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Strengthening capacity for noncommunicable disease implementation research in the WHO European Region

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Foreword

Noncommunicable diseases (NCDs) and their risk factors are one of the major global challenges of the 21st century. Collectively, NCDs are responsible for almost 70% of all deaths worldwide. The impact of the major NCDs – diabetes, cardiovascular diseases, cancer, chronic respiratory diseases and mental disorders – is equally high in the World Health Organization (WHO) European Region: taken together, they account for an estimated 86% of the deaths and 77% of the disease burden in the Region.

Four major behavioural risk factors – tobacco use, physical inactivity, the harmful use of alcohol and unhealthy diets – are the primary drivers of the rise of NCDs. Reducing these risk factors is the key focus of the Action Plan for the Prevention and Control of Noncommunicable Diseases in the WHO European Region 2016–2025 *(1)*. In support of this, *Tackling NCDs: "best buys" and other recommended interventions for the prevention and control of noncommunicable diseases* (2017) is an updated version of the 2013 original, which aims to provide policy-makers with a menu of policy options to address NCDs *(2)*. This list aims to assist Member States, as appropriate in specific national contexts, to implement measures to achieve Target 3.4 of the Sustainable Development Goals (SDGs).

Despite the availability of many resources, the current level of implementation of best buy interventions remains significantly low. Countries will not be able to achieve the nine global voluntary targets for NCDs nor SDG Target 3.4 if "business as usual" continues; there is a need to scale up and improve uptake of affordable and efficient NCD interventions. Calls for greater implementation research (IR) capacity come in the wake of compelling evidence that implementation strategies are critically important for the dissemination and facilitation of evidence-informed policies and interventions, thereby improving outcomes for both individuals and populations.

There is a clear gap between the topics prioritized by WHO and Member States (policy-relevant research questions) and the research and evidence gathered by the academic community. There is also need for a prioritized research agenda from WHO in the area of health and well-being; the last one was developed in 2011 and revisited in 2016. Furthermore, there are long delays in translating research into policies and actions. Uptake of research and policies has been consistently weak and public health experts have called for further technical support to improve this situation.

This workshop was developed to address that gap by bringing together key stakeholders in the academic and policy-making communities and initiating discussions among them on ways to strengthen IR capacities for NCD prevention, control and promoting health through the life-course. The active participation and productive discussions during the workshop indicated a great potential for collaboration and a large appetite for future progress. We look forward to working together with Member States in tackling NCDs and their risk factors in the Region.

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Abbreviations

IR	implementation research
NCD	noncommunicable disease
SDG	Sustainable Development Goal
SSB	sugar-sweetened beverage
WHO	World Health Organization

Executive summary

In the WHO European Region, noncommunicable diseases (NCDs) are responsible for 86% of deaths and 77% of the disease burden. In the face of such alarming statistics, WHO Member States have committed to cutting premature NCD mortality by one third by 2030 under Target 3.4 of the Sustainable Development Goals. To achieve this target, WHO has produced a menu of "best buys" and other cost–effective recommended interventions for the prevention and control of NCDs that can be adopted by Member States.

Monitoring data suggest that only 42% of the best buy interventions have been fully implemented across the WHO European Region. Member States have also expressed a need for technical support that could assist them in adapting these interventions to their specific country contexts. However, at present, implementation of evidence-based interventions and policies is challenged by a lack of academic research on how these cost–effective recommended interventions can be implemented in local settings.

To address this gap, the WHO Regional Office for Europe's Office for the Prevention and Control of NCDs convened a four-day training workshop in Moscow, Russian Federation, on implementation research (IR) for NCDs; it was attended by nominated senior researchers and policy-makers from 13 Member States and co-facilitated by a faculty of international academic and technical experts in the field of implementation science. The aim of the workshop was to build and strengthen the IR capacities of Member States with respect to NCDs and to promote implementation of NCD best buy interventions across the WHO European Region. This report provides an overview of the main learning points of the workshop: an overview of core concepts in IR; the successes of IR and the challenges it poses for Member States; and consideration of how Member States can progress in their implementation of interventions through such research projects.

1. Background

Noncommunicable diseases (NCDs) are responsible for 86% of deaths and 77% of the disease burden in the World Health Organization (WHO) European Region. WHO Member States have committed to cutting premature NCD mortality by one third by 2030 under Target 3.4 of the Sustainable Development Goals. WHO has produced a menu of cost–effective NCD interventions, dubbed "best buys", to help achieve this target *(3)*. Monitoring data suggest that only 42% of the best buy interventions have been fully implemented across the European Region, *(4)* and more than 50 Member States have requested technical support to implement NCD-related policies in their countries. There is a dearth of academic research on how to contextualize and implement cost–effective NCD policies in low- and middle-income settings.

The WHO European Office for the Prevention and Control of Noncommunicable Diseases convened an implementation research (IR) workshop to address these evidence gaps, build capacity, and promote implementation across the European Region.

2. Workshop structure

Member States that are proactively seeking to implement NCD policies were invited to nominate between one and three senior researchers and policy-makers to attend the workshop. Twelve countries were represented: Azerbaijan, Belarus, Croatia, Estonia, Finland, Kazakhstan, the Kyrgyz Republic, Malta, the Republic of Moldova, Montenegro, the Russian Federation, and the United Kingdom. Delegates occupied a range of positions, working as senior health ministry officials, civil servants, national public health directors and senior academics.

WHO convened a faculty of international implementation science experts to deliver a practical programme of training sessions and workshops (Box 1). The Director of the European Regional Office's Division of Noncommunicable Diseases, Programme Managers and senior technical officers co-facilitated sessions and practical group work.

Over the course of four days, country teams developed IR projects for NCDs with support from the technical experts and WHO staff. Group sessions enabled countries to share their experiences with other delegations. The workshop marked the genesis of an implementation network through which countries will continue to support one another and to receive technical support coordinated through the Regional Office for Europe. WHO staff also used the workshop to improve their understanding of how WHO can best support countries in implementing NCD policies.

Box 1. Workshop programme

Day 1

- Achieving SDG 3.4 with global to national level NCD action plans
- Challenges for implementation of NCD policies and the role of IR
- Implementation of national NCD plans: the perspectives of Belarus
- Partnerships for strengthening IR for NCDs
- Implementation research for NCD prevention and control: an overview of concepts and terms
- International examples of WHO-supported NCD IR projects: Kenya, Mongolia and Nepal
- Small group discussion with experts and WHO NCD Programme Managers to inform priority research topics and to refine the research question for proposed projects

Day 2

- National and international examples of projects and resources for IR
- Measuring implementation outcomes
- A review of study designs and types of evidence for implementation science

Day 3

- Intervention mapping and stakeholder network analysis
- Group work: project time to develop the presentations on proposed country IR projects
- Capacity-building in countries for IR: country-defined enabling factors
- Using the PO-PICO approach to frame research questions
- Group work: project time to develop the presentations on proposed country IR projects

Day 4

- Country presentations of project proposals with feedback from technical experts
- Next steps: how can we take these studies forward and continue to strengthen capacity for NCD IR?
- Final advice from technical experts, summary and close

3. Core concepts in implementation research (IR)

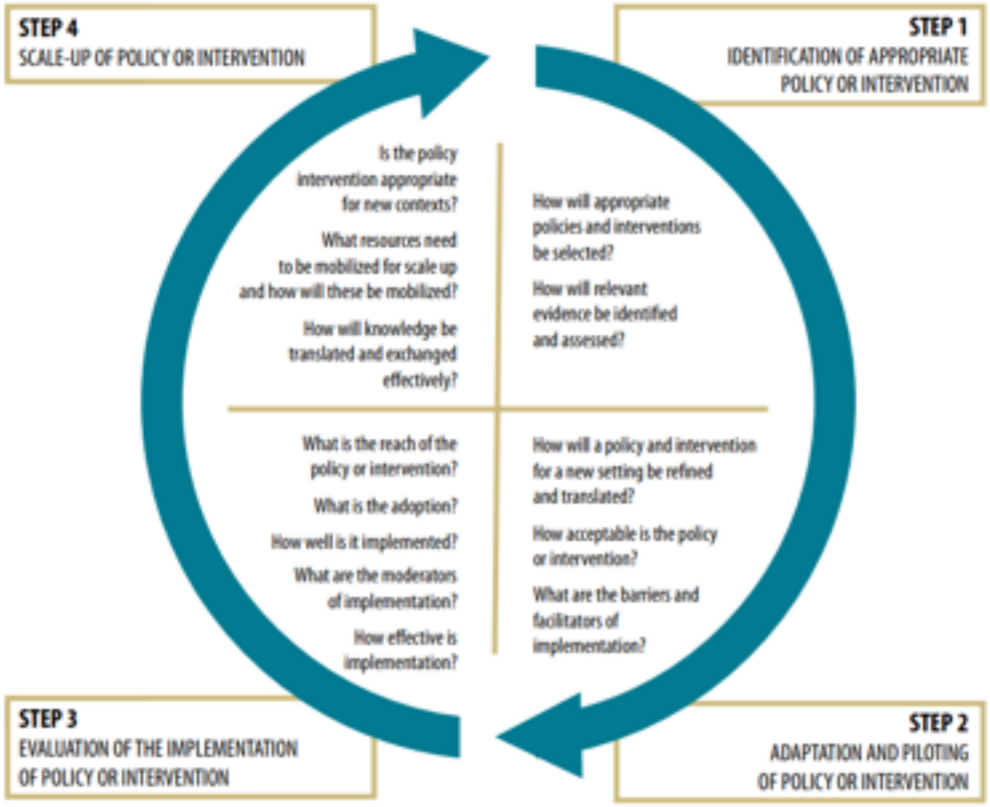
The term "implementation" comes from the Latin word *implēre*, meaning "to fulfil", and implementation is simply about "getting things done". The most widely used definition of IR comes from the evidence-based medicine paradigm: "the scientific study of methods to promote the systematic uptake of research findings and other evidence-based practices into routine practice, and, hence, to improve the quality and effectiveness of health services and care" *(5)*.

The focus of IR should be on the *implementation strategy* of a particular intervention, not on the intervention itself. IR can be used to understand context, assess performance, inform implementation, and support scale-

up and integration. It is used across a spectrum from discovery and proof of concept right through to programme evaluation. IR can answer questions such as: is it safe and does it work? How does it work in the real world? What factors influence adoption? How does it scale up and sustain?

The WHO *Guide to implementation research in the prevention and control of noncommunicable diseases* lists four discrete stages of the implementation cycle (Fig. 1) *(6)*.

Fig. 1. The implementation cycle



The defining characteristics of IR are that it is multi-stakeholder and multidisciplinary; it is context-specific and demand-driven; it takes place in real time and in real-world settings; and it focuses equally on processes and outcomes. Nilsen *(7)* and Tabak et al. *(8)* provide two good reviews of the different theories that can be used to inform IR. Other useful resources for thinking about IR theories and frameworks include diffusion of innovation theory *(9)*, RE-AIM *(10)*, the Consolidated Framework for Implementation Research (CFIR) *(11)*, the Interactive Systems Framework *(12)*, and "Building organizational readiness through an evidence-based system for implementation support" (which mainly deals with readiness) *(13)*.

Key ingredients of IR include *(14)*:

- Understanding of the gap/need. What evidence is there that the gap exists?
- The evidence-based intervention to be implemented. What is the evidence for what you plan to implement? Is your intervention superior to other options? What level of evidence is there to support your favoured intervention *(15)*?
- A conceptual model and theoretical justification.
- Stakeholder engagement in change and an understanding of their priorities.
- An understanding of the setting's readiness to adopt the intervention. Is the population willing to change?
- The implementation strategy. Do you have a strategy to test?
- Consideration of the team's experience with the setting, treatment and implementation process.
- Consideration of the feasibility of the proposed research design.

- Appropriate outcome measures. Do the key constructs align with the theory or model that you have chosen?
- The policy and funding environment. There needs to be support for sustained change.

The main outcome measures of IR include:

- Acceptability: the intervention is agreeable to various stakeholders; in other words, satisfaction with the intervention. This should be assessed at the beginning and throughout the entire implementation cycle; it requires quantitative and qualitative research.
- Adoption: the intention, initial decision, or action to try to employ a new intervention. This is relevant at every stage, but critical at the stage of installation. Adoption is commonly measured using surveys and interviews.
- Feasibility: the extent to which an intervention can actually be carried out in a particular setting.
- Fidelity: the degree to which the intervention was implemented as planned.
- Incrementation cost, also known as marginal cost: the amount that the intervention will cost.
- Coverage: the degree to which the eligible population actually receives the intervention; also known as reach or access.
- Sustainability: the extent to which the intervention is maintained or institutionalized.

Adaptation has been defined as the degree to which an innovation is changed or modified by a user in the process of its adoption and implementation *(16)*. There is a tension between adaptability and fidelity (the extent to which an intervention is delivered as planned, in terms of quality and integrity). Achieving a balance between the two is predicated on understanding and retaining the core elements of the intervention, i.e. the mechanisms of change, the core content and the delivery strategies. Chambers and Norton identify five adaptation elements to be considered when translating an intervention to your context *(17)*:

- Service settings: who delivers the intervention, financing sources, fit with other interventions.
- Target audience: age appropriateness, health literacy, comorbidities, responsiveness to individual needs.
- Mode of delivery: dose, number of sessions, technological format, tax rate, grace period.
- Culture: cultural sensitivity, imagery used, consistency with belief systems and social norms.
- Core components: core elements (identified through testing), mechanisms of action.

Adaptations of these elements can range from the superficial (such as translating materials into a local dialect) to deep structural changes (such as challenging cultural norms or core mechanisms of action). Clearly the impact of a new policy is closely related to how well it is adapted to the new context – how close it is to achieving a favourable balance between fidelity and fit. The US National Cancer Institute has funded the production of IM Adapt, a tool to help practitioners work through adapting policies for unique populations *(18)*. Users can work through five stages: analyse needs and set goals; discover available interventions; adapt for your population; put into practice; and test your progress. Remember that we are focusing on studying the *implementation* for a given intervention, not the efficacy of the intervention itself.

It is important to systematically develop an **implementation strategy** for your intervention. Implementation strategies are the methods used to enhance adoption, implementation and sustainability. They make the "right thing to do" the "easy thing to do". There are a number of frameworks that you can use to develop your strategy *(19)*, but this is still a young field, so the evidence is relatively weak. **Implementation mapping** can help you to think through questions such as: who will decide to use and implement the programme, and who will sustain it over time? What do they need to do, why will they do it, and what tactics could we use to make them do it? The process of mapping an intervention involves systematically accounting for the method/mechanism of change, as well as the ecological factors that influence outcomes. Be clear from the outset what health outcome you are trying to change; and think carefully about the key individuals who need to take specific actions to enable change – in other words, not "the ministry" but the specific person with the requisite administrative authority.

NCD policies are multisectoral by nature and often have an impact on a wide range of individuals and organizations. **Identifying and engaging with stakeholders** is often vital for successful implementation. Stakeholders fall into three broad groups: those involved in programme operations (such as management staff); those affected by the programme (patients, clinicians, industry); and intended users of evaluation findings (policy-makers). By engaging the broadest possible range of stakeholders, you can build support for

the policy, understand criticisms and concerns, and begin to develop strategies to overcome opposition. Think about who can help to increase the credibility of the intervention, who is responsible for day-to-day implementation activities, who will advocate for or authorize changes in the future, who will fund or authorize continuation or expansion of the programme, and who stands to win or lose if your intervention works as intended. Engage your critics and consider their perspectives.

It is easy to make assumptions, so ask each stakeholder: who do you represent and why are you interested? What component of the intervention/outcome matters to you? What are you hoping this will accomplish? How much progress do you expect to see? What do you think are the important questions for us to answer? How will you use the results? What resources do you think are required? The CDC Program and Performance Office *(20)* and WHO *(21)* have checklists to help you with engagement.

Network analysis can help to build up a picture of the relationships between different individuals and organizations, as well as identifying stakeholders that are well or poorly connected. Queen's University Belfast can assist with developing network diagrams *(22)*; and Valente et al. have produced a useful paper on how to use network analysis for programme implementation *(23)*. The strength and direction of relationships should be based on empirical data (usually from surveys), although this can be difficult when it comes to the commercial determinants of health – i.e. relationships between industry and policy-makers, academics, and clinicians about whom it may be hard to obtain evidence.

Industry opposition was consistently raised by nearly all Member States as a major threat to implementing effective NCD policies. For example, the Finnish government backtracked on tighter tobacco regulation – in spite of public high-level political commitments – because of industry opposition within the European Commission. Several of the countries that have successfully introduced tobacco, alcohol and food restrictions stressed the importance of avoiding a climate of confrontation while engaging with the food and alcohol industries in order to understand their concerns.

4. Workshop findings

4.1 Barriers to implementing NCD interventions/policies identified by country delegates

- Industry opposition.
- Lack of political commitment within higher levels of government to implementing NCD policies.
- Lack of public awareness or support.
- Lack of specific evidence for interventions within the country context.
- Lack of technical ability to systematically adapt policies to fit the country setting.
- Lack of dedicated human and financial resources for developing implementation strategies.
- Lack of consensus around defining "unhealthy" products, such as nutrients and nicotine-delivery products.
- Lack of confidence in using the recent work on nutrient profiling carried out by the WHO Regional Office for Europe.
- In many smaller nations, a high proportion of all less healthy food, alcohol and tobacco is imported; this can lead to issues when attempting to engage industry and enforce policies such as labelling and reformulation.

The report of the WHO Independent High-Level Commission on Noncommunicable Diseases also lists challenges to implementation of NCD policies *(24)*; the list created by the workshop participants is in line with that report.

4.2 Specific areas where countries would value technical support

- Confronting industry opposition.
- Communicating with other sectors.
- Framing policies effectively to colleagues in the finance department.
- Dealing with conflicts of interest; identifying and managing ties between industry and politicians, policy-makers and academics.
- Building public support for policies.
- Prioritizing which health issues to address first.
- Selecting and prioritizing appropriate NCD policies.
- Adapting NCD policies and developing effective implementation strategies.
- Choosing appropriate methods and outcome measures when assessing new interventions.

4.3 Specific requests for WHO

- Publish a summary of this meeting.
- Curate a web page that provides links to all the online resources mentioned during the workshop.
- Develop further support materials to facilitate IR.
- Develop this nascent implementation network so that researchers and policy-makers from different countries can continue to meet and exchange ideas and experiences relating to NCD policy implantation.
- Provide support by linking with technical experts and other countries that have successfully implemented policies (or are at a different stage of policy development and implementation) in the areas where we are facing challenges.
- Consider hosting thematic workshops where we can deep-dive into specific issues and policies, such as confronting industry opposition and developing sugar-sweetened beverage (SSB) taxes.

4.4 Miscellaneous top tips for implementing new policies

- Context is very often more important than the content of an intervention.
- Start with an intervention that is small, effective and feasible, i.e. one that has a high chance of being successfully implemented; a quick win will help to build momentum and trust.
- Define proximal outcome measures as markers of success – for example, reduced consumption rather than reduced cancer incidence.
- Marry evidence with pragmatism and feasibility; try to keep industry on your side.
- Build partnerships with other ministries, paying particular attention to the ministries of finance and economics (traditional opponents of new health policies) and education (a natural ally).
- Recruit universities to help develop evidence and guidelines.
- Make use of international research grants, Global Alliance for Chronic Diseases funding, and implementation science workshops.
- Build alliances with clinicians' associations.
- Aim to show politicians and the public that health issues have a real impact on their lives.
- Cooperate and share information and experience with other countries.

- Make use of digital transformations and the primary health care movement – people want to be involved in decisions about their health.
- Invite colleagues from other countries to visit your department, especially if they have successfully implemented the kind of policy you are interested in; tacit peer pressure can help advance your cause.
- Join and help to sustain an active regional network of countries striving for the same goals.
- Document barriers and lack of uptake, then share this information with WHO, so that it can provide tailored support.
- Consider if/how national policy and legislation is implemented at the municipal level.
- If your country lacks a particular policy, a pertinent IR question is why not?
- Consider using the PO-PICO model to clearly define your IR question:
  - **Problem** What is the implementation problem you want to study?
  - **Objective** What is the gap you want to fill?
  - **Population** Who is affected? Who provides services?
  - **Implementation** What is the implementation strategy you are interested in?
  - **Comparison** What comparisons do you want to make? (between different groups, interventions, times, places, etc.)
  - **Outcome** What outcome measure(s) are you interested in?

5. Selected country project proposals

Belarus Less than half of all hypertensive patients are currently taking appropriate medication. Stakeholder mapping and qualitative interviews will be used to understand the factors that influence the use of anti-hypertensives in order to increase access and concordance.

Estonia Uptake of free breast cancer screening is currently less than 50%. Qualitative research methods will be used to explore the factors that influence uptake. The team will also consider studying why current implementation strategies are not working well. National statistics will be used to assess whether subsequent interventions and adaptations successfully increase uptake.

Finland Despite relatively high health literacy and supportive legislation, 4–5-year-old children in day care in Finland consume only 1.5 portions of fruit and vegetables per day. An ambitious food service reform is being piloted in 12 centres. The team will study procurement arrangements, stakeholder relationships, and the barriers that impede existing implementation strategies. Over the course of six months, a traditional evaluation will monitor dietary changes in children and their families, as well as attitudes among families and staff.

Kyrgyz Republic In an effort to reduce road traffic injuries, the team wants to study multisectoral collaboration using stakeholder analysis. They hope to identify potential policy solutions by looking at neighbouring countries and then developing an adaption strategy for the Kyrgyz Republic. They also hope that stakeholder analysis will identify mechanisms to increase intersectoral cooperation and strengthen political resolve.

Malta Sugar consumption is three times higher than WHO-recommended levels across all age groups and sugar-sweetened beverages (SSBs) are a major contributor. The team is exploring how best to adapt SSB taxation for their context. They will use stakeholder analysis, surveys and interviews to identify barriers, facilitators and opportunities for action, as well as studying how other countries have progressed in this area.

Republic of Moldova Sodium intake is a leading risk factor and twice as high as WHO-recommended levels. The prevalence of hypertension is 46%, yet 74% of hypertensive patients are not on appropriate medication. The team will use literature review, policy analysis and discussion with other countries to identify potential policy options for reducing salt consumption. They will then conduct stakeholder analysis to assess the level of support for and opposition to each measure from different constituencies. They will use mixed methods to assess the appropriateness and feasibility of each measure, and then plan to evaluate adoption, fidelity and effectiveness once a policy has been introduced.

Russian Federation Recent data show that the use of electronic nicotine delivery systems (ENDS) is growing, especially among young people. The government has recently committed to regulating these products. The team hopes to study the factors that influence the adoption, acceptability, appropriateness, fidelity, coverage and sustainability of different options for effective regulation. They will use policy analysis, stakeholder analysis and interviews to select the most appropriate policy and develop an effective implementation strategy.

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Appendix 1. Participant survey

Following the workshop, the WHO Regional Office for Europe devised a survey for all Member State representatives and experts who had participated, with the aim of gathering their insights and feedback on the overall delivery of the workshop sessions. The survey responses are essential in informing the Regional Office on the general experience and reception of the training sessions in building Member States' capacity in NCD implementation research (IR). Such a survey also allows the strengths and weaknesses of the workshop to be identified, so providing information that could be used to develop, design and deliver similar events in the future, with a view to building Member States' capacities in IR and in tackling NCDs more generally.

A total of 18 survey responses were received: responses recorded from Belarus, Finland, Kazakhstan, Kenya, Malta, the Republic of Moldova, Mongolia, Montenegro, the Russian Federation and the United Kingdom; seven responses did not specify a country. There was a roughly equal split of survey respondents between government officials and research/academic professionals.

Survey questions and summary of responses

Questions on overall experience of the workshop

I think the concepts/techniques and tools taught during the workshop will be valuable to me in the future. *(Strongly disagree, disagree, uncertain, agree, strongly agree)*	*Strongly agree:* 44.4% *Agree:* 55.6%
The workshop was at an appropriate level of difficulty. *(Strongly disagree, disagree, uncertain, agree, strongly agree)*	*Strongly agree:* 33.3% *Agree:* 55.6% *Uncertain:* 11.1%
Venue was suitable for a residential training workshop. *(Strongly disagree, disagree, uncertain, agree, strongly agree)*	*Strongly agree:* 61.1% *Agree:* 38.9%
Food provided during the workshop was appropriate. *(Strongly disagree, disagree, uncertain, agree, strongly agree)*	*Strongly agree:* 50.0% *Agree:* 44.4% *Uncertain:* 5.6%

Question on highlights and strengths – *What did you like about the workshop?*

- New, interesting, useful and comprehensive approach, with great potential for future application:
  - Diverse faculty consisting of both researchers and policy-makers.
  - Properly targeted sessions that are developed and delivered on the basis of clear objectives and outcomes.
  - Good balance between theoretical materials and practical discussions.
  - Professional trainers.
  - Potential for collaboration on future projects.
  - Friendly atmosphere.
- Very good/excellent lectures and theoretical materials that covered concepts and methodologies well, especially on measuring implementation outcomes.
- Interactive sessions – networking opportunity with a wide coverage of Member States.
  - Meeting people from different countries, with different policies and health systems, allows for understanding of obstacles and challenges faced at different levels.
  - Identifying common problems allows for unity in solving them together.

Questions on weaknesses and suggested improvements

— *Are there any topics not covered that you would have liked included? If so, which?*
— *How could we improve the course?*

- Feedback on the general delivery, including presentation topics and interactive sessions.

Suggestions:

- Workshop materials and additional readings should be provided beforehand.
- Sessions could be structured to address specific priority areas on each day, allowing universal and concrete step-by-step actions that are appropriate for all Member States to be elaborated.
- If presentations were clearer and more structured, they would avoid being too elementary/practical or overlapping with one another in such a way that they end up causing confusion.
- Suggested topics include: research methods and how they are incorporated into implementation science; funding intervention; negotiating with transnational corporations; practical examples of implementation research; and skills to train trainers.
- Inclusion of more interactive exercises that involve clear tasks and direct participation of all participants would be useful; would also maximize networking opportunities of potential collaborators.
- Country presentations could be developed prior to the workshops and then further refined during the workshops to include more technical details.

- There are topics that overlap with programme planning and evaluation, and have a lot in common with evaluation research.

Suggestions:

  - Articulate similarities and differences between implementation research and other types of research (evaluation research, health promotion research, behavioural research, etc.), use of research tools and techniques, as well as areas of application.

- Policy officials were slightly underemployed as the workshop was heavy on the research side, with less focus on how evidence should be used to make policies. Sometimes the discussion was more focused on research methods, with little engagement from policy officers.

Suggestions:

  - Inclusion of more policy topics, for example:
  - Challenges that lie within the government and political arena.
  - How to navigate best practice with WHO/Europe support in order to get policies adopted, especially for participants who experience national political pressures.
  - How to identify and demonstrate outcomes in policy terms.
  - Translation of existing and future evidence into policies and practice.

- Some parts of the discussion were "steered" too much by the facilitators.

Suggestions:

  - Allow more space and time for questions and free discussions.

- Provision of assistance to participants following the conclusion of the workshop.

Suggestions:

  - Develop an online course or platform for participants, to allow continuity of engagement, queries to be raised, and technical assistance to be given as they work on their projects.
  - All materials should be translated into Russian after the workshop –all techniques and tools are likely to be transmitted vertically down through organizations as work progresses, but there may be limited capacity and resources (time, translators, etc.) to translate materials.

Additional comments – *Any other comments that are not covered in the above sections?*

- There was little recognition of countries' achievements in the NCD sphere because the workshop design encouraged representatives to focus only on the challenges – would be good to include this aspect in future workshops.
- Workshops should be held more often (about four times a year) for further opportunities for future collaboration. Basic requirements of participants include role as scientist/researcher at public health research institutes.

Fig. 2. Workshop participants

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.

Member States

Albania
Andorra
Armenia
Austria
Azerbaijan
Belarus
Belgium
Bosnia and Herzegovina
Bulgaria
Croatia
Cyprus
Czechia
Denmark
Estonia
Finland
France
Georgia
Germany
Greece
Hungary
Iceland
Ireland
Israel
Italy
Kazakhstan
Kyrgyzstan
Latvia
Lithuania
Luxembourg
Malta
Monaco
Montenegro
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