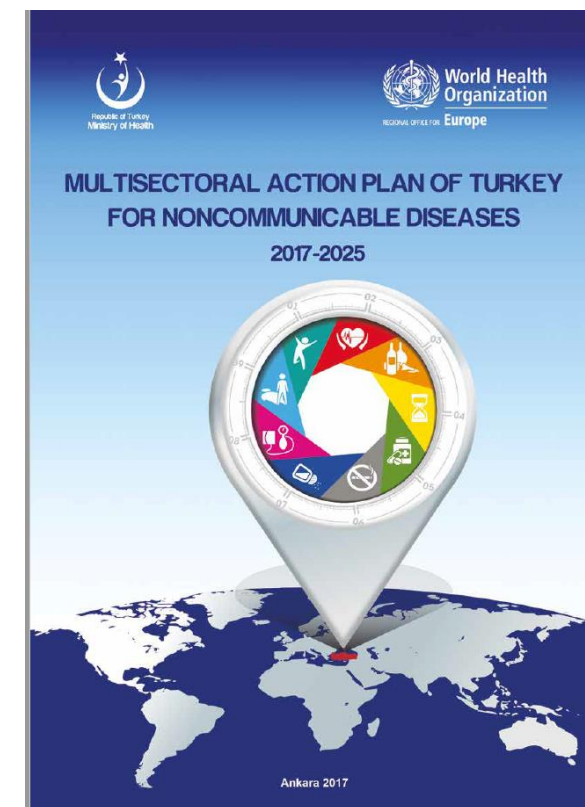
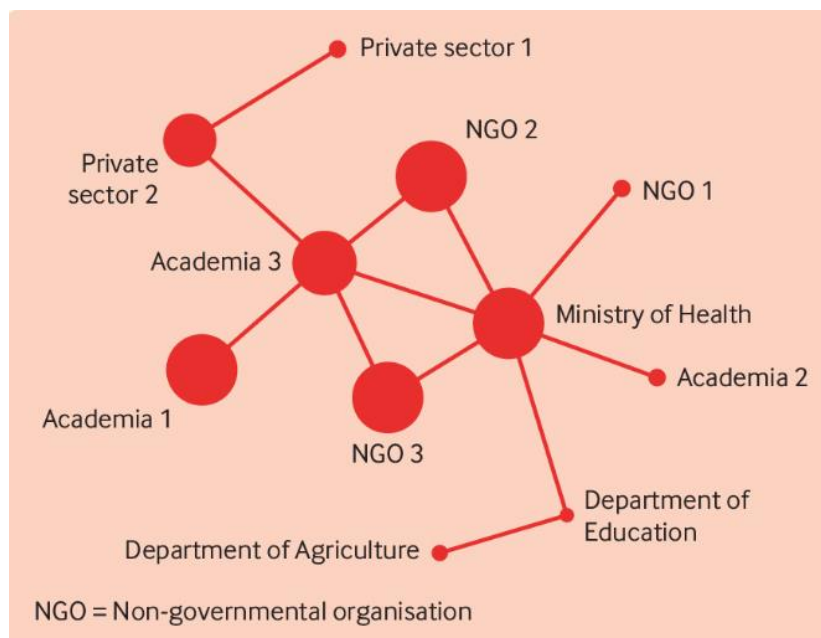
## National action plans to tackle NCDs: role of stakeholder network analysis

Network science approaches can enhance global and national coordinated efforts to prevent and manage non-communicable diseases, say **Ruth Hunter and colleagues**

**D**ecent figures highlight the rising global burden of non-communicable diseases (NCDs). A multi-sectoral approach involving government and whole of society is necessary to support countries to reduce NCDs. **Operationalising multisectoral partnerships as networks**

# Building capacity: Stakeholder network analysis

BMJ 2019; 365 doi:  
<https://doi.org/10.1136/bmj.11871>



# Stakeholder network analysis toolkit



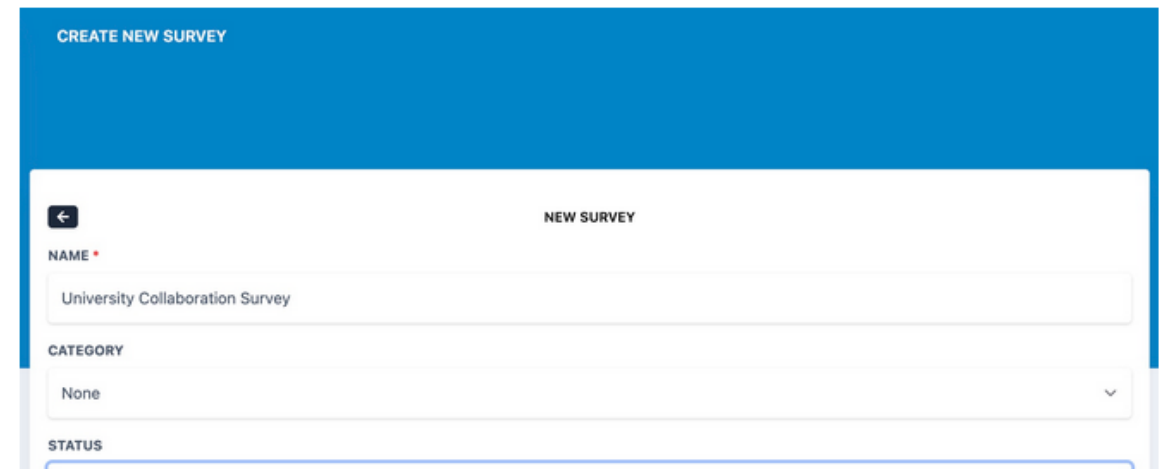
## Stakeholder Net

### Creating a new survey

Quickly and easily get started with Stakeholder Net.

#### Create a new survey

1. Log in to Stakeholder Net and click on SURVEYS from the left-hand side menu.
2. Click on the + symbol on the top right-hand side of the SURVEYS page.
3. Give the survey a name and set the STATUS to Draft.
4. Click the CREATE SURVEY button.



CREATE NEW SURVEY

NEW SURVEY

NAME \*

University Collaboration Survey

CATEGORY

None

STATUS

- <http://stakeholdernet.org/>
- Supporting manual:  
<https://www.qub.ac.uk/sites/who/Filestore/Stakeholder%20network%20analysis%20tool%20to%20support%20collaboration%20for%20better%20health%20Stakeholder.Net.pdf>
- Training:  
<https://www.qub.ac.uk/sites/who/training/>
- Supported stakeholder network analysis research and capacity building in range of countries such as Portugal, Krygyzstan, Azerbaijan
- Example reports such as global coordinating mechanism; climate action and NCDs; age friendly cities

## Capacity Building And Training



### SNA Workshop 1 - 21 May 2024

Introduction to Stakeholder Network Analysis



### SNA Workshop 2 - 29 May 2024

Introduction to Stakeholder Network Analysis (advanced)



### SNA Workshop 1 - 22 Oct 2024

Introduction to Stakeholder Network Mapping and Analysis



### SNA Workshop 2 - 29 Oct 2024

Introduction to Stakeholder Network Mapping and Analysis (advanced)



### Summer School: 16-19 July 2024

Systems Thinking And Innovation For The Prevention Of Noncommunicable Diseases



### Workshop 1 - 24 January 2024

Online Training: Introduction to Systems Thinking and Causal Loop Diagrams



### Workshop 2 – 26 January (Group 1) and 2 February 2024 (Group 2)

Online Training: Introduction to Systems Thinking and Causal Loop Diagrams



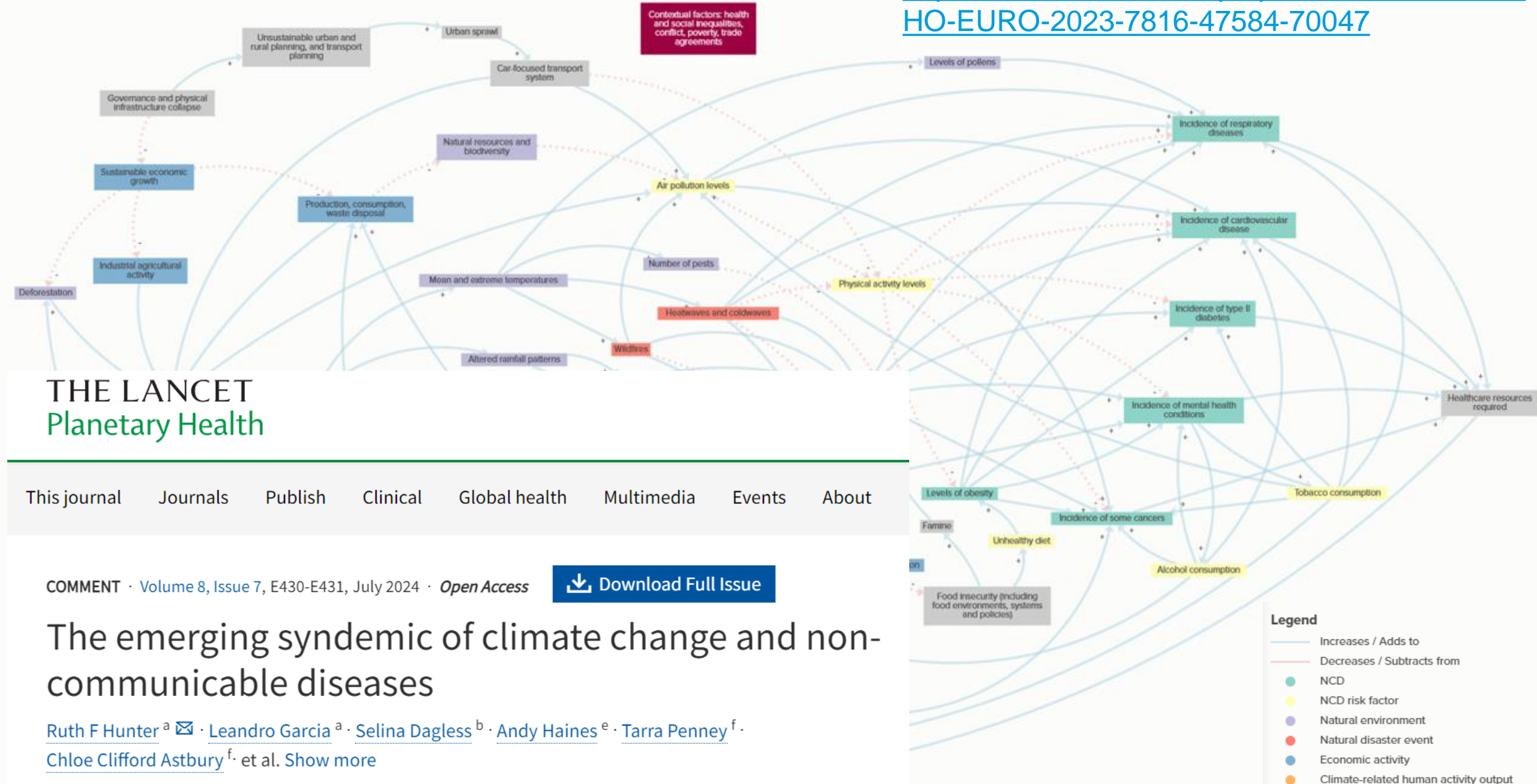
### Summer School: 18 - 20 July 2023

A Systems Approach To The Promotion Of Healthy Lifestyles

- Training:  
<https://www.qub.ac.uk/sites/who/training/>
- To date, over 1000 people have taken part in our training







# THE LANCET Planetary Health

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COMMENT · Volume 8, Issue 7, E430-E431, July 2024 · [Open Access](#)

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## The emerging syndemic of climate change and non-communicable diseases

[Ruth F Hunter](#)<sup>a</sup> [✉](#) · [Leandro Garcia](#)<sup>a</sup> · [Selina Dagless](#)<sup>b</sup> · [Andy Haines](#)<sup>e</sup> · [Tarra Penney](#)<sup>f</sup> · [Chloe Clifford Astbury](#)<sup>f</sup> et al. [Show more](#)



## Noncommunicable diseases and climate change: report of an expert meeting, Bonn, Germany, 1–2 December 2022

8 December 2023 | Meeting report

# NCD and climate change work presented at COP28



Download (615 kB)

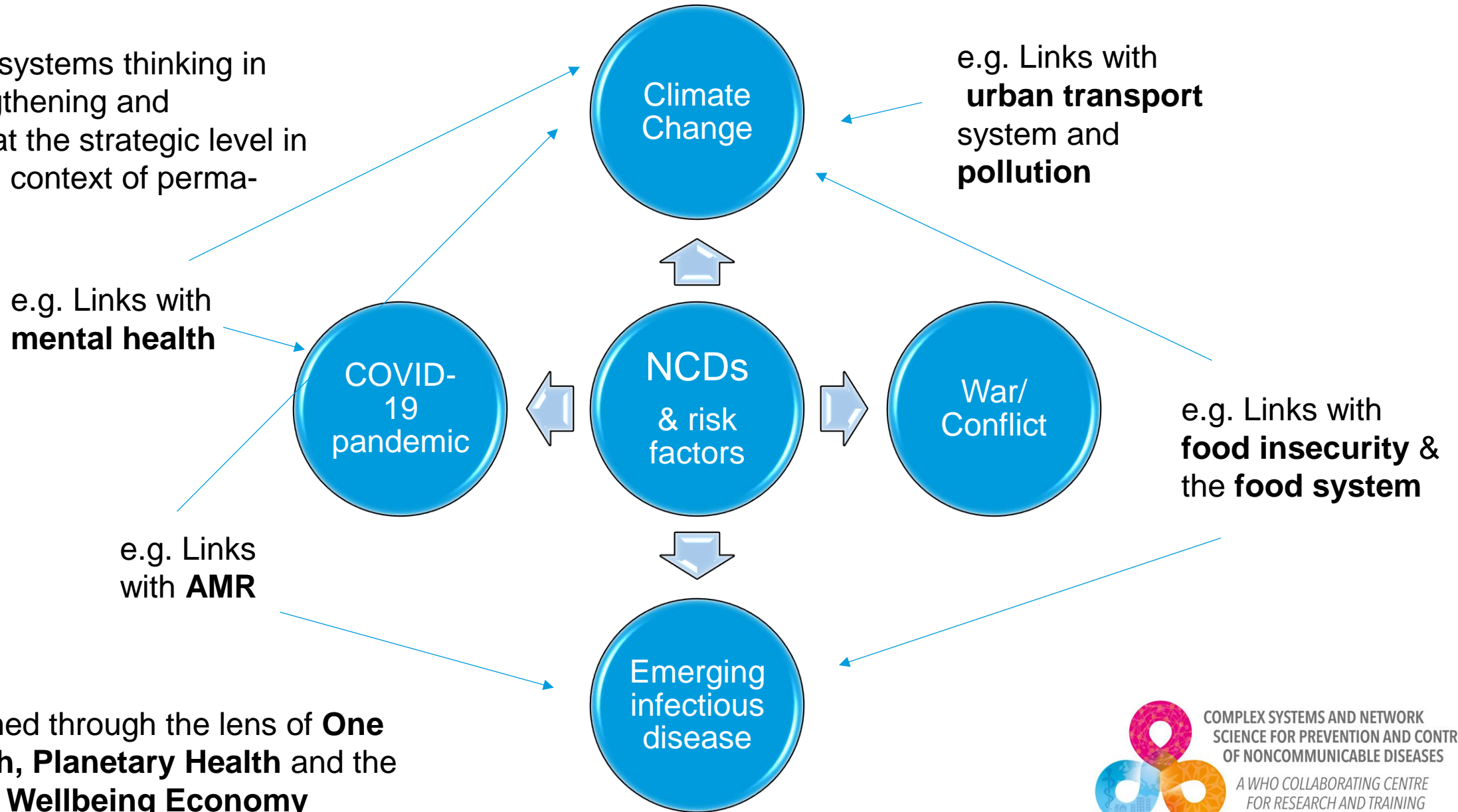
### Overview

The WHO European Office for the Prevention and Control of NCDs and the Centre for Environment and Health held an expert meeting to map the co-benefits of linking NCD prevention and climate change, guided by experts from across the Region. The meeting was an opportunity to explore wider areas of work for this emerging programme. This report summarizes the presentations and discussions.

Noncommunicable diseases and climate change”; [Noncommunicable diseases and climate change: report of an expert meeting, Bonn, Germany, 1–2 December 2022 \(who.int\)](https://www.who.int/publications/m/item/noncommunicable-diseases-and-climate-change-report-of-an-expert-meeting-bonn-germany-1-2-december-2022).

# Systems thinking, NCDs and the perma-crises

The role of systems thinking in NCD strengthening and innovation at the strategic level in a European context of perma-crises



Framed through the lens of **One Health, Planetary Health** and the **Wellbeing Economy**

# Implementation Research Kyrgyzstan and Uzbekistan



## Online launch of WHO/Europe report on implementation research for the prevention of NCDs

9 October 2024

**9 October 2024, online, 01:00 PM Central European Summer Time (CEST) (GMT+2:00)**

At the online event, WHO/Europe will present a new report "Implementation research for the prevention of noncommunicable disease risk factors in the WHO European Region". The report aims to bridge the gap between research and action, identifying effective strategies to transform health research into practical policies that protect people from noncommunicable diseases (NCDs), including cardiovascular diseases.

### Related

Registration for the launch event

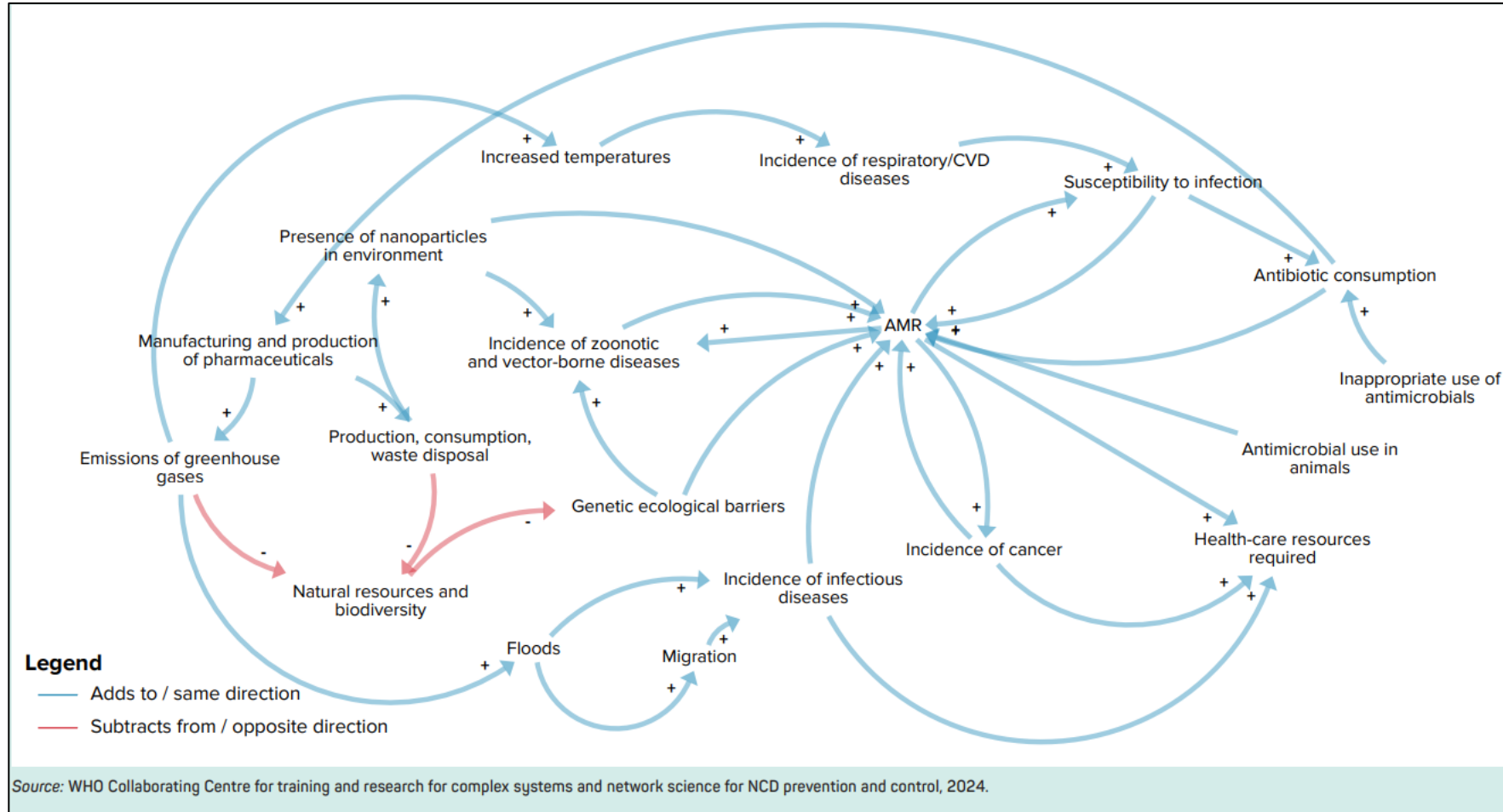
WHO/Europe Special Initiative on NCDs and (SNI)

News



# Advocacy Briefs

## Systems Map: AMR and NCDs



# Further information



**QUEEN'S UNIVERSITY BELFAST**

**Research and Training on Complex Systems and Network Science for NCD Prevention and Control**

A WHO Collaborating Centre

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**STAKEHOLDER.NET**

More Details →

<https://www.qub.ac.uk/sites/who/>

# Keep in touch



## WHO Collaborating Centre for Research and Training on Complex Systems and Network Science for NCDs

A WHO Collaborating Centre to build capacity in systems science skills, and to formulate innovate ways to address NCDs.

<https://www.linkedin.com/company/who-collaborating-centre-for-research-and-training-on-complex-systems-and-network-science-for-ncds/>



COMPLEX SYSTEMS AND NETWORK  
SCIENCE FOR PREVENTION AND CONTROL  
OF NONCOMMUNICABLE DISEASES

A WHO COLLABORATING CENTRE  
FOR RESEARCH AND TRAINING



## Member group: WHOCC for Research and Training on Complex Systems and Network Science for NCDs

Private Listed

<https://www.linkedin.com/groups/13214019/>





*Thank you*

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