

Country experiences of applying behavioural and cultural insights to health: qualitative baseline study

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ABSTRACT

This report summarizes the conclusions of an interview study with public health authorities in Europe and Central Asia, exploring the barriers and drivers to advancing the use of behavioural and cultural insights (BCI) for health. With a regional WHO resolution related to this field and a regional 5-year plan with five concrete strategic commitments, WHO Regional Office for Europe jointly with the European Centre for Disease Prevention and Control in January–February 2023 wished to gain a deeper understanding and context to the official reporting. The findings highlighted commitment to and optimism about BCI-related work and indicated that the WHO regional resolution, BCI action framework and reporting requirements are drivers of change. Barriers to advancing BCI work were related to skills (behavioural science, problem definition, trialling and impact evaluation, and translating evidence into policy or interventions); staff, funding and time; communicating messages to decision-makers; bridging processes for research and decision-making; and organizational culture. Suggestions for possible solutions included the use of case examples to demonstrate the impact and value of BCI-related work; training; funding and staff; and awareness-raising among decision-makers. Regional and international partners were asked to establish networking structures; ensure advocacy; collate good practice and case examples; and offer training and capacity-building.

KEY WORDS

Behaviour
Culture
Equity
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Research

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Abbreviations

BCI

Behavioural and Cultural Insights

(BCI action framework

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

BCI resolution

WHO Regional Committee for Europe resolution EUR/RC72/R1 on behavioural and cultural insights for equitable health

BCI Unit

Behavioural and Cultural Insights Unit (WHO Regional Office for Europe)

COM-B

capability–opportunity–motivation–behaviour (model)

ECDC

European Centre for Disease Prevention and Control

NGO

nongovernmental organization

RCT

randomized controlled trial

SC

strategic commitment

TDF

Theoretical Domains Framework

THP

Tailoring Health Programmes

TIP

Tailoring Immunization Programmes

Executive summary

BACKGROUND AND STUDY PURPOSE

Countries across the WHO European Region are increasingly using behavioural and cultural insights (BCI) to strengthen health-related policy, services and communication processes. In September 2022 Member States of the Region adopted regional resolution EUR/RC72/R1 on BCI for equitable health (the BCI resolution) and the accompanying 5-year WHO *European regional action framework for behavioural and cultural insights for health, 2022–2027* (hereafter, called the BCI action framework). The BCI resolution and BCI action framework had been developed through a process of engagement with Member States and partners, the former most notably through the appointment of official BCI focal points representing public health authorities from across the Region. The resolution included five strategic commitments (SC1–SC5) for Member States, alongside a commitment to report on their implementation.

- SC1: Build understanding and support of BCI among key stakeholders.
- SC2: Conduct BCI research.
- SC3: Apply BCI to improve outcomes of health-related policies, services and communication.
- SC4: Commit human and financial resources for BCI and ensure their sustainability.
- SC5: Implement strategic plan(s) for the application of BCI for better health.

To gain a deeper understanding of implementation experiences, WHO Regional Office for Europe jointly with the European Centre for Disease Prevention and Control (ECDC) undertook this study. Based on this insight, the Regional Office, ECDC and other regional and international partners will be better placed to provide the relevant and needed support to public health authorities across the Region in advancing the implementation of the resolution. For this, official BCI focal points from public health authorities in the Member States of the WHO European Region were invited to share their implementation experiences. The interviews were undertaken during January–February 2023 at the time when focal points were preparing the first round of reporting under the regional resolution, and before the global resolution had been adopted. Interviews were conducted with 26 focal points in 23 Member States (response rate of 43%). The main findings are summarized below.

VIEWS ON THE FUTURE

Overall, the study found both commitment to and optimism for future BCI work and that the BCI resolution, BCI action framework and reporting requirements are good drivers of change. However, several important barriers to increasing BCI work were identified, and respondents proposed a range of actions to support them to overcome these barriers.

Most focal points expressed positive views on how BCI for health would develop in their country over the next 5 years. The BCI was seen as an effective and efficient way to address health challenges involving behaviour, alongside other interventions, and a useful umbrella

under which to package a number of approaches to address health challenges. Some focal points had specific intentions or plans to increase BCI work, such as to deliver and advocate for research projects, integrate BCI into health programmes and identify the best ways to persuade health authorities to invest in BCI work. Some focal points mentioned the challenge of ensuring that commitments under the BCI resolution and BCI action framework translate into actions. A small number of focal points were concerned that the quality and, thus, potential benefits of BCI work could be reduced if BCI were to be viewed simply as a common-sense approach (rather than a scientific approach), with no need to engage with theories, models or data.

EXPERIENCES OF WORKING WITHIN THE BCI ACTION FRAMEWORK

The BCI focal points identified benefits of the BCI resolution, BCI action framework and reporting requirement as follows.

- WHO prioritization of BCI emphasizes the importance of BCI work, and the national commitments increase awareness of BCI for health among very senior officials.
- They provide a firm basis for BCI work and focal points are already using them as a lever to undertake BCI work.
- They provide an impetus to undertake BCI work more quickly and to document it.
- Reporting under the progress model provides a unified reporting system that facilitates comparison and places progress and challenges in the spotlight.
- They help focal points to engage with a wider set of health sector colleagues.

BARRIERS TO INCREASING BCI WORK FOR BETTER HEALTH

The focal points mentioned a range of barriers to increasing BCI work for better health. Important skills gaps for undertaking BCI research for public health authorities were related to behavioural science, problem definition and understanding, and trialling and impact evaluation. Other barriers were a lack of staff, funding and time.

They also mentioned several barriers to applying BCI findings to health policy, practice and communications. Skills gaps in the application of BCI to these areas included a lack of expertise in communicating key messages to decision-makers, using theoretical frameworks or BCI tools, and using evidence to change interventions. Other barriers were related to organizational culture and to research processes not being connected with decision-making processes.

FACTORS TO INCREASE BCI WORK FOR HEALTH

The focal points identified a range of factors that would help to increase BCI work for health in their country. The two factors mentioned most often were clear examples of the impact of taking a BCI approach and BCI training for focal points and their colleagues. Other commonly

mentioned factors were additional funding for internal staff and commissioning of BCI research and applications (some focal points mentioned the need for a dedicated unit in their country); greater awareness among key decision-makers of the relevance of BCI for better health, along with more networking opportunities with key decision-makers; and to continue the work of the Behavioural and Cultural Insights Unit (BCI Unit) of the WHO Regional Office for Europe.

POSSIBLE SUPPORT FROM WHO AND ECDC

When asked about possible future support from the WHO Regional Office for Europe, ECDC and other partners, the focal points suggested a wide range of actions that would help to increase BCI work for health. Actions mentioned by three or more focal points were to have a permanent networking structure to share country work and experiences, have more advocacy for funding for BCI for public health authorities, collate brief case studies of good practice and undertake in-depth extraction of learning from successful BCI work, and provide BCI training and capacity-building, and for continued technical support.

DIFFERENCES IN PERSPECTIVES

The focal points differed in terms of how they spoke about BCI research or applications. Some spoke directly about their BCI work: they described how they were undertaking research in or applying findings from behavioural economics or science to help achieve health objectives (these focal points tended to work in a behavioural science unit or team in a high-income country). Other focal points spoke more indirectly of the relevance of BCI to areas such as public health, health promotion, health protection or health literacy. Focal points from Member States from across the Region mentioned the challenge of funding and resourcing BCI work. Overall, common challenges for Member States were identified across geographical regions and income levels.

OVERALL LEARNINGS

The focal points considered the BCI resolution, the BCI action framework and support from the BCI Unit as very important achievements, but it was clear that additional national and international support is needed to fully realize the potential of BCI for better health across the Region.

CONSIDERATIONS FOR REGIONAL AND INTERNATIONAL ORGANIZATIONS

Based on the findings from this interview study, areas for consideration for action by regional and international organizations to support Member States to advance the implementation of the BCI resolution were identified. These are structured according to the five strategic commitments (SCs) of the resolution and its accompanying 5-year action framework¹.

¹ Some of the actions are presented here in an abbreviated form, for example under SC2. The complete list is included in Chapter 3.

SC1: Build understanding and support of BCI among key stakeholders

1. Continue to use the BCI resolution, BCI action framework, reporting, meetings and high-level advocacy to increase the visibility, understanding and prioritization of BCI work for better health.
2. Develop a permanent networking structure for Member States to share plans, work, experiences and overall good practice on BCI work for better health based on and transitioning from the network that was established to develop the BCI resolution and BCI action framework and facilitate reporting. Consider using a thematic structure, with subgroups of Member States focusing on specific topics and elements of co-production of resources.
3. Develop a suite of impactful communication materials for high-level officials on the importance of BCI work that clearly explains what BCI is, how it differs from other approaches, how it can help to improve public health and also health system efficiency, and what practical steps can be taken (including a short video and two-page flyer).
4. Continue to demonstrate the benefits of BCI using brief case studies.
5. Lead the development of template pitches (one to two pages) explaining the potential benefits of BCI research or applications in specific topic areas and what this could involve – these could be adapted by focal points to engage with policy-makers or technical leads in Member States.
6. Make bootcamp foundation training in the behavioural and cultural sciences for health available to focal points and their teams.
7. Support the wider use of national BCI-related networks and collate and share information on current national networks (e.g. how they are organized, their functions, frequency and format of meetings, and topics covered).
8. Reach a wider audience than those with a pre-existing interest in BCI by identifying priority health topics that are supported by WHO conferences and training materials and integrating BCI findings into these.

SC2: Conduct BCI research

1. Develop written guidance and provide training and technical advice, including on:
 - (a) impact evaluation, including guidance on the technical aspects of running a RCT and practical experiences of doing this within a public organization – although not specifically mentioned by the focal points, it might be useful to include additional techniques approved in Cochrane Effective Practice and Organisation of Care guidelines for non-randomized trials, controlled before-after studies (difference-in-differences studies) and interrupted time-series studies;
 - (b) quantitative research methods – specific techniques were not mentioned by focal points but could include statistical methods of most relevance to understanding drivers and barriers or associations (e.g. multivariate regression analysis, techniques such as logistic regression, ordered logistic regression and analysis of variance);
 - (c) qualitative research methods, including how to plan and run focus groups, using citizen/user panels, representative advisory boards and other techniques to reach marginalized groups; and
 - (d) literature synthesis methods, including protocol development, searching, screening, extracting information and formulating conclusions and recommendations.

2. Facilitate cross-country research teams by providing a mechanism for countries to pursue research collaborations (e.g. reviewing a topic of shared interest).
3. For surveys on healthy and unhealthy behaviours, undertaken in numerous countries, determine whether:
 - (a) additional behavioural analysis of the available data would be useful (e.g. to gain a better understanding of drivers, barriers or associations); and
 - (b) an improved understanding of behaviours could be gained through feasible amendments or additions to the questionnaires.
4. Determine whether a shared facility for online experiments for diagnostics and pre-testing interventions can be justified.

SC3: Apply BCI to improve outcomes of health-related policies, services and communications

1. Develop written guidance and training on applying a BCI lens to health policies, services and communications, including which behavioural and cultural aspects and which theoretical models may be most relevant in different contexts and how to apply these.
2. Undertake in-depth case studies to extract learnings from cases where findings from impact evaluations or other beneficial applications of BCIs have been scaled up or adopted as part of a policy, service or communication.
3. Help to develop a brief guide on the types of BCI services and functions provided by existing BCI units and teams in Member States to demonstrate how BCI can be applied to policy, services and communications. This should include light touch consultancy, input into meetings and steering groups, diagnostic work, design solutions, behavioural pathway mapping, intervention and policy mapping, and intervention redesign and testing (including impact evaluation).
4. Ensure that the WHO BCI Unit is available to provide advice to focal points on how Member States can best expand BCI activity given their resources and best focus their BCI efforts.

SC4: Commit human and financial resources for BCI and ensure their sustainability

1. Advocate for international research and capacity-building funding for BCI for health. For example, the WHO Regional Office for Europe and the ECDC could advocate at European Union or European level for funding for specific research calls or joint actions for behavioural insights research and capacity-building that health policy and service organizations could apply for.

SC5: Implement strategic plan(s) for the application of BCI for better health

1. Develop written guidance that illustrates what a dedicated national or subnational strategy or plan for applying BCI for better health might cover and communicate the added value this would provide.
2. Help to capture the experiences of countries that have developed or are currently developing a dedicated strategy for behavioural science or BCI for health, and of countries that are developing plans on specific health topics with BCI as a major element.

1. Introduction

1.1 Background

Member States across the WHO European Region² are increasingly scaling up the application and integration of behavioural and cultural insights (BCI) for health and using this to strengthen health-related policy, service and communication processes. Box 1 gives a description of BCI.

BOX 1. WHAT IS BCI?

The WHO Regional Office for Europe coined the term BCI to refer to the systematic (i) exploration of the contextual and individual factors that affect a health-related behaviour or practice, (ii) use of BCI to develop interventions that enable, support and promote these behaviours through evidence-informed health policies, services and communication and (iii) evaluation of their impact, quality and acceptability. The keywords are insights, engagement and evaluation.

BCI draws on disciplines such as anthropology, psychology, behavioural science and economics, cultural studies, and sociology. The term cultural was included to highlight the importance of the sociocultural context, systems and structures alongside individual factors when assessing and addressing health behaviours.

In September 2020 the 53 Member States of the Region adopted the European Programme of Work, 2020–2025: united action for better health (2), which identifies BCI as a flagship priority for health in the Region. In September 2022 the Member States adopted the regional BCI resolution (3) and accompanying WHO *European regional action framework for behavioural and cultural insights for health, 2022–2027* (hereafter, called the BCI action framework) (4). This was followed on 30 May 2023 by global resolution WHA76.7 on behavioural sciences for better health (5) (adopted after the completion of the interviews for the current report). The BCI resolution and the BCI action framework had been developed through a process of engagement with Member States and partners, including ECDC. Most notably, engagement with Member States was achieved through the appointment of official BCI focal points representing public health authorities from across the Region. Within the resolution, Member States made five strategic commitments and also committed to reporting the implementation of each strategic commitment every 2 years.

In addition, WHO Regional Office for Europe and ECDC wished to jointly explore in more depth the status of the work done and, more importantly, the challenges and drivers experienced by Member States. This would provide a deeper understanding and context to the official reporting, which would allow the Regional Office, ECDC and other regional and international partners to provide relevant and needed support to public health authorities across the Region in advancing the implementation of the BCI resolution.

²For a list of the 53 Member States of the WHO European Region, please see WHO (1).

1.2 Purpose of the study

The overall purpose of this study was to obtain a qualitative overview of the issues facing Member States in relation to BCI for health, as perceived by the focal points. The study focused on five key topics: (i) goals for BCI work for health, (ii) skills to conduct BCI research, (iii) skills to apply BCI findings, (iv) understanding and support among key stakeholders, and (v) thoughts about the future. The study questions are presented in Annex 1. In line with the BCI action framework, this study focused on the actions implemented by public health authorities and institutions, including those implemented in collaboration with external stakeholders. Independent actions by external stakeholders such as academic institutions, nongovernmental organizations (NGOs) or private entities that do not involve public health authorities or institutions are outside the scope of this study.

1.3 Methods

1.3.1 RESEARCH TEAM

Interviews were conducted by a study team comprising six employees of the WHO Regional Office for Europe or ECDC with experience of research and facilitation (listed in Annex 2). Four interviewers were female and two were male. Some participants knew their interviewer, for example, from attending meetings facilitated by the WHO Regional Office for Europe or ECDC. Each interviewer stated at the start of each interview:

I want to stress that there are no right or wrong answers, there is no judgement or expectations. We simply want to learn from your understanding of how the situation regarding behavioural and cultural insights is in your country.

The Principal Investigator, Robert Murphy, did not conduct any of the interviews because he is also a national focal point (and was on leave of absence to undertake the analysis).

1.3.2 STUDY DESIGN

The study design was underpinned by a content analysis framework to systematically organize data into a structured format (6). The design of the study topic guide was informed by the strategic commitments of the BCI action framework, components of the capability–opportunity–motivation–behaviour (COM-B) model and domains of the Theoretical Domains Framework (TDF) domains (7,8) (more detail is given in Annex 3).

In January 2023, official BCI focal points from all 53 Member States in the Region received an email inviting them to participate in the qualitative study, along with an informed consent form. Focal points who did not reply to the initial email were sent a reminder. During January–February 2023, a total of 26 focal points were interviewed, representing public health authorities in 23 Member States (response rate of 43%).³ All interviews that commenced were completed; that is, no participants dropped out of the study.

³Five of the interviews related to subnational entities within Member States, four of which were within one Member State. Therefore, the 26 interviews represented focal points from 23 Member States.

Participation in the study presented minimal ethical concerns. Participation was voluntary, focal points were provided with an informed consent form, and the results were anonymized. Since it was a regional study, national ethical approval was not requested from the Principal Investigator. The study was submitted for approval by the WHO Ethical Review Committee and considered exempt from review (ERC.00003876).

Online interviews took place during work hours, with only the participants and researcher present (in some instances, an administrative support person for the research team was also present). In a few cases, two BCI focal points from a single country attended the interview. Participating Member States represented the diversity of the Region, for example as regards income level (9) and geography (10).

To ensure a standardized approach among interviewers, a topic guide was used during the interviews (Annex 3). All team members helped to design the topic guide by providing written comments and verbal input during online meetings (the fifth version of the topic guide was used for the first interviews). Following the first four interviews, the team met online to discuss their experiences. Team members felt that the topic guide was working well and no further substantive changes were made.

Interviews were recorded for the subsequent production and analysis of interview transcripts. Interviews took place in English or Russian. Russian language transcripts were translated into English and the analysis was undertaken in English. The interviews covered all of the main topics in the topic guide, with natural flow between the topics and good rapport between the interviewee and interviewer. Each interview lasted for 40–70 minutes.

1.3.3 ANALYSIS AND FINDINGS

The Principal Investigator coded (selected significant sections from participant's statements) and analysed the transcripts and produced the report. Themes were primarily identified in advance based on the questions in the topic guide. The coding was undertaken using the MAXQDA software package (11). The analysis method was as previously described (12). In summary, the Principal Investigator listened to each interview conducted in English in full and read all English transcripts of interviews conducted in Russian in full, analysed them in detail and included all text relevant to the study questions. He gave two interim presentations of findings to the study team before producing a draft report.

Anonymized quotations from participants are given to illustrate the main themes and findings. Some are edited slightly to improve readability. Each respondent was allocated a random number by a computerized number generator. This number is shown alongside each quotation unless the Principal Investigator considered that (i) it might be possible for a reader to associate the quotation with a particular Member State and, hence, link a participant number to a Member State, or (ii) a quotation might be perceived as sensitive. In such cases, the participant number is not reported and instead the text "P no. removed" is used. Participants were asked to comment on a draft report.

1.3.4 LIMITATIONS OF THE STUDY

The study covered a wide range of issues across a large and diverse WHO region, but the perspective for each public health authority is typically based on the views of a single person (the official BCI focal point). Therefore, during the interview a focal point might not have mentioned some issues of potential relevance to a particular Member State or might have emphasized aspects of particular importance to themselves. There were advantages to using staff of the WHO Regional Office for Europe and ECDC as interviewers, including increased trust, ensuring that interviewees understood the issues being discussed, and increased understanding of study findings among organizations that wish to act upon these. However, this may have affected the way participants discussed the topics, particularly those related to the work of WHO or ECDC.

2. Results

2.1 Findings on goals

2.1.1 HAVE GOALS OR COMMITMENTS BEEN SET FOR BCI WORK FOR HEALTH?⁴

Few focal points said that they had written goals or commitments in addition to those related to the BCI resolution and BCI action framework (3,4).

When asked whether they had a national strategic plan for BCI for health, only one focal point said they had a national strategy for behavioural science and another said there was a commitment to develop a national strategy for behavioural science during 2024. A few focal points mentioned the explicit integration of BCI research or applications into a specific health plan. Examples include health plans for antimicrobial resistance or tuberculosis, or an overall health plan. Two focal points mentioned the existence of a written internal annual business plan or action plan that specifically includes BCI-related work. These two countries had a behavioural science unit or team.

Many focal points said that they could not think of a health strategy or plan with explicit goals for BCI for health (research or application) in their country. However, they were aware of policy or strategy documents that are relevant for BCI for health because they (i) contain an objective to increase healthy behaviours that might involve BCI work or (ii) take a BCI-oriented approach, although the term is not explicitly used. Several focal points mentioned the challenge of identifying relevant commitments to BCI work across health strategies and plans, as well as the difficulty of determining what fits the definition of BCI work (Box 2 gives specific quotations).

BOX 2. GOALS AND COMMITMENTS TO BCI

No specific documents have concrete BCI goals, but some strategies or plans contain an objective to increase healthy behaviours that might involve BCI work

The objective is the reduction in mortality from NCDs [noncommunicable diseases], etc. The antismoking strategy has a set target to decrease the percentage of the smoking population and so on. This is already in the healthy lifestyles programme. But we don't have a targeted, government-funded strategy to do this kind of research.

P no. removed

⁴ Participant numbers have been removed from this section to prevent the identification of participants.

BOX 2. **CONTD.**

It's not a goal for BCI, but we do have something called a support tender where we set certain standards for our HMOs [health management organizations] or other care providers ... bringing down the statistical incidence of a certain problem. And rather than dictate the solution to them, we offer financial incentive to meet a certain benchmark. And I think that that then gets the searching for the BCI tools that can reach that goal.

P no. removed

No specific document has concrete BCI goals, but some strategies take a BCI-oriented approach, although the term is not explicitly used

Yes, there are some strategies, but they wouldn't be termed BCI. We have, for instance a strategy on health literacy and the way we work with health literacies is very much BCI oriented. We don't want to put the work with health literacy as an issue for individuals or users of the health system. ... We want to more to change the system.

P no. removed

I can't say that there have been any BCI strategies using [BCI] directly. As I said, I think BCI is a part of the tobacco strategy but it's not called BCI. So, BCI hasn't yet been a strategy in the country. Nevertheless, I think it's used.

P no. removed

Cannot identify commitments to BCI work across health strategies and plans, and difficult to determine what fits into the definition of BCI work

[BCI is] probably not organized under an umbrella in a behavioural science programme, but those things exist in other strategies. They would just be a heading in another strategy. So we've got lots of strategies and lots of the work within them involve behavioural science. It's just it might not be labelled BCI; it might not be brought together into a programme.

P no. removed

We have an obesity strategy. We have a physical activity strategy. We have lots of strategies around behaviours and they're informed by research that we have done at the time. But I don't know how much they necessarily fit within the kind of behavioural science or BCI definition or approach.

P no. removed

2.1.2 WHAT WOULD NEED TO HAPPEN TO DEVELOP STRATEGIC PLAN(S) FOR APPLYING BCI FOR BETTER HEALTH?

During the interviews, two routes were identified through which in principle a strategy for BCI for health might be developed: route A, a fast-track route in which a minister or very senior civil servant thinks this is a “great idea” and sets up a unit and develops a strategy; and route B, the more typical approach that leads to the development of a strategy.

The BCI focal points expressed several views about what would need to happen to follow route B before a country would consider developing a strategy to apply BCI for health (Box 3 gives specific quotations). These were:

1. to communicate the added value and why it is needed within the country
2. to make the idea more tangible and explain what it might cover
3. to demonstrate impact in a wider range of areas within the country
4. to know more about what is being done in the country
5. to receive support through resources and funding
6. for there to be a greater culture of evidence-informed policy and practice
7. for the WHO Regional Office for Europe, ECDC and other international partners to continue to promote this area.

BOX 3. WHAT WOULD NEED TO HAPPEN TO DEVELOP A STRATEGY FOR BCI FOR HEALTH

Communicate the added value and why it is needed within the country

And what can add with a BCI focus that we are not doing today? ... I think we have to talk with ECDC, WHO and other countries. How do we frame this as a different way of working?

P17, Pos. 39 and 40

Well, I'm doubting if. I don't know if you need a national strategy. I don't know if it needs a separate strategy, but I don't know.

P16, Pos. 117

I will repeat what I said earlier – we are already doing this work now. The [issue] is that research is an intermediate task. The main task is to affect the risk factor and influence people's behaviour regarding a particular risk factor rather than just do research. We have to use evidence-informed approaches to choosing interventions. And then learn what kind of approaches are needed for doing the research within State assignments. We do not rule out the preparation of a separate section or a separate document. I am not sure to what degree a separate strategy would be needed. I would put it this way: how can we develop a separate strategy without repeating what is already stated in others? Sorry, I am answering this question as a bureaucrat. But the first question I will be asked is, what do you have in this strategy that you cannot do without it?

P6, Pos. 34

BOX 3. **CONTD.**

A national strategy focused solely on BCI would be a stretch. I think because of the nature of BCI, it falls into all sorts of other people's departments. To have a national strategy focused on a methodology or tool rather than the issue at hand, whatever that may be, I think is not really the way work flows, at least in our ministry.

P23, Pos. 101 and 107

Make the idea more tangible and explain what it might cover

The thing is what exactly would be meant by a plan? We'd need to try to be a bit clearer on that. ... Maybe see a few examples [from] elsewhere, or templates of what it might look like ...

P26, Pos. 42

Demonstrate impact in a wider range of areas within the country

The feedback I've been getting is that we need to demonstrate the impact around a wider range of areas. I think the main thing is kind of just to continue to apply it, increase awareness more, get more buy-in.

P26, Pos. 40

Know more about what is being done in the country

We need to know a little bit more about what's being done in [Country 21] that doesn't use this name but they're actually doing BCI work. ... The second one is to build up an executive committee or something like that, a of board of stakeholders.

P21, Pos. 69

Receive support through resources and funding

I think there will be good intentions. ... But if you ask something like we want a formal support as in money, I don't know [do not think it would be provided].

P21, Pos. 71

We have behavioural and cultural factor activities in healthy lifestyles and tobacco, etc. However, at the moment in order to conduct this at State level, we need funding.

P8, Pos. 82

A greater culture of evidence-informed policy and practice

To change the attitude of policy-makers and medical staff to not thinking about their own interests, but about the health of the population.

P no. removed

BOX 3. CONTD.

WHO Regional Office for Europe to continue to promote this area

I think that it's going to be very important that WHO works on this, because this started because the WHO launched this initiative and had this idea. And that's why we started to work, because the minister wanted to join this initiative. I think that if the WHO and ECDC needs us to push this in our government, but we need you [to continue to promote it].

P21, Pos. 75 and 81

2.2 Views on BCI research and barriers

2.2.1 WHAT TYPES OF BCI RESEARCH ARE UNDERTAKEN?

The *Status report on public health authorities' implementation of behavioural and cultural insights*, WHO European Region 2021–2022 on the implementation of the BCI action framework documents the types of BCI research being undertaken by Member States (73). This qualitative study supplemented this by exploring what types of research are at the forefront of the minds of focal points.

When asked about the type of BCI research being undertaken in their country, the focal points mentioned a range of different types. Surveys were mentioned most frequently, followed by literature reviews. Other types of research mentioned by more than one focal point were trialling, evaluations of interventions, and studies of factors that prevent or drive behaviours, followed by qualitative work, focus groups, and citizen and user panels. Other types of research mentioned by only one focal point were diagnostics of perceptions, the redesign of interventions based on behavioural evidence but not subject to specific testing, health system-oriented research, epidemiological studies, testing of messaging, and social listening.⁵

Some focal points said that the types of BCI research that they are not undertaking but which they would like to are (i) impact evaluations or randomized control trials (RCTs), (ii) literature reviews and (iii) focus groups.

Some focal points, notably those from countries with a behavioural science for health unit or team, also mentioned types of BCI services and functions, including:

1. light touch consultancy⁶
2. input into meetings and steering groups
3. diagnostic work
4. design solutions
5. behavioural pathway mapping
6. intervention and policy mapping.

⁵ The distinction between tested and not tested redesigns made by some focal points is similar to that captured by the European Commission's classification of behavioural policy initiatives (14) as behaviourally informed (i.e. designed after an explicit review of previously existing behavioural evidence but not benefiting from any specific prior experiment) versus behaviourally tested (i.e. initiatives being explicitly tested or scaled up after an initial experiment).

⁶ Relatively high-level guidance provided by a staff member with behavioural science expertise and typically provided as real-time feedback at meetings or through emails.

2.2.2 WHO CONDUCTS BCI RESEARCH?

There were differences related to who conducts BCI research. Three broad categories in terms of the role of focal points' organizations in conducting BCI research emerged as:

1. a combination of research conducted by and research commissioned by the focal point's organization;
2. mainly external to the focal point's organization; and
3. all external to the focal point's organization, which does not systematically conduct any research.

Focal points from countries with a behavioural science for health unit or team also discussed how the work is initiated. They seem to follow a strategy of advocating the benefits of a light the fires (or sow the seeds) approach. Specific projects or work emerges from either (i) a direct approach or pitch to the policy or technical or practice lead or (ii) a direct approach from people working in the area (often a follow-up from a previous pitch), and this often requires working through the detail of the key questions and best approaches to inform these. Within this subset of focal points, it appears that work by behavioural science teams within wider research units tend to be linked to a direct client, whereas work by dedicated behavioural science units also take a more system-wide focus such as developing documents that are not directly linked to a single client project (e.g. how-to guides).

When asked to describe the main factors that support undertaking BCI research, focal points across the WHO European Region reported a range of factors, as follows:

1. investment in personnel with the competencies to undertake behavioural insights research and apply the findings of behavioural science, ideally in the form of a dedicated unit or team;
2. undertaking behavioural science research and applications that showcase good practice to demonstrate the value of taking a BCI approach and, thereby, impact policy or practice;
3. good relationships with policy teams or colleagues;
4. a minister believing that taking a BCI approach could improve health or health system performance;
5. working with academics with both expertise in behavioural science and an interest in public health policy;
6. creating the WHO Regional Office for Europe's flagship for behavioural and cultural insights and developing WHO resolution EUR/RC72/R1 on BCI for equitable health (the BCI resolution) and the BCI action framework for better health;
7. connecting behavioural science or BCI with national prevention objectives;
8. developing a national strategy for using BCI to improve population health and well-being;
9. making very simple pitches to policy-makers and technical leads to demonstrate how use of a behavioural science approach can add value and help to address their policy challenges;
10. producing high-quality work and developing a good reputation for behavioural science work;
11. working with an external advisory group of experts in behavioural science to reassure policy-makers and service-delivery staff involved in a BCI research or project applying BCI findings; and
12. being able to undertake research or apply findings without direct monetary costs for the policy and/or practice user (i.e. that agreeing to the BCI work does not involve a financial cost for the client).

In terms of research collaborations, some focal points mentioned universities and academia. Some focal points from middle-income countries mentioned international partner organizations as very important collaborators.

Focal points were typically located within a ministry of health or public health agency. Two focal points noted that for focal points located within public health agencies, it is important to emphasize that the benefits of BCI for health are not restricted to public health protection and promotion but also includes other health system objectives (e.g. improving the performance of the hospital system). In addition, it was considered important that health benefits are explored in the wider public health arena, including improved efficiency of the health system. One focal point noted that “it’s very important to get into the health care system. We are just, we are the public health system and health promotion”.

2.2.3 WHAT ARE THE MOST IMPORTANT SKILLS GAPS FOR CONDUCTING BCI RESEARCH?

A range of skills gaps were reported. The three most reported skills gaps related to behavioural science, defining and understanding problems, and trialling and impact evaluation. Some focal points also spoke more generally about gaps in qualitative or quantitative research skills.

Skills gaps related to behavioural science included a lack of behavioural scientists working in health organizations and limited expertise in behavioural science and cultural studies in some staff who are undertaking BCI work (Box 4 gives specific quotations).

BOX 4. BEHAVIOURAL SCIENCE SKILLS

Lack of skills or a sound foundation for undertaking BCI-related research

Some colleagues are doing things but let’s say it’s still not systematic theory and we’re learning by doing. We have some skills in public health epidemiology. We can venture into the edges of social science and cultural behaviour but it’s still not very safe in those waters.

P9, Pos. 135

Behavioural scientist posts do not exist in public health authorities

We don’t actually have, to my knowledge, behavioural scientists in units, so that is also one of the shortcomings to begin with. Whereas, as I’ve seen during BCI meetings, different countries even have dedicated units with behavioural scientists in these units. That would be a skill we might need and we’re not aware that we might need it.

P13, Pos. 92

Lack of expertise in behavioural science

I cannot be 100% sure about it, but to my knowledge there is no such a thing. Well to my knowledge, no master’s degree, for example, in behavioural sciences.

P9, Pos. 176

The skills gaps reported in defining and solving problems were asking the right questions to identify the core problem, fully understanding the problem to gain a complete picture, and solving the problem in the correct way. The focal points expressed a need to better understand the theoretical models that can be applied to address different behavioural challenges (Box 5 gives specific quotations).

BOX 5. SKILLS IN DEFINING AND SOLVING PROBLEMS

Lack of expertise in defining and understanding problems

There is a big gap at the start of a project in [terms of] what is the problem and do you understand the problem properly? Do you have the right perspectives on what is the problem that you want to solve? And is the way you are solving it the right way? So I think we have [got] to have some knowledge ... in questioning the public health issue that we want to change. And I think here we could directly use BCI knowledge as consultants. And we could also use some knowledge on ... how do we use [BCI] experts in asking the right questions, in setting the right problem. So I think this is the biggest gap.

P17, Pos. 91–92

Lack of awareness that not all relevant behavioural factors are being considered

I think in general it's not a matter of knowledge gap; actually, it's a matter of perspective. Because we are already looking at parts of [what affects] behaviour but not [looking at or taking] a complete picture [only looking at parts of the puzzle].

P24, Pos. 100

Lack of awareness of which theoretical models should be used

I think that theoretical models are really important and underexplored when we are talking about our situation. We need surveys, we need activities to be more aligned with good theoretical models. Motivation, drivers, what are the concepts that underlie this motivation, what are the concepts to provide baseline and then to create concrete measures of changing attitudes or behaviour. How [to ensure] better communication. So, we need theoretical models. When we have theoretical models, then we have good examples for creating items or to use standardized measures.

P18, Pos. 217

Skills gaps in conducting RCTs and impact evaluation included lack of knowledge about which technical skills are needed to undertake such an analysis, as well as lack of knowledge about or opportunity to operationalize this type of research (such as RCTs) within a ministry or public health agency (Box 6 gives specific quotations).

BOX 6. TRIALS AND IMPACT EVALUATION SKILLS

Lack of expertise in undertaking impact evaluations

We do far less about implementation studies and evaluation. I wonder if a lot of that is because people don't feel completely comfortable about how to evaluate these things? We talk about RCTs and experimental studies [but] there's very little experience of people having run those in the mainstream in government [public health authorities]. I think probably a lot of people don't know where to start. How do you design an evaluation and win people over and get the money for it. So, actually, I would just think that's quite a big one, evaluation, and that's a key bit missing.

P20, Pos. 95

Lack experience of running RCTs

We've got skills gaps, particularly in relation to trials, so doing this stuff and show[ing] attribution to the change that we made. It's perhaps not a skills gap. It's an opportunity gap to do it, to execute some of those experiment. Conduct some trials and then write them up to show that this stuff works and [that] it makes a difference. It might be time. I mean we've got PhD, doctorate level, guys in the team, so they know how to do it. I don't think we lack the skill [but] that we lack the time because at the minute we're still lighting fires.

P12, Pos. 154

Several focal points mentioned gaps in qualitative or quantitative research skills, particularly those in middle- to low-income countries. Qualitative skills gaps included good practice in running focus groups and how best to engage with specific communities or marginalized groups; quantitative skills gaps included a lack of knowledge about which measures or instruments are suitable to inform approaches to behaviour change and how to undertake an appropriate statistical analysis (Box 7 gives specific quotations).

BOX 7. QUALITATIVE AND QUANTITATIVE RESEARCH SKILLS

Gaps in qualitative research skills

I do not think we all know how to work in focus groups yet.

P5, Pos. 60

How to do the qualitative research. [Our current research is] mostly using data systems of information, laboratory and some population epidemiology, working with schools but always in a closed-question, quantitative way. So, we have to know better how to work with specific communities with their special needs. I want to get credibility among those groups, for example, because the prejudices might still be among us.

P9, Pos. 167

BOX 7. CONTD.

It's complicated for qualitative [research] and we still lack the people who would do that part of the work.

P14, Pos. 84

Gaps in quantitative research skills: what to measure to inform approaches to behaviour change

We need activities that will be more aligned to some good theoretical model. Not just about synthesis of factors, motivations, drivers, but what is the concept that is under this motivation. What is the concept that can provide a baseline to create a survey and then to create concrete measures that would be focused on some attitudes for changing behaviour?

P18, Pos. 215

Gaps in quantitative research skills: how to undertake an appropriate statistical analysis

I think analysis is very important also, because we get a lot of data and we do not know how to analyse it.

P5, Pos. 67

Other issues related to skills gaps include a lack of cultural competence among researchers, lack of knowledge of how to undertake studies, lack of expertise in communicating key messages to a policy audience, and a weak public health research base in general. One focal point also made a distinction between the types of skills and knowledge needed at different levels within organizations and how these differ depending on the level (higher, middle, specialist) and role of staff in the organization (Box 8 gives specific quotations).

BOX 8. OTHER SKILLS GAPS MENTIONED

Lack of cultural competence among researchers

I think the gap is to train people in order to be culturally and behaviourally aware, as sociologists call it, of people who do not fit the norm. From my experience, I would place emphasis [on this] and I would say that academics lack that [empathy and it] is a gap.

P1, Pos. 60

BOX 8. CONTD.

Lack of knowledge about planning and conducting systematic studies

In general, if we talk about skills, firstly, I think we have to know how to write research protocols, design research studies, and then create a committee, conduct the study itself and after that prepare an analytical report for the study with recommendations. I think all of these components should be done as a package.

P5, Pos. 25

A weak public health research base in general

One of the fields that is really weak [in the health system] is research. It is not just a question of BCI but of general research. But you know the general narrative is that these topics and subjects are not important, are not relevant for medical doctors and, therefore, they are not given the priority [they should be given].

P19, Pos. 4

Which skills and knowledge are needed at different organizational and staff levels of seniority and roles

We are [thinking] about a bell curve of individuals in a hierarchy and knowledge of the application of behavioural science at the edges. You know, the top end of the hierarchy might be the minister, who doesn't need to know as much as the people at the top of the bell curve, which would be midway in the hierarchy, which would be the practitioners. They've got to know how to do this stuff to make their interventions or policies, services or communications stick. And then, at the end of the bell curve or lower down the hierarchy, need to know less on scale. So, we are thinking about chunking things up a little bit more, about what people need to know.

P12, Pos. 135

2.2.4 NON-SKILLS BARRIERS TO BCI RESEARCH

In response to the question on skills gaps, some focal points (notably those in high-income countries) indicated that a capacity gap was a more significant issue (Box 9 gives specific quotations). It is notable that such capacity gaps result in a level of unmet demand, but that this was not always visible to staff within the focal point's organization. Focal points said that the implications of having limited capacity were work not being written up, pitches for potential projects not being made and opportunities not taken. Of the focal points who said that they did not have skills gaps, many subsequently reported a need for training. This indicates the desire for training and capacity-building in BCI, even among focal points who view their teams as competent in this area.

BOX 9. GAPS IN CAPACITY AS A BARRIER TO BCI RESEARCH

I would say that I have the skills. I do not have enough because we're covering the behavioural science aspect, but we're also covering aspects of population health.

P2, Pos. 45

It's more people and then with similar kind of skills to what we have at the moment, more or less. It's mainly a gap around numbers, probably.

P26, Pos. 65

Is there enough capacity ... within [Country 16]. That, I don't think so but that's not a knowledge question.

P16, Pos. 157

In the research section of the interview, many focal points said that they thought there were non-skills barriers to undertaking BCI research. In addition to the capacity gap, other barriers mentioned included:

1. lack of funding
2. time pressure to produce research
3. demands on staff time related to non-BCI work
4. limited involvement of other agencies
5. lack of an organizational ethics approval infrastructure for primary research.

Box 10 provides more detail in specific quotations.

BOX 10. OTHER BARRIERS TO BCI RESEARCH

Lack of funding

I think that one of the gaps is the insufficiency of financing.

P no. removed

We must have more money, of course.

P no. removed

There's no money for commissioning.

P no. removed

Time pressure to produce research

There's another problem with the timing, the budgets, for conducting randomized controlled trials. It's always, do this [as] soon as possible and then not allocating enough time.

P14, Pos. 100

BOX 10. **CONTD.**

Demands to on staff time related to non-BCI work

Last year we did extra non-BCI work [and as a result] there were BCI things that were initially on our work programme for last year, but they didn't happen [because of fixed capacity].

P26, Pos. 83

Limited involvement of other agencies

Other government agencies have to be more active, more involved.

P15, Pos. 68

Lack of an organizational ethics approval infrastructure for primary research

Lack of an ethics approval infrastructure for primary research.

P no. removed

2.3 Views on applying BCI and barriers

2.3.1 HOW ARE BCI FINDINGS APPLIED?

The focal points mentioned several mechanisms through which BCI is applied to inform the development or further improvement of health-related policy, services or communications:

1. discussions and meetings with key decision-makers
2. behaviourally informed and tested design projects
3. behaviourally informed but not systematically tested design projects
4. in the formulation of a new policy
5. advisory groups that include BCI experts
6. via community leaders.

Of these, the most commonly mentioned mechanism was meetings and discussions. The most concrete mechanism to apply BCI was the use of behaviourally informed and tested design projects. The most commonly mentioned framework was COM-B and the Behaviour Change Wheel (7), many focal points (particularly those in high-income Member States) felt that BCI findings were not systematically applied or their application could be improved.

2.3.2 ARE THERE SKILLS GAPS IN APPLYING BCI?

Many focal points believed that skills gaps in applying BCI findings to health policy, practice and/or communications relate to:

1. the best ways to communicate key messages from research to decision-makers;
2. applying BCI findings to communications;
3. a lack of understanding of public or service-user needs;
4. a lack of awareness of and expertise in using tools and instruments to apply a BCI approach;
5. a lack of awareness and expertise in basing BCI approaches and applications on theoretical models; and
6. using evidence to change an intervention.

Box 11 provides more detail in specific quotations.

BOX 11. SKILLS NEEDED TO APPLY BCI FINDINGS

Communicating key messages from research to decision-makers

So, I would say the more difficult part, of course, is [the] advocacy part. I mean communicating this identified need to policy-makers to make sure that their documents and policies and strategies would cover all of the identified problems to be addressed in different programmes.

P14, Pos. 95

Researchers are used to writing long scientific papers. You have to look at a certain way to [communicate to get] results [for policy]. What does it [the research findings] mean for policy? What can you do with policy [given the research findings]?

P16, Pos. 156

Skills in applying BCI findings to communications

There are communication units in all organizations but when it comes to behaviour change, for some reason, since COVID, they think it is our prerogative, and they come to us. They do not do BCI work. They do not know it. They come to us, and we are first graders ourselves.

P5, Pos. 86

Lack of understanding of public or service-user needs

From my experience with administrators and civil servants, they lack the skills, they lack the empathy. If I were the Minister of Health, first of all, I would make it compulsory for some of my staff to undergo training when it comes to behaviour and cultural issues.

P1, Pos. 65

BOX 11. CONTD.

Lack of awareness and expertise in using tools and instruments to apply a BCI approach

We need more sensitivity about BCI and the terminology. Some concrete examples and tools that can be used and modified. Case examples are very useful but also tools, instruments, concepts from different fields of science. That is something that [needs to] be upgraded.

P18, Pos. 213

Using evidence to change an intervention

So, what do I do with this new finding? [For example, suppose we] now know it's a motivational gap. We know it's a reflective motivational gap. What do we do to build [on] that? How do we build [findings] into our intervention? That's a challenge for our stakeholders. So how we [can] help our stakeholder over that is our challenge.

P12, Pos. 111–112

[There is a gap related to] implementation science. I think there's a lot in that space because we are seeing that through readiness activity. People are getting the early stages right: define the behaviour, do some diagnostic, gather some insight, understand people's worlds, describe the barriers for them, even codify what might need to happen next. [But] building that into an intervention, implementing the new approach to it, that's difficult. That [is what] people are really struggling with.

P12, Pos. 111

2.3.3 NON-SKILLS GAPS TO APPLYING BCI

When discussing skills gaps, several focal points also mentioned non-skills gaps and barriers. Some related to connecting research processes or evidence to decision-making, including:

1. a lack of behavioural science experts on senior advisory groups;
2. a need for close links between researchers and intervention providers;
3. a need for more timely production of research for use in interventions; and
4. lack of a systematic instrument or mandated process that requires new policies to be reviewed through a BCI lens.

Box 12 provides more detail in specific quotations.

BOX 12. NON-SKILLS GAPS TO APPLYING BCI FINDINGS: LINKING EVIDENCE TO DECISION-MAKING

Lack of behavioural science experts on senior advisory groups

But during COVID this was very hard because the behavioural sciences weren't part of the COVID crisis structure. So, when results came in, the head of the Infectious Diseases Unit was present at the ministry, where policy advice was discussed and the results from the behavioural studies were only introduced on paper. And there's no expert present to elaborate on the results [to communicate them more effectively].

P no. removed

Need for closer links between researchers and intervention providers

I think we have to connect the research institution more closely with the authorities and with health professionals when the projects are running. How do we connect research or data to changing the interventions in the project? So, how do we make this bridge from data to changing the intervention?

P17, Pos. 65 and 81

Need for more timely production of research for use in interventions

I think the [typical] way of using research is not good enough. And this was a very good eye-opener on the COVID-19 work. So, we had some research about public opinion – why there is some vaccination hesitancy, barriers of vaccinations, access and so on – and that was applied directly into our [public health] work just after the research has been done. In the other research areas, [the typical approach] there is a too-long, changing perspective so the project just goes on and the research will come afterwards. And it will just be research for the [sake of] research [because it is] not used directly in practice. So, I think we have to step [up to] using the research in running [projects] to [be used in] changing the interventions.

P17, Pos. 61–63

Lack of a systematic instrument or process requiring the use of BCI in policy-making

So, well, there are some examples of involving communities or giving an opportunity to communities or representative groups to give their interests [views during the development of public policies], but no real instruments or systematic processes to translate behavioural [and] cultural [insights] into policy. [For example, there is not a requirement similar to the executive order signed in 2015 by then-President Barack Obama for public authorities to incorporate behavioural science findings into public policy.]

P9, Pos. 176

Other barriers related to organizational culture and the context within which the focal points operate were:

1. risk aversion in health decision-makers in policy or practice to making changes,
2. difficulty in getting to the stage of actually trying something new,
3. lack of a test, learn and adapt culture in public health authorities,
4. lack of examples of evidence directly instigating policy change,
5. lack of experience or culture of evidence-informed policy.

Box 13 provides more detail in specific quotations.

BOX 13. **NON-SKILLS GAPS TO APPLYING BCI FINDINGS: ORGANIZATIONAL CULTURE**

Risk aversion related to making changes

There's something about a kind of risk aversion or consensus or accountability. I think stuff sometimes doesn't get off the ground when people get cold feet. ... You know there's an easy option, which is what you've been doing for a long time and [people can] get stuck there. How can you incentivize or what are the skills needed to try to create the conditions for an experiment or to do something else.

P20, Pos. 93

Difficulties in getting to the stage of actually trying something new

With proposals and papers about deliberation and dialogue and trying to sell it to senior people, it never really gets into action mode – it kind of stays in idea mode. And I think sometimes the priority is about how to initiate action and how to start things. And just to do things. I think, if you got a good idea, if it's worked elsewhere, you get to the point where it's actually worth trying to do it.

P20, Pos. 84

Lack of a test, learn and adapt culture in public health authorities

If you do the evaluation and monitoring, it tends to stop in the first round. [It is important to get across that] the work is not done once you have done the first circle because you need to take the lessons learned and do it better next time. So, it's a challenge ... in general, to have the idea [that] this will not stop.

P24, Pos. 101

Lack of examples of evidence directly instigating policy change

I haven't seen research being the direct instigator of a policy change. It tends to flow in the other direction.

P23, Pos. 171

BOX 13. **CONTD.**

Lack of evidence-informed decision-making

So, my first answer is that the gap I need to cover is ... evidence-informed decision-making and maybe something about types of research.

P no. removed

I don't think we have much experience in translating research into policy.

P no. removed

2.4 Stakeholders

2.4.1 WHO ARE THE MOST IMPORTANT STAKEHOLDERS TO INCREASE BCI WORK?

The Ministry of Health was mentioned most often as the most important stakeholder to increase BCI work. The reasons given for this were that the Ministry has overall responsibility for making policy decisions and allocating funding, focal points have worked with policy-makers to apply BCI or know that policy leads in the Ministry are interested in applying BCI, and support is required from the Minister to undertake certain research (e.g. national surveys). Box 14 provides more detail in specific quotations.

BOX 14. **MOST IMPORTANT STAKEHOLDERS: MINISTRY OF HEALTH**

The Ministry has responsibility for policy and funding decisions

The key keeper people or key stakeholders are surely the ones who like make decisions and give money and [engage in] the politics.

P11, Pos. 62

Ministry of Health staff need to be involved throughout the process of applying BCI to health

Well, it's definitely the Ministry of Health and Social Welfare. ... It needs to be more involved in all of this process. It needs to be updated regularly [with] information about expectations and possibilities.

P no. removed

The Ministry of Health [is responsible for] legislation. It's the authority responsible for policy-making – it is responsible for the health of the population.

P10, Pos. 96

BOX 14. **CONTD.**

Ministry of Health staff with policy responsibility are applying BCI

Within the Ministry [of Health], it's the Head of Unit or the assistant to the Head of Unit.

P26, Pos. 101

I would say that it would be policy leads within our Department of Health because they are the ones who are really into building capacity to enable behavioural factors to be part of the jigsaw [when] putting together strategies or policies.

P2, Pos. 35

Ministry of Health buy-in is required for national surveys

Since 2006, when we started doing these surveys, without the support of the Ministry of Health we would not have been able to implement these studies because, even if you have donor organizations [or] some external organizations, if the Ministry of Health doesn't support it, the study is impossible to conduct. It might be some small survey, but not at the level of the whole country.

P no. removed

Focal points, especially those in high-income Member States, said that a public health agency is the second most important stakeholder. Box 15 provides more detail in specific quotations.

Although focal points mainly discussed organizations, several mentioned specific policy leads in the Ministry of Health or public health leaders.

When asked about the most important stakeholder, many focal points mentioned a wide range of stakeholders, including government ministries other than the Ministry of Health, communications units in public bodies, leading academics, scientific societies, national patient associations, and representative organizations of health professionals such as clinicians, nurses or physical therapists.

BOX 15. **MOST IMPORTANT STAKEHOLDERS: PUBLIC HEALTH AGENCY**

I think I started really grandly with government policy-makers because the cascade then would be that they would reach a wider audience, but I've become more realistic and lots of our activity is now with public health practitioners.

P12, Pos. 116

I would also mention the Public Health Centre as well as the Minister of Health as the main institutions.

P3, Pos. 78

BOX 15. **CONTD.**

I think it's public health as the main actor in terms of innovation, introducing new ideas. The research and policy in [this] have to remain active but when it comes to BCI, it has to work closely with the Social Work or Social Sciences Faculty. In my opinion, these two institutions can make the difference. Of course, the Ministry of Health and Social Affairs, well, it's at the top of the hierarchy, but the most they can do is sign documents to allow processes. But the real work will be done within those stakeholders I mentioned – it's public health and the Faculty of Social Sciences.

P9, Pos. 185

So, [you] can take it two ways. There's the internal one ... the kind of Chief Medical Officer or Deputy Chief Medical Officers and our Director, you know that kind of line of command and management. [But, externally] we've had a really close relationship with an influential director of public health who is now the President of the Association of Directors of Public Health, they are [a] very influential, important group.

P no. removed

2.4.2 HOW WELL DO STAKEHOLDERS UNDERSTAND BCI AND HOW IT CAN BENEFIT THEIR WORK?

None of the focal points felt that there was widespread understanding across their organization or across all stakeholders of how BCI could benefit their work.

Many focal points felt that some stakeholders understood how BCI could benefit certain topics or areas of their work, including in health protection, health promotion, health literacy and public health areas. They also noted that even when stakeholders had some understanding, it was often superficial. Box 16 provides more detail in specific quotations.

BOX 16. **SOME UNDERSTANDING OF HOW BCI CAN BENEFIT WORK IN HEALTH**

Some understanding of the benefits of BCI for certain topics and areas

I'm not sure they have [BCI] at the top of their mind, that BCI is a focus. We use WHO to promote different topics, for example, health literacy. I think there is a very good understanding that we have to do something about health literacy. Maybe we should have some framework and work on translating BCI into a local context [how it applies to different areas in a local context].

P17

I think the external stakeholders that we've discussed do [understand how BCI can benefit their work], but the internal stakeholders that we've discussed don't.

P7

BOX 16. **CONTD.**

I think within the sort of people in the Department of Health that I've mentioned, yes [they understand how BCI can benefit their work]. Internally, I don't think so. There's room for more understanding. ... They are certainly not unwilling, but it's just how it works out and the processes and things like that. I would like to spend more time in discussion with them. So, I think I'm knocking against an open door really with some people internally.

P2

Definitely, the public health [section of the] Department [understands how BCI can benefit its work]. The other departments are perhaps less familiar – they're less focused on the general population. They're focused on hospitals or clinics. ... Like I said, there's not a huge amount of awareness of it as a formal concept.

P23, Pos. 204 and 223

Tricky question. Of course they do. Mostly, they are competent specialists within health care organizations. And, in recent years this understanding is [increasing] and will be increasing, I hope. But there is an understanding.

P15, Pos. 85

Some understanding of BCI but often superficial

I think that's another thing that's changed [as] a lot of those people have probably read nudge. You know a lot of people developing policy now are aware of nudge [and] probably read some of those materials, so they get some of that popular science understanding because they think it's important to policy. So, the policy profession has a little bit of that sort of shallow understanding of it.

P7

I think [interest in behavioural science] as a measure of curiosity and interest is quite strong. But, also it [large attendance at internal seminars on behavioural science] suggests that it's not really bedded in and that people don't necessarily feel too confident about it at the moment. And in a session like that we might get a lot of senior leaders come in because they don't know it and they're curious about it and they want [to] test their knowledge or to ask questions.

P no. removed

I think it's hard to know. You can say it is [at a] superficial level. People, especially with [policy responsibility for addressing the] COVID-19 pandemic, they're big into behaviour change and they're very aware of it. But for a lot of areas it won't be that obvious how it could really actually benefit them. They need a simple kind of approach, [for someone to] say look this is where you could apply this to your work area. This [is how BCI] could be useful for your area.

P26

Some focal points felt that there was little understanding among stakeholders of the how BCI could benefit their work. For example, they felt that there was little understanding about the range of factors that influence behaviours and about how a BCI approach could help to achieve health objectives. This was often felt to be because the concept is relatively new and key stakeholders have very busy workloads. Box 17 provides more detail in specific quotations.

BOX 17. LITTLE UNDERSTANDING OF HOW BCI CAN BENEFIT WORK IN HEALTH

There's a lack of understanding. ... We have habits, attitudes, values. etc. I think this is something people don't know. They think that maybe we can just say to the school kids that alternative tobacco products aren't useful, aren't healthy, and they're not going to use them anymore.

P11

I would say little [understanding of how BCI can benefit work in health]. I don't think they fully comprehend the importance of the BCI work. So that's why it's a matter of educating, training them and having them as an ally.

P1

I think the level is low. Let's admit it. As I said earlier, we are taking our first steps ourselves, we need to get well on our own feet and then advocate at the level of the Ministry of Health. For example, the breastfeeding project. [Unclear name], she does not have time for everything, she listens to us and so on. And if we explain everything clearly, it will make it easier.

P5, Pos. 84

The government structure is relatively less informed [than United Nations and WHO].

P14, Pos. 150

In my opinion, my very instinctive and honest opinion, [there is] not much awareness. Many people within the organizations are doing it sometimes without being much aware that they're doing it. Like in the case of age, like in the case of drug abuse, like in the case of violence against women or, well, now more and more probably even in noncommunicable diseases. So, we are becoming more aware about it. But, as I said, it probably was done but under a lot of international influence and expertise.

P no. removed

2.4.3 WHAT HAS BEEN DONE TO INCREASE AWARENESS OF BCI AMONG KEY STAKEHOLDERS?

Focal points said that the BCI resolution and BCI action framework had been very useful in helping to increase awareness of the benefits of BCI among key stakeholders (discussed in section 2.5.4). In terms of actions over and above those taken to support adoption of the resolution and reporting of the BCI action framework, many focal points said that they had not undertaken targeted actions to increase awareness among stakeholders. However, many focal points said that they would like to or planned to take actions in the future to increase stakeholder awareness.

Specific actions taken by focal points, many of whom were from high-income Member States, included:

1. holding targeted meetings with key stakeholders;
2. having a behavioural science network for policy-makers – such networks tended to be specific to behavioural science and policy or practice, be cross-government rather than solely focusing on health, and involve peer support and sharing, and to meet every couple of months;
3. holding internal seminars and sometimes presenting at external seminars – internal seminars tended to include a mixture of issue-specific and general interest topics, be open to all staff (focal points reported that attendance by senior staff was very motivational for staff working on BCI), and be delivered by a mix of internal staff and invited speakers (some focal points said they would like to or plan to hold a seminar); and
4. adapting the approach to dissemination, for example, by branding publications under a Behavioural Science series banner.

The focal points' wider reflections on ways to improve stakeholder understanding of how BCI work could support their work could be grouped into two categories: resources to help improve stakeholder understanding and other points to consider.

Suggestions for resources to help to increase stakeholder understanding included an expanded version of the video produced to explain the BCI action framework and reporting requirements that provides additional detail, a one-page sheet of frequently asked questions, short case studies, and a THP (Tailoring Health Programmes (THP) type of programme (i.e. comprehensive guide) on applying BCIs to health (15). Box 18 provides more detail in specific quotations.

BOX 18. RESOURCES TO INCREASE STAKEHOLDER UNDERSTANDING AND AWARENESS

Learning to explain what BCI is and how it benefits work in health

I mean I think explaining it is one of the hardest things. I've seen so many guides about how to do behavioural science, but it always seems, even the best ones, they seem to need a bit of motivation to get to the end of it. Because you've really got to be interested, haven't you? So, it's hard to summarize the whole thing really easily. Although there's some great examples. So, I think learning about how to explain it, how to increase capacity, how to get people interested in it.

P20, Pos. 62

BOX 18. **CONTD.**

An introductory video on BCI for health

So, people can go to the video [the video produced by the WHO BCI Unit to explain the action framework and reporting requirement]. Yes, it is very good. But somehow when people finished the video, they said "Now what?". There is something to be added to the video, it is like unfinished business. There is something to be added to the video to make it crystal clear why the contribution of the person sitting opposite me, representing an NGO or governmental body [is needed and what it might involve].

P1, Pos. 89

Frequently asked questions on BCI and its benefits for work in health

It would help, maybe again from your division, [to have] a frequently asked questions one-page fact sheet. So, when I go and see the Minister and ... civil servants and I think it's better if you just give them just one page, not more than frequently asked questions. Bam – bullet points.

P1, Pos. 90

Short case studies on the benefits of BCI for health

If we have, documented from your Division, one or two case studies – but short and sweet.

P1, Pos. 92 and 93

Document explaining how to apply BCI to health

I think a programme that is as concrete as TIP on BCI could be very helpful. I'm not sure it can be done, but it [TIP] was very good to lean on.

P17, Pos. 138

Focal points also provided a range of other points to consider, including:

1. the benefits of focusing on key areas;
2. the need to make multiple pitches;
3. addressing negative perceptions of nudges;
4. how to avoid cynicism about buzz words and new solutions; and
5. the challenge to understand the meaning of different terminology used to convey the concept and the subtle differences in meaning between terms used (e.g. behavioural insights vs behavioural science, cultural insights, behavioural science vs behavioural sciences).

Box 19 provides further detail in specific quotations.

BOX 19. FOCAL POINTS' REFLECTIONS ON STAKEHOLDERS' UNDERSTANDING AND AWARENESS: OTHER POINTS TO CONSIDER

Benefits of focusing on key areas

[There is an advantage to] just focusing on the kind of key areas where you really think you can make a difference or where you know you are probably going to have a demand.

P26, Pos. 133

Need to make multiple pitches

You're not going [to] have success in lots of areas. [You] make lots of pitches that won't happen [will not become projects], either because the lead person hasn't really bought into it or maybe they have bought into it but then something else happens that they have to prioritize or they can't get the agency to agree to things. [So you need to make multiple pitches to generate enough projects].

P26, Pos. 135

Addressing negative perceptions of nudging

So there's people in [this] country [who are] probably slightly alienated by some of the aspects of the formulations of the nudge version of behavioural science. ... Who maybe think it's a bit too top down, it's a bit too much solving problems without really involving people and [is the work of] policy wonks.

P no. removed

How to avoid cynicism about buzz words and new solutions

In county government settings ... things go around and people get quite cynical about stuff that appears to be like the new solution. You know, the buzzword and stuff. So, how do you pre-empt and deal with any kind of cynicism about something that appears to be a new fad?

P20, Pos. 63

Need to further explain the terminology used to convey the concept and to clarify the subtle differences between terms

Multiple focal points mentioned terms that need to be clarified or standardized:

1. behavioural insights vs behavioural science
2. cultural
3. behavioural science vs behavioural sciences.

2.4.4 VIEWS ON WHAT MANAGERS THINK ABOUT INCREASING THE USE OF BCI

Some focal points felt that health sector managers would be indifferent or unaware of the objective to increase the use of BCI, some felt they would support the objective, and others thought that it would depend on the individual's professional background, area of work or whether they typically took an evidence-informed approach to policy or practice. Boxes 20–22 provide more detail in specific quotations. The focal points typically felt that managers would face obstacles to using BCI such as time, money and risk (Box 23 provides specific quotations).

BOX 20. VIEWS ON WHAT MANAGERS THINK: INDIFFERENT TO OR UNAWARE OF BCI

Managers are indifferent to or do not consider BCI as part of their job

From my experience, I think they are indifferent. I think they are indifferent. It takes a lot of persuasion to persuade them.

P1, Pos. 93

Not really, no. [Managers do not see it as part of their job.]

P7, Pos. 118

Managers are unaware of BCI approaches

Like I said, there's not a huge amount of awareness of it as a formal concept. I think they're well aware of the need to bring the population along with whatever changes they're looking to make. Inasmuch as there could be, perhaps, working groups within the BCI initiative around specific health challenges that many of these departments face. [Then] they might be able to learn from the research and be exposed to it in that way, sort of in an international context. [Otherwise] I'm not sure how much they would see new concepts being developed abroad.

P23, Pos. 223

Results from BCI are needed to help to grow interest in it

No one asks anything [at internal meetings about BCI work]. I have already told them about Israel [WHO Regional Committee meeting] and signing the documents [adoption of the BCI resolution and BCI action framework] and that we are already committed to do BCI work. But do you know why they do not ask? Because we haven't shown any results yet. If we do several studies and show the results, they will be interested. ... I think the most important thing is if we do BCI work, we will talk about it in a meeting and maybe somebody will get interested in using it in their programmes; we have to talk about it and maybe then other institutions will get interested, but not yet.

P no. removed

BOX 21. VIEWS ON WHAT MANAGERS THINK: SUPPORTIVE

I think they're supportive. You know, if I think about it, our Chief Medical Officer again was the lead in this kind of area or ministerial level.

P12, Pos. 133

I think I'd be guessing a little bit, but I imagine that they are supportive of this. And, I mean, I've got a lot of confidence when I hear them speak [health sector managers] and how they think about things. I think that they would naturally be supportive and drawn and this would be like a quite default way that they would approach these types of problems.

P20, Pos. 70

I'm not sure that they are aware of BCI as a term from WHO, but I think they are very keen on working on the principles of BCI.

P17, Pos. 144

BOX 22. VIEWS ON WHAT MANAGERS THINK: DEPENDS ON AREA OR MANAGER

Support for BCI from managers depends on their professional background

I'm not sure I can put it in one box. I think some of them definitely would like the idea and this will depend on their background. If they are people coming from public health prevention, promotion, education or social work, they would feel respected in their profession and what they're doing. But in some in some areas, [such as] managers, economists, sometimes even at the policy level, well, few of them may consider it interesting and then use it as an instrument of politics. But many of them can consider it just another unimportant thing among their many important responsibilities.

P9, Pos. 230–231

Support varies by health sector area and the managers' approach to evidence use

I guess it probably varies from area to area, and probably even by personality. I think there are some managers who tend to be very pro evidence and try to use it wherever they can. In certain areas of health where behaviour [is a key focus], especially public or population health, they'll be very open to it or be bought into it. And then there are other areas like service delivery areas where they might [not] see it as being that relevant and so won't necessarily see it as their job.

P26, Pos. 125

BOX 23. VIEWS ON WHAT MANAGERS THINK: CHALLENGES FACING MANAGERS

Managers are very conscious of the risks associated with making a change

Some people who kind of see it, you know, in a positive light. But I think once you talk about applying it and making the change, it gets a bit risky. You know, for a lot of managers, then, it's a bit of a risk, like. And so, unless they have a major kind of problem that they're being told, you really need to kind of address this. They're probably less inclined to try to change things because it's a risk.

P26, Pos. 125

Managers think that BCI is important but may not want to allocate resources to it

One answer, short. I think they think it's really important, but don't want to spend any money on it. Sorry.

P16, Pos. 239

Managers have limited time and face many pressures

I think the issue might be just around time and resourcing and some of the practical challenges that they're dealing with, and just really maybe not getting the right amount of time to create their infrastructure. ... There's so many priorities and so much pressure. I imagine that they find it quite difficult to be strategic always.

P20, Pos. 70

2.5 Thoughts on the future

2.5.1 HOW DO THE FOCAL POINTS SEE BCI DEVELOPING IN NEXT 5 YEARS?

Most focal points were positive or optimistic about the development of BCI for health in their country. It is seen as a more effective and efficient way to address health challenges involving behaviour. It is also seen as a useful umbrella to package several approaches to addressing health challenges.

Some focal points mentioned that they had specific intentions or plans to increase BCI work, including to (i) deliver and advocate for research projects, (ii) integrate BCI into health programmes and (iii) figure out the best ways to persuade health authorities to increase BCI work.

Some focal points mentioned the challenge of ensuring that commitments made under the BCI resolution and the BCI action framework translate into actions.

2.5.2 WHAT WOULD MOST HELP TO INCREASE BCI WORK FOR HEALTH?

Focal points suggested a range of factors that would most help to increase BCI work for health in their country. The relative importance of these factors is indicated by distinguishing between those suggested by one, two, or three or more focal points.

Suggestions made by three or more focal points were:

1. to be able to clearly demonstrate the positive impact of taking a BCI approach to health policy, services and communications; and
2. to provide training on BCI for focal points and their staff – some focal points specifically said that it would be most useful for the WHO, ECDC and other international partners to conduct training sessions and capacity-building seminars.

Suggestions made by two focal points were:

1. to have additional funding to cover the cost of internal staff undertaking BCI work and by commissioning BCI research and applications of BCI;
2. to raise awareness of the relevance of BCI for better health;
3. to have a unit with a budget and staff dedicated to undertaking BCI work;
4. more networking with key decision-makers; and
5. for the WHO BCI Unit to continue its work in promoting a BCI approach for better health.

Other issues mentioned by a FP that would help to increase BCI work for health included:

1. to break down barriers to undertaking BCI research and applying the findings;
2. to advocate for adopting the BCI approach at a higher level within their organization and to government;
3. to create a better understanding of the different language used by researchers and policy-makers and the nature of their professional worlds;
4. to better explain the BCI approach and its benefits;
5. to incorporate BCI into the education of health care professionals;
6. for academia and public health authorities to work together more;
7. to review existing surveys of risk factors for noncommunicable diseases in order to explore the benefits of including BCI-informed questions;
8. for those promoting a BCI approach within public health authorities:
 - (a) to focus on making the best use of the available resources;
 - (b) to work with a BCI community of practice and experts in academia; and
9. for the Minister of Health to prioritize expanding BCI work for better health.

Some focal points suggested factors that could prevent or limit an increase in BCI work, including viewing BCI work as simply the application of common sense, thus leading to poor quality of work being performed under a behavioural label; lack of a strong research base in a country; and a temporary block on staff recruitment. Box 24 provides more detail in specific quotations.

BOX 24. BARRIERS THAT PREVENT OR LIMIT AN INCREASE IN BCI-RELATED WORK

BCI is viewed as common sense, leading to poor quality of work under a behavioural label

Some of the things that might get in the way is if the quality dimension of it is less. So that it feels a little bit more like, “oh, anybody can just do this, it’s quite easy”. Then [it] just becomes another branch of common sense and people are not really engaging with the models or the data or the theories.

P20, Pos. 100

Lack of a strong research base in the country

So, as I said in the beginning, the country is very bad in research in general. It is not so easy.

P no. removed

Temporary block on recruitment of staff:

But we do have challenges with the recruitment freeze, so when somebody leaves, we can’t replace them.

P no. removed

2.5.3 WHAT SUPPORT FROM WHO, ECDC AND OTHER PARTNER ORGANIZATIONS WOULD HELP?

When asked what support from WHO, ECDC and other partners would help to increase BCI work for health, the focal points suggested 16 different actions. The actions were classified into three categories depending on whether they were suggested by three or more focal points, could avoid duplication of effort or involved combining resources, or were suggested by only one focal point.

Actions suggested by three or more focal points were:

1. to provide an ongoing BCI networking structure to share the work and experiences of Member States;
2. to advocate for international funding for BCI work by public health authorities;
3. to collate brief case studies as examples of good practice in BCI and invest in extracting in-depth learning from these examples;
4. to provide training and capacity-building in BCI.
5. for the WHO BCI Unit to continue its work and its positive approach the work;
6. to create and regularly promote toolkits and guidance for BCI work; and
7. to continue to increase understanding of the BCI approach and its health benefits.

Actions suggested to avoid duplication of effort or combine resources were to:

1. produce short (one to two page) template documents on the benefits of applying a BCI approach to a range of health topics that focal points across the WHO European Region could adapt for advocating to policy/technical leads in their country (e.g. templates could specify the problems associated with each health topic, explain the relevance of BCI in this context, describe how taking a BCI approach had a positive impact in another Member State, and suggest which BCI approaches could be taken);
2. facilitate cross-country study teams to undertake literature reviews and other suitable studies; and
3. facilitate online experiments to be undertaken by creating a shared resource for running online experiments (e.g. by commissioning experts to design and implement a set number of online experiments per year).

Actions suggested by a single focal point were:

1. to create a thematic structure within the Regional BCI Network to strengthen and support the work of the WHO BCI Unit within which some focal points could join thematic subcommittees and report their work back to the WHO BCI Unit;
2. for WHO to integrate BCI findings into conferences and training on other health topics;
3. for WHO staff to be available to provide advice to those promoting BCI in specific countries on how best to expand BCI activity given the available resources;
4. to identify new interventions or approaches to improve health;
5. to provide opportunities for face-to-face meetings of BCI focal points; and
6. to host a BCI event in a country that has a BCI focal point.

Boxes 25–31 include quotations that provide further detail on actions suggested by three or more focal points and Box 32 provides further detail on actions suggested by one focal point.

BOX 25. POSSIBLE SUPPORT FROM REGIONAL OR INTERNATIONAL ORGANIZATIONS: NETWORKING STRUCTURE FOR SHARING WORK AND EXPERIENCES AMONG MEMBER STATES

Information on what different countries do and what are the good practices and what worked and what [did] not. This is something maybe that is valuable.

P11, Pos. 121

To go on with these meetings [previous focal point meetings related to the BCI resolution and BCI action framework] and build an international network that you can help on. That has been very useful because for us sharing experience with others has motivated a lot of us and also given us some support.

P21, Pos. 313–314

There's a thing called Population Health Information Research Infrastructure (PHIRI). It came up during COVID and it's [an exchange where] people just shoot in a question: how is your country dealing with this? ... And then there's [a rapid response] from different countries in the European Union on [how they are] dealing with a certain thing. Something like that [for BCI work would be useful], as it could kind of go: who's working on this? is anybody interested in working together on the following things?

P26, Pos. 142

BOX 25. **CONTD.**

Another thing is how do you facilitate knowledge sharing or putting people in contact? So, let's say, when we were doing the business plan for next year and certain projects come up, I wonder are other countries doing anything on this.

P26, Pos. 157

Networks. Is anybody working on this and how have you been finding that? – and as well as the individual methodology queries, we're not sure about how to approach it. To see the approaches taken in other countries, to weigh up the pros and cons and reflect [on] how then it could be done in [Country 2].

P2, Pos. 65

I think it would be very good to have some regional or local meetings where we can discuss this topic and try to elaborate on what do we mean by BCI in our different countries and how could we tackle this work on BCI. So, I could hear from ... other countries on how they are framing and going [about] questions, and there is a lot of knowledge from you and your colleagues [WHO BCI Unit] when you're conducting this.

P17, Pos. 157

Simple document-sharing and keeping the networks alive.

P9, Pos. 285

BOX 26. **POSSIBLE SUPPORT FROM REGIONAL OR INTERNATIONAL ORGANIZATIONS: ADVOCATE FOR FUNDING**

Advocate for international research funding and initiatives for BCI relevant to the focal points' organizations

We cannot do this just with our [existing resources]. We need [more] staff. [We sought extra internal resources and noted] the document [BCI action framework] says "support", and it's one of the strategic commitments – and the answer was, you could apply for some grants.

P no. removed

It would be nice if you [WHO] can move [or] pressure the European Union to make more specific [research] calls for behavioural insight.

P21, Pos. 363

About the role of international organizations to advocate for funding for this [BCI work], the European Union has research projects but they also have joint actions that are not as competitive as others [research calls]. If you're doing a joint action on something, it needs to be promoted at a very high level and individual countries or individual teams like us don't have the capacity to [do that]. We can't get there.

P21, Pos. 370

BOX 26. **CONTD.**

Advocate for European funding for cross-country work and capacity-building

If there was funding [at] the European level to do projects, different countries could bid. ... The Local Government Association has for years had some funding that local government can apply for ... they get partnered with some experts to do behavioural sciences. They do a project and then there's a series of case studies collected on the website. So, it builds capacity. There's a lot of learning that goes on in the process itself, but also [it] develops case studies for others. And they've been doing it more through our kind of consortium approach. So, two or three local governments, you know. The same sort of model at the European level, where you got some funding and you can bring in some resource to support five to 10 countries working on something similar in action-learning sets.

P no. removed

BOX 27. **POSSIBLE SUPPORT FROM REGIONAL OR INTERNATIONAL ORGANIZATIONS: BRIEF CASE STUDIES AND IN-DEPTH EXTRACTION OF LEARNING**

Brief case studies

One thing that is very useful are the examples in the WHO webpage. The examples on how to apply these insights in different ways. I think that's very helpful.

P21, Pos. 298

Good examples are always very effective.

P4, Pos. 106

Extraction of learnings

A neat way of collating in a digestible format case studies of notable practice [in a way that you can] pick off the shelf and give to someone else. You know, take a little, give a little doesn't tend to work, really. You got to invest in actively extracting [the learnings] in a really easy way. For me, it's got to be normal, easy, attractive and routine for us to provide learning.

P12, Pos. 233

BOX 28. POSSIBLE SUPPORT FROM REGIONAL OR INTERNATIONAL ORGANIZATIONS: TRAINING AND CAPACITY-BUILDING

Training

Training in their very practical aspects of how to do it [BCI research and applying BCI findings] and how people did it.

P26, Pos. 141

We are in need of support with research, with testing, evaluating the work, forming questions, doing analysis and qualitative research.

P15, Pos. 120

Formal training, including online training and the presence of experts.

P9, Pos. 286

Comparing myself to someone who has been trained in behavioural sciences, I haven't been trained in that field. So, I feel like I would need a bit of a comprehensive training module or whatever it is, a programme. ... Definitely, methodological training and anything that would facilitate BCI work. The BCI approach and relaying messages to colleagues. Anything related to that would be very helpful.

P13, Pos. 156 and 160

Build capacity to conduct BCI research and apply BCI findings

How can we promote BCI work if we are like first graders ourselves? Let us strengthen the capacity of our team, show our research projects and maybe offer it to other programmes. And if we write these orders [ministerial decrees], BCI work will be implemented in any case [in different institutions]. But who are they going to turn to if we have no own capacity in our country? Like I said earlier about the [research] protocols and so on, which we cannot do ourselves. We have to be able to do BCI work from start to finish. Only then can we advocate anything. And right now, I cannot say anything. We first need to learn it because it is not as simple as I thought to begin with, I got even more confused when I started learning it. We have to learn.

P5, Pos. 114

Summer school and cross-country knowledge exchange

I would like for people in my BCI unit to do training in this summer school too, exchange ideas with other countries. It is a different level altogether. When I came back from that summer school, I was a different person. Can there be this summer school training arranged for our team here? When [name of WHO staff member] visited last time, it was awesome.

P5, Pos. 137

**BOX 29. POSSIBLE SUPPORT FROM REGIONAL OR INTERNATIONAL ORGANIZATIONS:
CONTINUE THE APPROACH AND WORK OF THE WHO BCI UNIT**

That you're [WHO BCI Unit] there and you have that focus. It provides the resources that helps us to do our job. But also, the fact that we're able to link in and do that and we can reflect that in our outputs. So that helps almost by association with yourself, then that helps me.

P2, Pos. 63

So, it's [the BCI action framework] a request for accountability. [It] is important so that you can request us and we can do that request to our governments.

P21, Pos. 295

The awareness of the benefits, we like the website and everything is helpful.

P26, Pos. 140

The WHO guide on how to establish a unit on BCI with the eight considerations, that was a very good help for us. We didn't follow all the steps, we decided to consider the steps that were relevant for us.

P no. removed

**BOX 30. POSSIBLE SUPPORT FROM REGIONAL OR INTERNATIONAL ORGANIZATIONS:
USE OF TOOLKITS AND CONTINUE TO INCREASE UNDERSTANDING**

Toolkits and guidance documents

WHO is always very good at, you know, making toolboxes or, you know, charts and graphics.

P4, Pos. 106

Develop guidance.

P15, Pos. 112

But if there are sort of European tools and resources, we might not have to do that. But, then again, it gets tricky because very difficult for everyone to agree on what thing to promote.

P7, Pos. 168

Continue to increase understanding and recognition of the importance BCI work

Recognition of our work is important, not for our personal gains but because then we can go to the Ministry and say, hey, what you're doing is important... I mean, we have been mentioned. ... Like what we're doing? So, value us. Because WHO and ECDC are valuing us.

P no. removed

BOX 30. **CONTD.**

I think it's good to have more visibility of the subject. To make sure that it's not only an individualistic approach but also that environmental structures [contextual parameters] are seen as well. I think it's very important to have both in it, to make the best of this. So, I like that about this initiative, that it's also like the cultural aspect is in there as well.

P25, Pos. 111

BOX 31. **POSSIBLE SUPPORT FROM REGIONAL OR INTERNATIONAL ORGANIZATIONS: COMBINE RESOURCES OR TAKE ACTION TO AVOID DUPLICATION OF EFFORT**

Create template pitches on applying BCI to specific topic areas

There's things that just won't happen because people don't have time. The big issue is time. You could potentially have template pitches done up on different topic areas, one or two pages. If you're in a unit [or team] and you want to kind of engage someone, here's the kind of thing you might want to tailor. So [having templates would] just save time.

P26, Pos. 140

Facilitate cross-country teams for literature review and other studies

Because resources are so tight, say in our antimicrobial resistance literature review, when we were doing that, I've been wondering is there a staff member in some other country who could be doing part of this? Could you have joint literature reviews where people are working together on a shared topic or issue and you increase the resource by using people in different countries.

P no. removed

Facilitate online experiments via a shared facility

Having a facility for [running] online experiments would be something that different countries could find useful. So, maybe there's an advantage of creating a resource that could be shared. There might be countries with common interests in a topic but they might not have the money or they might not have the time to contract something. [Putting in place a shared online facility for undertaking experiments could overcome these barriers.]

P26, Pos. 144, 149–151

BOX 32. POSSIBLE SUPPORT FROM REGIONAL OR INTERNATIONAL ORGANIZATIONS: ACTIONS SUGGESTED BY ONE FOCAL POINT

Create a thematic structure for the network

Maybe the time has come within the BCI division [WHO BCI Unit] for maybe two or three pillars to be formed, like subcode this where national focal points could join in order to strengthen, to support your work. It will help in structuring your work as well. If you have two or three subcommittees, pillars, thematic committees and reporting back to you, I think it will make your work easier as well.

P1, Pos. 131

WHO to integrate BCI findings into conferences and training on other health topics

I think the best way to do it would be to integrate BCI sessions within the other topical conversations [policy and practice areas] that WHO engages in. I think it's wrong to think of it as a stand-alone concept or department. Obviously, you need a department to forward the concept and to ensure that it's up to date with the best way. I mean I send experts to countless WHO meetings, whether virtual or in person. And if there's a conference on addiction or if there's a conference on cancer treatments or infection prevention or whatever, if there was a half-hour session within that conference on the literature of the BCI findings in this area and how it can help your country. I think it would change the way that people think about their own disciplines, and they might start applying that [BCI] filter themselves.

P23, Pos. 269–270

WHO to provide advice on how best to expand BCI activity

Technical support from WHO to discuss and see how to expand our activities. I understand that research requires money, but [to receive advice] in terms of strengthening cooperation, engaging other parties, strengthening intersectoral cooperation, etc.

P8, Pos. 88

WHO and ECDC to identify new interventions or approaches

If you can come up with some additional interventions for some age groups that can give good results, it will be very well-received. Then develop a compendium, a handbook of measures that may be adapted by countries to their national context and used.

P6, Pos. 74

2.5.4 IS THE BCI ACTION FRAMEWORK AND REPORTING REQUIREMENT USEFUL?

The vast majority of focal points said that the BCI action framework and reporting is useful; none said that it was not useful.⁸ Examples of positive comments are as follows.

I think it's been very useful and it's very important.

P26

Yes, yes, definitely. ... So it's a good help for us for awareness.

P24

Of course they are useful. Beyond any doubt. Any integral approach is a good indicator that this topic is gaining support.

P6, Pos. 72

Only two focal points said that they were undecided or waiting before making a judgement. They were unsure whether a reporting could capture all of the changes that are hoped for and of how the findings from country reporting might be used by national decision-makers.

I'm a little sceptical, I think BCI sort of strikes me as a cross-departmental tool. And anyone that fills out the survey will talk about what they're aware of, but it's more important to get people thinking about [it]... You know, it's the difference of when you, when you look at a doctor, are you treating the disease or are you treating the patient? – and for each of our departments, they're doctors that are addressing a topic. And they're seeing it within a certain framework, and we need to shift that framework a little bit to shift their perspective. I don't know that surveys will necessarily accurately measure that... But it's another tool among many and I hope I'm wrong.

P23, Pos. 272, 275

I'm still hesitating in the future depending on how much would it help us in comparison to other countries if, for example, the research shows that we have a large, much larger contingency of social scientists active, then there's a lack of urgency for our government to invest more in it.

P no. removed

Several benefits of the BCI action framework and reporting requirement were identified as:

1. national commitments to BCI increases awareness among the most senior officials;
2. WHO's prioritization of BCI emphasizes the importance of BCI work; and
3. the BCI action framework:
 - (a) provides a firm basis for undertaking BCI work;
 - (b) is a useful lever for undertaking BCI work;
 - (c) provides an impetus to undertake BCI work more quickly;
 - (d) provides a unified reporting system that facilitates comparison;
 - (e) puts progress and challenges in the spotlight; and
 - (f) helps in engaging with a wider set of colleagues.

Box 33 provides more detail in specific quotations.

⁸ It should be noted that at the time of the interviews (January–February 2023), the global resolution on behavioural sciences had not been adopted (May 2023).

BOX 33. REASONS WHY THE BCI ACTION FRAMEWORK AND REPORTING ARE USEFUL

National commitments to BCI increases awareness among the most senior officials

Often, it's difficult for us to talk to people four or five levels above us. ... That's where the resolution comes in because it takes account of commitments at national level. They go through the desk of people higher up and they're very aware that now we've got commitments. So, that all helps.

P7

WHO's prioritization of BCI emphasizes the importance of BCI work

Already, the existence of the BCI Unit at WHO is really good for us. It gives us more of an international [contact with] highly influential actors. So, it's good for us to have that because we can refer to that and say we are also doing this kind of work. I think that's already a good thing that we have that.

P25

There's a commitment to it. We have to report on the progress and we have to try to improve it [BCI work]. So that really strengthens the prioritization of it. So that's really important.

P26, Pos. 139

The strategic commitments provide a firm basis for undertaking BCI work

It's another tool in my arsenal. It builds momentum as this is an ongoing development. [I can explain] how we factor into it and [that] there's a structure and I need to report. It provides a firmer basis [to our BCI work].

P2

If you think of our own situation before [the BCI resolution and BCI action framework], it was me saying this [behavioural science] is a really relevant area, we've done projects on this before, we've got some really tangible impacts and benefits, we've got different areas in the Department interested in it. Whereas now, it's also well actually, we've to report on progress on this, there's a commitment to it. We have to report on the progress and we have to try to improve it. So that really strengthens the prioritization of it. So that's really important. So just kind of keeping that up will be really useful.

P26, Pos. 139

The BCI action framework is a useful lever for undertaking BCI work

I mentioned ... using it as the lever.

P12

BOX 33. **CONTD.**

The reporting requirement provides impetus to undertake BCI work more quickly

So, the reporting now to WHO has pushed this work. So, we have to do it quickly. So, the reporting is actually an opportunity for us to do start doing the work faster.

P24

The BCI progress model provides a unified reporting system that facilitates comparison

A unified reporting system ... It is certainly useful. It is a framework that systematizes our work. And for you also, it is a unified system. If everybody is reporting or doing research based on the same framework, the monitoring on your part provides better results. It has a greater potential for making comparisons, analysis, etc. – it is useful for us also.

P15, Pos. 112, 115

The BCI country reporting puts progress and challenges in the spotlight

They certainly are useful because since September [2022] the Deputy Minister supported them in every way so that [our] country could be involved. In terms of reporting, these data will show in the future, when compared with other countries, what the gaps and the achievements are. ... But, of course, we have special aspects that need attention and we have challenges. But the fact that it's in the spotlight is a fact.

P no. removed

The BCI strategic commitments and reporting requirement helps in engaging with wider set of colleagues

Like I already said to all, when I participated in previous period in this process of consultations [and] piloting of reporting it was really useful because that was an opportunity to speak with a lot of actors in public health and institutes and in the Ministry. And that was really a good facilitation process to present them [with] this concept and to see how it's used right now and how it can be used in the future. Now, when I'm speaking with my colleagues who are planning some activities, I always also use this opportunity to speak a little bit about this concept and this can be very useful to facilitate.

P18, Pos. 284

Many focal points expressed very positive views on the approach taken by the WHO BCI Unit and of the support provided by the Unit, in addition to the BCI action framework. Box 34 provides further detail in specific quotations.

BOX 34. POSITIVE VIEWS ON THE APPROACH TAKEN AND SUPPORT PROVIDED BY THE WHO BCI UNIT

Support and tools provided by the WHO BCI Unit (in addition to the BCI action framework) are very helpful

Your group [the WHO BCI Unit and the meetings of focal points] is very welcome. I see how useful it's been and the potential on a number of levels. Whether it's providing a focus, the professional networking or the resources on the web. It's very, very welcome.

P2, Pos. 82

We're using some of the materials already. The actual resources that you've provided and the animations and stuff is great. It's really good.

P20, Pos. 109–12

The examples [on the WHO website] on how to apply these insights in different ways, I think that's very helpful.

P21, Pos. 298

The WHO guide on how to establish a unit on BCI, that was a very good help for us.

P no. removed

The WHO BCI Unit's approach is very inclusive and works well

One of the important things that I'm very pleased about is that WHO is picking up BCI and including the culture components.

P16

Is about improvement and progress from wherever you are. You talked about how it's just improvement. So that feels like quite an inclusive thing and you can learn from other countries.

P20, Pos. 110

I think that the work that's been done [by the WHO BCI Unit] is really important and it's a very collaborative approach or it's a very inclusive approach and I think that's worked really well. I just think it's really important, and just keep it up.

P26, Pos. 156

The tone of it [focal point meetings chaired by the WHO BCI Unit] is perfect. I was a bit worried that I was going to feel like we're not very established and there'll be lots of established countries there talking to each other and it just won't be useful, won't help us. But it's been really nice in that there's lots of people on a similar journey, facing similar problems with the same kinds of questions. So, I think providing a platform for that to happen is really useful.

P20, Pos. 110–111

BOX 34. **CONTD.**

I wanted to say thank you. Because you [WHO BCI Unit] really are doing important work. It is an interesting, important and profound area.

P6, Pos. 76

I am in awe of how you [WHO BCI Unit] manage those meetings [of the focal points]. It just seems to flow so well.

P2, Pos. 80–85

2.6 Subregional variations in focal point perspectives

This section discusses differences in the perspectives of focal points across the WHO European Region. However, caution is needed when considering subregional variations in the study. Firstly, the group is relatively small, so one focal point mentioning (or forgetting to mention) an issue could easily skew the findings. Second, the study is based on the perspective of a single focal point for each Member State rather than official reporting.

The overall pattern was one of common challenges; for example, focal points from countries of all income categories across the Region discussed the challenge of funding and resourcing BCI work.

However, a few differences across Member States were also observed. Some were related to the terms used by focal points when discussing BCI research or its applications. In general, focal points from Member States with a Behavioural Science unit or team (i.e. within a unit with a broader research and analytical focus) used terms such as behavioural economics or behavioural science when discussing the types of behavioural economics and scientific research being conducted or the application of such findings. These Member States were usually high-income countries in northern Europe. Other focal points discussed BCI work in less tangible terms, for instance in terms of its relevance to public health, health promotion, health protection or health literacy.

There were also differences in the interviews across Member States in terms of the ease with which one could distinguish whether research being discussed involved purely determining the prevalence of healthy and unhealthy behaviours versus research which directly examined the drivers or barriers to such behaviours.

Focal points who mentioned having a national strategy for BCI for health (or a commitment to develop one) or an internal annual business plan or action plan with BCI commitments mainly represented countries in northern Europe.

There were also differences in the type of BCI research being undertaken across Member States. For example, most focal points who mentioned literature reviews were from high-income countries. In terms of research collaborations, perhaps unsurprisingly, most focal

points who mentioned that international partner organizations (such as WHO, United Nations or World Bank) were important collaborators represented upper-middle- and lower-middle-income countries.

The challenge of funding and resourcing of BCI work was mentioned by Member States from across the geographic sub-regions and from Member States within all income categories. The overall pattern is one of commonalities in terms of the challenges faced, as reflected in section 3.1.

2.7 Brief behavioural diagnosis using the COM-B components

A behavioural diagnosis of relevant components of the COM-B model suggests that improvement in physical and psychological capacity (skills and awareness; Table 1), physical and social opportunity (resources and social and professional support; Table 2), and automatic and reflective motivation (positive affect and written goal-setting; Table 3) are needed to increase BCI work (research and application). See Annex 3 for more details on the COMB model and TDF and their use in this study.

Table 1. Capability: brief COM-B component mapping using TDF domains

COM-B COMPONENTS	TDF DOMAIN AND DEFINITION	WHAT NEEDS TO CHANGE FOR BCI WORK (RESEARCH AND APPLICATION) TO INCREASE
Capability – physical	2. Skills: abilities or proficiencies acquired through practice	Improved physical capability, with important skills gaps related to: <ul style="list-style-type: none"> • conducting BCI research for policy, services or communications (section 2.2.3) • applying the findings of BCI research to policy, services or communications (section 2.3.2)
Capability – psychological	1. Knowledge: awareness of the existence of something 14. Behavioural regulation: anything aimed at managing or changing objectively observed or measured actions	Increased psychological capability because: <ul style="list-style-type: none"> • internal and external stakeholders have limited understanding of what BCI is and how it can benefit their work (section 2.4.2) • in many cases, relatively little has been done to increase awareness of BCI among internal and external key stakeholders in their country over and above work related to the BCI resolution (section 2.4.3) Does not appear to be a major concern: <ul style="list-style-type: none"> • FPs considered that the BCI action framework and requirement to report on progress is useful for their country (section 2.5.4) • some FPs mentioned specific benefits of the BCI action framework: it puts progress and challenges in the spotlight, facilitates comparisons and provides an impetus to do more BCI work more quickly

Table 2. Opportunity: brief COM-B component mapping using TDF domains

COM-B COMPONENTS	TDF DOMAIN AND DEFINITION	WHAT NEEDS TO CHANGE FOR BCI WORK (RESEARCH AND APPLICATION) TO INCREASE
Opportunity – physical	11. Environmental context and resources: any circumstance of a person’s situation or environment that discourages or encourages the development of skills and abilities	<p>FPs identified a need for improved physical opportunity, with important non-skills gaps related to:</p> <ul style="list-style-type: none"> • conducting BCI research for policy, services or communications, including gaps in staff resources (section 2.2.4) • applying findings from BCI research to policy, services or communications, including gaps in resourcing (section 2.3.3)
Opportunity – social	<p>3. Social and/or professional role and identity: a coherent set of behaviours and displayed personal qualities of an individual in a social or work setting</p> <p>12. Social influences: interpersonal processes that can cause individuals to change their thoughts, feelings or behaviours</p>	<p>Increased social opportunity because:</p> <ul style="list-style-type: none"> • many managers (decision-makers) in health organizations in their country are likely to be unaware or indifferent about the objective to increase the use of BCI in health-related policies, services or communications (section 2.4.4) <p>Increased social opportunity because:</p> <ul style="list-style-type: none"> • internal and external stakeholders have limited understanding of what BCI is and how it can benefit their work (section 2.4.2)

FP: focal point.

Table 3. Motivation: brief COM-B component mapping using TDF domains

COM-B COMPONENTS	TDF DOMAIN AND DEFINITION	WHAT NEEDS TO CHANGE FOR BCI WORK (RESEARCH AND APPLICATION) TO INCREASE
Motivation – automatic	13. Emotion ^a : a complex reaction pattern, involving experiential, behavioural and physiological elements	Improved automatic motivation: scope to improve the positive affect associated with the benefits of BCI because stakeholders have low awareness levels of the benefits of BCI (section 2.4.2) and are probably unaware of or indifferent to the objective to increase the use of BCI (section 2.4.4)
Motivation – reflective	6. Beliefs about consequences ^a : acceptance of the truth, reality or validity about outcomes of a behaviour in a given situation	Does not appear to be a major concern: <ul style="list-style-type: none"> • FPs had an overall positive outlook for BCI work for health in their country over the next 5 years (section 2.5.1). • several issues must be addressed before considering developing a national BCI strategy: communicate the added value (why it is needed), make the idea more tangible and demonstrate impact in wider range of areas (section 2.1.2)
	9. Goals: mental representations of outcomes or end states that an individual wants to achieve	Improved reflective motivation: <ul style="list-style-type: none"> • FPs said that, typically, goals or commitments (over and above the commitment to the BCI resolution have not been set for BCI work in their countries (section 2.1.1)

FP: focal point.

^a From a methodological perspective, it is acknowledged that study topic guide did not include a direct question on this TDF domain.

3. Discussion

Overall, this qualitative interview-based study showed both commitment to and optimism for future BCI work, and that the BCI resolution on a European regional action framework for behavioural and cultural insights for equitable health, 2022–2027 and the accompanying BCI action framework with its reporting requirements (3,4) are good drivers of change. At the same time, several important barriers to increasing BCI work were identified. The focal points suggested a range of actions to support them to overcome these barriers.

Based on the findings of the study, the following considerations for action by regional and international organizations to support Member States to advance the implementation of the BCI resolution were developed. These have been grouped according to the five strategic commitments of the resolution and accompanying 5-year BCI action framework.

3.1 Considerations

SC1: Build understanding and support of BCI among key stakeholders

1. Continue to use the BCI resolution, BCI action framework, reporting, meetings and high-level advocacy to increase the visibility, understanding and prioritization of BCI work for better health.
2. Develop a permanent networking structure for Member States to share plans, work, experiences and overall good practice on BCI work for better health based on and transitioning from the network that was established to develop the BCI resolution and BCI action framework and facilitate reporting. Consider using a thematic structure, with subgroups of Member States focusing on specific topics and elements of co-production of resources.
3. Develop a suite of impactful communication materials for high-level officials on the importance of BCI work that clearly explains what BCI is, how it differs from other approaches, how it can help to improve public health and also health system efficiency, and what practical steps can be taken (including a short video and two-page flyer).
4. Continue to demonstrate the benefits of BCI using brief case studies.
5. Lead the development of template pitches (one to two pages) explaining the potential benefits of BCI research or applications in specific topic areas and what this could involve – these could be adapted by focal points to engage with policy-makers or technical leads in Member States.
6. Make bootcamp foundation training in the behavioural and cultural sciences for health available to focal points and their teams.
7. Support the wider use of national BCI-related networks and collate and share information on current national networks (e.g. how they are organized, their functions, frequency and format of meetings, and topics covered).
8. Reach a wider audience than those with a pre-existing interest in BCI by identifying priority health topics that are supported by WHO conferences and training materials and integrating BCI findings into these.

SC2: Conduct BCI research

1. Develop written guidance and provide training and technical advice, including⁹:
 - (a) impact evaluation, including guidance on the technical aspects of running a RCT and practical experiences of doing this within a public organization – although not specifically mentioned by the focal points, it might be useful to include additional techniques approved in Cochrane Effective Practice and Organisation of Care guidelines for non-randomized trials, controlled before-after studies (difference-in-differences studies) and interrupted time-series studies (16);
 - (b) quantitative research methods – specific techniques were not mentioned by focal points but could include statistical methods of most relevance to understanding drivers and barriers or associations (e.g. multivariate regression analysis, techniques such as logistic regression, ordered logistic regression and analysis of variance);
 - (c) qualitative research methods, including how to plan and run focus groups, using citizen/user panels, representative advisory boards and other techniques to reach marginalized groups; and
 - (d) literature synthesis methods, including protocol development, searching, screening, extracting information and formulating conclusions and recommendations.
2. Facilitate cross-country research teams by providing a mechanism for countries to pursue research collaborations (e.g. reviewing a topic of shared interest).
3. For surveys on healthy and unhealthy behaviours, undertaken in numerous countries, determine whether:
 - (a) additional behavioural analysis of the available data would be useful (e.g. to gain a better understanding of drivers, barriers or associations); and
 - (b) an improved understanding of behaviours could be gained through feasible amendments or additions to the questionnaires.
4. Determine whether a shared facility for online experiments for diagnostics and pre-testing interventions can be justified.

SC3: Apply BCI to improve outcomes of health-related policies, services and communications¹⁰

1. Develop written guidance and training on applying a BCI lens to health policies, services and communications, including which behavioural and cultural aspects and which theoretical models may be most relevant in different contexts and how to apply these.
2. Undertake in-depth case studies to extract learnings from cases where findings from impact evaluations or other beneficial applications of BCIs have been scaled up or adopted as part of a policy, service or communication.
3. Help to develop a brief guide on the types of BCI services and functions provided by existing BCI units and teams in Member States to demonstrate how BCI can be applied to policy, services and communications. This should include light touch consultancy, input into meetings and steering groups, diagnostic work, design solutions, behavioural

⁹ These should comprise short, focused guidance intended to quickly build capacity. To prompt usability for a busy audience, the material should be brief with signposting to existing resources for more detailed discussion (e.g. CONSORT (17), Cochrane guides (18)). Focal points also expressed a preference to include experiences and learning from other focal points and countries with experience in these areas. Review of the draft guidance material by a subset of focal points may also be useful.

¹⁰ Note that three actions under SC1 are also particularly relevant to SC3, SC4 and SC5. These actions under SC1 are: 3. Develop a suite of impactful communication materials; 4. Continue to demonstrate the benefits of applying BCI using brief case studies and 5. Lead the development of template pitches.

pathway mapping, intervention and policy mapping, and intervention redesign and testing (including impact evaluation).

4. Ensure that the WHO BCI Unit is available to provide advice to focal points on how Member States can best expand BCI activity given their resources and best focus their BCI efforts.

SC4: Commit human and financial resources for BCI and ensure their sustainability¹⁰

1. Advocate for international research and capacity-building funding for BCI for health. For example, the WHO Regional Office for Europe and the ECDC could advocate at European Union or European level for funding for specific research calls or joint actions for behavioural insights research and capacity-building that health policy and service organizations could apply for.

SC5: Implement strategic plan(s) for the application of BCI for better health¹⁰

1. Develop written guidance that illustrates what a dedicated national or subnational strategy or plan for applying BCI for better health might cover and communicate the added value this would provide.
2. Help to capture the experiences of countries that have developed or are currently developing a dedicated strategy for behavioural science or BCI for health, and of countries that are developing plans on specific health topics with BCI as a major element.

¹⁰ Note that three actions under SC1 are also particularly relevant to SC3, SC4 and SC5. These actions under SC1 are: 3. Develop a suite of impactful communication materials; 4. Continue to demonstrate the benefits of applying BCI using brief case studies and 5. Lead the development of template pitches.

References¹¹

1. Countries [website]. In: World Health Organization. Geneva: World Health Organization; 2023 (<https://www.who.int/countries>).
2. European Programme of Work 2020–2025: united action for better health. Copenhagen: WHO Regional Office for Europe; 2021 (<https://iris.who.int/handle/10665/339209>).
3. Seventy-second Regional Committee for Europe: Tel Aviv, 12–14 September 2022: resolution: European regional action framework for behavioural and cultural insights for equitable health, 2022–2027. Copenhagen: WHO Regional Office for Europe; 2022 (<https://apps.who.int/iris/handle/10665/362958>).
4. European regional action framework for behavioural and cultural insights for health, 2022–2027. Copenhagen: WHO Regional Office for Europe; 2023 (<https://iris.who.int/handle/10665/372664>).
5. Resolution WHA76.7. Behavioural sciences for better health. In: 76th World Health Assembly, Geneva, 21–30 May 2023. Geneva: World Health Organization; 2023 (https://apps.who.int/gb/ebwha/pdf_files/WHA76/A76_R7-en.pdf).
6. Liamputtong P, Ezzy D. Qualitative research methods, second edition. Melbourne: Oxford University Press; 2005 (<https://global.oup.com/academic/product/qualitative-research-methods-9780190304287?cc=us&lang=en&>).
7. Michie S, van Stralen MM, West R. The behaviour change wheel: a guide to designing interventions. London: Silverback Publishing; 2014 (<http://www.behaviourchangewheel.com>).
8. Huijg J, Gebhardt W, Crone M, Dusseldorp E, Presseau J. Discriminant content validity of a theoretical domains framework questionnaire for use in implementation research. *Implement Sci.* 2014;9:11. doi: 10.1186/1748-5908-9-11.
9. Hamadeh N, van Rompaey C, Metreau E, Eapen SG. New World Bank country classifications by income level: 2022–2023. *World Bank Blogs.* 1 July 2022. Washington (DC): World Bank; 2022 (<https://blogs.worldbank.org/opendata/new-world-bank-country-classifications-vincome-level-2022-2023>).
10. Methodology: standard country or area codes for statistical use (M49) [website]. In: United Nations/Department of Economic and Social Affairs/Statistics Division. New York: United Nations Department of Economic and Social Affairs; 2023 (<https://unstats.un.org/unsd/methodology/m49/>).
11. MAXQDA [website]. Berlin: VERBI Software; 2023 (<https://www.maxqda.com/>).
12. Rädiker S, Kuckartz U. Focused analysis of qualitative interviews with MAXQDA: step by step. Berlin: MAXQDA Press; 2020 (<https://www.maxqda-press.com/catalog/books/focused-analysis-of-qualitative-interviews-with-maxqda>).
13. BCI status report. summary and analysis of public health authorities' reports on the use of behavioural and cultural insights, WHO European Region, 2021–2022. Copenhagen: WHO Regional Office for Europe; 2023 (<https://iris.who.int/handle/10665/374326>).
14. Sousa Lourenco J, Ciriolo E, Rafael Rodrigues Vieira De Almeida S, Troussard X. Behavioural insights applied to policy: European report 2016. Luxembourg: Publications Office of the European Union; 2016 (No. JRC100146; <https://publications.jrc.ec.europa.eu/repository/handle/JRC100146>).

¹¹ All references were accessed 1 October 2023.

15. 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. Copenhagen: WHO Regional Office for Europe; 2023 (<https://iris.who.int/handle/10665/367041>).
16. What study designs can be considered for inclusion in an EPOC review and what should they be called? London: Cochrane Effective Practice and Organisation of Care; 2021 (<https://epoc.cochrane.org/resources/epoc-resources-review-authors>). doi: 10.5281/zenodo.5106085
17. Schulz KF, Altman DG, Moher D, for the CONSORT Group. CONSORT 2010 Statement: updated guidelines for reporting parallel group randomised trials. *BMJ*. 2010;340:c332. doi: 10.1136/bmj.c332.
18. Guides and handbooks [website]. In: Cochrane Training. London: Cochrane; 2023 (<https://training.cochrane.org/handbooks>).

ANNEX 1. STUDY QUESTIONS

Goals

1. Have goals or commitments been set for BCI work in your country? (in addition to those in the BCI action framework)
2. What would need to happen before your country would consider implementing a strategic plan or plans to apply BCI for health? (a quantitative indicator in the BCI action framework)

Skills gaps to conduct BCI research

1. What types of BCI research are being done? (no need to describe specific projects)
2. Who conducts this research? Do you collaborate with external partners organizations?
3. When it comes to conducting BCI research, what are the most important skills gaps in your country that need to be filled in order to conduct BCI research?

Skills gaps to apply BCI findings

1. How are you applying or using BCI approaches and evidence to improve health-related policy, services or communication? (no need to describe specific applications)
2. What are the most important skills gaps in your country that need to be filled in order to apply or use BCI approaches and evidence to improve health policies, services and communications?

Understanding and support among key stakeholders

1. Who do you consider the most important stakeholders for increasing BCI work for health in your country?
2. How well do you think key internal and external stakeholders understand what BCI is and how it can benefit their work?
3. What, if anything, has been done to increase awareness of BCI among key internal and external stakeholders in your country?
4. What do you think managers (decision-makers) in health organizations in your country think about the objective to increase the use of BCI in health-related policies, services or communications?

Thoughts about the future

1. How do you see BCI for health developing in your country over the next 5 years?
2. What would be most useful to help to increase BCI work for health in your country?
3. What support from WHO and ECDC would help to advance BCI work in your country?
4. In what ways, if at all, do you think the WHO Regional Office for Europe's BCI action framework and requirement to report on progress will be useful for your country?

ANNEX 2. STUDY TEAM MEMBERS¹²

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¹² Administrative support was provided by Sandy Neale, Programme Assistant, WHO Regional Office for Europe.

ANNEX 3. INTERVIEW TOPIC GUIDE USED BY INTERVIEWERS

Introduction (3 mins)

Thank you very much for your time and for agreeing to participate in this voluntary study. I want to stress that there are no right or wrong answers, judgement or expectations. We simply want to learn from your understanding of the BCI situation in your country.

This interview will take up to 60 minutes. Your answers will be anonymized and kept confidential. The analysis will be based on the anonymized written transcripts. Can I turn on the recording device? (Turn it on – if they do not agree, politely end the interview.)

Extent and organization (8 mins)

Today's topic is your view on approaches to behavioural and cultural insights or BCI for health in your country. By BCI work, I am referring to research that explores the barriers to and drivers of health behaviours or whether interventions have the intended effect on behaviours, and also to the use of insights to improve health policies, services or communications. Different terms are used for this work such as behavioural sciences, social sciences or behavioural insights.

1. Please tell me briefly to what extent do public or government agencies in your country undertake BCI research or use findings from BCI to inform health policies, services or communications?

If BCI work has been done:

1. Please briefly describe how BCI work is organized?

Prompts:

- (a) how is BCI work initiated?
- (b) how is it resourced?– is there dedicated staff or funding? (if so, is this a unit or a team?)
- (c) do other related public organizations have a unit or team for BCI (i.e. the Ministry of Health, main health service organization, public health organization)?

2. What are the main factors that helped to undertake this work?

If BCI work has NOT been done:

1. Why not? What are the main reasons for this?

Goals (5 mins)

1. Have goals or commitments been set for BCI work in your country?

Prompts:

- (a) in a business or action plan of a unit or team?
- (b) integrated into a specific plan, e.g. for cancer, smoking, vaccination?
- (c) in a national strategy for BCI for health?

If no national strategy, go to Q2.

If there is a national strategy, go to the next section.

2. What would need to happen before your country would consider developing a national strategy for the application of BCI for health?

Skills to conduct BCI research (10 mins)

If BCI work is carried out:

1. Without going into the details of specific projects, what types of BCI research are being done?

Prompts:

- (a) literature reviews or briefs on barriers or interventions?
- (b) studies on factors that prevent or drive a health behaviour?
- (c) experiments, trials or action research?

2. Who conducts this research? Do you collaborate with external partner organizations?

3. What are the most important skills gaps in your country that need to be filled in order to conduct BCI research?

If said that BCI work is not carried out:

1. What broad types of BCI research do you think would be most useful in your country?

Prompts:

- (a) literature reviews or briefs on barriers or interventions?
- (b) studies on factors that prevent or drive a health behaviour?
- (c) experiments, trials or action research?

(If the initial answer is about specific topic areas, next ask about types of studies for those topics.)

2. What are the most important skills gaps/skills in your country that need to be filled in order to conduct BCI research?

Skills to apply BCI to health policies, services and communications (10 mins)

So far, we have talked about BCI research and how it is carried out in your country. Next, I would like to talk about how this research is applied to improve actual policies, services and communications.

If mentioned that BCI work is carried out:

1. Without going into the details of specific applications, when it comes to applying or using BCI approaches and evidence to improve health-related policy, services or communication, how is this done?

Prompts:

- (a) staff using BCI approaches and guides, and which guides?
- (b) staff communicating evidence to key decision-makers?
- (c) external BCI experts providing detailed design advice?
- (d) advisory groups, including external BCI experts?

2. What are the most important skills gaps in your country that need to be filled in order to apply or use BCI approaches and evidence to improve health policies, services and communications?

If BCI work is not carried out:

1. If a public or government agency in your country wanted to use behavioural and cultural insights to improve health-related policy, services or communication, what types of skills do you think would help to apply or use the insights?

Prompts:

- (a) staff who are familiar with BCI approaches and guides?
- (b) staff who can communicate evidence to key decision-makers?
- (c) external BCI experts who can advise?

2. What are the most important skills gaps in your country that need to be filled in order to apply or use BCI approaches and evidence to improve health policies, services and communications?

Understanding and support among key stakeholders (15 mins)

1. Who do you consider the most important stakeholders for increasing BCI work for health in your country?

Prompts:

- (a) areas of work?
- (b) conducting BCI research vs applying BCI findings?
- (c) internal and/or external?
- (d) if already engaged in a few areas, then are there other important areas?

2. How well do you think key internal and external stakeholders understand what BCI is and how it can benefit their work?

Prompts:

- (a) do they know what is meant by BCI?
- (b) do they know where BCI could be used?

3. What, if anything, has been done to increase awareness of BCI among key internal and external stakeholders in your country?

Prompts:

- (a) held internal seminar(s) or open conferences?
- (b) shared case stories?
- (c) provided new pieces/information on an Intranet?
- (d) held meetings with staff or units in targeted areas or topics?

4. What do you think managers (decision-makers) in health organizations in your country think about the objective to increase the use of BCI in health-related policies, services or communications?

Prompts:

- (a) believe it is their job to use BCI in their work?
- (b) have positive or negative views about it?
- (c) want to allocate funding and staff to this work?

Thoughts about the future (8 mins)

1. How do you see BCI for health developing in your country over the next 5 years?

Prompts:

- (a) intend to increase support, research or applications?
- (b) areas of possible work?
- (c) have decisions been made to increase work in the area, increase resources or change structures?

2. What would be most useful to help to increase BCI work for health in your country?

Prompts:

- (a) more or better trained staff?
- (b) increased funds?
- (c) help to pitch opportunities?
- (d) more support for the work within health organizations?

3. What support from WHO and ECDC would help to progress BCI work in your country?

4. In what ways, if at all, do you think the WHO Regional Office for Europe's BCI action framework and the requirement to report on progress will be useful for your country?

Prompts:

- (a) monitor work?
- (b) increase visibility?
- (c) prioritization of the area?

5. Is there anything else you would like to add?

End of the interview (1 min)

Thank you!

We will share the report with you for comment before it is published.

Do you have any last questions?

Goodbye

NOTE FOR INTERVIEWERS

Scope: as per the progress model, the focus is only on actions in which national or local authorities or public health institutions were involved. Actions conducted independently by external stakeholders such as NGOs or academic or private institutions with no engagement from public or government agencies should not be included.

Approach: the approach is to ask open-ended questions. The prompts are to be used after the participant has had an opportunity to provide an initial answer.

As noted on page 10 of the Protocol, the moderator will:

1. understand the research objectives and know the research guide well;
2. ask open-ended questions to keep the participant talking and avoid a formal question/answer approach;
3. make sure the discussion is relaxed, friendly and informal;
4. give the participant time to think and answer; and
5. stay neutral and avoid reacting to or correcting the participant.

Managing expectations: a participant might ask what support WHO and ECDC can provide. It will be important to manage expectations and not create unrealistic expectations. The purpose of the study is to understand what participants think would help in general and to listen to any suggestions about what might be helpful from WHO and ECDC. Know what WHO and ECDC have planned for capacity-building.

In advance the interview: undertake a brief trial run of the recording facility on your computer/laptop (i.e. have a 2-minute chat with someone (or yourself) to make sure the recording and transcribing is working).

When referring to the specific public health authority and political context of the focal point, seek to establish at the start the correct terminology by listening to the words the participant uses.

ANNEX 4. THE COM-B MODEL AND TDF

The behaviour change wheel was developed from 19 frameworks of behaviour change identified in a systematic literature review (1). It consists of three layers: the hub or COM-B (capability, opportunity, motivation and behaviour) model, which identifies the sources of the behaviour that could prove fruitful targets for intervention. Surrounding the hub is a layer of nine intervention functions to choose from based on the particular COM-B analysis one has undertaken. The outer layer identifies seven policy categories that can support the delivery of these intervention functions.

Under the COM-B model for any behaviour to occur there must be:

1. capability, which can be either physical (having the physical skills, strength or stamina to perform the behaviour) or psychological (having the knowledge, psychological skills, strength or stamina to perform the behaviour);
2. opportunity, which can be physical (what the environment allows or facilitates in terms of time, triggers, resources, locations, physical barriers, etc.) or social (including interpersonal influences, social cues and cultural norms).
3. motivation, which may be reflective (involving self-conscious planning and evaluations, beliefs about what is good or bad) or automatic (involving wants and needs, desires, impulses, and reflex responses).

Under the COM-B model:

[c]hanging the incidence [emphasis added] of any behaviour of an individual, group or population involves changing one or more of the following: capability, opportunity, and motivation relating either to the behaviour itself or behaviours that compete with or support it (2).

To identify what needs to change using the COM-B model, one option is to conduct a structured discussion with stakeholders based on the COM-B model components and/or domains in the TDF (2). The TDF further elaborates the components of COM-B into 14 domains¹³. When resources are limited it is common practice not to explore all 14 domains, but instead to focus on what are viewed to be the most relevant in a particular context. For example case studies, see *The behaviour change wheel: a guide to designing interventions* (2). This study focuses on nine domains of the TDF (shaded in Table A3), which cover all of the elements of the COM-B and its subcomponents.

¹³ The original TDF was developed by an international panel of 32 experts in behaviour change who identified 128 constructs from 33 behaviour change theories and simplified them into domains. Usability was developed with an international team of implementation scientists. The TDF has been validated and refined by an international panel of 36 experts in behaviour change (3).

Table A3. Motivation: brief COM-B component mapping using TDF domains

TDF DOMAIN	DEFINITION	CONSTRUCTS WITHIN THE DOMAIN	EXEMPLAR QUESTION	COM-B
Knowledge (D1)	Awareness of the existence of something	Knowledge (including knowledge of condition/scientific rationale), procedural knowledge, knowledge of task environment	Do you know about X?	Capability – psychological
Skills (D2)	Ability or proficiency acquired through practice	Skills, skills development, competence, ability, interpersonal skills, practice, skill assessment	Do you know how to do X?	Capability – physical
Social/professional role and identity (D3)	A coherent set of behaviours and displayed personal qualities of an individual in a social or work setting	Professional identity, professional role, social identity, identity, professional boundaries, professional confidence, group identity, leadership, organizational commitment	Is doing X compatible or in conflict with professional standards/identity?	Opportunity – social
Beliefs about capabilities (D4)	Acceptance of the truth, reality or validity about an ability, talent or facility that a person can put to constructive use	Self-confidence, perceived competence, self-efficacy, perceived behavioural control, beliefs, self-esteem, empowerment, professional confidence	How difficult or easy is it for you to do X?	Motivation – reflective
Optimism (D5)	Confidence that things will happen for the best or that desired goals will be attained	Optimism, pessimism, unrealistic optimism, identity	How confident are you that the problem of implementing X will be solved?	Motivation – reflective
Beliefs about consequences (D6)	Acceptance of the truth, reality or validity about outcomes of a behaviour (in a given situation)	Beliefs, outcome expectancies, characteristics of outcome expectancies, anticipated regret, consequents	What do you think will happen if you do X?	Motivation – reflective

Table A3. Contd.

TDF DOMAIN	DEFINITION	CONSTRUCTS WITHIN THE DOMAIN	EXEMPLAR QUESTION	COM-B
Reinforcement (D7)	Increasing the probability of a response by arranging a dependent relationship, or contingency, between the response and a given stimulus	Rewards (proximal/distal, valued/not valued, probable/improbable), incentives, punishment, consequents, reinforcement, contingencies, sanctions	Are there incentives to do X?	Motivation – automatic
Intentions (D8)	Conscious decisions to perform a behaviour or a resolve to act in a certain way	Stability of intentions, stages of change model, transtheoretical model and stages of change	Have they made a decision to do X?	Motivation – reflective
Goals (D9)	Mental representations of outcomes or end states that an individual wants to achieve	Goals (distal/proximal, autonomous/controlled), goal priority, goal/target setting, action planning, implementation intention	How much do they want to do X?	Motivation – reflective
Memory, attention and decision processes (D10)	Ability to retain information, focus selectively on aspects of the environment and choose between two or more alternatives	Memory, attention, attention control, decision-making, cognitive overload/tiredness	Is X something you usually do?	Capability – psychological
Environmental context and resources (D11)	Any circumstance of a person's situation or environment that discourages or encourages the development of skills and abilities, independence, social competence, and adaptive behaviour	Environmental stressors, resources/material resources, organizational culture/climate, salient events/critical incidents, person–environment interaction, barriers and facilitators	To what extent do physical or resource factors facilitate or hinder X?	Opportunity – physical

Table A3. Contd.

TDF DOMAIN	DEFINITION	CONSTRUCTS WITHIN THE DOMAIN	EXEMPLAR QUESTION	COM-B
Social influences (D12)	Interpersonal processes that can cause individuals to change their thoughts, feelings or behaviours	Social pressure, social norms, group conformity, social comparisons, group norms, social support, power, intergroup conflict, alienation, group identity, modelling	To what extent do social influences facilitate or hinder X?	Opportunity – social
Emotion (D13)	A complex reaction pattern involving experiential, behavioural and physiological elements, by which the individual attempts to deal with a personally significant matter or event	Fear, anxiety, affect, stress, depression, positive/negative affect, burn-out	Does doing X evoke an emotional response?	Motivation – automatic
Behavioural regulation (D14)	Anything aimed at managing or changing objectively observed or measured actions	Self-monitoring, breaking habit, action planning	Do you have systems that you could use for monitoring whether or not you have carried X?	Capability – psychological

Source: taken from Michie et al. (2) Table 1.5

References¹⁴

1. Michie S, van Stralen MM, West R. The behaviour change wheel: a new method for characterising and designing behaviour change interventions. *Implementation Sci.* 2011;6:42. doi: 10.1186/1748-5908-6-42.
2. Michie S, Atkins L, West R (2014). *The behaviour change wheel: a guide to designing interventions*. London: Silverback Publishing (<http://www.behaviourchangewheel.com/>).
3. Cane J, O'Connor D, Michie S (2012). Validation of the theoretical domains framework for use in behaviour change and implementation research. *Implement Sci.* 7:37. doi: 10.1186/1748-5908-7-37.

¹⁴ All references were accessed 1 October 2023.

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.

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