



# Annual progress report 2023

Behavioural and cultural insights at  
the WHO Regional Office for Europe



European Region

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the WHO Regional Office for Europe



**World Health  
Organization**

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European Region

# Abstract

This document reports highlights related to behavioural and cultural insights (BCI) at the WHO Regional Office for Europe in 2023. In September 2022, Member States of the WHO European Region unanimously adopted a regional resolution and 5-year action framework for BCI for health, highlighting five strategic commitments. In 2023, for the first time, countries<sup>1</sup> reported on their use of BCI in health across the five commitments, and throughout the year the WHO Regional Office for Europe collaborated closely with Member States and partners to advance the implementation of these commitments. This involved the planning and initiating of BCI research and interventions together with several countries with the aim of creating more people-centred health policies, services and communication, and improving health outcomes. Several trainings and in-country workshops were organized to build capacity and strengthen advocacy for BCI implementation across the Region. This work was delivered by the BCI Unit and other technical units in close collaboration with country experts, stakeholders, partner organizations and colleagues in WHO country and field offices, geographically dispersed offices and headquarters.

## Keywords

PUBLIC HEALTH  
POPULATION  
BEHAVIORAL SCIENCES  
SOCIAL SCIENCES  
HUMANITIES

<sup>1</sup>For the purpose of this report, the words "country" and "countries" refer to countries, territories and areas without distinction.

**Document number:**  
WHO/EURO:2024-9364-49136-73305

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**Suggested citation:** Annual progress report 2023: Behavioural and cultural insights at the WHO Regional Office for Europe. Copenhagen: WHO Regional Office for Europe; 2024. Licence: CC BY-NC-SA 3.0 IGO.

**Cataloguing-in-Publication (CIP) data.** CIP data are available at <http://apps.who.int/iris>.

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# Foreword

Some of the most persistent public health challenges are dependent on human behaviour. What we eat and drink, whether we vaccinate or keep to a full course of antibiotics, how health workers prescribe medicines and interact with patients – all have critical impacts on our health. These behaviours are deeply rooted in complex individual and social contexts.

More than ever, we need evidence-based action that draws on an understanding of these behaviours and the cultural context in which they take place. Behavioural and cultural insights (BCI) offer scientific methods and evidence to do just that.

It is with great pleasure that WHO/Europe launches its third annual progress report for our flagship initiative on BCI for health.

In 2022, at the 72nd session of the Regional Committee for Europe, we achieved a true milestone with the BCI resolution where Member States made ambitious commitments to advance the use of BCI in health. The following year, 2023, saw some progress in delivering on these ambitions.

For the first time, countries have reported on their use of BCI in health, and we have included several case examples from this in our new inspiration booklet. Almost three in four health authorities in our Region report using behavioural and cultural evidence to improve health policies, services and communication; however, very few use it consistently. Just over half of health authorities conducted their own studies to gain dedicated insights. Only one in three have a level of dedicated funding for BCI-related work, and even fewer have integrated BCI into any health-related strategy or plan. I sincerely hope to see these numbers increase in the coming years. The reporting covered activities in 2021–2022 and serves as a baseline from which we can measure progress in BCI implementation in the Region.

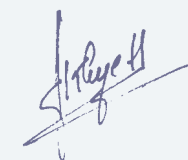
This is the context in which WHO/Europe in 2023 has done its utmost to support Member States in advancing the use of BCI for health:

→ through engagement in country projects, ranging from cancer in Croatia, breastfeeding in Kyrgyzstan and smoking cessation in North Macedonia, to antimicrobial resistance in Ukraine and postpartum depression in Romania;

→ through our community of practice with BCI focal points from all countries, with the first regional meeting on BCI for health in September 2023 – a truly vibrant, exciting event; and

→ through trainings and workshops as well as guidance and policy documents, including our comprehensive, user-friendly “How to” guide on applying BCI to health: Guide to tailoring health programmes.

There is much more to share and learn. Our BCI team and I hope you will enjoy the read – and share it widely for even greater impact!



**Dr Hans Henri P. Kluge,**  
**WHO Regional Director for Europe**  
January 2024

# Acknowledgements

The Behavioural and Cultural Insights (BCI) Unit works closely with colleagues and partners in many places, and the work described in this report would not be possible without them. We enjoy our collaboration and send warm thanks to everyone. These include BCI Focal Points in Member States, as well as colleagues in partner organizations and across the Regional Office for Europe, WHO headquarters and WHO regional offices in other regions, members of the Technical Advisory Committee on Behavioural and Cultural Insights, colleagues working at the WHO Collaborating Centres on: Behavioural Research in Global Health (Bernhard Nocht Institute for Tropical Medicine, Germany); Culture and Health (University of Exeter, United Kingdom); and Arts and Health (University College London, United Kingdom), as well as colleagues at other academic institutions.

## Thank you to our supporters

We wish to warmly thank the German Federal Ministry of Health; the Belgian Federal Public Service of Health, Food Chain Safety and Environment; Community Jameel; the Centers for Disease Control and Prevention; the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection; the Nordic Culture Fund, Central Denmark Region and the Department of Health Ireland for their generous support for our work.

Without that support, the work described in this report could not have been realized.

# Abbreviations

<b>AMR</b>	Antimicrobial resistance
<b>BCI</b>	Behavioural and cultural insights
<b>ECDC</b>	European Centre for Disease Prevention and Control
<b>EPHLC</b>	European Public Health Leadership Course
<b>EU</b>	European Union
<b>HPV</b>	Human papillomavirus
<b>IPC</b>	Infection prevention and control
<b>M-POHL</b>	WHO Action Network on Measuring Population and Organizational Health Literacy
<b>NCDs</b>	Noncommunicable diseases
<b>PAT</b>	High-Threat Pathogens programme
<b>PPD</b>	Postpartum depression
<b>PrEP</b>	Pre-exposure prophylaxis
<b>QoCPS</b>	WHO Office on Quality of Care and Patient Safety in Athens, Greece
<b>RCI</b>	Risk communication, community engagement and infodemic management
<b>RCT</b>	Randomized controlled trial
<b>SNI</b>	Special Initiative on NCDs and Innovation
<b>SSB</b>	Sugar-sweetened beverage
<b>UN</b>	United Nations
<b>VPI</b>	Vaccine-preventable Diseases and Immunization programme

# 2023 snapshots

## Our work in numbers

31

in-country projects

Support to country projects

7

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Support to country projects

27

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Support to country projects

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in-country workshops

Capacity building

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scientific publications

Evidence and guidance

21

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at external events

Advocacy and partnerships

# 2023 snapshots

## Overview of activities

### Support to country projects

- ▶ Addressing vaccination inequities in Albania, Azerbaijan, Georgia, Kazakhstan, Tajikistan and Uzbekistan
- ▶ Increasing uptake of colorectal cancer screening in Croatia
- ▶ Improving health-care access among Ukrainian refugees in the Czechia, Poland, Romania, Slovakia and Slovenia
- ▶ Understanding the role of behaviour change in the reduced transmission of mpox
- ▶ Addressing postpartum depression in Denmark, Italy and Romania
- ▶ Advancing cervical cancer screening in Georgia
- ▶ Improving telemedicine services in primary health care in Georgia
- ▶ Increasing influenza vaccination uptake in Georgia
- ▶ Increasing health literacy related to vaccines and the immune system among schoolchildren in Georgia and the Republic of Moldova
- ▶ Increasing HPV vaccination acceptance in Georgia, the Republic of Moldova, Kazakhstan, Tajikistan, Turkmenistan and Uzbekistan

- ▶ Increasing exclusive breastfeeding in Kyrgyzstan
- ▶ Improving the quality of hospital care for mothers, newborns and children in Kyrgyzstan and Tajikistan
- ▶ Reducing children's consumption of sugar-sweetened beverages in Kyrgyzstan and Tajikistan
- ▶ Accelerating PrEP use for HIV prevention in North Macedonia
- ▶ Advancing smoking cessation in North Macedonia
- ▶ Improving mental health in hospitals in Slovenia, the United Kingdom, the United States and Nigeria
- ▶ Improving hypertension treatment adherence in Türkiye
- ▶ Addressing antimicrobial resistance in Ukrainian hospitals
- ▶ Scaling up polio immunization coverage in Ukraine

### Advocacy and partnerships

- ▶ Advancing the implementation of the BCI resolution and action framework
- ▶ Strengthening academic collaboration
- ▶ Promoting arts and health
- ▶ Advocating for the use of BCI for health at meetings and conferences

### Capacity-building

- ▶ Implementing LEARN BCI trainings
- ▶ Integrating BCI into external training programmes
- ▶ Supporting in-country BCI strategy and structures

### Evidence and guidance

- ▶ "How to" guide on applying BCI to health
- ▶ BCI case examples
- ▶ Evaluation of COVID-19 behavioural insights survey tool
- ▶ Policy considerations on applying BCI to environment and health
- ▶ Integration of BCI into health topic plans, strategies and guides
- ▶ Monitoring health literacy
- ▶ NCD prevention and control: learning from the arts
- ▶ Online knowledge repository – BCI-hub.org
- ▶ Scientific publications



# What are behavioural and cultural insights for health?

The BCI Unit works to advance the use of evidence-based approaches for understanding as well as enabling, supporting and promoting positive health-related behaviours.

BCI refers to exploring the factors that affect health behaviours, and using behavioural and cultural science and insights to improve the outcomes of health policies, services and communication. Key words are insights, co-creation and evaluation. BCI draws on disciplines such as behavioural science and economics, anthropology, sociology, psychology and cultural studies. By adding the cultural facet to behavioural insights, we wish to highlight the importance of the sociocultural context, and societal and health systems and structures, alongside individual factors, when assessing and addressing health behaviours.

The work of the BCI Unit at the WHO Regional Office for Europe spans four key areas:

- ▶ **Support to country projects**
- ▶ **Advocacy and partnerships**
- ▶ **Capacity-building**
- ▶ **Evidence and guidance**

## Collaboration across the Regional Office

The BCI Unit comprises five staff and works with a number of consultants. The Unit conducts work across all health areas. The Vaccine-preventable Diseases and Immunization programme (VPI) has two staff dedicated to BCI-related work for immunization.

The BCI Unit and VPI work together with countries and WHO country and field offices as well as technical units across the Regional Office to conduct BCI-related work.

## ► Support to country projects

Addressing vaccination inequities in Albania, Azerbaijan, Georgia, Kazakhstan, Tajikistan and Uzbekistan

### Challenge

Vaccination coverage rates differ across as well as within countries, with inequities at geographical level or among certain population groups. Population groups experience barriers in accessing vaccination services and information about vaccination differently. A targeted approach to increase vaccine uptake that tailors interventions to the needs and circumstances of individuals and communities is therefore needed.

### Response

During 2023, behavioural research on barriers and drivers to vaccination uptake was conducted in six Member States – Albania, Azerbaijan, Georgia, Kazakhstan, Tajikistan and Uzbekistan. This research informed the development of tailored interventions to increase vaccine uptake and close immunization equity gaps in targeted areas.

→ The project is conducted jointly by the VPI and the WHO country offices, institutes of public health and ministries of health in the involved countries. The research in Albania was undertaken in collaboration between the VPI and the WHO High-Threat Pathogens programme (PAT).



Research in six countries explored barriers and drivers to routine vaccination and informed interventions to increase vaccine uptake.

## ► Support to country projects

Increasing uptake of colorectal cancer screening in Croatia

### Challenge

Cancer poses a major public health problem, causing 20% of deaths in the WHO European Region. Early detection of colorectal cancer through screening and diagnosis is key to successful treatment. In Croatia, cancer is the second most common cause of death after cardiovascular diseases, with colorectal cancer being the second most common in women and third in men. The uptake of colorectal cancer screening is 25% against a target of 45–60% of contacted individuals by 2030.

### Response

Studies were designed to: understand the barriers to and drivers for colorectal cancer screening uptake through interviews with the target population and health workers; and evaluate, through a randomized controlled trial (RCT), the effectiveness of a BCI-informed intervention in increasing screening uptake. The RCT compares four groups: 1) no reminder letter (the control group); 2) a standard reminder letter; 3) a BCI-informed reminder; 4) a BCI-informed reminder letter sent together with the home-testing kit which removes the step of having to request it. Findings will be available in 2024.

→ The project is conducted jointly by the BCI Unit, the WHO Cancer team, the WHO Country Office, Croatia, the Croatian Institute of Public Health and the Croatian Ministry of Health.

## ► Support to country projects

### Improving health-care access among Ukrainian refugees in Czechia, Poland, Romania, Slovakia and Slovenia

#### Challenge

The Russian invasion of Ukraine led to the movement of millions of people. As neighbouring countries opened their borders and made services available to those fleeing the war, it became imperative to understand access to health services from the refugee perspective.

#### Response

To explore refugees' health-service access, needs and behaviours, qualitative interviews were conducted with Ukrainian refugees residing in Czechia, Poland, Romania, Slovakia and Slovenia. The findings were discussed in high-level meetings, stakeholder workshops and webinars, and informed action by partners, governments and WHO.

As examples, refugee clinics were initiated in Czechia, Poland and Romania. Cultural mediators were engaged in Romania to support health-care access at local level, and nongovernmental

organizations were supported in providing tailored assistance. In Poland, a telephone hotline was expanded to include general information for refugees, and Slovakia extended health coverage for all refugees under the age of 18.

→ The project is conducted jointly by the BCI Unit, the WHO Health Emergencies Programme, the WHO country office in Czechia, the WHO country office in Poland, the WHO country office in Slovakia, the WHO country office in Slovenia and the WHO country office in Romania.

#### BCI-related work applauded at global United Nations (UN) meeting

An enthusiastic response from the UN Statistical Commission to WHO-supported mixed-methods BCI studies for refugee health in Poland resulted in a joint statement recommending this approach as a global standard, emphasizing the importance of qualitative BCI data and the WHO's role at the forefront of collecting such data. The value of the studies and their positive impact were also highlighted during a sub-regional high-level consultation in Slovakia on lessons learnt and best-practice sharing between refugee-hosting countries. Slovakia's State Secretary announced that BCI in health is now a key priority for the country.

## ► Support to country projects

### Understanding the role of behaviour change in the reduced transmission of mpox

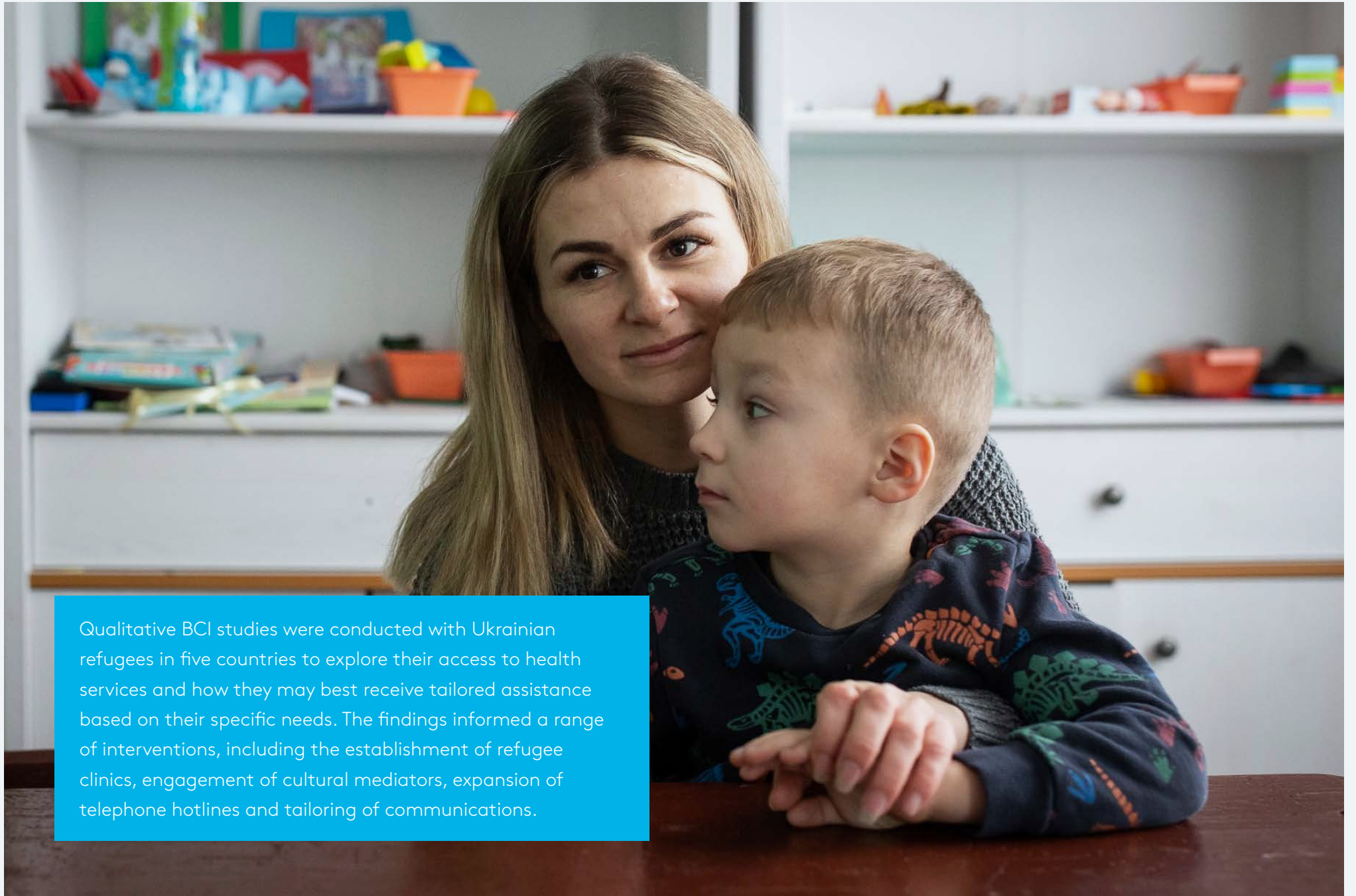
#### Challenge

After a steep and sustained decline in transmission, the designation of mpox as a public health emergency of international concern was declared to be over. However, it was not clear if the reduction in new cases was linked to changes in behaviour or immunity conferred by infection and/or vaccination.

#### Response

A rapid cross-sectional survey was launched in 23 countries in the European Region and the Americas. Findings showed that over half of respondents had changed their sexual behaviour between May and December 2022 due to mpox, and of those, more than one third continued with that change up to May 2023. The survey highlighted the importance of targeted communication to encourage protective sexual behaviour and of addressing access to testing and vaccination.

→ The project was conducted jointly by the WHO Health Emergencies programme, the Risk communication, community engagement and infodemic management (RCI) team and the WHO Department of Global HIV, Hepatitis and Sexually Transmitted Infections Programmes, and supported by the BCI Unit.



Qualitative BCI studies were conducted with Ukrainian refugees in five countries to explore their access to health services and how they may best receive tailored assistance based on their specific needs. The findings informed a range of interventions, including the establishment of refugee clinics, engagement of cultural mediators, expansion of telephone hotlines and tailoring of communications.

### ► Support to country projects

## Addressing postpartum depression in Denmark, Italy and Romania

### Challenge

Postpartum depression (PPD) affects around one in seven women globally. There is a long history of singing having benefits for mental health and promising research shows the clinical effectiveness of group singing to address PPD.

### Response

WHO implemented a multi-country arts intervention for mothers suffering from PPD. Built around group singing sessions specifically designed for affected mothers, the project was conducted in Denmark, Italy and Romania to determine the feasibility of implementing the intervention in different cultural contexts. Based on the experience of conducting this study, a thinking tool was developed to highlight key considerations when adapting existing arts and health interventions to other cultural contexts. The next step is to support other countries in the Region and beyond in implementing the intervention.

→ The project is conducted jointly by the BCI Unit, the Jameel Arts & Health Lab, Central Denmark Region (Denmark), the National Institute of Health (Italy), Cluj Cultural Centre (Romania), Breathe Arts Health Research (United Kingdom) and University College London (United Kingdom).

### ► Support to country projects

## Advancing cervical cancer screening in Georgia

### Challenge

Each year in the WHO European Region more than 66 000 women are newly diagnosed with cervical cancer and more than 30 000 die from this preventable disease. Cervical cancer screening can detect changes before they develop into cancer and is an effective tool in successful treatment and saving lives. In Georgia, only 20% of women aged 25–60 have been screened for cervical cancer in the last 5 years.

### Response

An online survey experiment was conducted to identify effective messages to inform and motivate women to take part in a national cancer screening programme. The survey tested different messages drawing on BCI principles, such as pro-social motivation and messenger effect, through an RCT design, with a non-representative sample of 2446 women aged 25–60. All three communication messages increased women's sense of having enough information to make an informed decision about screening participation and increased the self-efficacy of women aged 50–60, while a message focusing on the preventative nature of screening also increased the intention of this group to participate. Results will serve to inform a national cervical cancer screening campaign.

→ The project is conducted jointly by the BCI Unit, the WHO Cancer team, the WHO Country Office, Georgia and the National Center for Disease Control and Public Health in Georgia.

### ► Support to country projects

## Improving telemedicine services in primary health care in Georgia

### Challenge

To improve access to specialist health services in remote areas, telemedicine services are increasingly made available to rural populations in 100 rural clinics in Georgia. Implementing these services has brought some challenges, and insights into experiences and perceptions are needed to inform further implementation as well as communications to patients and health workers.

### Response

A mixed-methods study was initiated to explore experiences and perceptions of telemedicine in primary health care among patients, health-care workers and other stakeholders. The study includes patients both with and without experience of telemedicine to understand their expectations. The findings will be available in 2024 to support recommendations on how to strengthen telemedicine in Georgia.

→ The project is conducted by the WHO Country Office, Georgia in partnership with the Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia, with support from the BCI Unit.

To better understand how arts and health interventions can help with the promotion of health and well-being across cultural contexts, the BCI Unit supported the implementation of a multi-country intervention for mothers suffering from PPD. Based on the experience of conducting this study, a thinking tool was developed to highlight key considerations when adapting existing arts and health interventions to different cultural contexts.



## ► Support to country projects

### Increasing influenza vaccination uptake in Georgia

#### Challenge

Despite the existence of efficacious vaccines against influenza, the effectiveness of vaccine delivery is hampered by complex and interlocking challenges at the implementation and policy level. Flu vaccination of health workers is critical not only to protect them and patients from diseases but also to demonstrate positive vaccination behaviour towards patients. In Georgia, flu vaccine uptake in risk groups was at 55% among health workers, 10% among those aged 60-plus and 13% among pregnant women in 2021.

#### Response

A multi-year project has been initiated to implement and evaluate BCI-informed interventions to increase flu vaccine uptake in Georgia among health workers and other risk groups. A situation analysis to explore data related to vaccine uptake and influenza morbidity and mortality has been initiated to inform the next steps of the process, which include co-design workshops with health workers and implementation of interventions ahead of the 2024–2025 flu season.

→ The project is conducted jointly by the BCI Unit, the PAT, the VPI, the WHO Country Office, Georgia, the US Centers for Disease Control and Prevention and the National Center for Disease Control and Public Health in Georgia.

## ► Support to country projects

### Increasing health literacy related to vaccines and the immune system among schoolchildren in Georgia and the Republic of Moldova

#### Challenge

Vaccines protect against many life-threatening diseases. Still, some people do not get vaccinated. Evidence shows that one barrier is low knowledge of the threat posed by these diseases or the benefits provided by vaccines, and how vaccines work. Fostering health literacy through innovation and collaboration with the education sector can strengthen positive health-seeking behaviour from a young age, so that it can be applied throughout a person's life.

#### Response

A school-based intervention to enhance children's understanding of vaccines and the immune system and enable them to make informed health-related choices in the future was evaluated for impact in Georgia and the Republic of Moldova. The Immune Patrol is a digital and game-based education package. Evaluation showed documented impact on children's knowledge of immunization and increased motivation and recognition of the need to learn about communicable diseases. Additional Member States, including Türkiye, Turkmenistan, Kazakhstan, Kyrgyzstan and Uzbekistan, are in the process of implementing the Immune Patrol as a pilot project.

→ The project is conducted by the VPI in collaboration with Antwerp University and Rotary Belgium.



A game-based learning approach, Immune Patrol, has been tested in schools to help children understand the science behind immunization.

## ► Support to country projects

### Increasing HPV vaccination acceptance in Georgia, the Republic of Moldova, Kazakhstan, Tajikistan, Turkmenistan and Uzbekistan

#### Challenge

Around 85% of cervical cancer cases occur in lower- and middle-income settings, and 99% of cervical cancer cases are linked to human papillomavirus (HPV). The available vaccines are highly efficacious in preventing infection with HPV strains. While some Member States show high vaccine uptake, others struggle, emphasizing the need for robust strategies to address vaccine uptake and evidence-informed and well-prepared HPV vaccine introduction plans.

#### Response

Qualitative research was conducted in Georgia, the Republic of Moldova, Kazakhstan, Tajikistan, Turkmenistan and Uzbekistan to identify barriers and drivers for HPV vaccination. The studies aimed to support health authorities in introducing the HPV vaccine, or in increasing uptake of the HPV vaccine. For vaccine introduction in Kazakhstan and Tajikistan, studies were conducted to identify potential barriers to vaccine acceptance. Findings informed the vaccine introduction strategy, including trainings and information materials to address health worker concerns and school meetings for parents with medical experts to inform them about the new vaccine. In Georgia, the Republic of Moldova, Turkmenistan and Uzbekistan which all

had an existing HPV vaccine programme, support was targeted at: low-coverage areas, addressing knowledge gaps among health workers with refresher trainings; misconceptions among caregivers through targeted communication activities and meetings with community leaders; and improving vaccination service provision through outreach to parents of girls with missed doses. Tailored interventions were developed to boost HPV vaccination coverage in these areas as well. The research findings also led to the development of a regional training package on effective communication about HPV vaccination for health workers, delivered as part of a WHO regional training on HPV vaccines in September attended by national immunization programme managers and clinicians.

→ The project was conducted jointly by the VPI and the WHO country and field offices and health authorities in the involved countries and the WHO Collaborating Centre for Vaccine Safety based at the Hospital Clínico Universitario de Santiago de Compostela, Spain.



Research has been undertaken to understand the barriers and drivers to HPV vaccination acceptance.



### ► Support to country projects

## Increasing exclusive breastfeeding in Kyrgyzstan

### Challenge

Breastfeeding is a global public health priority with multiple benefits for maternal and child health, with the recommendation to breastfeed exclusively for the first 6 months, followed by breastfeeding alongside solid food until 2 years. In Kyrgyzstan, the rate of exclusive breastfeeding of infants until 6 months old was 46% in 2018, compared to the national target of 70% set for 2023. Marketing of breast-milk substitutes represents an additional challenge.

### Response

Building on an evidence review of factors affecting, as well as interventions to increase, early, exclusive and continued breastfeeding, a qualitative research study with health professionals and mothers was conducted to explore specific barriers and drivers in the Kyrgyz context. A national team was trained and conducted the study with support. The findings were presented at a stakeholder workshop in June 2023 and key areas for action and relevant interventions were discussed. An implementation study is considered, depending on resources available. On the policy level, an additional outcome was the inclusion of provisions related to exclusive breastfeeding until 6 months in a new law on health.

→ The project is conducted jointly by the BCI Unit, the Special Initiative on Noncommunicable Diseases and Innovation (SNI), the WHO Country Office, Kyrgyzstan and national stakeholders, including the Republican Centre for Health Promotion and Mass Communication Kyrgyzstan.

### ► Support to country projects

## Improving the quality of hospital care for mothers, newborns and children in Kyrgyzstan and Tajikistan

### Challenge

Observations and findings from health system evaluations and previous WHO projects in hospitals in Kyrgyzstan and Tajikistan have identified unnecessary and prolonged hospital stays, over-prescription and misuse of medication, inappropriate use of pulse oximeters and partograms, and suboptimal hand-hygiene practices as key areas of concern.

### Response

Qualitative studies were conducted in Kyrgyzstan and Tajikistan to explore barriers and drivers for improved use of evidence-based practices during maternal and child hospitalizations. Study findings identified that unnecessary hospitalizations and medication over-prescription were often linked to socioeconomic factors. Limited health literacy, preference for centralized hospitals and conflict avoidance with patients contribute to identified challenges. These findings feed into a larger implementation research project in the two countries led by the WHO Office on Quality of Care and Patient Safety in Athens, Greece (QoCPS).

→ The project was conducted jointly by the BCI Unit and the QoCPS with support from the WHO Country Office, Kyrgyzstan, the WHO Country Office, Tajikistan and WHO headquarters.

### ► Support to country projects

## Reducing children's consumption of sugar-sweetened beverages in Kyrgyzstan and Tajikistan

### Challenge

Childhood obesity is one of the most serious public health challenges. Consumption of sugar-sweetened beverages (SSBs) is associated with increased risk of overweight and obesity, and other health concerns. The use of communication messages is a common approach to improve health. However, there is limited evidence about which messages are likely to be effective and acceptable to caregivers, particularly in a central Asian context, to reduce SSB consumption among children.

### Response

To support the development of an effective communication campaign and drawing on an evidence review of communication-based interventions to reduce children's SSB consumption, a set of potential messages was developed. These were tailored and culturally adapted through focus-group discussions with primary caregivers in Kyrgyzstan and Tajikistan. An RCT-based evaluation of three of the most promising messages was conducted among primary caregivers, using both online (Kyrgyzstan) and in-person (Tajikistan) data collection. Analysed results will be available in 2024 and are intended for use in targeted activities.

→ The project is conducted jointly by the BCI Unit and the SNI in collaboration the WHO Country Office, Kyrgyzstan and the WHO Country Office, Tajikistan.



BCI studies in Kyrgyzstan and Tajikistan explored reasons for unnecessary maternal and child hospitalizations and over-prescription of medication. Key challenges included limited health literacy, preference for centralized hospitals and conflict avoidance with patients. The findings contribute to a larger implementation research project in the two countries.

### ► Support to country projects

## Accelerating PrEP use for HIV prevention in North Macedonia

### Challenge

HIV remains a major public health issue in the WHO European Region, with increasing estimated numbers of new HIV cases over the past decade, particularly among key populations, including men who have sex with men, trans and gender diverse people, sex workers and people who inject drugs. This trend calls for action to galvanize HIV prevention efforts, including the introduction and scale-up of pre-exposure prophylaxis (PrEP) use. A pilot project to introduce PrEP in North Macedonia was rolled out in 2021, but uptake of this service was significantly lower than expected.

### Response

A project was initiated in September 2022 to explore the behavioural and cultural factors that affect PrEP uptake in this highly stigmatized group. A stakeholder workshop was held and a literature review and situation analysis were completed. Working closely with multiple community-based organizations and local researchers, the BCI Unit led the development of a research study with health workers and key populations which was initiated in December 2023. Results will be presented to stakeholders in the first quarter of 2024.

→ The project is conducted jointly by the BCI Unit, the Joint Infectious Diseases Unit and the WHO Country Office, North Macedonia.

### ► Support to country projects

## Advancing smoking cessation in North Macedonia

### Challenge

Tobacco is one of the biggest public-health threats, killing more than 8 million people globally each year, including an estimated 1.3 million non-smokers who are exposed to secondhand smoke. In North Macedonia, over 45% of the adult population smoke cigarettes, a rate significantly higher than the average of 25% in the WHO European Region. An average smoker in North Macedonia consumes 18 cigarettes daily.

### Response

A qualitative study with 29 health workers and representative survey of 1009 adults mapped barriers to and drivers of smoking uptake and cessation. The resulting insights into the scale and nature of the problem, and recommendations related to policy changes, enforcement and service delivery, were discussed with the Ministry of Health at a large stakeholder event in May. In a workshop in September, specific intervention ideas were co-created and prioritized with national stakeholders. Based on this, WHO support has been requested to revise tobacco legislation, apply BCI to its enforcement, increase the uptake of cessation support and strengthen health-worker capacity to support cessation.

→ The project is conducted jointly by the BCI Unit, the SNI, the WHO Country Office, North Macedonia, the Institute of Public Health of North Macedonia and the Ministry of Health.

### ► Support to country projects

## Improving mental health in hospitals in Slovenia, the United Kingdom, the United States and Nigeria

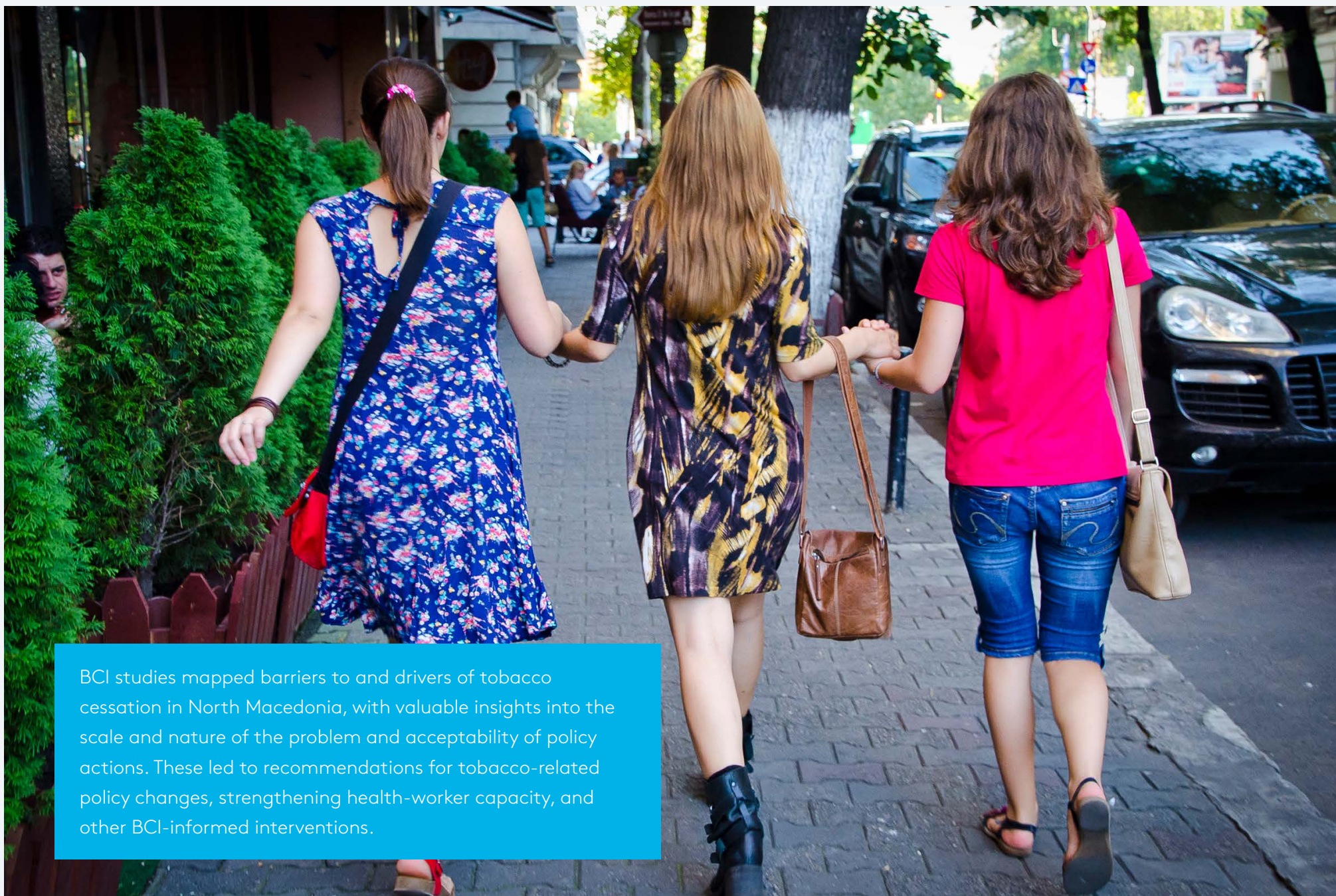
### Challenge

Research suggests that there is a significant correlation between viewing art in care settings (such as hospitals) and positive health and well-being outcomes for patients and carers alike. Hospital murals are therefore being commissioned in an increasing number of hospitals to take advantage of these health benefits.

### Response

A multi-country evaluation of the health benefits of hospital murals in Slovenia, the United Kingdom, the United States and Nigeria has been initiated. The project is building on evidence that murals contribute to patient belonging in relation to a health-care facility and a higher sense of meaning for health-care workers. A mixed-methods, formative evaluation of murals in the New York City Health+Hospitals system is being developed, with the aim of applying the learnings to the wider evaluation in the third quarter of 2024.

→ The project is conducted by the BCI Unit in collaboration with the Jameel Arts and Health Lab. It is supported by the Alexander and Ilse Melamid Charitable Foundation.



BCI studies mapped barriers to and drivers of tobacco cessation in North Macedonia, with valuable insights into the scale and nature of the problem and acceptability of policy actions. These led to recommendations for tobacco-related policy changes, strengthening health-worker capacity, and other BCI-informed interventions.

### ► Support to country projects

## Improving hypertension treatment adherence in Türkiye

### Challenge

Hypertension is a severe public health issue in Türkiye. Approximately one third of the adult population has hypertension and almost half of them are unaware of the disease. In the last decade, considerable resources have been invested in hypertension control in Türkiye. Disease awareness, treatment and control have been substantially enhanced. However, among those diagnosed, treatment adherence remains low and the condition is still considered a significant public health threat in the country.

### Response

A research study was initiated to explore how people with hypertension navigate their condition and the factors influencing their ability to follow their treatment plans, including medications and lifestyle adjustments. Data are collected with both patients and health workers. The findings will inform an intervention aimed at supporting health workers and patients to increase treatment adherence, to be piloted and evaluated in 2024.

→ The project is conducted jointly by the BCI Unit, the WHO Country Office, Türkiye, the WHO Noncommunicable Diseases Management Unit, the Ministry of Health and the Dokuz Eylül University.

### ► Support to country projects

## Addressing antimicrobial resistance in Ukrainian hospitals

### Challenge

In Ukraine, there is a strong commitment to address antimicrobial resistance (AMR). Antibiotic-resistant infections in war-related injuries are particularly concerning, with many infections difficult to treat with antibiotics and some even untreatable. Therefore, the importance of effective infection prevention and control (IPC) behaviours among health-care workers and patients, such as hand-hygiene measures and environmental cleaning, becomes foremost to avoid further spread and preventable suffering and death.

### Response

A 3-year BCI implementation science project was initiated and, as a first step, a situation analysis with data on the current state of IPC and AMR in Ukraine has been completed. The next steps will include reviewing international evidence on IPC-related behaviours and stakeholder co-creation workshops, as well as implementation, monitoring and evaluation of co-designed interventions.

→ The project is conducted jointly by the BCI Unit, Ukrainian Centre for Public Health, three pilot hospitals, the WHO Control of Antimicrobial Resistance programme, the WHO Country Office, Ukraine and the US Centers for Disease Control and Prevention.

### ► Support to country projects

## Scaling up polio immunization coverage in Ukraine

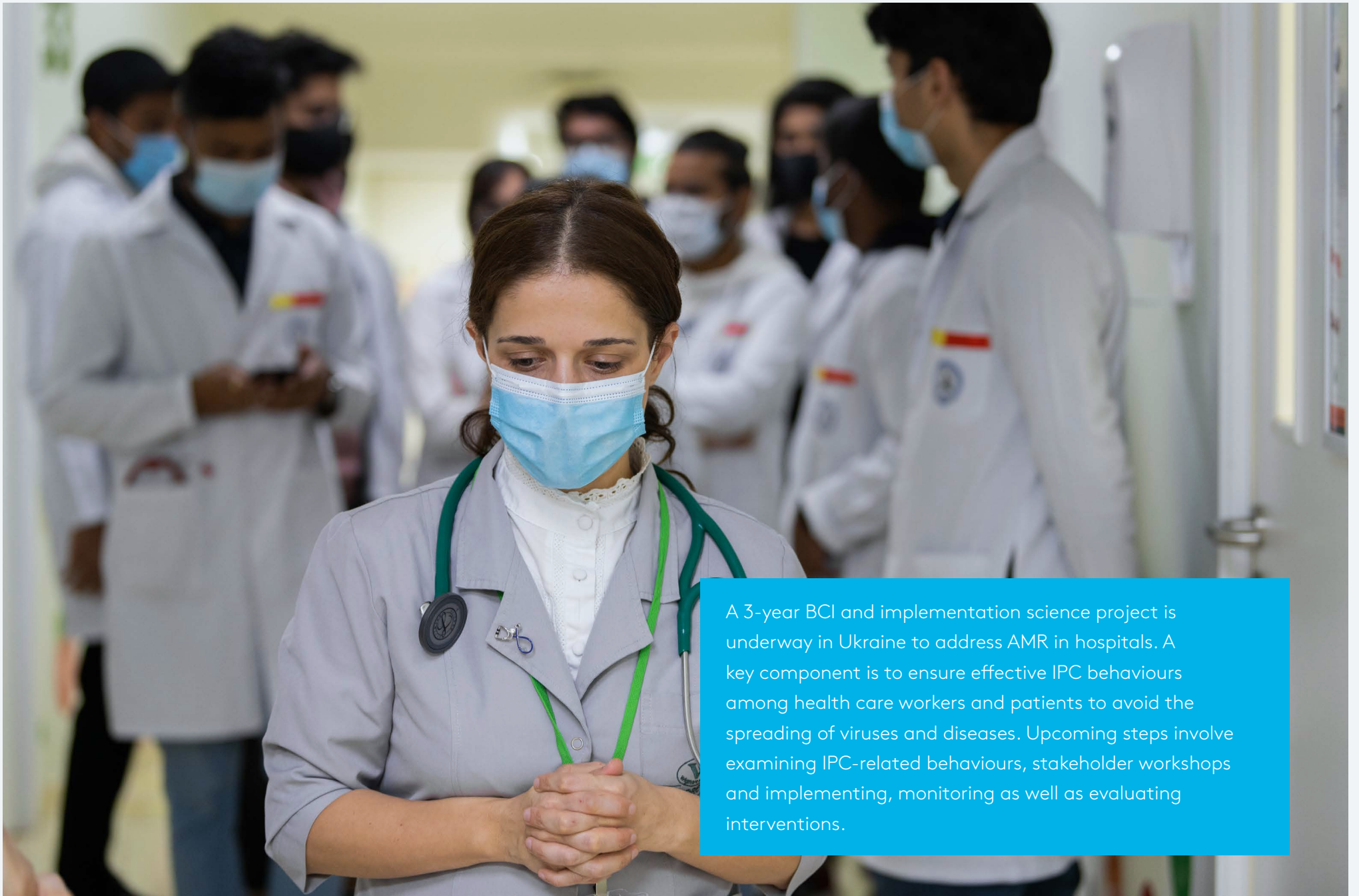
### Challenge

Poliomyelitis (polio) is a highly infectious viral disease that largely affects children under 5 years of age. A circulating vaccine-derived poliovirus type 2 outbreak was confirmed in Ukraine in 2021. Years of low immunization coverage in Ukraine have created a large pool of unvaccinated or under-vaccinated children who are vulnerable to polio. While routine immunization coverage has gradually increased over the past 6 years, according to official government data in 2020 only 84% of 1-year-olds received the required three scheduled doses of polio vaccines by 12 months of age.

### Response

As part of the polio outbreak response, a qualitative study was conducted to attain better insight into barriers and drivers affecting polio vaccination in regions with the lowest vaccination coverage. More than 50 health-care providers and regional public health, educational, religious and civil society organizations in the western region of Ukraine gathered for a stakeholder meeting to explore the study results, foster collaboration and develop a region-specific strategy to increase polio vaccination. The strategy is now being implemented with local, tailored interventions.

→ The project is conducted jointly by the BCI Unit, the VPI and the WHO Country Office, Ukraine.



A 3-year BCI and implementation science project is underway in Ukraine to address AMR in hospitals. A key component is to ensure effective IPC behaviours among health care workers and patients to avoid the spreading of viruses and diseases. Upcoming steps involve examining IPC-related behaviours, stakeholder workshops and implementing, monitoring as well as evaluating interventions.

## ► Advocacy and partnerships

### Advancing the implementation of the BCI resolution and action framework

#### Challenge

The BCI resolution and action framework (1) set a regional course of action in the field of BCI for better health. Through five strategic commitments, it offers pathways for advancing the BCI agenda for health towards more people-centred and effective health-related policy, services and communication at local, country and regional levels. These are ambitious commitments that require concerted action to be realized.



European regional  
action framework  
for behavioural and  
cultural insights  
for health,  
2022–2027



#### Response

Several initiatives were undertaken in 2023 to advance the implementation of these key documents.

##### Regional BCI meeting, September 2023

A regional meeting (2) was held on 12–14 September 2023 with 112 participants, including representatives from 48 Member States, nine partner organizations and colleagues from other regional offices. Participants engaged in rich discussions about the status of BCI and the way forward. They agreed that BCI is underfunded, organizational cultures often hinder efficient use of BCI and there is a great need for capacity-building. Despite this, the meeting demonstrated widespread enthusiasm for BCI and voiced a call for a strong community of practice across countries. This was a major event for the BCI flagship which will serve to solidify the BCI community of practice across countries and set a course for reaching the joint goals. Several follow-up actions have been initiated since the meeting, including further meetings, advocacy and technical support.

##### → Videos

Advancing the use of BCI for health (3)  
Regional BCI meeting, 12–14 September 2023 (4)

#### Country reporting on BCI implementation

Member States completed their first-ever reporting of their use of BCI for health, covering activities in 2021–2022 as a baseline to measure progress in BCI implementation over time (5). The majority of countries use a level of behavioural and cultural science and evidence to improve health policies, services and communication, either occasionally or systematically, in some cases with the use of their own studies for gaining local insights. One third have a level of dedicated funding for BCI-related work; and one third have integrated BCI into one or more health-related strategies or plans. Findings were discussed during the regional BCI meeting in September 2023. The next status report is due in March 2025, covering 2023–2024.

#### Interview study on BCI country activities

To provide nuance to the country reporting, an interview study (6) with 26 BCI focal points from Member States was conducted by the BCI Unit jointly with the European Centre for Disease Prevention and Control (ECDC). This allowed for exploration of barriers and drivers for BCI implementation at country level as well as of structures and resources, challenges and opportunities. Key barriers relate to human and financial resources, skills and knowledge, and communication pathways to decision-makers. A range of concrete ideas on how WHO, the ECDC and other partners can best support countries to advance the use of BCI for health were also identified. The report was discussed at the regional BCI meeting in September.



In September 2023, the BCI Unit hosted a regional meeting with 112 participants. The event served as a platform for advancing collaboration and strengthening the regional BCI community of practice. Through engaging discussions, the meeting enabled participants to explore opportunities for joint work and for advancing the use of BCI for health across the Region.



## ► Advocacy and partnerships

### Strengthening academic collaboration

#### Challenge

Academic rigour and further development of BCI-related science and insights is critical for advancing the use of BCI for health. To inform this relatively new multisectoral field of work, the BCI Unit needs support from leading experts.

#### Response

During 2023, the BCI Unit has undertaken several initiatives to advance collaboration with academic institutions in the Region.

#### Technical Advisory Group on BCI

The Technical Advisory Group on Behavioural and Cultural Insights, known as TAG-BCI, includes 16 scientists and continued to provide expert advice to the BCI Unit and engage in joint projects. The group gathered for the first time face-to-face in February 2023 (7).

#### WHO collaborating centres

On 1 March 2023, a face-to-face meeting was held with present, prospective and potential future BCI WHO Collaborating Centres to explore synergies in delivering the BCI action framework and various dedicated follow-up meetings were held during the year. On 29 September, BCI was presented and discussed at a meeting for all existing WHO collaborating centres in the Region. As a result, the



The BCI Unit engages regularly with academics and experts to advance the use of BCI in the Region.

WHO Collaborating Centre for Behavioral Research in Global Health was designated, with the Bernhard Nocht Institute for Tropical Medicine, Hamburg, Germany. Several additional collaborating centres are in the pipeline. Additionally, the Technical University of Munich was designated a global WHO Collaborating Centre for Health Literacy, with a technical counterpart from the BCI Unit.

## ► Advocacy and partnerships

### Promoting arts and health

#### Challenge

Exploring the impact of the arts in relation to health promotion, illness prevention, and the treatment and management of diseases is a growing area of research. WHO Member States globally are beginning to implement arts and health interventions, integrating these into health systems through referral mechanisms such as social prescribing. However, global policy leadership is needed to bring together a field which is still heavily fragmented.

#### Response

The new initiative, the Jameel Arts & Health Lab was publicly launched in New York on 27 February 2023, with the BCI Unit as a partner. Being part of this initiative presents a unique opportunity to explore not only how culture is an important contextual factor in relation to behavioural barriers and drivers, but how cultural engagement (through the arts) can have inherent health benefits. With a focus on underserved communities, the Jameel Arts & Health Lab seeks to coordinate and amplify academic research into the effectiveness of the arts in improving health and well-being to drive policy implementation.

#### Setting a regional and global agenda

Efforts were made to set a joint direction for the work in collaboration with the Jameel Arts & Health Lab and a number of other partners. Achievements include: catalysing the appointment of WHO's first Global Arts and Health Ambassadors (Pretty Yende and Renee Fleming); supporting the G20 Culture Working Group session to promote a culture and health agenda; developing jointly with the SNI a report on NCD prevention and control: learning from the arts (8), launched at a webinar on 15 November 2023; preparing a thinking tool for adapting and implementing arts and health interventions; supporting the inaugural Global South Arts and Health Week; and working with the European Commission to include culture and health and social prescribing as part of the comprehensive approach to mental health newly published by the European Union (EU). The latter has led the EU to create an "Open Method of Coordination" expert group of EU Member State delegates on culture and health, which will be convened during 2024.

#### Bringing countries and partners together – regional meeting

On 6 October 2023, the BCI Unit organized WHO's first large-scale meeting on arts and health. The meeting included 106 participants with 17 Member State representatives and colleagues from the European Commission, WHO's Western Pacific Regional Office, the National Academy for Social Prescribing and EuroHealthNet, among many others.

The opening speech was delivered by the Danish Minister for Culture, Jakob Engel Schmidt. The meeting provided a unique opportunity for researchers, policy-makers, arts practitioners and funders to convene on the subject of arts and health, and showcased several arts and health interventions. Partially as a result of this meeting, the Danish parliament held a public hearing on the health and well-being benefits of culture and the arts in January 2024.

#### Announcing the forthcoming Lancet Global Series on the health benefits of the arts

Interest in the health benefits of engaging with the arts has been increasing, particularly for addressing complex health challenges that have psychosocial, behavioural and biological origins. Despite the growing evidence base, the integration of arts interventions into health-care settings and public health efforts is still far from mainstream. In response, the BCI Unit and the Jameel Arts & Health Lab announced a forthcoming Lancet Global Series on the health benefits of the arts. The research collaboration was kickstarted on the sidelines of the UN General Assembly. The series will comprise four research papers and a photo essay, which aim collectively to investigate the growing claim that engagement in the arts can be, like physical activity, a health behaviour.

## ► Advocacy and partnerships

### Advocating for the use of BCI for health at meetings and conferences

#### Challenge

In line with the BCI resolution, advancing the use of BCI for health involves advocating for its use. Key stakeholders include policy- and decision-makers, public health managers, local governments, civil society, health workers, academia, non-state actors and many more. Collaboration with other regional and international organizations and participation in key events and meetings provide opportunities to share lessons learned and advocate for the use of BCI for health.

#### Response

Throughout 2023, the BCI Unit expanded partnerships across international and nongovernmental organizations and other partners, including through dedicated meetings and workshops. Keynotes and presentations were delivered at the following events.

- First Nordic Health Literacy Network meeting in Helsinki, Finland, 7 March.
- Global Thematic Webinar on Harnessing Living Heritage for a Sustainable Future, G20 Culture Working Group, 13 April.
- Sub-regional high-level consultation on refugee response, Bratislava, Slovakia, 18–19 April.
- Culture and Mental Health – Practices and Policies meeting, Brussels, Belgium, 23 May.
- AMR behavioural conference with the Antimicrobials: Behaviour & Cognition Network, 8–9 June.
- United Nations Behavioural Science Week 2023, 15 June.
- WHO Behavioural Science meeting for Regional Offices at WHO headquarters, Geneva, Switzerland, 10–12 July.
- WHO Youth4 Health initiative meeting, 25 September.
- Webinar on underserved groups organized by the Pandemic and Disaster Preparedness Center at Erasmus University, Rotterdam, Netherlands (Kingdom of the), 3 October.
- 14th European Society for Preventive Research Conference in Sarajevo, Bosnia and Herzegovina, 6 October.

- Conference on BCI for health, “Behavioural Science Connect”, Berlin, Germany, 11 October.
- International primary health care conference, 23 October.
- 16th European Public Health Conference, Dublin, Ireland, 11–13 November.
- Early Career Researchers Net webinar on BCI, 13 November.
- Meeting on RCI in Ukraine's emergency response: learnings from lifesaving interventions in crisis and beyond, Warsaw, Poland, 14–16 November.
- ReAct workshop on effective strategies for impactful community engagement in the global response to antibiotic resistance in Uppsala, Sweden, 29 November.
- Congress: Behavioural insights for a healthy society, Vlaams Instituut Gezond Leven conference, Flanders, Belgium, 28 November.
- Roundtable on alcohol consumption, harmfulness of alcohol use and proposals for solutions, WHO country office, Czechia, 30 November.
- United Cities and Local Governments Summit, Dublin, Ireland, 30 November.
- Nordic Health Promotion Researcher Network, 8 December.
- Subregional workshop addressing water, sanitation and hygiene in schools, Astana, Kazakhstan, 11–13 December.

## ► Capacity-building

### Implementing LEARN BCI trainings

#### Challenge

The BCI resolution includes a call from Member States for WHO to support capacity-building in Member States. This request was confirmed at the BCI meeting in September and interview study with Member States described above.

#### Response

As part of continued efforts to increase the understanding, visibility and prioritization of BCI in health, the BCI Unit continued to offer several tailored training activities under the headline of 'LEARN BCI'.



#### Regional training on BCI

The BCI Unit organized a regional BCI introductory training on 12 September in Copenhagen joined by 75 participants. The training covered basic BCI theoretical models and approaches, using heuristics in intervention design and evaluating BCI activities. Participants with years of experience in this field as well as newcomers expressed appreciation through

the evaluation form for the training as a way to learn more and standardize thinking, vocabulary and approaches throughout the Region on using BCI for health.

#### Online modules

The BCI Unit refined the online BCI training modules and translated them so they are available in English and Russian. The modules are developed for technical staff from health authorities in the WHO European Region but can be accessed by anyone interested in orienting themselves with the basics of BCI applied to health.

To enhance learning outcomes and allow interaction and practice-theory exchange, the BCI Unit launched facilitated online case-based group-work sessions. The first sessions were conducted during May and June with 30 participants. The simulation-based training included nine online modules and used a country case example on cervical cancer screening to go through situation analysis, summarize research findings according to a theoretical framework, design an intervention and consider evaluation methods.

#### In-country trainings

The BCI Unit facilitated several in-country training sessions throughout the year.

– In Croatia, a qualitative research training was held on 10–12 October to equip public health staff with skills, ahead of interview studies with health

professionals and colorectal cancer risk groups.

- In North Macedonia, a workshop on BCI and the Tailoring Health Programmes approach was held on 26–28 September, as part of a BCI project to address one of the country's big challenges: tobacco use.
- In Kyrgyzstan, the BCI Unit, the QoCPS and the WHO Country Office conducted training on qualitative data collection on 20–22 February as part of an implementation research project on quality of hospital care for mothers, newborns and children.
- In Kyrgyzstan, the BCI Unit, the SNI and the WHO Country Office conducted a qualitative research training on 22–25 March ahead of studies to understand factors influencing breastfeeding practices.
- In Lithuania, the BCI Unit and the WHO Country Office organized a BCI training workshop and high-level meeting on 14–15 December to provide public health authorities with tools and frameworks to design and evaluate interventions aimed at influencing health behaviours and to discuss BCI strategic planning for the country.



Throughout the year, the BCI Unit offered online and in-person trainings and provided support to countries to integrate BCI across health topics and advance the use of BCI for health.

## ► Capacity-building

### Integrating BCI into external training programmes

#### Challenge

BCI is an enabling approach that can be used across health topics and there is a need to advance integration into many different health-related fields.

#### Response

As part of continued efforts to integrate BCI across health topics and advance the use of BCI for health, the BCI Unit offered trainings as part of several other training programmes and events.

#### European Leadership Academy – Tier 2 demonstration project in BCI

The WHO European Leadership Academy was continued in 2023, with one participant hosted by the BCI Unit. Dr Mederbek Ismailov from Kyrgyzstan completed his leadership training by presenting an ambitious vision for advancing the use of BCI to combat diabetes in Kyrgyzstan.

#### European Public Health Leadership Course – problem-based learning module on BCI

The annual European Public Health Leadership Course (EPHLC) is organized by the QoCPS and the School of Public Health at the University of Bordeaux and aims to strengthen leadership skills for public health professionals in selected Member States across the Region. The BCI Unit developed and delivered a 3-day problem-based learning module for the EPHLC in November 2023.

#### ECDC summer school session on setting up BCI structures

The BCI Unit strengthened its collaboration with the ECDC and delivered a session and group exercise at the ECDC summer school in May 2023. The session was about establishing BCI capacity and structures, such as BCI units, in health authorities, drawing on guidance (9) published by the BCI Unit.

#### Copenhagen University Global Health Case Challenge on BCI and infodemia

Copenhagen University's School of Global Health conducts the Global Health Case Challenge every year to foster students' problem-solving skills and engagement in global health issues. This year, the School collaborated with the BCI Unit and RCI team to develop a case challenge focusing on infodemia and its impact on public health challenges, using BCI tools.

## ► Capacity-building

### Supporting in-country BCI strategy and structures

#### Challenge

One of the strategic commitments of the BCI resolution is implementing national plans for BCI. Country reporting shows only a few Member States have achieved this.

#### Response

Throughout the year, BCI provided support and engaged with countries in their strategic discussions and strategy development to advance the use of BCI for health, including with Germany, Kyrgyzstan, Lithuania, Georgia, Portugal and Sweden.

## ► Evidence and guidance

### “How to” guide on applying BCI to health

#### Challenge

Using evidence, models and methods from behavioural and cultural sciences allows for tailoring of health-related services, policies and communication, thereby improving health outcomes. Member States have requested user-friendly tools and guidance on how to apply these in public health.

#### Response

The BCI Unit published a flagship guide on the Tailoring Health Programmes (THP) approach (10), representing a milestone in supporting countries to apply BCI for health and develop BCI-informed interventions. The approach comprises four phases, each involving several steps, as well as a theoretical model and a theory of change. A set of exercises are offered to help prioritize, move from one step to another and translate research findings into an evidence-informed intervention. The guide includes a tool book with clear and detailed instructions for end-to-end BCI projects.

The guide is the result of over a decade of work by WHO/Europe and builds on several topic-specific guides that focused on applying BCI to routine and flu vaccination and for tackling AMR, as well as their application and use in more than 20 countries, an external evaluation and a rigorous peer review process. The current guide can be applied to any health behaviour or population group.

To support Member States' use of the THP approach, the BCI Unit offered a variety of training opportunities during 2023. The THP approach has been applied across several countries during 2023 and received positive feedback from public health agencies.

## ► Evidence and guidance

### BCI case examples

#### Challenge

Behavioural and cultural science and insights are still underutilized in public health, and there may be misperceptions about its use and utility. Country case examples allow for demonstration of the breadth of BCI application in health and evidence of impact.

#### Response

The BCI Unit published an inspiration booklet (11) with 25 case examples of BCI in practice, illustrating the range and diversity of applications of BCI to improve the outcomes of health interventions. The case examples are presented in three categories, with BCI applied to health policies, health services and health communication, with a focus on implementation as well as evaluation and proven impact.

# A guide to tailoring health programmes

Using behavioural and cultural insights to tailor health policies, services and communications to the needs and circumstances of people and communities



The BCI Unit published a 'how to' guide on BCI describing the Tailoring Health Programmes approach. The guide represents a milestone in supporting countries to apply BCI for health in practice and develop BCI-informed interventions.



European Region



### ► Evidence and guidance

## Evaluation of the coronavirus disease behavioural insights survey tool

### Challenge

The coronavirus disease (COVID-19) pandemic tested the expertise and capacity of public health authorities and resilience across the globe. Very few had readily available expertise, tools and resources for applying behavioural and cultural sciences to explore behaviours and the factors that affect them. Many stakeholders worked together to rapidly develop and apply tools for this purpose. The BCI Unit and RCI team, supported by the University of Erfurt, Germany, developed a behavioural insights survey tool, subsequently used across 30 countries in the Region that were also sharing their findings and experiences in a community of practice. The tool and its use across so many places represent a unique opportunity to learn and improve for the future.

### Response

To support Member States to build capacity and inform the development of effective tools for future health emergencies, the BCI Unit undertook an evaluation of the COVID-19 behavioural insights survey tool, with active engagement of country stakeholders, academia and other international organizations. These insights are now being used to develop new, evidence-based effective tools for applying BCI in a health emergency.

### ► Evidence and guidance

## Policy considerations on applying BCI to environment and health

### Challenge

Behaviour plays a key role for environment and health, from sustainable diets and active transport to managing waste, use of clean energy, and more. BCI can support efforts to advance ambitious policy shifts and interventions to prevent and protect human health from environmental hazards.

### Response

The BCI Unit and the WHO European Centre for Environment and Health developed a joint strategic course of action. Two scoping reviews, on the behavioural aspects of ambient air pollution and the use of urban green and blue spaces, were conducted and discussed at a stakeholder workshop in Bonn, Germany, in November 2023. Based on this, policy considerations and an online training module for the application of BCI to environment and health were developed. An online Bonn Dialogue on the use of BCI for environment and health was then organized, to share the main messages of the reviews and discuss experiences at international, national and subnational levels.

→ The project is implemented jointly by the BCI Unit and the WHO European Centre for Environment and Health and supported by Heidelberg University, Mannheim, and the Bernhard Nocht Institute for Tropical Medicine, Hamburg. It is funded by the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection.

### ► Evidence and guidance

## Integration of BCI into health topic plans, strategies and guides

### Challenge

The BCI resolution identifies the integration of BCI into health-related strategies, plans and guides as critical for the advanced use of BCI for health.

### Response

Over the year, the BCI Unit has contributed to several such documents with a view to integrating a BCI approach and perspective across health areas in the WHO Regional Office for Europe. Examples include: Therapeutic patient education: an introductory guide (12); Roadmap on antimicrobial resistance for the WHO European Region 2023–2030 (RC73) (13); Delivering effective environment and health actions: a compendium of concepts, approaches and tools for the WHO European Region (14); and People-centred approach to tackling antimicrobial resistance: key principle of the Roadmap on antimicrobial resistance for the WHO European Region 2023–2030 (15) – as well as upcoming documents: Toolkit on the promotion of drinking water; Health literacy policies – how can they be developed and implemented?; Global monitoring guidance for public health and social measures during health emergencies; and Report on hypertension in the WHO European Region.

## ► Evidence and guidance

### Monitoring health literacy

#### Challenge

Health literacy is considered an important determinant of health behaviour and equity. Data on health literacy levels can provide valuable insights on populations experiencing disadvantage and guidance on how to ensure accessible, clear and actionable information which is tailored to the needs and circumstances of individuals and communities. However, high-quality and internationally comparable data related to health literacy levels in and across countries have been insufficient.

#### Response

The WHO Action Network on Measuring Population and Organizational Health Literacy (M-POHL) was established in 2018 to ensure the availability and use of data related to health literacy in the Region. In 2023, preparations continued for the next phase of data collection, planned for 2024–2025, and M-POHL's work was recognized for its high quality, as it is now contributing to establishing similar measurements on a global scale. The BCI Unit also worked with the RCI Unit to conduct a literature review and expert consultations on the role of health literacy in emergencies.

## ► Evidence and guidance

### Noncommunicable disease prevention and control: learning from the arts

#### Challenge

Noncommunicable diseases (NCDs) are the leading causes of death and disability in the WHO European Region, where they are responsible for 90% of all deaths, representing nearly 9 million people every year, and 85% of situations of disability. In order to prevent and control NCDs, a range of approaches are needed that take into account the complex behavioural, sociocultural, economic, political and other contexts that underly NCDs.

#### Response

NCD prevention and control, a critical area of public health, is particularly well suited to arts interventions. Arts-based activities are multimodal, with psychological, behavioural and social effects, and can be delivered in low-risk, cost-effective initiatives and can significantly improve health and well-being. In 2022, the SNI collaborated with the BCI Unit to organize an expert meeting in Budapest on this topic. This led to a report launched in 2023 that summarizes the proceedings of the meeting (16). It outlines the value of arts interventions for health, focusing on initiatives for mainstreaming arts into prevention and control of NCDs in the WHO European Region.

→ The report was produced by the SNI with support from the BCI Unit.

## ► Evidence and guidance

### Online knowledge repository – BCI-hub.org

#### Challenge

BCI-related evidence and best practice is scattered and not easily available for overview. Member States have expressed a desire to share and learn from others' experiences, data and lessons learned more extensively across borders.

#### Response

The BCI-Hub – launched in 2022, with the support of the University of Exeter in the United Kingdom – showcases evidence and good practice in relation to BCI from both WHO and external partners. In 2023, new focus areas on mpox, environment and health, and antimicrobial resistance were added to the site, as well as links to various BCI training courses. In total, the site now features over 17 000 content items, including policy briefs, toolkits, training guides, case studies, research articles, short films, podcasts and more. The user base has increased to 10 000 users from over 140 countries, translating into 15 000 page views per month.

## ► Evidence and guidance

### Scientific publications

#### BCI staff and team members (shown in bold) published seven peer-reviewed papers during 2023, including those listed below.

- **Habersaat KB, Fietje N, Koylyu A, Scherzer M, Likki T.** Behavioural and cultural insights for better health: the BCI unit at WHO Regional Office for Europe. In: Behavioral Public Policy in a Global Context: Practical Lessons from Outside the Nudge Unit. [https://doi.org/10.1007/978-3-031-31509-1\\_20](https://doi.org/10.1007/978-3-031-31509-1_20)
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<sup>1</sup> All references were accessed on 24 April 2024.

## The WHO Regional Office for Europe

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

## World Health Organization Regional Office for Europe

UN City, Marmorvej 51,  
DK-2100 Copenhagen Ø, Denmark

Tel.: +45 45 33 70 00 Fax: +45 45 33 70 01

Email: [euinsights@who.int](mailto:euinsights@who.int)

Website: [www.who.int/europe/health-topics/behavioural-insights](http://www.who.int/europe/health-topics/behavioural-insights)

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