World Health Organization

European Region

Evaluation of brief intervention delivery by primary-care providers in the WHO European Region:

BRIEF project

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Abstract

Brief interventions are recognized by WHO as effective for addressing the risk factors of noncommunicable diseases (NCDs), including smoking, alcohol consumption, insufficient physical activity, unhealthy diets and over- or underweight. There are, however, few data on the use of brief interventions or on the perspectives of health-service providers in the WHO European Region on the barriers to and facilitators of their delivery. This report is part of the BRIEF project of the WHO Regional Office for Europe. The aim of the project is to advance implementation and use of integrated brief interventions for NCD risk factors in primary care in the WHO European Region. The report of this mixed-method study presents the results of a questionnaire-based survey and in-depth interviews with primary-care providers on three main topics: current uptake of brief interventions by providers; barriers, facilitators and recommendations from providers for effective brief interventions in primary care; and policy recommendations for effective facilitation and implementation of brief interventions.

Keywords: HEALTH BEHAVIOR; NONCOMMUNICABLE DISEASES; RISK FACTORS; PREVENTION; PRIMARY HEALTH CARE

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Foreword

Brief interventions are short, focused conversations that primary-care providers have with patients about their lifestyle, aimed at promoting healthier behaviours. These interventions are crucial for targeting modifiable risk factors for noncommunicable diseases (NCDs), such as smoking, alcohol consumption, unhealthy diets and insufficient physical activity, which are responsible for 87% of deaths in the WHO European Region.

Despite the recognized effectiveness of brief interventions, there is a significant gap in systematic, high-quality data collection on their implementation and delivery across the Region. It hinders our understanding of their utilization and how they can best be integrated into the unique contexts of primary care in each country. At the same time, Member States have expressed a growing need for support in implementing and evaluating brief intervention programmes and training primary-care providers.

The urgency of addressing NCDs cannot be overstated. With NCDs – cancers, cardiovascular diseases, chronic respiratory diseases and diabetes – accounting for 90% of all deaths and 84% of years lived with disability in the WHO European Region, there is a critical need for immediate action. An important component of the response is scaling up the use of brief interventions.

This report describes the current adoption of brief interventions in practice, the barriers and facilitators to delivery, and policy recommendations for effective implementation. It underscores the need for structural changes and system support to enable primary-care providers to deliver patient-centered brief interventions effectively.

The Special Initiative on NCDs and Innovation (SNI) provides Member States with the support required to prevent and control NCDs amid the "permacrisis" of ongoing challenges of emergencies, pandemics, war, natural disasters, and the effects of climate change, and more. The SNI aims to bridge the gap between these challenges and actionable measures, emphasizing the strategic implementation of policies and programmes to reprioritize NCDs and save lives.

The report embodies the vision of the SNI. It complements the WHO manual on integrated brief interventions for NCD risk factors in primary care, launched in 2022, by providing a comprehensive overview of rigorous research, policy analysis and practical recommendations. It is also a testament to the remarkable response from primary-care providers in Member States, whose enthusiastic engagement drives our work. By amplifying their voices, this document offers valuable insights to policy-makers for prioritizing national and subnational responses to the NCD crisis.

I hope that this resource will inspire you to explore the potential of brief interventions as a powerful tool to tackle NCDs. Together, we can pave the way towards a healthier, more resilient future, empowered by the unwavering dedication of health professionals.

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Abbreviations

AUDIT	Alcohol Use Disorders Identification Test
BRIEF	Brief interventions, Risk factors for noncommunicable diseases, Integrated approach and multidisciplinary teams, Evidence-based training and health literacy, Feasibility, structural support and monitoring
CAGE	Cut, Annoyed, Guilty and Eye
CIS	Commonwealth of Independent States
COM-B	Capability, Opportunity, Motivation–Behavioural
COVID-19	coronavirus disease
NCD	noncommunicable disease
SCORE	Systematic Coronary Risk Evaluation
SDG	Sustainable Development Goal
SNI	Special Initiative on NCDs and Innovation

Executive summary

In 2019, noncommunicable diseases (NCDs) caused 90% of all deaths and 84% of years lived with disability in the WHO European Region, and 87% of the deaths from NCD were due to modifiable risk factors, including smoking, alcohol consumption, an unhealthy diet and insufficient physical activity. Brief interventions are recognized by WHO as effective for addressing the risk factors for NCDs. There is, however, little information on their uptake or on health-service providers' perspectives on the barriers and facilitators for their delivery in the WHO European Region.

This report is part of the BRIEF project of the WHO Regional Office for Europe, the aim of which is to increase the use of integrated brief interventions for NCD risk factors in primary care in the WHO European Region. The report presents the results of a mixed-method study comprising a questionnaire-based survey and in-depth interviews with primary-care providers, with three main objectives: (i) to evaluate the uptake of brief interventions by health-service providers in the Region; (ii) to identify barriers, facilitators and recommendations from health-service providers on effective brief interventions in primary care; and (iii) to develop policy recommendations to facilitate implementation of brief intervention programmes.

In the survey, 8350 responses were received from 41 WHO European Member States between October 2020 and February 2021. Most respondents (98%) were in six states of the Commonwealth of Independent States (CIS): Azerbaijan, Kazakhstan, Kyrgyzstan, Russian Federation, Tajikistan and Uzbekistan, with 92% of responses from Russian Federation. A total of 21 participants in 11 countries participated in the in-depth interviews, 52% of whom were in CIS countries.

"Brief interventions" were generally considered by participants to be short, individual counselling sessions on a patient's lifestyle to increase overall life expectancy and quality of life, rather than for primary prevention. Delivery of brief interventions was considered to be the task mainly of physicians, and multidisciplinary teamwork was rare. A paternalistic approach was still widely used. The results of the study include current practices in delivery of brief interventions (section 4.1) and the benefits and challenges of an integrated approach. More than one third of participants reported barriers to delivering brief interventions (section 4.2), which included a high patient load and a short patient consultation time, lack of training and motivation from the health system, no clear referral pathways or information resources, insufficient knowledge about validated screening tools and lack of a clear monitoring system. Some misconceptions about the principles of brief interventions were observed. Participants reported barriers and facilitators for delivering brief interventions in primary care which were analysed according to the capability, opportunity, motivation–behavioural (COM-B) model. Financial and non-financial incentives appeared to be important means to motivate providers, as did prioritization of prevention in health services and elsewhere. Section 4.3 lists the recommendations made by health-service providers as indicated by the COM-B model. The report concludes with recommendations on how to increase the uptake of brief interventions for NCD risk factors in primary care.

Annexes 1 and 2 provide the questionnaire and the guide used for the interviews. Annex 3 presents a supplementary analysis conducted to identify any differences

and similarities in the characteristics of health-service providers who offered brief interventions and to identify elements to be included in an online course. Annexes 4 and 5 present subsample analyses of quantitative findings for Azerbaijan and Uzbekistan, respectively.

Despite some limitations, the study provides valuable insights into current practices in the delivery of brief interventions from the point of view of health services and practical suggestions for improvement.

1 Introduction

1.1 Rationale and current state of the problem

Noncommunicable diseases (NCDs) are the leading cause of death and disability in the WHO European Region, resulting in a significant health, social and economic burden *(1)*. NCD risk factors such as unhealthy nutrition and excess body weight, insufficient physical activity, tobacco use and alcohol consumption are major but modifiable drivers of these trends *(2)*. In 2023, in response to these challenges, the WHO Regional Director for Europe established the Special Initiative on NCDs and Innovation (SNI).

SNI responds to the growing urgency to accelerate actions to meet NCD-related targets ahead of the 2030 Sustainable Development Goals (SDGs) deadline and supports Member States in their work to free the WHO European Region from avoidable NCDs. SNI recognizes the urgency for immediate action and the need for a visionary paradigm shift that puts NCDs higher on the political and health agendas for future generations. Therefore, SNI takes a dual-track approach, promoting accelerated progress towards the NCD-related SDG commitments for 2030 (RACE to the Finish) while simultaneously championing the key generational shifts required to address NCDs within the permacrisis (Vision 2050) and achieve a sustainably healthier European Region. SNI's commitment is to support Member States to achieve a healthier population and to close the gap in NCDs, including cancer, cardiovascular diseases, chronic respiratory diseases and diabetes that persist within countries and across the Region.

Additionally, the 100 Week Challenge, launched at the 73rd Regional Committee in Astana, Kazakhstan, in 2023, aims to accelerate the implementation of NCD-related policies and programmes with the potential to save the maximum number of lives. The 100 Week Challenge represents the collective effort of The WHO European Region's Member States to make every week count to achieve the internationally agreed NCD targets.

Within this framework, brief interventions can become a powerful tool to address the main NCD risk factors in the general population, as WHO considers them effective for reducing tobacco and alcohol use and increasing physical activity *(3)*. Brief interventions can also help achieve and maintain healthy eating habits, reduce salt intake and manage body weight.

While there is no single definition of a brief intervention, it is defined for the purposes of the BRIEF project as a short, structured conversation with a patient that includes measurement of and advice on modifying risk factors. They range in length from 3 min of feedback and advice to longer than 10 min of counselling. They engage patients in a non-confrontational way by assessing their willingness to change and providing personalized information to support and increase motivation

to improve health-related behaviour and, if necessary, referral to specialized care *(4–7)*. In general, brief interventions comprise *(8)* measurement of exposure to a behavioural risk factor (tobacco use, alcohol consumption, unhealthy diet, physical inactivity) or a physiological risk factor (increased body mass index) and discussion, including advice, as appropriate, about changing exposure to the risk factor. Referral to local support or specialist consultation can be arranged according to the needs of the patient.

A brief intervention is not intended as a stand-alone treatment; rather, it is designed to help health-service providers to encourage patients to change unhealthy behaviours *(5)*. Primary-care services present unique opportunities for health-service providers to engage in brief interventions by identifying, measuring and addressing exposure to modifiable risk factors, and multidisciplinary teams in primary care can provide personalized, patient-centred advice on behavioural change, ensure follow-up and refer them to specialized care as needed *(9)*.

Brief intervention programmes have a long history *(10,11)*. There is evidence that they are effective in smoking cessation *(12–14)* and in helping patients to reduce or quit alcohol use *(15–17)*, change to a healthier diet *(18–20)* and increase their physical activity *(21–24)*. Furthermore, an integrated brief intervention for several risk factors concurrently results in positive synergy, with even greater health benefits, such as both a healthier diet and increased physical activity *(25–31)*.

Despite the evidence for the effectiveness of brief intervention programmes, there are few data on their delivery *(8)*, although there is some evidence that they are not common, even for single risk factors *(32)*. In a study in several European primary-care units, alcohol consumption was measured in only 6% of patients, three quarters of whom received advice *(33)*. Even fewer integrated brief interventions have been reported. In Australia, only 16% of clients who received a brief intervention in community health services had been assessed for all relevant risk factors. Of those with at least one risk factor, only 16% received brief advice and less than 1% were offered a referral *(34)*.

Even health-service providers who are highly motivated to provide brief interventions face significant barriers, including lack of time, confidence, supportive materials, training, administrative support, treatment and/or referral opportunities; negative attitudes towards patients; negative perceptions of patient motivation; limited awareness of validated measurement instruments; and stigmatization. Barriers, enablers and key components for a successful brief intervention programme have been evaluated and widely discussed *(8,35–46)*.

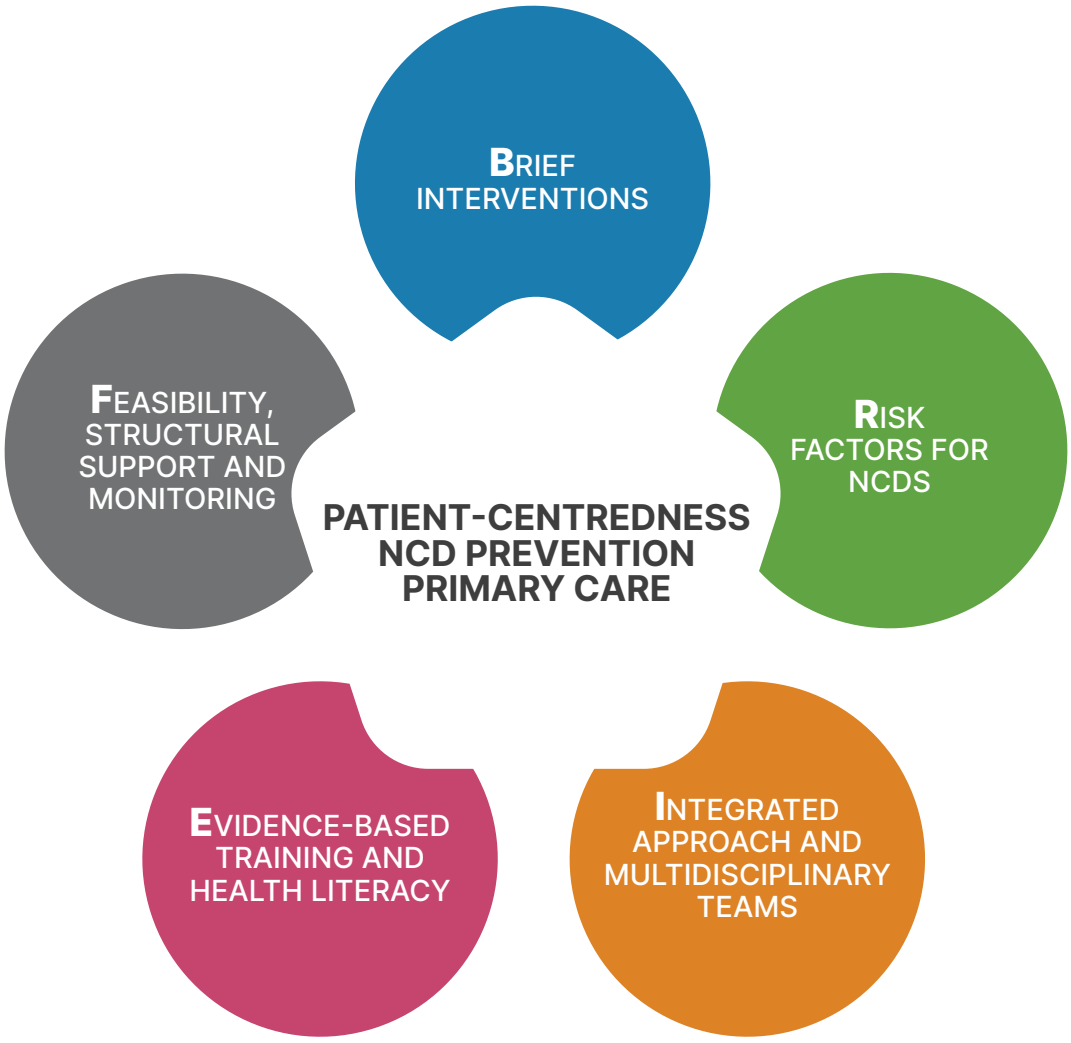
Hence, successful implementation of a comprehensive brief intervention programme in complex health-care systems presents significant challenges and requires substantial structural support locally and nationally. Collaboration among policy-makers and various stakeholders is necessary to overcome obstacles and provide support. A programme of brief interventions should not be pursued in isolation but in the context of the national health system, adequately funded, supported by relevant information and in a conducive environment *(8)*, with appropriate policy interventions *(47)*. A basic requirement is a thorough understanding of providers' needs and concerns for delivering high-quality services to improve patients' health

and well-being. Plans for a brief intervention programme should include assessment of the quality of the interventions, clear outcome indicators and a monitoring and evaluation system.

1.2 BRIEF project

The WHO Regional Office for Europe launched the BRIEF project in February 2020 to address the four main behavioural risk factors – tobacco smoking, alcohol consumption, unhealthy eating and physical inactivity – and the physiological risk factor of increased body mass index in an integrated manner. The aim of the project is to increase the delivery of integrated brief interventions for NCD risk factors in primary care in the WHO European Region according to WHO recommendations (Box 1) and by developing new tools based on the principles outlined in Fig. 1.

Fig. 1. The BRIEF project's key principles



Box 1. WHO recommendations for brief interventions

WHO alcohol brief intervention training manual for primary care *(48)*.

Strengthening health systems for treating tobacco dependence in primary care *(49)*.

Toolkit for delivering the 5A's and 5R's brief tobacco interventions in primary care *(50)*.

Training for primary care providers: brief tobacco interventions *(51)*.

Pryke R, Breda J, Jewell J, Ramos Salas X. Training in nutrition, physical activity and obesity in primary care settings: course workbook *(52)*.

Technical package for cardiovascular disease management in primary health care: healthy-lifestyle counselling *(53)*.

Babor TF, Higgins-Biddle JC. Brief intervention for hazardous and harmful drinking: a manual for use in primary care *(54)*.

The main components of the BRIEF project are presented in Fig. 2 and summarized below.

Fig. 2. Main components of the BRIEF project

Online questionnaire survey for ministries of health. An online questionnaire was sent to the ministries of health of Member States in the WHO European Region to determine use of brief interventions in national health systems. The results were used in a survey of health-service providers in primary care.

Questionnaire survey and in-depth interviews with primary-care providers. A questionnaire was sent to primary-care health-service providers to obtain quantitative data, and a subset were interviewed in depth to obtain qualitative data.

Implementation research. Two Member States, Azerbaijan and Uzbekistan, expressed interest in improving the implementation of their brief intervention programmes by developing strategies to overcome barriers. Pilot projects were therefore conducted in the two countries in May 2021 *(55)*.

Expert meetings. Two online expert meetings were convened in May 2020 and June 2021 to develop a manual on integrated delivery of brief interventions for NCD risk factors in primary care. More than 40 experts in NCD risk factors, representatives of professional associations, academia, public health practice, national stakeholders and health-care practitioners participated.

The manual. The manual is a comprehensive guide to implementing brief intervention programmes in primary care, and particularly highlights key facilitators and barriers of implementation *(8)*. The manual has three parts. Part 1 describes the background and approaches to brief intervention programmes in primary care, mainly for health system managers who plan and organize such interventions. Part 2, for primary-care providers, presents a brief intervention for each NCD risk factor in a flow diagram, with detailed guidance on the delivery of brief interventions. Part 3 presents supplementary materials, including behavioural and cultural considerations and examples of brief interventions in the Region.

Systematic review. A systematic review was initiated to collect evidence on the effectiveness of brief interventions for multiple behavioural risk factors for NCDs in primary care.

The various project components are intended to provide evidence, guidance and practical support to Member States, policy-makers, managers and primary-care providers for using and scaling-up brief intervention programmes and other recommended interventions to tackle NCD risk factors and address the growing burden of NCDs.

This report presents the results of the second component of the BRIEF project, a questionnaire-based survey and in-depth interviews with primary-care providers. As limited data were available on the uptake of brief interventions and the perspectives of health-service providers on the barriers to and facilitators of delivery of brief interventions in the WHO European Region, the report addresses three aspects: evaluation of the current uptake of brief interventions by health-service providers in the Region; identification of barriers, facilitators and recommendations by health-service providers for effective brief interventions in primary care; and policy recommendations to facilitate and implement brief intervention programmes.

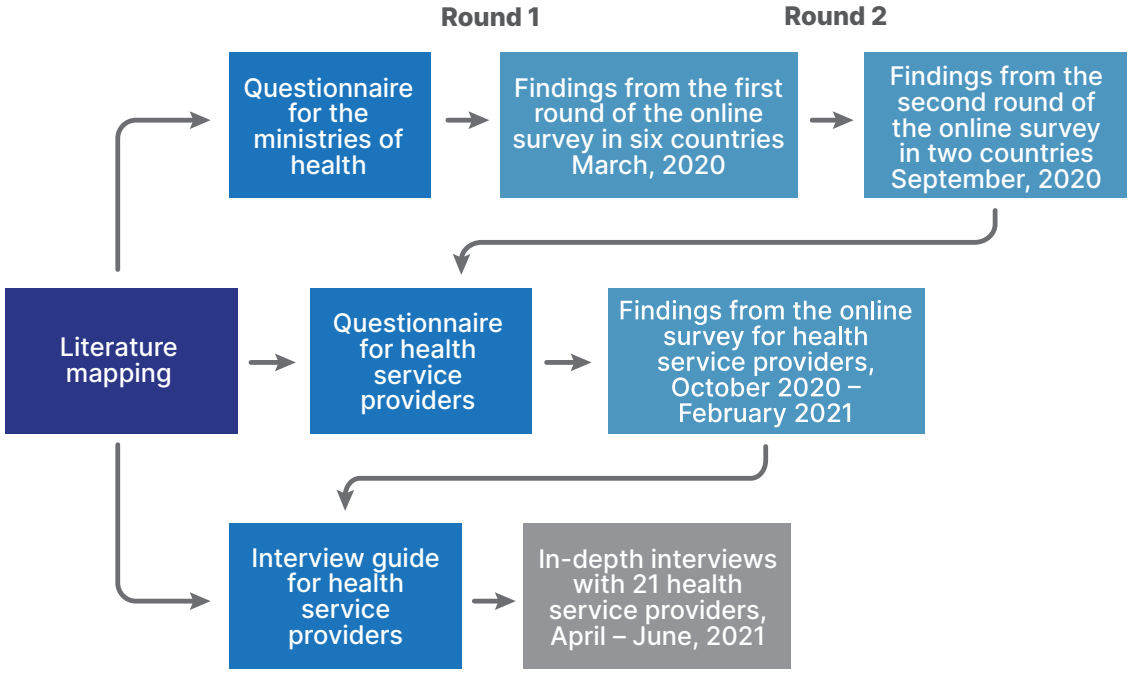
This report should be of interest to all health-service providers, allied health professionals, managers and directors of primary-care and other facilities and practices and to researchers into NCD prevention and control and/or primary care.

2 Methods

2.1 Overview

An explanatory sequential mixed-methods design was used in a cross-sectional study to collect quantitative and qualitative data to assess current practice and implementation of brief interventions in primary care in the WHO European Region (Fig. 3).

Fig. 3. Steps in the project



2.2 Literature mapping

A search of the literature was conducted as a basis for the content and formulation of the online survey. The themes identified for the survey were:

- prioritization of NCDs and brief interventions on the national agenda;
- provision of national guidelines;
- specialties of health-service providers involved in delivering brief interventions;
- availability of training and supplementary materials and service coverage, reimbursement and funding;
- recommended tools for measuring risk factors and delivering brief interventions;
- referral opportunities; and
- overall management and evaluation of brief intervention programmes.

2.3 Online questionnaire for ministries of health

An online questionnaire was sent to the ministries of health of Member States in WHO European Region in order to understand the organization and uptake of brief intervention programmes in their countries. The first online survey, in English, was disseminated through the WHO country offices and national focal points in 12 countries in March 2020. As the survey coincided with the onset of the coronavirus disease (COVID-19) pandemic, however, only six countries (Azerbaijan, France, Kazakhstan, Portugal, Russian Federation and United Kingdom (England)) responded. Six months later, in September 2020, a slightly revised survey was sent to six countries that had not responded and to three additional countries. Responses were received from two countries, Georgia and Uzbekistan.

The answers to the survey were analysed in Microsoft Excel. Because only eight countries responded, the situation in the WHO European Region could not be characterized meaningfully. The findings were therefore not published, but they were used with the results of the literature review for the development of the questionnaire for primary health-service providers.

2.4 Questionnaire for primary health-care service providers

The aim of the survey for primary health-service providers was to understand the uptake of brief interventions and practical challenges in delivering them in primary care. The 34-item questionnaire elicited information on:

- the sociodemographic (e.g. age, sex) and professional characteristics (e.g. profession) of the health-service providers;
- training and any experience in brief interventions and their delivery in routine practice (e.g. use of guidelines, measurements of NCD risk factors, digital technologies);
- the availability of supplementary materials and referral pathways;
- perceived barriers and health system support for delivery of brief interventions; and
- participants' agreement or disagreement with statements reflecting their perception, motivation and attitudes towards brief interventions and their knowledge, capability and confidence, on a five-point Likert scale.

The survey was divided into two parts according to whether the primary-care provider had performed brief interventions in routine practice, with six additional questions for those who had. To ensure that all the terms used in the survey were clear, definitions were provided for certain terms (e.g. brief intervention). The survey also included five open-ended items with text boxes for comments, which were subsequently analysed qualitatively. The survey and the raw results are provided in Annex 1.

The survey was available in four languages – Azerbaijani, English, Russian and Uzbek. The survey in English was developed and pilot-tested in collaboration with the World Organization of Family Doctors, European Region. The survey was then translated into Russian and, on request, into Azerbaijani and Uzbek. The survey was disseminated through the WHO country offices, the World Organization of Family Doctors, European Region, the European Federation of Nurses, the European Federation of the Associations of Dietitians and national focal points. The survey was provided online in Azerbaijani, English and Russian and on paper in Uzbek.

Primary-care health and allied health professionals who were involved in patient communication were eligible to participate. The pilot survey showed that primary-care providers identify themselves differently in different countries (e.g. general practitioners, family doctors). In some countries, a physician who has received training in diagnostics, treatment and prevention of diseases of the internal organs and who provides medical and preventive care to the adult population of a medical area is described as a therapist *(56–58)*. Although the specialties were included in the survey as separate categories, for the analysis, the results were combined under "primary-care physician" to reflect current WHO terminology *(59)*. Medical doctors in other specialties in primary care are described as "primary-care medical specialists".

Data were collected over 5 months, between October 2020 and February 2021. The raw data were cleaned, duplicates were removed, and the data were coded and analysed in Microsoft Excel. Descriptive statistical analysis was performed for the total study sample (n = 8350) and for the subsample of those who conducted brief interventions (n = 6350). To respond to Member States' requests, country-specific quantitative analysis was additionally performed for Azerbaijan and Uzbekistan.

2.5 Interviews with primary health-care service providers

The interviews were conducted to ascertain the practical experience, perceptions, attitudes and perspectives of primary-care providers on use of brief interventions in primary care. The interview guide was based on the survey, with the following sections:

- definition of brief interventions and practical aspects of their delivery;
- advantages and disadvantages of integrated brief interventions;
- personal experience of training in delivery of brief interventions;
- potential results of brief interventions, their efficacy and methods used to assess the outcomes;
- barriers and enablers, including providers' needs to enhance delivery of brief interventions; and
- recommendations for training in and implementation of brief interventions.

The interview guide ascertained whether the provider had conducted brief interventions in routine practice, with specific questions (Annex 2). The guide was

written in English, translated into Russian by a professional translator and verified. All primary-care providers who participated in the survey gave their consent to be contacted and were eligible to participate.

Of 8350 respondents to the survey, 3800 (46%) agreed to be interviewed. Range-maximizing sampling was used to contact about 100 participants, with intentional inclusion of CIS countries and various professional specialties. Interviews were conducted with 21 participants (10 in English and 11 in Russian) (Table 1). Four of the participants (19%) had not conducted brief interventions at the time of the interview.

Table 1. Demographic characteristics of participants in the in-depth interviews

ID NO.	SEX	AGE RANGE (YEARS)	COUNTRY	SPECIALTY	DELIVERED BRIEF INTERVENTIONS
1	F	31–35	Russian Federation	Dietician	Yes
2	M	31–35	Russian Federation	Psychiatrist	Yes
3	F	56–60	Uzbekistan	Primary-care physician	Yes
4	F	45–50	Uzbekistan	Primary-care physician	Yes
5	M	45–50	Russian Federation	Public health manager	No
6	F	41–45	Russian Federation	Primary-care physician	Yes
7	F	41–45	Russian Federation	Primary-care physician	Yes
8	F	36–40	Russian Federation	Primary-care physician	Yes
9	F	45–50	Russian Federation	Primary-care physician	Yes
10	F	41–45	Azerbaijan	Neurologist	Yes
11	F	45–50	Azerbaijan	Primary-care physician	Yes
12	F	61–65	Bulgaria	Nurse	Yes
13	F	31–35	Bosnia and Herzegovina	Primary-care physician	Yes
14	M	51–55	Bosnia and Herzegovina	Primary-care physician	No
15	M	61–65	Czechia	Primary-care physician	Yes
16	F	31–35	Norway	Dietician	No
17	F	31–35	France	Primary-care physician	Yes
18	M	> 70	France	Psychotherapist	Yes
19	F	31–35	Spain	Dietician	No
20	M	45–50	Germany	Dietician	Yes
21	F	61–65	United Kingdom	Primary-care physician	Yes

Note: F - female; M - male

The interviews were conducted online between April 2021 and June 2021 and lasted 25–60 min. The qualitative data were recorded and transcribed in the original language and translated into English and Russian.

For qualitative analysis, the ATLAS.ti 9 programme was used. Data were coded and combined under themes according to the objectives of the study:

- providers' education and background;
- purpose and value of brief interventions;
- measurement and screening;
- experience and current practice of brief interventions;
- problems or barriers;
- support systems or facilitators;
- evaluation of experience and recommendations; and
- use of an integrated approach.

Themes and illustrative quotes were chosen for each domain. The qualitative data were analysed according to the COM-B model *(60–62)*.

A supplementary analysis was conducted of profession, sex, age and region to determine whether the problems or barriers differed by those factors (Annex 3). The analysis was also intended to identify strategies for addressing barriers for use in an online course.

2.6 Ethical approval

Ethical clearance N04-05/20 was obtained from the Federal State Budgetary Institution National Medical Research Center for Therapy and Preventive Medicine of the Ministry of Health of the Russian Federation (WHO Collaborating Centre on Development and Implementation of Noncommunicable Disease Prevention Policy and Programmes) on 18 June 2020.

None of the study participants was given a financial or non-financial incentive to participate.

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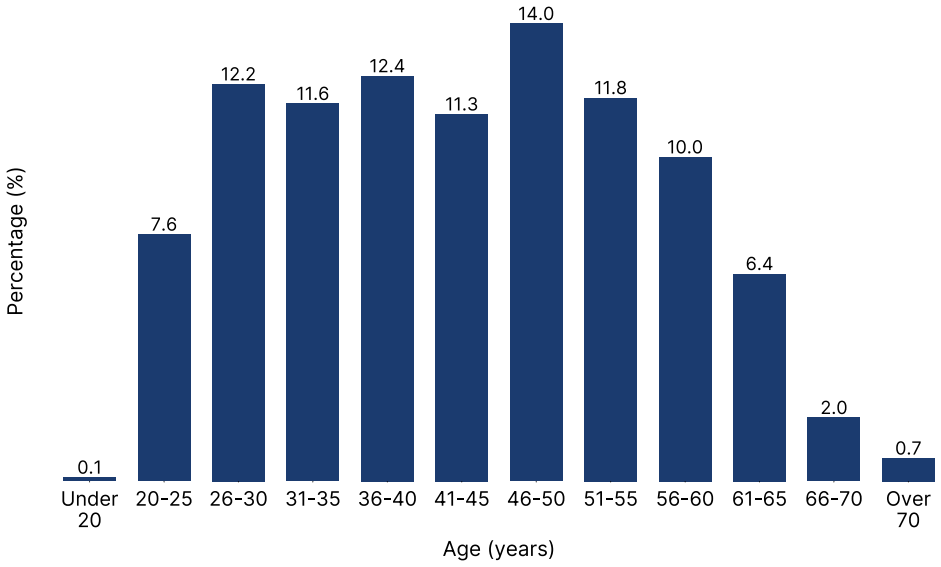
3 Participants

3.1 Participants in the survey of primary health-care providers

A total of 8350 responses were obtained from 41 WHO European Member States. Most respondents (98%) were in six CIS countries (Azerbaijan, Kazakhstan, Kyrgyzstan, Russian Federation, Tajikistan and Uzbekistan), and 92% of the responses were from Russian Federation (Annex 1). Various age groups were represented (Fig. 4).

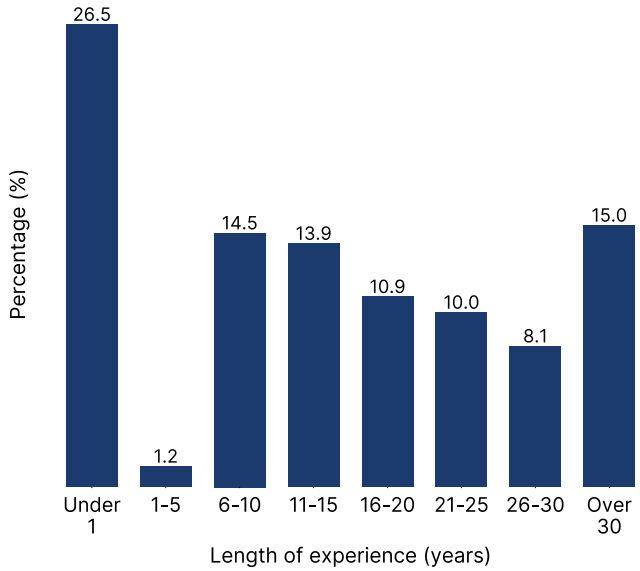
Fig. 4. Age distribution of the participants



Nearly 85% of the participants were female, and almost 58% of respondents had worked in their specialty for more than 10 years (Fig. 5).

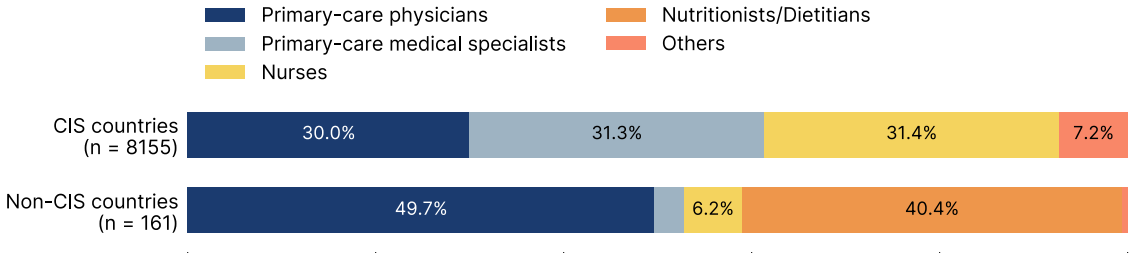
The distribution of physicians and non-physicians was almost 2:1: 61% were physicians (primary-care physicians and primary-care medical specialists); 33% were non-physicians (nurses, midwives, nutritionists, psychologists); and the remaining 6% were other professionals (e.g. laboratory workers). The sample comprised similar numbers of primary-care physicians (n = 2536, 30% of respondents), primary-care medical specialists (n = 2570, 31%) and nurses (n = 2579, 31%). The medical specialists were paediatricians, neurologists, ophthalmologists, endocrinologists and others. The full range of professions represented in the survey is given in Annex 1.

Fig. 5. Distribution of length of experience in the current specialty



The specialties of the primary-care providers in CIS countries and the proportions of participants in non-CIS counties are shown in Fig. 6.

Fig. 6. Distribution of participants by role in primary care and country group



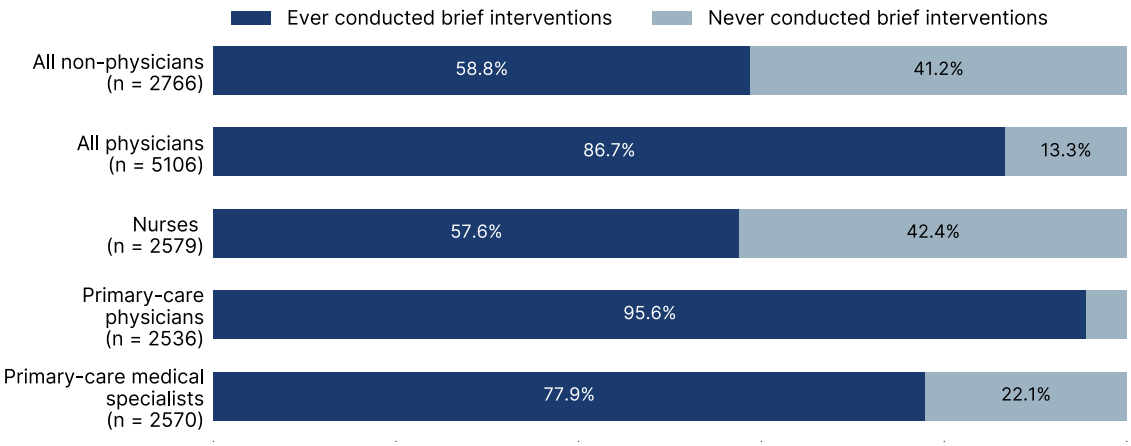
Brief interventions, as defined in the survey, were provided by 76% of the health-service providers in their practice. Delivery of brief interventions differed by profession: the highest percentage of those who conducted brief interventions was observed among primary-care physicians (96%), with the lowest ratio found among nurses (58%) (Fig. 7).

The characteristics of the participants are presented in Table 2.

Table 2. Characteristics of participants in the survey

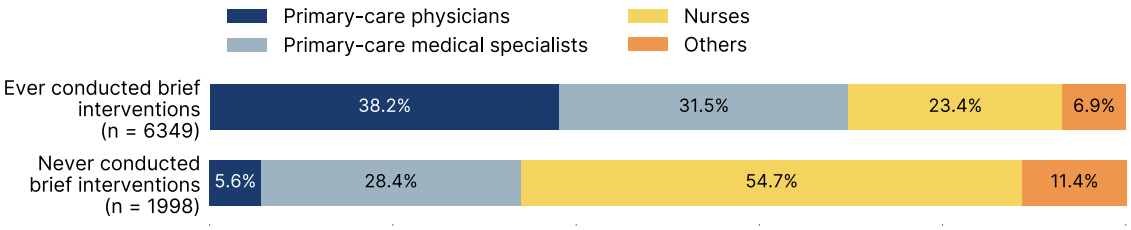
CHARACTERISTIC	TOTAL (N = 8350)		EVER CONDUCTED BRIEF INTERVENTIONS (N = 6350)		NEVER CONDUCTED BRIEF INTERVENTIONS (N = 2000)	
AGE GROUP (YEARS)	**N**	**%**	**N**	**%**	**N**	**%**
< 20	10	0.1	6	0.1	4	0.2
21–25	633	7.6	457	7.2	176	8.8
26–30	1018	12.2	826	13	192	9.6
31–35	968	11.6	717	11.3	251	12.6
36–40	1039	12.4	753	11.9	286	14.3
41–45	941	11.3	684	10.8	257	12.8
46–50	1173	14	863	13.6	310	15.5
51–55	983	11.8	757	11.9	226	11.3
56–60	831	10	674	10.6	157	7.8
61–65	532	6.4	434	6.8	98	4.9
66–70	163	2	128	2	35	1.8
> 70	59	0.7	51	0.8	8	0.4
SEX						
Female	7082	84.8	5361	84.4	1721	86.1
Male	1142	13.7	907	14.3	235	11.8
Other	9	0.1	4	0.1	5	0.2
Prefer not to say	91	1.1	59	0.9	32	1.6
No answer	26	0.3	19	0.3	7	0.4
EXPERIENCE (YEARS)						
< 1	2209	26.5	1723	27.1	486	24.3
1–5	99	1.2	71	1.1	28	1.4
6–10	1213	14.5	883	13.9	330	16.5
11–15	1163	13.9	845	13.3	318	15.9
16–20	909	10.9	684	10.8	225	11.2
21–25	834	10	628	9.9	206	10.3
26–30	673	8.1	518	8.2	155	7.8
> 30	1250	15	998	15.7	252	12.6
ROLE IN PRIMARY CARE						
Physician	5106	61.1	4427	69.7	679	33.9
Primary-care physician	2536	30.3	2424	38.2	112	5.5
Primary-care medical specialist	2570	30.8	2003	31.5	567	28.4
Non-physician	2766	33.1	1626	25.6	1140	56.9
Nurse	2579	30.9	1486	23.4	1093	54.6
Other	187	2.2	140	2.2	47	2.3
Other profession	475	5.7	296	4.7	179	9
No answer	3	0	1	0	2	0.1
COUNTRY OF PRACTICE						
CIS country	8158	97.7	6187	97.4	1971	98.6
Non-CIS country	161	1.9	143	2.3	18	0.9
No answer	31	0.4	20	0.3	11	0.5

Fig. 7. Distribution of brief intervention delivery by health-service provider's role in primary care



Most of those who had conducted brief interventions were primary-care physicians, while nurses were more frequent among those who did not (Fig. 8).

Fig. 8. Primary-care roles of health-service providers by delivery of brief interventions



The frequency of brief intervention delivery was similar by age and experience (Figs 9 and 10).

Fig. 9. Distribution of brief intervention delivery by age

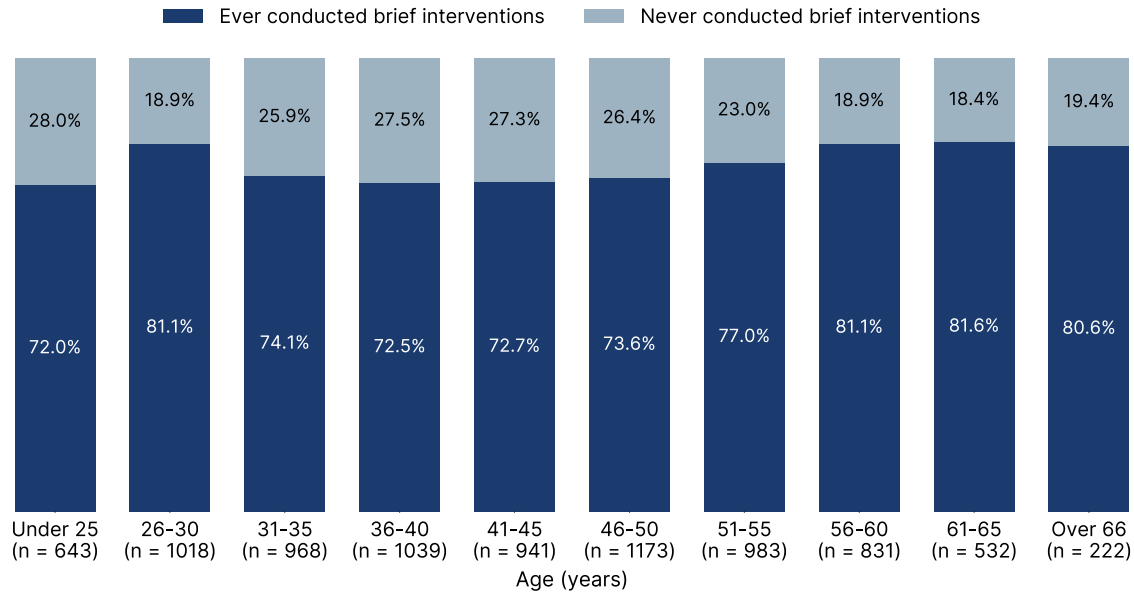
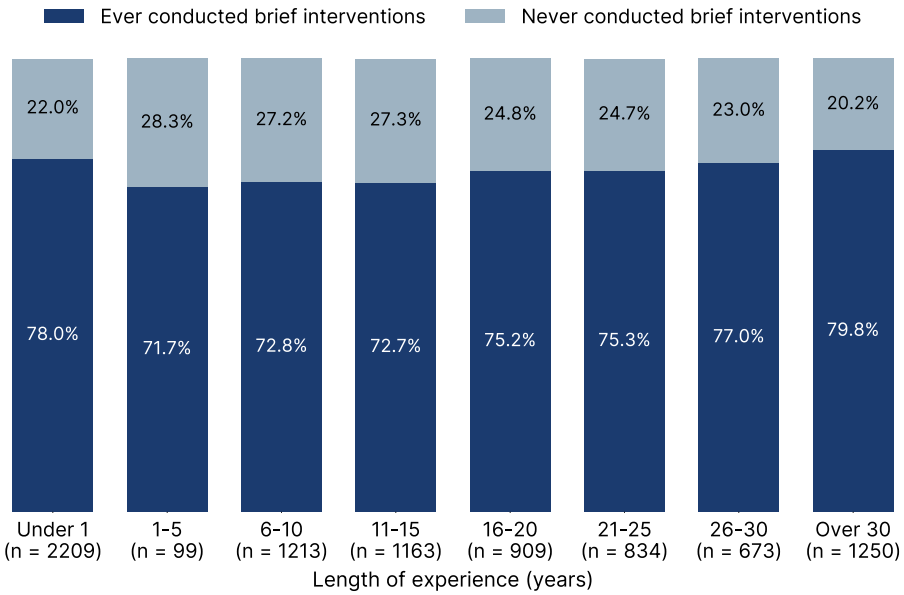


Fig. 10. Distribution of brief interventions delivery by work experience in the current specialty



Summary

A total of 8350 participants in 41 countries participated in the survey. Most (98%) were in CIS countries, and 92% of the responses originated in Russian Federation. Most respondents (47%) were aged 26–45 years, female (85%) and with > 10 years of work experience (58%).

Of the 61% of respondents who were physicians, 87% conducted brief interventions, while only 59% of non-physicians did so. The characteristics of the participants who had ever conducted and never conducted brief interventions were similar, except for their role in primary care. The latter group included a higher proportion of nurses than primary-care physicians.

3.2 Participants in the interviews with primary health-care providers

Of 100 people invited, 21 participants in 11 countries were interviewed (21% response rate). Of these, 71% were female, and the age range was 31 to > 70 years, with most (71%) under the age of 50. Most participants (76%) had had 6–25 years of experience in their current position. Participants consisted of 15 physicians (12 of whom were primary-care physicians) and six non-physicians (four of whom were dieticians). Nearly equal numbers of participants practised in CIS and in non-CIS countries in the Region (11 and 10, respectively).

Of the 21 providers interviewed, 17 (81%) reported that they used brief interventions in their practice. Three of the four participants who reported never having conducted brief interventions were non-physicians. The characteristics of the participants are summarized in Table 3.

Table 3. Characteristics of participants in interviews

CHARACTERISTIC	TOTAL (N = 21)		EVER CONDUCTED BRIEF INTERVENTIONS (N = 17)		NEVER CONDUCTED BRIEF INTERVENTIONS (N = 4)	
AGE GROUP (YEARS)	**N**	**%**	**N**	**%**	**N**	**%**
31–35	6	28.6	4	23.5	2	50
36–40	1	4.8	1	5.9	–	–
41–45	3	14.3	3	17.6	–	–
46–50	5	23.8	4	23.5	1	25
51–55	1	4.8	–	–	1	25
56–60	1	4.8	1	5.9	–	–
61–65	3	14.3	3	17.6	–	–
> 70	1	4.8	1	5.9	–	–
SEX						
Female	15	71.4	13	76.5	2	50
Male	6	28.6	4	23.5	2	50
WORK EXPERIENCE (YEARS)						
1–5	1	4.8	1	5.9	–	–
6–10	6	28.6	4	23.5	2	50
11–15	2	9.5	1	5.9	1	25
16–20	3	14.3	3	17.6	–	–
21–25	5	23.8	4	23.5	1	25
> 30	4	19	4	23.5	–	–
ROLE IN PRIMARY CARE						
Physician	15	71.4	14	82.4	1	25
Primary-care physician	12	57.1	11	64.7	1	25
Neurologist	1	4.8	1	5.9	–	–
Psychiatrist	1	4.8	1	5.9	–	–
Psychotherapist	1	4.8	1	5.9	–	75
Non-physician	6	28.6	3	17.6	3	50
Dietician	4	19	2	11.8	2	–
Nurse	1	4.8	1	5.9	–	25
Public health manager	1	4.8	–	–	1	–
COUNTRY OF PRACTICE						
CIS countries	11	52.4	10	58.8	1	25
Azerbaijan	2	9.5	2	11.8	–	–
Russian Federation	7	33.3	6	35.3	1	25
Uzbekistan	2	9.5	2	11.8	–	–
Non-CIS countries	10	47.6	7	41.2	3	75
Bosnia and Herzegovina	2	9.5	1	5.9	1	25
Bulgaria	1	4.8	1	5.9	–	–
Czechia	1	4.8	1	5.9	–	–
France	2	9.5	2	11.8	–	–
Germany	1	4.8	1	5.9	–	–
Norway	1	4.8	–	–	1	25
Spain	1	4.8	–	–	1	25
United Kingdom	1	4.8	1	5.9	–	–

Summary

Of the 21 participants in 11 countries who participated in the interviews, 52% were in CIS and 48% in non-CIS countries. Most of the participants were female (71%), had > 10 years of work experience (67%) and were under the age of 50 (71%). A total of 17 participants (81%) reported that they conducted brief interventions for NCD risk factors in their practice.

4 Results

4.1 Current practice of brief intervention

This section presents only qualitative results.

4.1.1 Definition, purpose and timeframe

The interview participants understood a brief intervention generally to be a short individual counselling session on a patient's lifestyle and risk factors for NCDs. Some extended the concept to include a full medical examination, disease diagnosis and prescription of treatment.

> *By "brief intervention", I mean consultation, the process of informing the patient and also making a preliminary diagnosis, which can also be attributed to informing. – Psychiatrist, Russian Federation (ID-2)*

One participant was unaware of the term "brief intervention".

> *If there is something that is called brief interventions in form of a program or a model, that's not something I have heard of before. – Dietician, Norway (ID-14)*

Brief interventions were considered by the participants to increase overall life expectancy and quality of life rather than a tool for primary prevention, because many patients already had certain diseases. Moreover, some saw brief interventions as a means of simply raising patients' awareness about their unhealthy lifestyle and the negative consequences and of providing recommendations for actions or referrals (informative/instructive approach).

> *Conveying information... that... the patient's lifestyle puts them at risk and may lead to either certain diseases or worsen their condition. – Primary-care physician, Russian Federation (ID-6)*

> *Patient counselling for roughly 7 minutes, in which we tell the patient about the risk factor that we have identified and, accordingly, give a brief recommendation. – Primary-care physician, Russian Federation (ID-8)*

Other providers perceived brief interventions as collaborative, patient-centred counselling to enhance patients' motivation to change their behaviour.

> *[Brief intervention is] a specific method for counselling on behaviour change towards a healthy lifestyle. – Primary-care physician, Uzbekistan (ID-3)*

> *Those interventions that are focused on informing the patient or the client about the risks of their behaviour, unless the patient is already incentivized, or motivated, will not be very effective, but ... other brief interventions more based on persuasion ... I believe can be a lot more effective. – Dietician, Spain (ID-15)*

> *Brief intervention, it's more way of practice than a flyer. – Psychotherapist, France (ID-21)*

The duration of brief interventions varied among participants, ranging from less than 1 min (one or two phrases) to 30–40 min of counselling. Most usually spent 5–10 min delivering brief interventions, some cases requiring up to 15–20 min. Some mentioned that they had difficulty and lacked experience in delivering brief interventions within a short time.

Participants from Russian Federation referred to brief interventions as one stage of "dispanserization", a two-stage health assessment and disease prevention intervention conducted for the adult population in Russian Federation. The purpose of the first stage (sometimes referred to as screening) is to detect symptoms of chronic NCDs and risk factors for NCD development; the second stage consists of additional examinations, if indicated *(63)*. "Brief" preventive counselling lasts for up to 10 min and "in-depth" interventions for up to 45 min.

> *A brief intervention should be delivered within 5–7 minutes, but it is difficult, with that unclear differentiation between "brief" and "in-depth"... in reality, it takes at least about 20 minutes, especially if the patient has questions. – Dietician, Russian Federation (ID-1)*

Interview participants commented that the duration of a brief intervention is influenced by factors including the experience of the health provider in delivering brief interventions, the number of NCD risk factors and the willingness of the patient to participate.

Participants noted that brief interventions were usually conducted at the end of a visit, although a small subset delivered brief interventions at the start of the first visit when getting to know a patient. Some considered that brief interventions could be delivered throughout the visit instead of at the start or end.

> *We can counsel [the patient], for example, during our first conversation. – Dietician, Norway (ID-14)*

> *We are required to deliver a brief intervention during the initial visit... if we do not have enough time for this... we make another appointment. – Primary-care physician, Bosnia and Herzegovina (ID-13)*

> *After counselling on the treatment, we [then] offer behaviour change counselling. – Primary-care physician, Uzbekistan (ID-3)*

Little information was provided on follow-up after delivering brief interventions. While several participants reported that they monitored patients' progress at subsequent visits, the follow-up interval was not specified. The exception was a dietician in Germany who said that patients are scheduled for four to five visits, and their progress is monitored over several months; however, no long-term follow-up is conducted.

4.1.2 Content

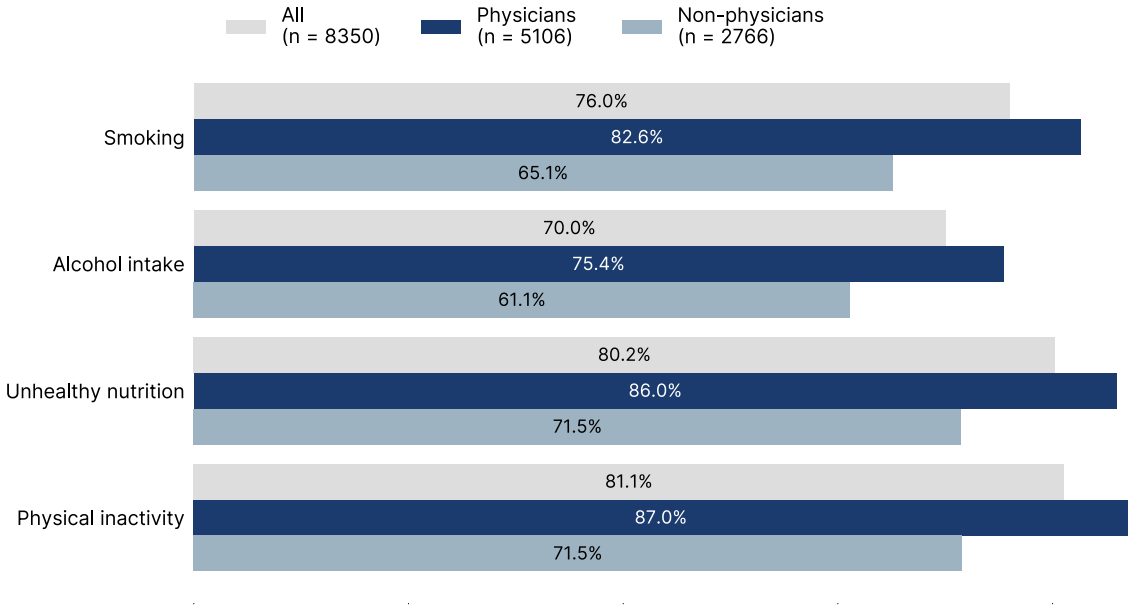
To understand the content of the brief interventions delivered, this section is organized according to well-recognized evidence-based resources for structuring brief advice – the Five A's (Ask, Advise, Assess, Assist and Arrange) model and

the Five R's model (Relevance, Risks, Rewards, Roadblock and Repetition) *(64)*. Few respondents named the Five A's and Five R's models when defining brief interventions.

Ask and measure exposure to the risk factors

Most survey participants said that they measured NCD risk factors at almost every consultation (Fig. 11), the frequency varying only slightly, from 81% for physical activity, 76% for smoking, 80% for nutrition and 70% for alcohol consumption. This is similar to the interview results, in which 81% (17/21) reported that they measured smoking, 71% (15/21) measured alcohol intake, 76% (16/21) measured unhealthy nutrition, and 71% (15/21) measured physical activity.

Fig. 11. Measurement of NCD risk factors in patients at almost every consultation



The interviewees reported using a wide variety of methods to measure NCD risk factors: clinical consultation (e.g. asking about lifestyle, nutrition, habits); laboratory and instrumental testing (e.g. weight, height, blood pressure); standard questionnaire for an electronic medical card or preventive programmes; information provided by third parties (e.g. family members) or judgement from a patient's appearance.

> *I can determine the patient's body mass index even without taking measurements. – Primary-care physician, Russian Federation (ID-8)*

The participants had difficulty in naming validated instruments that they used in clinical practice to measure risk factors. They described tools generically, such as "questionnaire", "survey", "scale", "charts". Only a few mentioned specific tools, such as the Systematic Coronary Risk Evaluation (SCORE) charts *(65)* to measure cardiovascular risk, the Cut, Annoyed, Guilty, and Eye (CAGE) tool *(66)*, the Alcohol Use Disorders Identification Test (AUDIT) questionnaires *(67)* to measure alcohol use and the Fagerström Test for Nicotine Dependence to assess tobacco use *(68)*.

> *We measure each patient's height, weight and body mass index. The cardiovascular risk is assessed based on the SCORE model. Then we conduct a survey on fruit and vegetable consumption, smoking, alcohol consumption, and physical activity. – Primary-care physician, Uzbekistan (ID-4)*

> *You do not ask the patient about their alcohol use, but immediately suggest filling in the CAGE or the AUDIT questionnaire. – Primary-care physician, Bosnia and Herzegovina (ID-17)*

The interviewees stressed that building trust in the patient–provider relationship is essential for asking about risk factors but may be difficult. The principles and communication skills that they used to build rapport were:

- respecting the patient's autonomy and obtaining their permission before discussing potentially sensitive topics:

> *Before conducting any intervention aimed at behavioural change, we have to ask for permission and consent from the patient, which is a basic principle. – Primary-care physician, Uzbekistan (ID-3)*

- being open and transparent in communication, which involves active listening and creating non-judgmental space:

> *First, I try to do this in such a way as to not scare the patient, so they don't think I'm scolding them, or condemning them in some way. – Primary-care physician, Russian Federation (ID-7)*

- demonstrating empathy, taking time to understand the patient's personal story, experiences and context, being flexible, acknowledging sociodemographic characteristics, mental health status and the personal values and beliefs of each patient and adapting communication techniques to facilitate a personalized approach:

> *...people have different levels of knowledge, behaviour, lifestyle, marital status, so I need to know as much as possible about them in order to choose the right approach to the conversation. – Nurse, Bulgaria (ID-12)*

- ensuring confidentiality, particularly when discussing sensitive topics such as substance use:

> *Some patients prefer a one-on-one discussion about their problems associated with bad habits, especially with alcohol or tobacco use. – Primary-care physician, Russian Federation (ID-9)*

Advise patients to change their exposure to risk factors

Comments made during the survey indicated that not all patients receive advice for behavioural change before the next step, assessing their readiness to change. Participants said that that they usually assessed patients' knowledge about their risk factors and the effects on their health before providing information and advice about the risk factors. Usually, participants explained the negative consequences of patients' current behaviour and also the positive benefits of behavioural change.

> *I start with … some kind of bad history and then I give the advantages … and the benefits he can gain. – Primary-care physician, Czechia (ID-19)*

To provide more effective advice, some participants used information tools. For example, some used the SCORE scale to illustrate the current cardiovascular risk of a patient and showed how it could change if the patient changed their behaviour. Some participants noted that it is important to be clear, simple and confident in giving advice.

> *…it is necessary to show empathy for the patient and listen carefully, … speak simply and clearly, and not use medical terms. – Primary-care physician, Bosnia and Herzegovina (ID-13)*

Participants also emphasized the importance of refraining from criticizing, lecturing or forcing advice on patients but approaching them as technical experts who could provide guidance and support to empower and assist them to take responsibility for changing their behaviour according to their own capabilities.

> *The most important thing here is not to impose, because as soon as you come out as an expert saying "you should", "you can", … [the patients] immediately form a negative attitude and develop a resistance reflex. … Brief interventions strive more to support and help the patient, to guide the patient and, above all, to unlock their inner potential, which they don't even suspect they have. – Primary-care physician, Uzbekistan (ID-3)*

> *I refer to myself as the "points man" in my interactions with patients. I say: "You are the train, and I can show you where to go". – Primary-care physician, Russian Federation (ID-9)*

> *It's important not to force people into a situation where they're receiving information or [making] choices that they don't wish to make. … [As if referring to a patient] What you do with your life is up to you. I'm here to support you, … not to be the big bad boss at the top. – Primary-care physician, United Kingdom (ID-18)*

Some participants tried to provide individualized feedback based on information provided by the patients and their sociodemographic and cognitive characteristics; however, some provided paternalistic advice (e.g. "do not drink or smoke") and generalized recommendations.

> *I don't have any special questionnaires like that [to conduct brief interventions], to be honest. With harmful factors like smoking and drinking, it's simply a case of "don't smoke", "don't drink". – Primary-care physician, Azerbaijan (ID-11)*

Other interviewees said that they focused mainly on increasing awareness about risk factors rather than providing advice.

Assess the patient's readiness to change exposure to the risk factors

Many survey responders said that they would judge a patient's readiness and predicted adherence to advice before conducting brief interventions, although assessment of a patient's readiness to change with instruments such as a visual analogue scale is a part of brief intervention.

Although a patient's readiness to change and their interest and engagement in conversation were considered essential for effective communication, few of the participants described how they measured readiness or how they changed their approach according to the level of readiness. A few participants said that they assessed motivation or willingness to accept advice on a scale of 0–10. For patients who were not ready to change, only a few respondents reported that they tried different strategies or showed patients that their "door is always open" when they were ready.

> *...we assess the patient's readiness to change. And if they are not ready, we try to switch to another model to deal with reluctance. We try to somehow provoke them to reveal their inner potential, which they don't even suspect they have....But if they again show a lack of readiness to change, we let them know that, if they wish to return, our doors are open. – Primary-care physician, Uzbekistan (ID-3)*

> *It's very important to ask [the patient] what his or her motivation is from zero to ten, for example, and discuss what provides five, not six or four, enough that he tried to find ... the cause, pro and cons. – Primary-care physician, Bosnia and Herzegovina (ID-17)*

Some participants said that their decision to start and/or continue brief interventions depended on the patients' readiness to change.

> *It is very important to find out what their motivation is... if they are willing to continue working on the problem, we will try to help them. – Primary-care physician, Bosnia and Herzegovina (ID-17)*

Assist patients in acquiring motivation, self-help skills or support for change

In the survey, the interventions most often used (74% of participants) were for diet and physical activity; only 70% prescribed smoking cessation and 64% gave advice on alcohol withdrawal. In the interviews, the frequency of prescription of interventions was slightly higher but with a similar trend. The frequency of interventions for alcohol withdrawal (71%) was lower than those for smoking cessation (76%), physical activity (76%) and diet (90%).

Interview participants did not describe this aspect in detail, only two reporting that they helped patients to make a plan (e.g. setting a date to quit smoking), and they did not indicate the techniques used in developing a behavioural-change plan.

> *...it depends how much time I have, I can come to some specific recommendation how to do it [behaviour change]. – Primary-care physician, Czechia (ID-19)*

The methods used included prescribing pharmacological treatment (e.g. for smoking cessation), providing materials such as brochures and referral to other health-care or social services (e.g. a hotline, government website, group weight-loss programme).

> *I don't have time for a full-scale conversation... they can read a brochure. – Primary-care physician, Bosnia and Herzegovina (ID-13)*

> *The primary-care physician tries to inform the patient about some basic things within a short period of time: what to do next, which doctor to contact for a specific risk factor. – Primary-care physician, Russian Federation (ID-8)*

Arrange follow-up support and further counselling as required, including referral

Although most interviewees said that they generally followed up their patients, only a few reported that they scheduled a further visit to track progress. Some asked patients to keep a diary or to respond to a questionnaire for follow-up, although some reported that patients found this difficult.

> *I ask a few questions [about diet] just [to see] if there are big mistakes. And when I can't find them, I give them [a sheet] to fill it for three days. But it's very difficult for them to come back with it. It doesn't work. – Primary-care physician, France (ID-20)*

Those who said that they referred some patients to a specialist did not describe the follow-up or referral process. One interviewee described involving non-medical staff (e.g. case managers) in referral to help patients with cancer to navigate the medical system; however, the practice was not used in prevention of NCDs.

> *The oncology assistant is a person who – although lacking a medical education – serves as a liaison between the cancer detection centre and our outpatient clinic. The assistant helps the patient register somewhere, helps the patient sign up for tests as quickly as possible, advises them on questions such as, "why I need to do this" or "what needs to be done". – Primary-care physician, Russian Federation (ID-6)*

4.1.3 Communication

This section represents qualitative results only.

Participants in the interviews identified several communication skills that they found helpful for use during consultations.

Open-ended questions:

> *The main thing is to engage patients more, to ask more open-ended questions to determine whether the patient is even with you or not. We have a problem when we impose our opinion. – Primary-care physician, Uzbekistan (ID-4)*

Empathy and affirmation:

> *Everyone feels good when someone is attentive to them and wants to talk about them, especially about their problems, … or to share the joy of their successes, … and to provide information on how they can improve and develop. – Psychiatrist, Russian Federation (ID-2)*

Reflective listening and asking for feedback from the patient:

> *I think listening is even more important than speaking. – Primary-care physician, Czechia (ID-19)*

Motivational interviewing (e.g. helping patients to identify associations between their concerns and their behavioural risk factors):

> *…I just said: "You know, let's just talk, I'm not going to lecture you, you just tell me, what do you think this could lead to?" – Primary-care physician, Uzbekistan (ID-4)*

Several participants said that follow-up visits after a brief intervention allowed providers to build a trustful relationship with a patient. They noted, however, that each provider has their own style for delivering brief interventions. Some were paternalistic or told "bad stories" to scare "problematic" patients, which is in contradiction to the brief intervention model and the patient-centred approach, which is based on partnership.

> *You're trying to determine, first of all, whether they wish to take responsibility, and secondly, whether they're able to take responsibility. … If those things are not so easy, then you are probably going to have to take more didactic approach, more prescriptive approach, rather than negotiating what's realistic. – Primary-care physician, United Kingdom (ID-18)*

> *You have to use different acting techniques to scare someone a little bit, to alert someone. – Neurologist, Azerbaijan (ID-10)*

> *Sometimes it's good to make a patient feel guilty. – Primary-care physician, Czechia (ID-19)*

In this approach, the provider's authority, reputation and expertise were considered the most important factors for effective communication. Other respondents said that it is important to establish collaborative relationships with patients to encourage them to participate in decision-making and take responsibility.

> *With someone who is very collaborative, I would be very open and try to negotiate a lot of things, the procedure for the next sessions or so on. With someone who is more challenging, I might need to appear more in charge and to set some boundaries so that the roles are maintained. – Dietician, Spain (ID-15)*

4.1.4 Providers and modes of delivery

Who conducts brief interventions?

The survey showed that brief interventions were conducted predominately by primary-care physicians (96%) and least often by nurses (58%). The interviewees considered that brief interventions could be delivered by health professionals in various specialties. Those who worked in multidisciplinary teams reported that it was usually a primary-care physician, rather than nurse, who decided whether a brief intervention should be conducted.

> *Interviewer: And who decides whether brief interventions are needed or not?*
>
> *Participant: That is the GP [general practitioner] in his office, usually, or also a nurse can do it. – Primary-care physician, Czechia (ID-19)*

> *Interviewer: Do you involve any of the medical staff in counselling?*
>
> *Participant: I may involve a nurse if I need to measure the patient's body mass, waist or blood pressure. Naturally, I involve medical personnel if I cannot do it myself at that particular time.*
>
> *Interviewer: And what about counselling specifically, giving advice?*
>
> *Participant: These are for doctors to do. – Primary-care physician, Azerbaijan (ID-11)*

> *Usually, the physician decides when these brief interviews are needed. And when the nurses are very knowledgeable, they can do it alone, but the physician has to know personally that I will go and speak with the patient with some of the NCDs. – Nurse, Bulgaria (ID-12)*

The study showed that multidisciplinary teamwork is rare.

> *…Due to the peculiarity of our health system, I do not have a team of colleagues. – Nurse, Bulgaria (ID-12)*

One interviewee highlighted the importance of nurses in delivering brief interventions, as they are competent and have more time for a consultation. Furthermore, the nature of the patient–nurse interaction is beneficial in delivering brief interventions:

> *Usually, patients like to talk to nurses because our communication with the patient is more human, while the physician is occupied with the diagnosis and treatment. So, patients like to talk to us, and if we are very well prepared on the theme of NCDs, I think it is very useful for them and the whole system as a whole, for society. – Nurse, Bulgaria (ID-12)*

One interviewee said that he did not see the point of involving other medical professionals, which could be a barrier to establishing a trustful relationship with a patient for discussing sensitive topics such as alcohol use.

> *I do not really need anybody's involvement during the intervention. It is a personal, individual conversation, and the important element is confidentiality, so that the person can confide in you. The presence of third persons, even if they are medical personnel, may somewhat distort the picture for a patient, who wanted to provide or obtain certain information that worried or interested him or her. – Psychiatrist, Russian Federation (ID-2)*

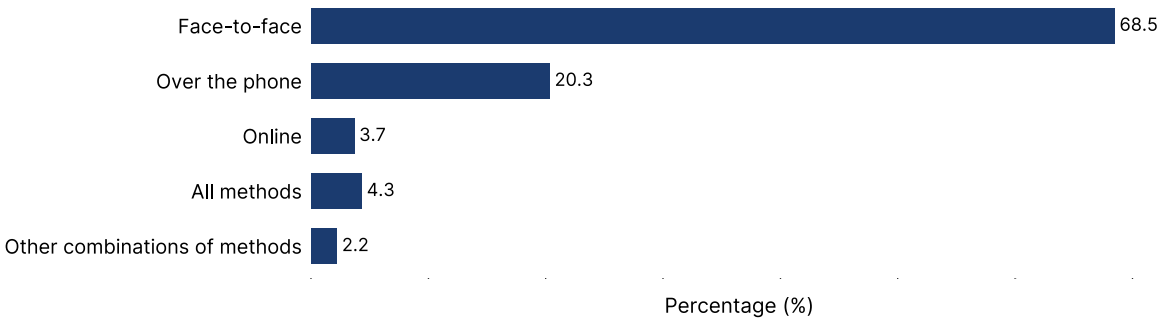
Participants said that the absence of multidisciplinary teams in prevention was due to lack of staff, limited capability of personnel and lack of time.

One participant shared the experience of delivering brief interventions in a "physician–nurse–patient" communication system. The interaction made it possible to establish additional links among all the participants in communication. Other participants were sceptical about the possibility of organizing brief interventions by multidisciplinary teams due to the shortage of nursing staff and to physicians having other tasks.

Modes of delivery

Among the survey participants who conducted brief interventions, the most common format was a face-to-face intervention; 20% consulted over the phone, 4% used online delivery, and 4% used mixes of these methods (Fig. 12).

Fig. 12. Mode of delivery of brief intervention among survey participants



Most interview participants who conducted brief interventions (15 of 17) provided them face-to-face, while the others used a mixture of delivery over the phone and online. Face-to-face interaction was considered more beneficial than the remote modes, as it allows both verbal and non-verbal communication.

> *The most effective is a face-to-face consultation. There is no doubt about it. The reason is that you can get a greater sense of a person non-verbally; you can also interact with them non-verbally and get more involved in the process. But, considering the variety of situations, I believe distance counselling can also be very effective. – Psychiatrist, Russian Federation (ID-2)*

The patient's physical presence was also considered important, as it allows accurate measurement of risk factors.

> *I prefer [seeing patients] in person. Because not only do we see the patient, but as a physician I can also assess skin turgor, moisture of the skin, the smell of*

> *tobacco. Always in counselling, I even scan the patients as they walk, how active they are, how much they move. If they are sitting online, like you and I are talking, I don't know how active they are. – Primary-care physician, Russian Federation (ID-9)*

> *…it is important for a doctor to see the patient's appearance. You still have to manually examine the patient. Maybe they've got swelling. The patients are not going to put their legs up [during online counselling], they are not really comfortable with it. – Primary-care physician, Russian Federation (ID-8)*

Remote delivery of brief interventions was also considered to limit the personal and emotional contact necessary to establish a trusting relationship with a patient, to receive feedback and to discuss sensitive topics.

> *I think introducing slightly sensitive subjects is harder without being in the room. – Primary-care physician, United Kingdom (ID-18)*

Others referred to difficulty in organizing delivery of brief interventions online for older patients.

> *…for elderly patients [video communication] is difficult. They're not as proficient with these mobile technologies. – Primary-care physician, Russian Federation (ID-9)*

Another primary-care physician in Russian Federation commented in the online survey that certain age and social groups of patients have no or insufficient knowledge of modern technology and skills for full online interaction.

Others said that some health professionals also cannot deliver high-quality brief interventions online due to lack of relevant competence (e.g. technical skill) and practice.

> *I think [mixed-method counselling] is very helpful, but maybe I'm too old, not open-minded enough for these new approaches. – Dietician, Germany (ID-16)*

> *So, we do a lot of things online, we discuss with patients and find the lab … find findings and other things and give consolation … some … mentoring and advice by … online approach. But, for brief interventions, it's … it's rather difficult to … because then you can't use all the advantages I talked about. I think it's much more complicated to do [the brief intervention] online. And I don't have practical experience in that… – Primary-care physician, Czechia (ID-19)*

The possibility of remote brief interventions was nevertheless considered important. Almost half of the survey participants (49%) and most interviewees (80%) agreed that they would use online interventions in their practice if given such an opportunity.

Respondents noted that a combination of in-person and remote modes might be a good solution for long-term monitoring and follow-up, with the online format for following up patients between physical visits to a health-care facility.

> *I think the mixed methods approach could be something very interesting for longer follow up … let's say if there are 3, 4, 5 counselling [sessions] in the very beginning, like face to face, … and then maybe we talk about the next 3, 4, 5 months or even longer: 10 minutes a week, about the nutritional problems or challenges this patient is facing.… This was very helpful … because it is more coaching, and the patient knows he or she is not alone. – Dietician, Germany (ID-16)*

During the COVID-19 pandemic, health-care providers had to limit face-to-face consultations and change to online or phone consultations. Those who had experience in delivering online or phone consultation adapted to the situation more easily than those who had not used remote consultation previously.

> *… we're trying to limit it to just literally the conversation is done outside the room [during COVID-19]. So probably that has impacted on brief interventions, to be honest … the physical cues are great, the video isn't that great, actually. … So most of my work is currently on the telephone … I feel fairly comfortable with the telephone. I've used the telephone a lot over the years. – Primary-care physician, United Kingdom (ID-18)*

Thus, interviewees found face-to-face brief interventions preferable and more effective because of the opportunities for physical observation, for checking patients' condition, making measurements and reading non-verbal cues that lead to a more trusting relationship. Remote delivery was perceived as an alternative, particularly for follow-up.

4.1.5 Integrated approach

Only 29% of the survey participants who conducted brief interventions reported that they regularly measured two or more NCD risk factors (the integrated approach to brief interventions delivery) at every consultation, 36% did it in some patients per day, 17% in some patients per week, and 8% in some patients per month. Use of an integrated approach was more frequent among physicians (Fig. 13).

All 17 interview participants who conducted brief interventions said that they used an integrated approach; however, the regularity varied, only three doing so at every consultation, 11 daily, two every week and one every month. There were few data from interviews on the technical details of this practice, but participants provided some information about the purpose, benefits, challenges and practical aspects of the integrated approach. They gave several reasons for finding an integrated approach more beneficial than single interventions:

- common co-occurrence of two or more risk factors in a patient:

> *[I provide advice on several NCD risk factors at the same time] very often because many of the patients have several risk factors like obesity, and smoking, and high blood pressure. – Primary-care physician, Bosnia and Herzegovina (ID-13)*

- uncertainty about a patient's follow-up, leading them to decide to provide care immediately:

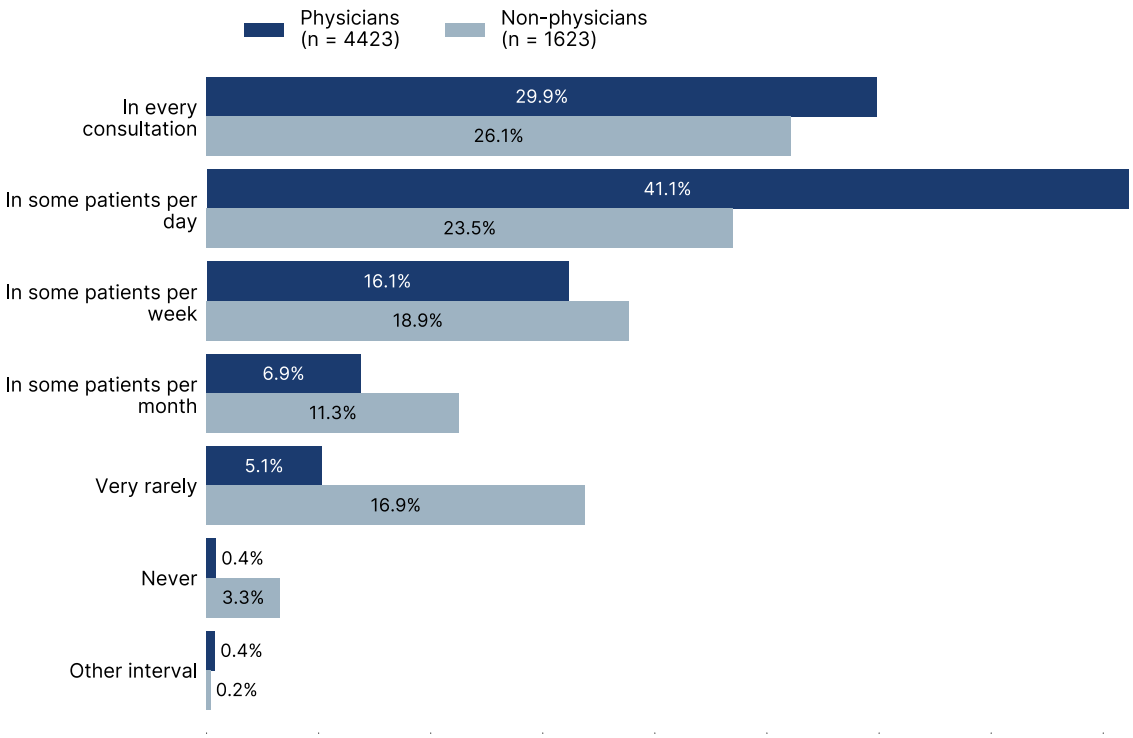
> *The patient is here and now, they are ready to listen to it all, and next time they might not even come. – Dietician, Russian Federation (ID-1)*

- a strong relation between a patient's risk factors and consideration that changing only one factor would have no or little impact on their health if the other risk factors are not addressed:

> *A comprehensive approach is needed here, that is, if a patient normalizes their weight, yet still they smoke and drink, there will, accordingly, be no effect. If one chooses to act, they should act radically. – Primary-care physician, Uzbekistan (ID-4)*

The participants described some benefits and challenges of using an integrated approach in clinical practice.

Fig. 13. Frequency of measuring two or more NCD risk factors in an integrated approach among physicians and non-physicians



Benefits of an integrated approach

1. **Reducing loss to follow-up:** Respondents said that it is more convenient for patients to understand all the NCD risk factors to which they are exposed at one appointment and to receive recommendations on addressing each of them, without postponing discussions to a second appointment, which may not take place:

> *The pros are, as I said, the patient might not come back to you, for a long time; so, you will not have another opportunity... – Primary-care physician, Bosnia and Herzegovina (ID-13)*

2. **Providing holistic prevention:** Respondents noted that, as NCD risk factors and patients' health are interrelated, addressing all risk factors together is a more effective solution to each problem. The patient is considered as a whole, and the combination of risk factors reflects an unhealthy lifestyle:

> *It is necessary to show that [the risk factors] are really interrelated, it is easier to sort them out one after another. – Primary-care physician, Russian Federation (ID-7)*

> *The most important benefit is that I can show the patient that the influence of a combination of factors is greater than the sum of the influence of each of these factors individually, that they exacerbate each other's effect.... Such arguments and phrases have a big influence on patients. – Dietician, Russian Federation (ID-1)*

3. **Conducting a comprehensive assessment:** An integrated approach may help to identify the degree of awareness about all risk factors and focus on that which is "most problematic":

> *An integrated approach gives the opportunity for specialists to understand where people are less informed, where they have less awareness of risk factors, of noncommunicable diseases, where I can provide information or advice. – Psychiatrist, Russian Federation (ID-2)*

4. **Efficient use of time and more efficient communication:** Although the integrated approach requires more time, some providers considered it more pragmatic, as the time of both the patient and the provider is used more effectively:

> *The positive effect is that, for a brief period, you convey to a patient that they have several risk factors for developing noncommunicable diseases. That is, if a patient comes to a general practitioner with a specific disease, and it is obvious just by looking at them, you can tell them clearly, "You have such and such issues, such and such risks." And that's it, the patient will take better care of themselves. That's a major advantage. – Primary-care physician, Russian Federation (ID-8)*

Challenges of an integrated approach

1. **Limited patient understanding of information:** Providers identified potential information overload as the main challenge to brief interventions for several risk factors at once because of limited attention and other cognitive capabilities of patients, such that they might not fully understand the information, fail to acknowledge the equal importance of all the identified risk factors and be confused, overwhelmed and discouraged, especially if several behaviour changes are to be made:

> *...The con is he might get lost in the information that he gets, and he will be confused. – Primary-care physician, Bosnia and Herzegovina (ID-13)*

2. **Time constraints and work overload:** According to the interviewees, integrated brief interventions in which all risk factors are assessed and interventions provided require more time (e.g. up to 40–50 min), while a visit usually takes 10–15 min. Providers may feel overloaded when using an integrated approach, which may result in a negative state, such as burn-out:

> *If doctors answered every single question their patients asked regarding vegetable consumption, alcohol consumption and smoking, every intervention would take around 40–50 minutes. And we timed it! – Primary-care physician, Uzbekistan (ID-4)*

> *We've only got so much time at the outpatient clinic. And I think it will only get worse with the transition to insurance medicine. I don't know how I'll cope with it. I'll have to cut so much out. Lately, I've been feeling that I'll have to get by doing the bare minimum. – Neurologist, Azerbaijan (ID-10)*

Practical insights

Providers noted that they overcame some challenges by focusing on the "most important" risk factor. The strategies for selecting priorities differed. Some health-service providers said that this might depend on the physician's decision or preferences.

> *The disadvantages are probably that there is too much information and too much pressure on the patient. So, I try to choose one most important factor. – Neurologist, Azerbaijan (ID-10)*

Providers acknowledged that their choice of risk factors for a brief intervention could depend mainly on themselves, such as:

- their perception or attitude towards certain risk factors: for example, some risk factors were perceived as easier to address, more important in general or more closely associated with the patient's health condition or other characteristics:

> *But the problem we have is that our doctors shy away from asking questions about smoking and alcohol, which means that the whole consultation was mainly focused on proper diet and physical activity. These were the main factors going in. – Primary-care physician, Uzbekistan (ID-4)*

- their professional self-efficacy, expertise or competence in a particular risk factor:

> *Maybe on the one hand, it's the lack of reflection on my side. Sometimes I'm a little bit afraid of addressing risk factors that are not completely in my field of expertise. So, that's like this precaution although I might be omitting some of my responsibilities. And on the other hand, in the topic of dietary risk factors, I go more in depth. – Dietician, Spain (ID-15)*

- the provider's perception of patient characteristics (e.g. openness to discuss sensitive topics such as alcohol use):

> *Patients struggling with alcohol abuse are challenging to work with too. … There are many people who suffer from "facius alcoholicus", which is when it's obvious that they are a drinker, yet they refuse to admit it. We accept their questionnaire answers stating that they do not drink, even though we see the opposite. – Primary-care physician, Russian Federation (ID-9)*

> *For alcoholism, or misuse of alcohol, I don't use this score, but I try to know when and how much [the patients drink alcohol] … if they want to say, because some people are very, very reluctant to say. – Primary-care physician, France (ID-20)*

Others said that their decision was made according to the patient's interest and priorities:

> *[As if talking to the patient] "I'll ask you a question and we discuss another kind of plan: what we can do this year, what you don't want to do." They can choose that. – Primary-care physician, France (ID-20)*

> *I try to find out from the patient what they think about it. If the patient wants to talk about it, if they are aware of the issue, I try to work with them over the course of several appointments. – Primary-care physician, Russian Federation (ID-7)*

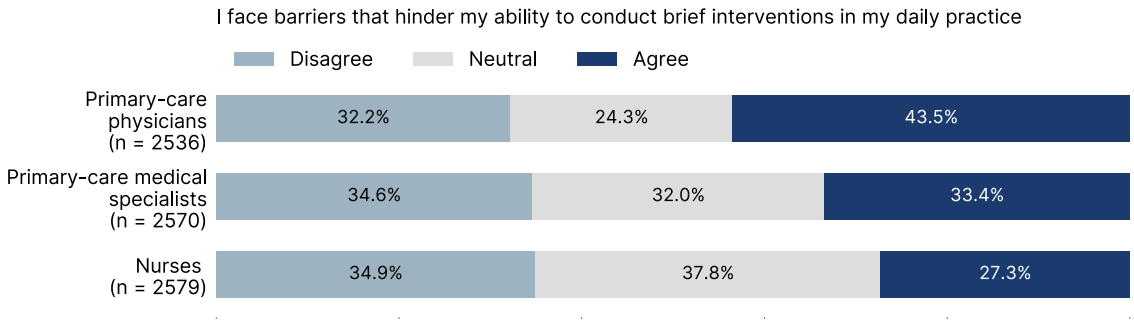
Some health-service providers said that, when they had to prioritize issues and could not provide information on all the risk factors identified, they referred patients to information on specialized web resources.

> *There is not enough time, so my brief interventions are very short, and I refer the patients to the internet for more detailed information. – Primary-care physician, United Kingdom (ID-18)*

4.2 Barriers and facilitators

Heterogeneous responses were received on barriers to conducting brief interventions effectively in daily practice; 34% of survey participants and 48% of interview participants reported barriers. The most common barrier was lack of time (77% of all replies to the open-ended question). More primary-care physicians (43%) than primary-care medical specialists or nurses agreed that they faced barriers, nurses reporting the fewest barriers (27%) (Fig. 14).

Fig. 14. Perception of barriers to delivery of brief interventions by role in primary care



Participants were asked to specify the three main barriers they experienced to delivering brief interventions. Their comments are presented below according to the COM-B model (capability, opportunity and motivation).

4.2.1 Capability

The analysis revealed three aspects of the capability of the health-service providers to provide brief interventions: knowledge and training, belief about their capability and belief about the consequences of brief interventions.

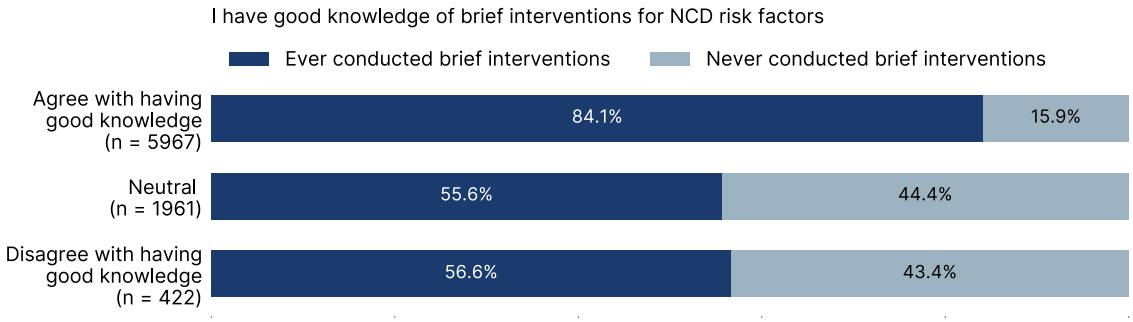
Knowledge and training

Demonstrating knowledge was considered an essential factor for gaining the trust of a patient and for conducting brief interventions effectively.

> *If you want to receive the patient's trust, you have to trust him, and on this basis, I have shown that I have prepared about this, and they rely on my knowledge. – Nurse, Bulgaria (ID-12)*

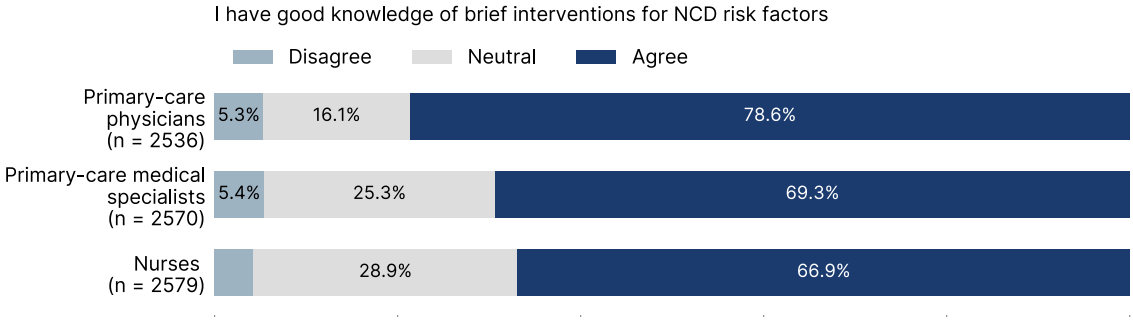
Most (71%) survey participants and 75% of interview participants reported that they had good knowledge about brief interventions, whether they used them in clinical practice or not. Of those who reported having good knowledge, 84% conducted brief interventions (Fig. 15).

Fig. 15. Delivery of brief interventions according to perceived knowledge



Perceived knowledge about brief interventions varied slightly by profession: more primary-care physicians considered that they had good knowledge on the topic than other specialists and nurses (Fig. 16).

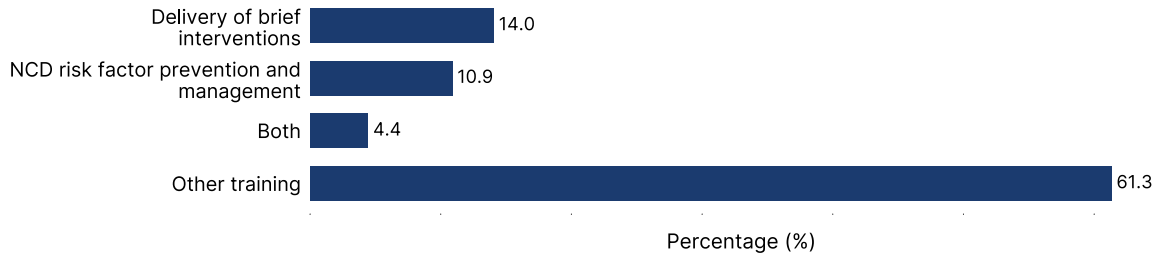
Fig. 16. Perceived knowledge of brief interventions by primary care role



Knowledge about delivery of brief intervention depended on the training received. Only 14% and 11% of all survey participants had received training in delivery of brief interventions and prevention and management of NCD risk factors, respectively, in

the past 5 years, and only 4% had completed training in both areas (Fig. 15); 61% had received training on other topics. Good knowledge of brief interventions was reported by 87% and 82% of those who were trained in delivery of brief interventions and NCD risk factor prevention and management, respectively, and by only 66% of those who did not receive training.

Fig. 17. Received training within the past 5 years



Of interview participants, 81% had participated in at least one training course on brief interventions and/or NCD risk factor prevention and management in the past 5 years. Only one participant reported having received training in brief interventions during residency; the others reported having acquired knowledge on brief interventions in various ways, including courses for developing skills for early identification of NCD risk factors, self-education materials from professional networks and associations, Internet browsing, online continuous educational programmes or courses organized by pharmaceutical companies, and formal training in psychology and motivational interviewing. Others had been involved in research on implementation of brief interventions or had acquired knowledge while advising patients on NCD risk factors.

> *Brief intervention... in my environment, is not a well-known method. – Dietician, Spain (ID-15)*

> *We held a conference, where I gathered together general practitioners and primary-care physicians, and we discussed risk groups, chronic diseases.... This was purely my own initiative.... I see the weaknesses of my general practitioners and physicians and what needs to be addressed. – Primary-care physician, Russian Federation (ID-6)*

> *...private website Patient United Kingdom..., NHS [National Health Service] Choices. These websites have great advice on diet and exercise... I read BMJ [British Medical Journal]... – Primary-care physician, United Kingdom (ID-18)*

While most participants proactively sought information from various sources, a substantial gap in formal, standardized training on brief interventions was observed as well as barriers to accessing such knowledge. The participants noted that acquiring theoretical knowledge about the concept of brief interventions might be easier than developing practical skills and techniques:

> *...it is not the acquisition of theoretical knowledge that is difficult, but the development of practical skills. – Psychotherapist, France (ID-21)*

Problems reported in relation to training were:

- lack of regular courses, practical workshops and refresher training with follow-up related to brief intervention in medical faculties;
- lack of opportunities to practise after formal education, a gap between written documents and actual practice (the "what" but not the "how") and lack of sustainability of interventions after training:

> *...everything [regarding information] is structured very well, but... if everything planned was implemented... at least by 50%, believe me, global goals could well be achieved. – Primary-care physician, Russian Federation (ID-7)*

- fear of judgement by colleagues when asking questions during training:

> *Often, the specialists I work with are afraid to ask questions because they are scared of being ridiculed and misunderstood. I once heard one specialist say to another, "You graduated with a degree in medicine. You were taught all of this – you should know it." They are afraid to ask questions. – Primary-care physician, Russian Federation (ID-9)*

- inconvenient time for training (e.g. in the morning or late evening) and concern that the time spent on training in brief interventions would distract providers from their main responsibilities.

Some respondents reported that training was insufficient, and they lacked knowledge or misconceived brief interventions. For example, some "brief interventions" were perceived as a form of informing patients about risk factors based on persuasion and non-personalized care. Some interviewees had difficulty in describing the key principles of brief interventions and were unaware of effective brief intervention practices and elements. They therefore expressed lack of interest in learning more about communication skills and were more inclined to explore "technical aspects"; for example, a dietitian was more interested in information on fat consumption. Some appeared to be resistant to changing their practice.

> *In my experience, health professionals in general, but what I know the most is dieticians, ... sometimes are too focused on the technical aspects. So, what should be the appropriate amount of carbohydrates or fats, and not everyone is interested in developing further communication or behavioural skills that can make this technical advice implemented. – Dietician, Spain (ID-15)*

> *There is some resistance [from the doctors] to implement brief intervention, because... they have to change themselves. .... There are some professors, some doctors and in the ministry of [health, who say that it] is not the job of the doctor. The job of the doctor is to give medication. – Psychotherapist, France (ID-21)*

> *I already know it, why should I study it!?... I would not mind being peer-reviewed, I mean a colleague to observe when I am talking to patients. – Dietician, Germany (ID-16)*

Enablers of brief intervention delivery were cited as good-quality training (including theory and practice) during and after medical education, including in communication skills, and networking with colleagues and participation in professional conferences.

Beliefs about capability

Capability to conduct brief interventions

Capability to conduct brief interventions was reported by 74% and 86% of the survey and interview participants, respectively. Perceived capability was greater in:

- those who conducted brief interventions as compared with those who did not (83% versus 44%);
- primary-care physicians as compared with non-physicians (78% versus 66%);
- those who had received training in the delivery of brief interventions (with or without training in NCD risk factor prevention and management) in the past 5 years as compared with those who had not (88% versus 69%); and
- those who had supportive materials as compared with those who did not (89% versus 64%).

The interviewees expressed various opinions about their capability to deliver brief interventions, most reporting lack of confidence in their ability to assess risk factors and conduct brief interventions in a few minutes. Some expressed confidence in their ability to measure and discuss risk factors but reported lack of communication skills for motivating patients effectively.

> *I can talk about risk factors, but I don't know how to motivate a patient. – Dietician, Russian Federation (ID-1)*

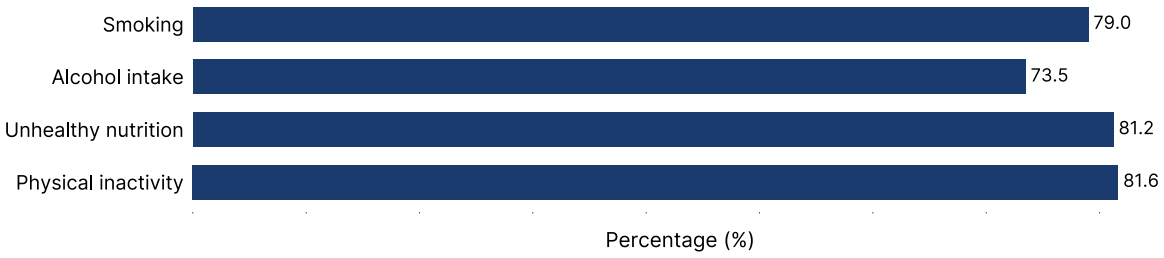
Lack of confidence might be due partly to lack of knowledge about validated screening instruments. Some therefore used alternative measurements, such as a liver function test to identify alcohol risk. A participant who supervised new colleagues commented:

> *Graduates who find work in their local clinic after university think that prevention is child's play [...] I have to teach those who are working under my supervision [...] It concerns me, maybe I don't know everything, or I don't tell them the right thing. – Primary-care physician, Russian Federation (ID-9)*

Confidence in measuring NCD risk factors

Only 73% of survey participants felt confident in measuring alcohol use as a risk factor, as compared with 79% for measuring smoking and 82% for physical inactivity and for unhealthy nutrition (Fig. 18).

Fig. 18. Confidence in measuring NCD risk factors



The difference was even larger among interviewees, as only 67% felt confident in measuring alcohol consumption as compared with 95% confident in measuring smoking and physical inactivity.

Primary-care physicians were the most confident in measuring risk factors, while nurses were the least confident. Nutritionists and dieticians were not only the most confident in assessing nutrition but were also confident in measuring physical inactivity and alcohol intake (Fig. 19).

In the survey, 92% of those who reported feeling confident about measuring smoking and only 15% of those who did not feel confident addressed this risk factor. Similar differences were found for measuring alcohol consumption (89% and 17%, respectively), unhealthy nutrition (94% and 20%, respectively) and physical inactivity (94% and 22%, respectively) (Fig. 20).

The interviewees expressed varying confidence in their capability. Some were more confident in addressing specific risk factors, which restricted their ability to use the integrated approach in consultations. The survey indicated that confidence in measuring NCD risk factors differed according to whether providers had received training in delivery of brief interventions and prevention and management of NCD risk factors in the past 5 years (Fig. 21): 91% of those who had received training in brief interventions, 89% of those who had received training in NCD risk factors and 75% of those who had not undergone training reported confidence in measuring NCD risk factors. The question in the survey did not, however, address the NCD risk factors that were covered in training.

Fig. 19. Confidence in measuring NCD risk factors by primary-care role

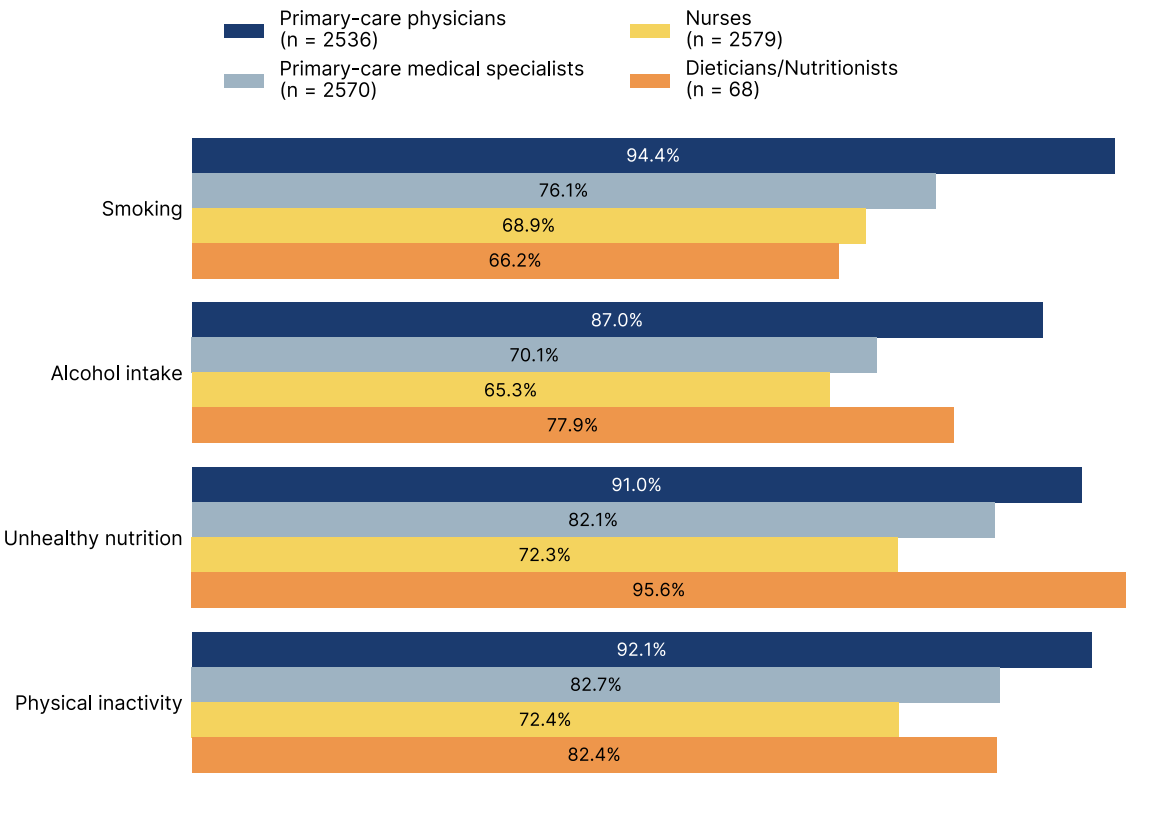


Fig. 20. Measurement of NCD risk factors according to confidence

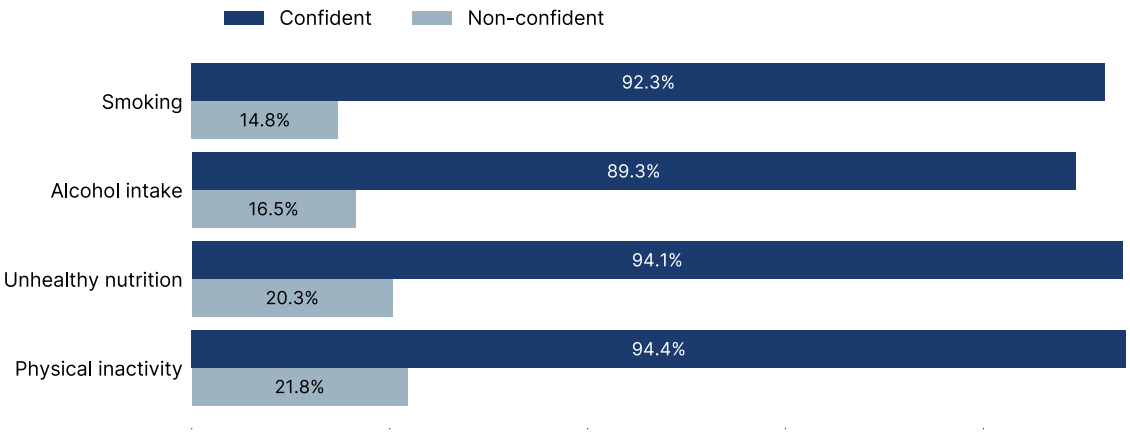
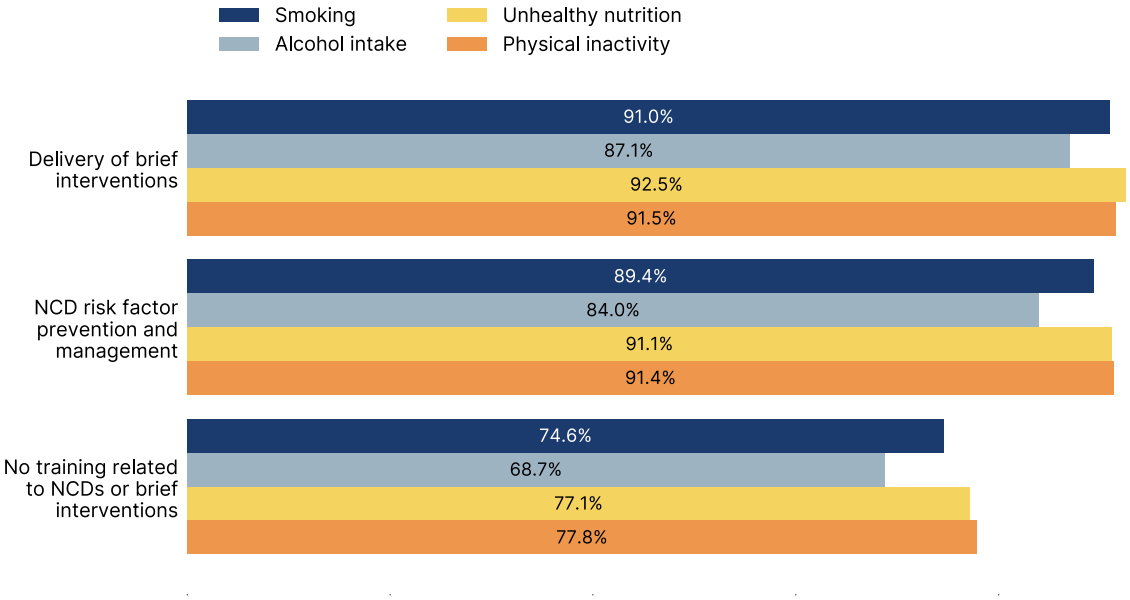


Fig. 21. Confidence in measuring NCD risk factors according to training received within the past 5 years



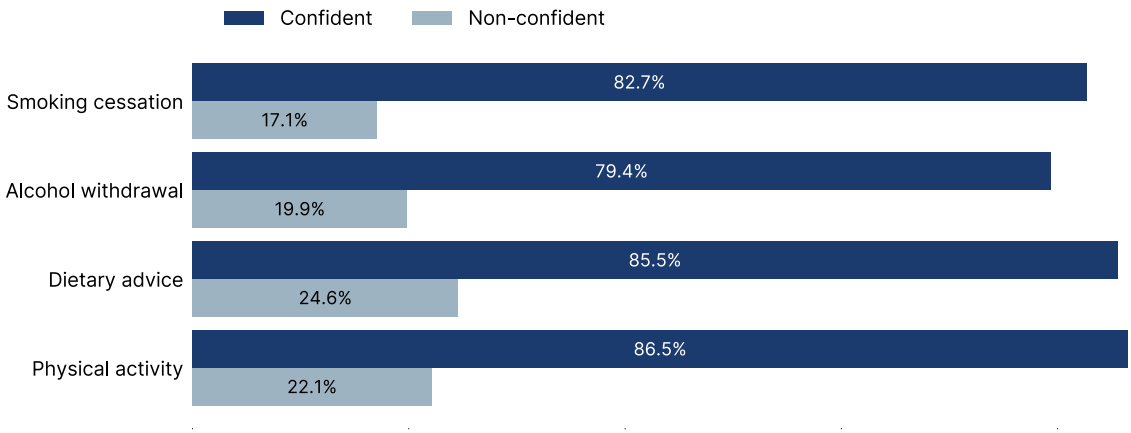
Similarly, in the interviews, the level of confidence depended on training, indicating that the education and training of providers is inadequate to make them confident in delivering brief interventions.

> *Two or three seminars have taken place, but there is still some insecurity. – Primary-care physician, Uzbekistan (ID-4)*

Capability to address NCD risk factors

The provision of recommendations for changes in health behaviour differed between providers who were confident and less confident in measuring risk factors (Fig. 22).

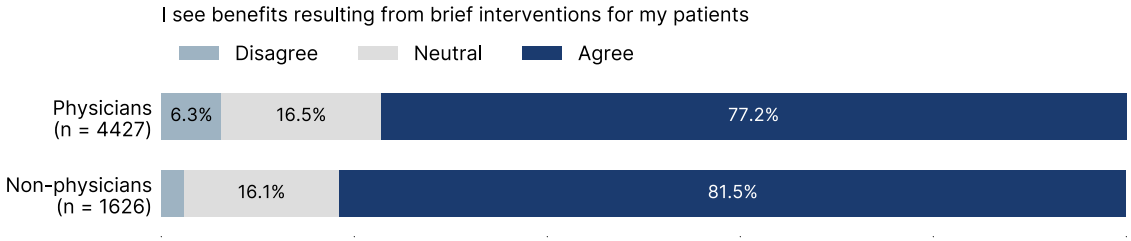
Fig. 22. Prescription of health behavioural change according to confidence



Beliefs about consequences

Most survey (77%) and interview (82%) participants recognized the benefits of brief interventions for patients (Fig. 23). Some survey respondents, however, commented that brief interventions alone were not necessarily effective, and patients often needed to change their behaviour and lifestyle as a whole, which could not be addressed in a short consultation.

Fig. 23. Perceived benefits for patients of brief interventions according to primary-care role



The interviewees reported a general lack of monitoring and of procedures for measuring the effectiveness of brief interventions. In a few exceptions, providers invited patients for a follow-up visit or the patient requested another appointment, in which case, the providers added information about any change in the patient's medical condition. Most participants added that they received little feedback from supervisors on the quality of the brief interventions delivered.

None of the respondents mentioned any potential negative effect of brief interventions; however, some interviewees were unsure about their efficacy to change a patient's motivation or behaviour, particularly in the long term. Some of the challenges mentioned were:

- difficulty in assessing efficacy, as any modification seen could be attributed to other factors;
- loss to follow-up; and
- perception of brief interventions as an ineffective preventive strategy, as patients need more intensive preventive counselling that is not limited by a rigid timeframe.

> *[Brief interventions] work in about ten percent of cases, once. The patient needs a lot more, the patient needs support. – Primary-care physician, Russian Federation (ID-7)*

> *Still, I think [a brief intervention] is insufficient. And effectiveness is good with in-depth preventive counselling. – Primary-care physician, Russian Federation (ID-9)*

Most interviewees were optimistic about the effects of brief interventions from their own experience and from research. For example, some said that they had seen a transformation in patients' behaviour, such as quitting smoking, reducing the number of cigarettes, quitting alcohol, reducing weight, increasing physical activity, especially among "difficult" patients.

> *The patients I work with come back to me, and I see some result, even if it is not ideal, because there are factors that are very difficult to tackle. – Dietician, Russian Federation (ID-1)*

> *[Through brief interventions] we have reduced tobacco-smoking prevalence, and some patients have even given up drinking alcohol. – Primary-care physician, United Kingdom (ID-18)*

Some participants considered that brief interventions had increased the quality of their work overall. Others observed indirect effects of brief interventions, including changes in patients' behaviour, attitudes, knowledge and health, including requests for follow-up appointments, agreement with recommendations, asking additional questions, providing feedback (e.g. gratitude), sharing knowledge with others (e.g. family members, other patients), affecting the behaviour of others, increased awareness and knowledge about risk factors and better overall health. A few participants considered that such indirect indicators were sometimes more important than direct indicators, such as a change in risky behaviour.

4.2.2 Opportunity

Analysis of the interviews revealed five themes related to opportunity: (i) work settings, (ii) prioritization and support from the management, (iii) the continuum of care, (iv) a supportive environment and (v) information.

Work settings

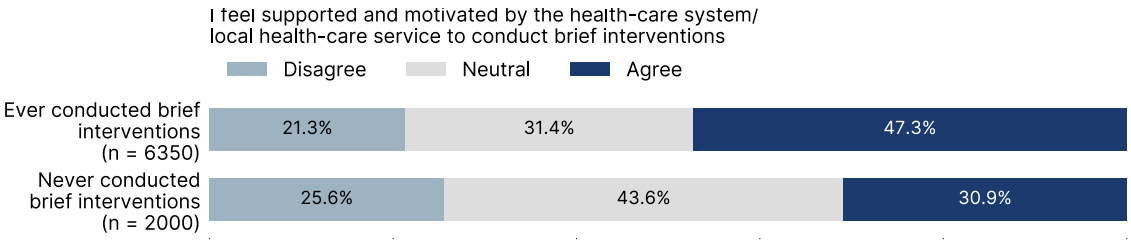
Both survey and interview participants highlighted the structural barrier of short patient consultation time (an average of 12–15 min), in which the provider takes the patient's history, performs physical examinations, prescribes diagnostic tests or treatment, fills out screening forms and develops a relationship with the patient. Other structural barriers include the large workload, not only of seeing patients but also extensive paperwork and lack of a separate, private consultation room.

> *We're going through something of a transitional period in health care right now. We have to do a lot of unnecessary work. And that greatly distances us from patients. – Neurologist, Azerbaijan (ID-10)*

Prioritization and support from the management

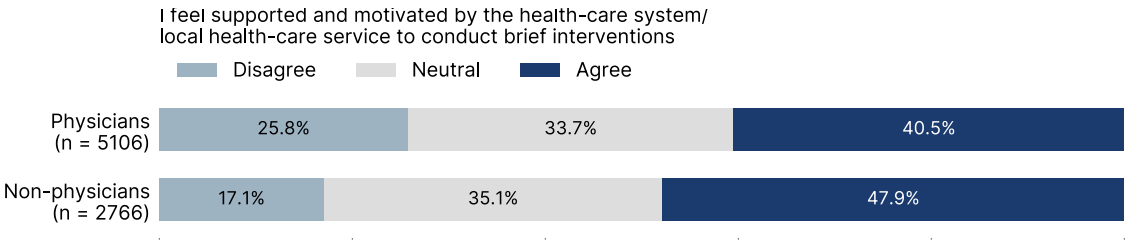
Lack of support from the health system leadership for conducting brief interventions was mentioned as another structural barrier for the delivery of brief interventions. Of the survey participants who had conducted brief interventions, 47% strongly agreed or agreed that they felt supported and motivated by the health system or local health service to conduct brief interventions, and 21% strongly disagreed or disagreed. Only 31% of those who did not conduct brief interventions considered that they were supported by the system, and 26% disagreed (Fig. 24).

Fig. 24. Perceived motivation and organizational support



Minor differences were observed between physicians and non-physicians in their perception of being supported by the health system (Fig. 25).

Fig. 25. Perceived motivation and organizational support among physicians and non-physicians



Among the interview participants, 76% disagreed or felt neutral about support from the health-care system or local health-care services for conducting brief interventions. Examples of system-level support were mentioned by participants in the survey. Most said that organizational support was provided in the form of **education**, such as continuous medical education online and offline, conferences and schools of health. Some described **mentorship** by more experienced colleagues and assistance in performing brief interventions. In some facilities, **technical support** was provided, in the form of rooms dedicated for prevention visits, tools such as scales, and printed materials for patients and physicians, such as food and calorie diaries, scales of risk factors and surveys with elements of brief interventions. Some mentioned that **information materials**, such as clinical recommendations and guidelines, are essential.

Interviewees raised the following issues at system level:

- no regulation of the practice of brief interventions;
- no feedback to health-service providers on their work or performance due to lack of monitoring;
- no normative documentation with detailed algorithms for practitioners;
- lack of recognition of the importance of prevention;
- no incentives, including financial;
- lack of promotion of brief interventions at system level;
- no coordination of practice and insufficient dissemination of relevant information to practitioners; and
- lack of funds for prevention.

Potential enablers of brief intervention delivery were regulation of providers' work, periodic screening programmes and conducting research that included brief interventions. Some practitioners received support from their supervisors, partner organizations or representatives of the ministry of health, who provided information, advice and counselling on various aspects of brief interventions and participated in arranging and conducting brief interventions. Ohers said that they received insufficient or no assistance or support.

> *If you can't help in any way, then just do not interfere. – Psychiatrist, Russian Federation (ID-2)*

The participants remarked that modern health systems and health-service providers focus on diagnosing and treating specific NCDs such as diabetes and obesity or mental health issues rather than on prevention.

> *The Bosnian health system is focused on treating diseases.... physicians are taught to treat diseases... such physicians have much more social authority... than those involved in prevention. – Primary-care physician, Bosnia and Herzegovina (ID-17)*

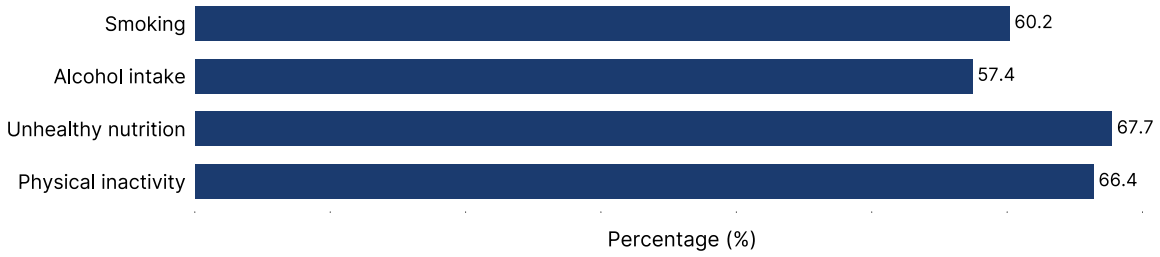
> *The problem is being valued by the health system for what you're doing. – Dietician, Germany (ID-16)*

> *There is an impression that brief interventions are not supported.... Help mostly... concerns technical issues [of treatment] ... but not ways of communicating and building relationships with the patient. – Dietician, Spain (ID-15)*

Continuum of care

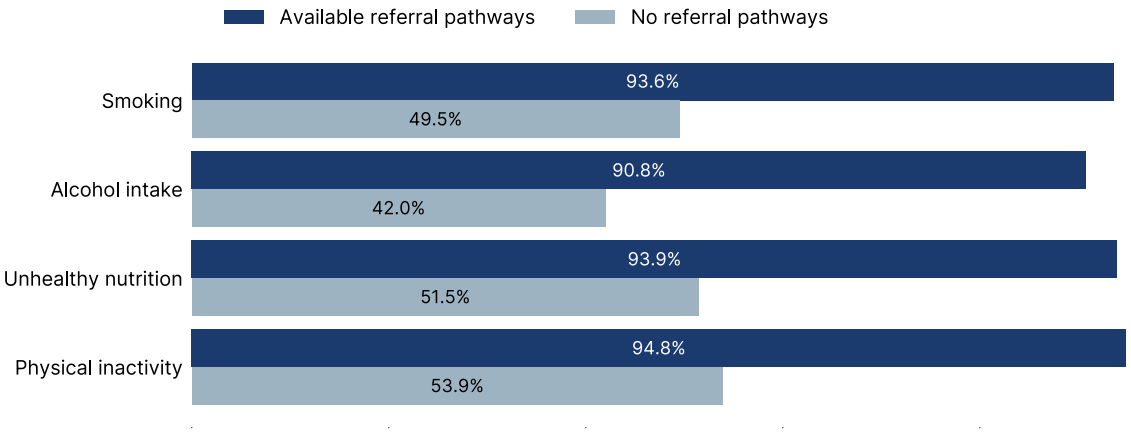
Survey participants were asked if they had clear referral pathways and whether they used them to manage NCD risk factors. Most participants said that they did have such services and used them to refer patients with unhealthy behaviour (Fig. 26). For example, 68% reported that they referred patients with unhealthy nutrition, 66% for physical inactivity, 60% for smoking and 57% for alcohol consumption. Clear pathways were reported by 67% of interviewees for smoking, 62% for alcohol consumption, 57% for unhealthy nutrition and 43% for physical activity.

Fig. 26. Availability of clear referral pathways for further services and their use in the management of NCD risk factors



In an analysis of whether measurement of risk factors differed among respondents with and without clear referral pathways (Fig. 27), 94% of health-service providers who had a clear referral pathway and only 49% of those without the possibility of referring patients who smoked measured this risk factor. Similar numbers were found for alcohol consumption, unhealthy nutrition and insufficient physical activity.

Fig. 27. Measurement of NCD risk factors according to availability of referral pathway



Some consulting professionals referred patients to a specialist, such as a psychologist, psychotherapist, physiotherapist or cardiologist, to other services (e.g. quit smoking hotline), to a patient group or to a specialized centre such as for smoking cessation.

One provider mentioned a lack of clear referral pathways and uncertainty about the efficacy of specialized care for people with alcohol problems:

> *[The patient] will most likely be offered coding (aversion therapy), there are very few conversations in state clinics. – Primary-care physician, Russian Federation (ID-9)*

Supportive environment

Support at government level via the media, education, culture and other domains for promoting prevention and a healthy lifestyle was considered an important factor for implementation of brief interventions.

> *What is lacking, in my opinion, is an information campaign. … There is insufficient demand in society for a healthy lifestyle. – Public health manager, Russian Federation (ID-5)*

Some interviewees considered that interventions to reduce harm from risk factors should be provided at population level, starting from "pregnancy…kindergarten, school" and not only at the individual level, such in a doctor–patient situation. It was noted that there is currently no support for national prevention activities, such as obligatory screening programmes or population-based interventions to reduce harm associated with risk factors.

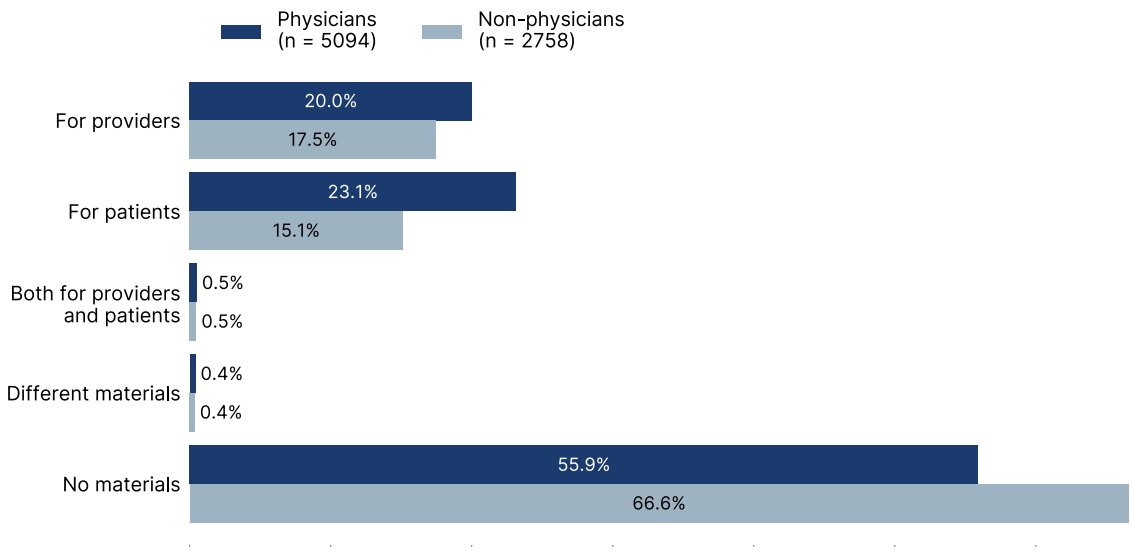
> *Most of [what the government] say on the on the paper are not conducted in practice. – Primary-care physician, Bosnia and Herzegovina (ID-13)*

Information

Most (79%) survey participants who conducted brief interventions reported that they used guidelines. Of the 17 interviewees who conducted brief interventions, eight (47%) said that they used guidelines for conducting effective brief interventions.

As was reported for training, most survey participants said that they lacked materials to support brief interventions. Only 20% of the surveyed health providers had information for patients, 20% had advice on conducting brief interventions effectively, and 59% had neither. Slightly larger proportions of physicians than non-physicians reported having information material (Fig. 28).

Fig. 28. Availability of information material for physicians and non-physicians



Several survey respondents also reported lack of resources such as brochures, flyers and booklets for both patients and themselves, which they considered a barrier to successful delivery of brief interventions.

> *I often use handouts with diets, exercise, personal hygiene methods, etc. – Primary-care physician, Russian Federation*

> *It would be good to regularly inform the [general] public about NCDs through both commercials and booklets. – Primary-care physician, Azerbaijan*

Two main problems are associated with lack of information:

- lack of access to comprehensive, detailed educational materials on different NCD risk factors, practical algorithms or even validated tools for measuring NCD risk factors, designed specifically for health-service providers who deliver brief interventions and to enhance communication skills, rather than focused on the "disease model" approach, particularly in languages other than English:

> *I'm not sure there are such materials, I have seen nothing of the kind. – Dietician, Spain (ID-15)*

- lack of information for patients (e.g. brochures, booklets, flyers, questionnaires, recommendations), particularly in languages other than English and adapted for different group of patients:

> *...we don't compile [brochures], we don't print them... and we do not provide them to patients. – Primary-care physician, Bosnia and Herzegovina (ID-17)*

> *I don't use [materials for patients] that often because it is difficult to find them in French, I don't have a place to print them... and adapt them to the patient's needs. – Primary-care physician, France (ID-20)*

A factor that could increase capacity to provide brief interventions would be access to up-to-date educational and informational resources and materials for providers, such as recommendations and standards developed by the ministry of health, health insurance companies or a representative medical body.

> *...the available documentation helps... materials on colleagues' experience in this area – Nurse, Bulgaria (ID-12)*

Another enabler for the delivery of brief intervention delivery identified by providers was diverse, regularly updated information material for patients in the local language (e.g. printed and media resources, leaflets with easy-to-read bullet points on risk factors), which might reduce the length of an appointment, provide the patient with the necessary information, make it easier for the patient to understand the information and serve as a reminder of the health-service provider's recommendations during the appointment.

4.2.3 Motivation

Six themes were identified in the motivation of providers: (i) social and professional role (legitimacy and professional responsibility), (ii) intentions (motivation to work on risk factors), (iii) emotions (ease in performing the task), (iv) reinforcement (incentives to deliver brief interventions), (v) provider as a role model, and (vi) perception of patient's characteristics.

Social and professional role

The perception that brief interventions are part of health-service providers' professional role was similar among different professions: 86% of survey participants and 88% of interviewees who conducted brief interventions considered it part of their professional role. Interview participants from Azerbaijan, Bulgaria, Bosnia and Herzegovina and Russian Federation reported that delivering brief interventions was part of their job, as described in regulations.

> *[Delivery of brief interventions] is stated in all iterations of the order No. 124n of the Ministry of Health of the Russian Federation. – Public health manager, Russian Federation (ID-5)*

Some interviewees, however, perceived their role as prescribing pharmacological treatment rather than providing preventive advice.

> *Everyone is busy doing their work and not everyone is willing to spend their energy in this particular area. – Neurologist, Azerbaijan (ID-10)*

No major differences were observed among primary-care physicians, primary-care medical specialists, and non-physician in the perception of brief interventions as part of their job.

One primary-care physician illustrated the role of family medicine and multidisciplinary teams in primary care in addressing the needs of patients:

> *This is part of the reason why an integrated team-based first point of care in a free-to-access primary-care team with good relationships is so important – you can do it sensitively, in the context of the relationship with the local community, and tune all interventions according to the need. Family medicine is core to this. – Primary-care physician, United Kingdom (ID-18)*

Intentions

Interview participants said that they were motivated or willing to deliver brief interventions as they considered that such interventions help them to change a patient's life positively and to reduce mortality and morbidity due to NCDs at individual and population levels.

> *...people do not realize what these risk factors are fraught with and how they are associated with health problems. – Primary-care physician, Bosnia and Herzegovina (ID-13)*

> *When a patient succeeds, I know that I have made some contribution to it. I am happy for them, and for myself too, it has a very positive effect on the entire hospital. – Primary-care physician, France (ID-20)*

Some participants noted that interest in delivering brief interventions varied among providers, and some were reluctant to include them in their practice, as they had already experienced burn-out.

The interviewees noted that patients are usually unaware of their risk factors and that provision of a brief intervention might increase their knowledge about the harmful effects. For example, some people when filling in a questionnaire were surprised to learn that they should eat 400 g of fruit or vegetables daily or that smoking two or three cigarettes a day, passive smoking and smoking a hookah or electronic cigarettes are harmful. Some respondents noted an indirect impact of brief interventions on the patient's social environment, such as the family taking up healthy nutrition and physical activity.

> *...by influencing a girl [patient to change a diet], I influenced her mother and grandmother at the same time. – Primary-care physician, Bosnia and Herzegovina (ID-13)*

> *...if you as a heavy smoker stop smoking, then you can influence another 10 people. – Primary-care physician, Czechia (ID-19)*

> *You could say that partially I involve my patients, because they communicate with one another, then you can also inform them indirectly through each other. – Psychiatrist, Russian Federation (ID-2)*

Emotions

Discussion of some risk factors was perceived as uncomfortable by providers as it sometimes led to negative reactions from patients.

> *There is one region where people like to drink [alcohol], and when you start saying that drinking [alcohol] has bad consequences, some people may respond negatively. – Primary-care physician, Uzbekistan (ID-4)*

Reinforcement

Some interviewees said that they provided brief interventions because of their own enthusiasm and good will, but that there was little support, motivation or incentive to do so.

> *We work on pure enthusiasm.... The only incentive we have is our moral duty. People come to this work out of their personal convictions, we have nothing else. – Public health manager, Russian Federation (ID-5)*

Lack of a financial incentive and motivation were cited by survey respondents as barriers to the delivery of brief interventions.

Provider as a role model

According to the interviewees, patients often look up to doctors as role models. It is therefore difficult and may appear contradictory to advise a patient when they have the same risk factors.

> *Persistence is difficult with our patients. You know, our region is Caucasian, they like to eat, they like to drink. I am not skinny myself and it can be a bit hard to insist. – Primary-care physician, Azerbaijan (ID-11)*

Some suggested that an important enabler of effective delivery of brief interventions is a healthy provider, who is a role model for their patients.

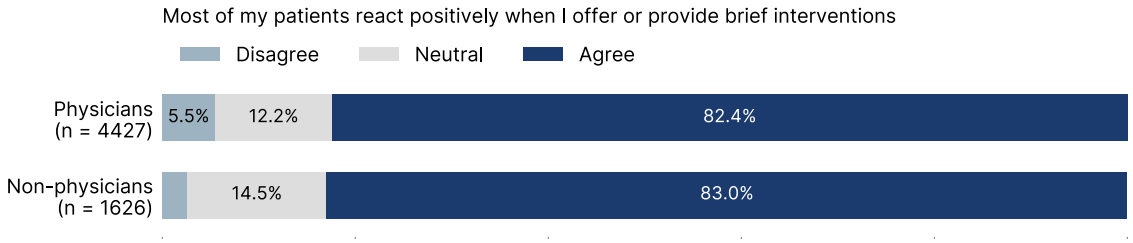
> *It is important ...to lead by example, to help [the patients] develop a desire to change. – Dietician, Russian Federation (ID-1)*

> *... the doctor must, of course, have authority in the eyes of the patient... if the doctor has a pack of cigarettes in their pocket, they are unlikely to convince the patient to quit smoking. – Public health manager, Russian Federation (ID-5)*

Perception of patients' characteristics

Most survey (83%) and interview (88%) participants reported positive patient feedback after brief interventions, with similar proportions of physicians and non-physicians (Fig. 29).

Fig. 29. Providers' perceptions of patients' reactions to brief interventions, by primary-care role



The perception of an overall positive reaction by patients might be due to the finding in the interviews that providers' motivation and decision to deliver brief interventions depended on the patients' characteristics. In the interviews, participants suggested that patients' perceptions of brief interventions might depend on their cognitive ability, level of education, health literacy and psychological characteristics such as interest, emotional reaction, openness to discuss sensitive health-related topics, readiness to change their behaviour and readiness to take responsibility for their health literacy. For example, lack of interest, a negative reaction, nondisclosure of health information due to the fear of negative consequences and reluctance to change behaviour decrease the health provider's motivation to deliver such interventions, while positive responses from patients provide opportunities for open discussions. Sometimes, patients are seen as passive participants in the process of change.

> *Not all patients are prepared to listen to the truth about themselves. – Primary-care physician, Russian Federation (ID-6)*

> *I would say alcohol is a little more complicated.... People are smiling when speaking about smoking, but they'd rather hide their alcohol dependence. – Primary-care physician, Czechia (ID-19)*

> *[The patients] really like the physician to understand them..., to be attentive... They mostly turn to doctors for communication, for positive energy. – Neurologist, Azerbaijan (ID-10)*

> *Our population is already used to and expects a paternalistic approach from the state itself. "I will smoke, and you will treat me. I am going to eat wrong, you are to blame for this, you did not tell me how to eat right.". – Public health manager, Russian Federation (ID-5)*

Interview findings also echoed survey comments from health-service providers who underlined poor health and digital literacy, a poor attitude, unwillingness to receive and act on recommendations, low compliance and distrust among patients. A poor physical state, cognitive ability, hearing, vision and memory complicated interventions.

Some interviewees considered that a patient's motivation and readiness to change is an inherent trait rather than a dynamic attribute and therefore cannot be influenced by a provider during a consultation.

> *The main thing is [the patients] would come to me to have me translate it from medicalese to Russian. … [Materials] should be given to conscious patients or those who are ready for such. – Primary-care physician, Russian Federation (ID-7)*

Others considered that a patient's perception of brief interventions could be changed and that it is up to the provider to engage the patient in a dialogue to change their perspective, which could be the start of a meaningful brief intervention.

> *It's really more of a constructive discussion with my patient – face to face. Some of my patients, certainly, require some sort of influence. And, again, we understand this really depends on the initiative of the doctor. – Primary-care physician, Russian Federation (ID-6)*

The provider's motivation may depend not only on psychological characteristics but also on their patients' health status. It was emphasized that prevention is best done before the development of disease and/or deterioration of the patient's health.

> *"… [a brief intervention] is adapted… for patients who are not yet heavy smokers or drinkers. – Primary-care physician, Uzbekistan (ID-3)*

In practice, however, health-service providers usually face the consequences of diseases and patients who already have diabetes mellitus, high blood pressure and high cholesterol levels, and who live with overweight or obesity.

> *…people mostly apply for our assistance when they have already developed complications: stroke, chronic diseases, cerebrovascular events, and, of course, harmful behaviour. – Neurologist, Azerbaijan (ID-10)*

> *Most of the people who come to us are already suffering from a disease. It's not about prevention. – Primary-care physician, Russian Federation (ID-6)*

4.3 Recommendations by health-service providers

4.3.1 Capability

It was considered by 70% of survey participants and 85% of interviewees that online training for health-service providers in delivering brief interventions would improve their knowledge and skills; only 10% disagreed or strongly disagreed. Although the respondents valued face-to-face meetings with colleagues, they noted that online events are both convenient and practical. Learning from colleagues in other countries was considered useful, as it allows practitioners to learn from experiences and other practices. The respondents recommended a blended learning format, with face-to-face meetings to allow discussion, ask questions and receive feedback from the trainer.

> *...blended learning is the best option. The first classes can be conducted face-to-face so that the participants can get to know each other, and after that – in an online format ..., everything will depend on the type of training, its duration, and goals. ... A small part of theory, a lot of education about communication and motivational interview, communication skills and a lot of follow up. – Primary-care physician, Bosnia and Herzegovina (ID-17)*

Some highlighted the importance of training in preventive medicine, such as brief interventions, early in medical education and of a platform for continuous training in brief interventions to enhance their effectiveness and the quality of delivery. A feedback or system of supervision would allow health-service providers to improve their delivery.

> *...prevention should be a separate subject at universities..., new physicians see prevention as a show. All they know is that we hand out booklets. It is sad... – Primary-care physician, Russian Federation (ID-9)*

> *We need training provided by instructors from postgraduate and undergraduate institutions in monitoring the brief intervention effectiveness and improving its quality. – Primary-care physician, Uzbekistan (ID-3)*

> *Having some kind of supervisor who would point me towards specific things, ... who would be closely interested in our progress in this. – Neurologist, Azerbaijan (ID-10)*

> *My greatest need maybe is feedback ... from my peers or from an expert. ... If I really want to improve, I think that people have to see how I perform it and tell me what can be improved. – Primary-care physician, France (ID-20)*

Participants noted that training in brief interventions should be carefully planned and take into account the heavy workload of health-service providers. A number of recommendations were made.

- The focus should be on practicality, by including best practices from experienced health providers on effective use of assessment tools and communication

techniques for behavioural consultation within a limited time. Practical exercises (e.g. master classes, role-play), presentation of clinical cases and tests and quizzes could be used.

- Training should be evidence-based, and recent research findings and international experience on the efficacy of brief interventions should be provided.

> *...information...how it is conducted both in our country and abroad, the experience of other regions. Whether it is effective, maybe some research. – Primary-care physician, Azerbaijan (ID-11)*

- Training should be short and convenient. One participant suggested a two-hour session every 2 weeks for one or two months. Others noted that such a course should be conducted during their working hours.
- Training should be provided by experienced trainers with a background in psychology or behavioural education.

In addition to formal training, participants proposed a variety of capacity-building, research and evaluation activities:

- online and onsite conferences, medical "grand rounds", webinars and professional networks to exchange experience and improve coordinated care:

> *We tried once to stimulate [doctors], a technique where we brought doctors from one region to another region and told them to observe how they work. – Primary-care physician, Uzbekistan (ID-4)*

> *I would prefer some kind of group or community where I could ask the members of the group, where we could guide each other. ... It would be good if there were also more trained people in the group that could answer any more difficult questions that the other members couldn't answer. – Dietician, Norway (ID-14)*

- randomized controlled trials on efficacy and implementation research to increase engagement of the providers in brief interventions; and
- regular monitoring and evaluation of brief intervention practice to provide feedback and improve the quality of brief interventions (e.g. with indicators to measure the effect of brief interventions).

4.3.2 Opportunity

Addressing barriers in work settings: constraints of time and place

Health service providers noted that they could deliver brief interventions if their daily workload decreased and they had more time for each patient.

> *...[increasing] the time and reducing the number of patients we receive per day will improve the quality of counselling. – Primary-care physician, Bosnia and Herzegovina (ID-13)*

One interviewee suggested that promoting teamwork, acknowledging the competence of nurses in delivering brief interventions and including this aspect in regulatory documents would alleviate the workload of physicians.

> *Better regulations [would help], so that nurses be the health-care professionals who do this. And in that way, we will be more motivated to work in such way with people. – Nurse, Bulgaria (ID-12)*

One participant suggested that the information system could be improved by including a comprehensive list of preventive activities and reminders:

> *It would be nice to have … an information system for my patients to have a list of preventive services I have to provide to them, and [which will] constantly remind me on preventive services and stop me if I don't [provide them]. – Primary-care physician, Bosnia and Herzegovina (ID-17)*

Prioritization of prevention in health services

The participants made several recommendations for prioritizing prevention in health services and promoting brief interventions.

- Refocus the provider's mission as a *person who shapes the health of the nation, population and the world. – Psychiatrist, Russian Federation (ID-2)* with an emphasis on the preventive value of brief interventions and their potential widespread effect.
- Promote a culture of prevention in the medical community:

> *I get more motivated when others do the same thing. Because we all like to share the same culture. – Primary-care physician, France (ID-20)*

- Develop national clinical guidelines and legislation to regulate the provision of brief interventions and to integrate brief interventions into health-care policy and medical education.
- Create preventive programmes for health-service providers themselves.

Survey participants suggested other examples of organizational support, such as dedicated days for health check-ups, organization of health schools for patients such as pregnant women and patients with diabetes, and meetings in various formats to provide brief interventions.

Continuum of care

The participants emphasized the importance of creating favourable conditions for health providers to follow counselling with treatment. They should be able to build long-term relationships with patients to influence their behaviour and be prepared for long-term preventive work.

Supportive environment outside clinical settings

Participants stressed the importance of collaboration and partnership among different departments and institutions for effective implementation of brief interventions. They suggested an awareness-raising campaign to improve the population's understanding of the importance of a healthy lifestyle, thereby

potentially increasing interest in brief interventions. Furthermore, the respondents recommended a call by large governmental institutions for active participation in brief interventions, which should be readily accessible.

> *You just don't need a huge amount of knowledge here, [brief intervention] is very simple. … It just needs to be ubiquitous. – Primary-care physician, Russian Federation (ID-7)*

Another respondent remarked that brief intervention programmes require the involvement of governments and all of society to support and implement such interventions on a wider scale.

> *…this should be seen as requiring the involvement of the whole of government and society – Primary-care physician, Bosnia and Herzegovina (ID-13)*

Information

Participants called for comprehensive information on implementation of brief interventions, for both health-care providers and patients, and made the following recommendations.

- Develop or adapt information tailored to the national medical system and to medical facilities.
    - Provide basic psychology, scripts of brief interventions (e.g. clinical scenarios), educational videos with examples of effective and ineffective brief interventions and useful phrases for providing advice (e.g. what "reducing your salt intake to 5 g" actually means) and for motivating patients to change their behaviour.

> *…it would be useful to know some key phrases…basic recommendations. – Primary-care physician, United Kingdom (ID-18)*

    - Create clear algorithms, step-by-step guides and flow charts for counselling reluctant patients, adapting brief interventions to individual patients' needs (e.g. the elderly, patients with various health conditions) and contextual factors, and apply an integrated approach for a restrictive timeframe.

> *…a manual in the form of scripts, algorithms, flowcharts, i.e. everything should be spelled out clearly. Preferably, with timing. Let's say a 2-min brief intervention: concrete questions, concrete answers, concrete methods to overcome resistance. – Public health manager, Russian Federation (ID-5)*

> *…a clear brief interventions delivery scheme. It is clear that there may be deviations … How do we, for example, deliver brief interventions to patients with co-morbidities…? – Primary-care physician, Russian Federation (ID-9)*

    - Offer updated evidence-based resources on the long-term effect of brief interventions.

    - Use various supportive informational materials for providers, such as audio, video (e.g. clinical scenarios) and printed materials.

- Improve the accessibility of informational materials.
    - Make materials available online through official health-related websites, newsletters and emails.
    - Ensure interactive online educational materials, with learner's feedback.
    - Improve coordinated care by sharing informational materials among all health-service providers who are involved in patient care.
    - Develop information technology tools to support education.

> *It would be great to have a learning app [application] or something like that, related to these topics. – Dietician, Germany (ID-16)*

    - Develop information technology tools to support clinical practice, including electronic medical charts, real-time record-keeping, integration with health record systems and pop-up reminders.

Informational materials for patients and their relatives could be improved.

- They should be available in local languages.
- Active links and QR (quick response) codes should be provided for more detailed explanations.

> *...printing is already a thing of the past... but when a big, beautiful SCORE table hangs in the doctor's office... it works great... if there is a QR code on the leaflet, the leaflet gets a re-birth. – Public health manager, Russian Federation (ID-5)*

- Access should be continuous, and materials should have clear visual aids, such as flyers with important indicators and benchmarks for patients.
- Materials should be tailored to individual characteristics such as age, gender and combinations of risk factors.

Several participants requested assistance in printing materials for patients.

4.3.3 Motivation

Financial incentives were recommended in half of all the interviews.

> *Financial incentives are the best motivation for all health-care workers. – Primary-care physician, Uzbekistan (ID-3)*

> *I would be motivated by an increased remuneration... depending on the patients' progress..., enough time..., positive feedback from patients. – Primary-care physician, Russian Federation (ID-9)*

Financial incentives for providers could depend on patients' progress and not be a fixed payment.

> *In addition to a basic salary, either effective contracts or incentive contracts could be helpful. That would provide an incentive to be paid extra for the quality of the work done, based on the results achieved by patients. – Primary-care physician, Russian Federation (ID-9)*

Non-financial incentives proposed by the participants included a book for patients to provide feedback and certificates. Non-material incentives could include acknowledgments, commendations, media coverage and various incentives from immediate superiors. Non-financial incentives to motivate health-service providers to deliver brief interventions could include better coordination of the delivery of brief interventions, setting targets and an effective plan to achieve the targets.

Financial incentives were also mentioned in the survey. One respondent suggested integration of brief interventions into systematic preventive check-ups that are reimbursed and payment for registering patients with obesity.

5 Summary

Understanding of a brief intervention and its duration varied but was generally understood as a short (5–10 min) individual counselling session mainly to inform patients, to make recommendations about NCD risk factors, and, more rarely, to enhance patients' motivation to change their health behaviour. Three of four survey respondents reported having conducted brief interventions; however, interviewees found it difficult to describe the key principles of effective practice and elements of brief interventions.

Brief interventions were delivered mainly by physicians, with limited multidisciplinary teamwork (e.g. involving nurses).

The most common mode of delivery was face-to-face, which was considered preferable and more effective because it allows physical observation and checking of patients' condition, measurements and reading of non-verbal cues.

Although only a few respondents mentioned well-known models of brief intervention delivery (e.g. Five A's and Five R's), all providers highlighted the importance of building trust in a patient–provider relationship and other key principles of effective communication.

The methods used to measure NCD risk factors varied, and only a few cited specific, validated instruments. Providers assessed patients' knowledge and discussed the disadvantages of current behaviour and the advantages of changing it. Assessment of patients' readiness for change and adjusting strategies accordingly were not used widely. Assistance in developing plans for behaviour change and arranging follow-up sessions or referrals were mentioned rarely.

Various communication skills were identified as helpful. Some providers admitted that they used non-recommended approaches or a paternalistic style for "problematic" patients. While provider authority was seen as important, establishment of collaborative relationships and encouraging patient participation were emphasized.

An integrated approach to the delivery of brief interventions was associated with several benefits. The challenges of limited perception by patients and time constraints were often overcome by prioritizing one risk factor, with various strategies for its selection.

The main barriers and facilitators were as follows.

- Even though the majority of survey respondents felt knowledgeable and capable of conducting brief interventions, some interviewees lacked confidence in doing so within a short time or for particular risk factors (e.g. alcohol use). Some misconceptions about the key principles of brief interventions were revealed.
- The barriers included a short patient consultation time and a heavy workload (including paperwork), lack of health system support (e.g. regulation and standardization, incentivization and prioritization of prevention), insufficient tailored

supportive materials and clear referral pathways, and inadequate environmental support outside health care settings.

- Insufficient training in brief interventions and in communication in current medical training were seen as considerable barriers.
- Most providers recognized the benefits of brief interventions for their patients and were optimistic about their effect; however, the lack of clear monitoring systems and procedures for measuring the effectiveness of brief interventions were considered to be shortcomings.
- Many providers perceived delivery of brief interventions to be part of their professional role and were motivated by the opportunity to improve individual and population health.
- Being a role model for patients was considered important.
- Providers' motivation and their decision to deliver brief interventions depended on a patient's characteristics.

Factors that could improve the efficacy of brief interventions were as follows:

Factors related to delivery of brief interventions:

- sufficient time;
- delivery in person;
- validated instruments for measuring NCD risk factors and clear guidance for using them;
- follow-up of brief interventions;
- patient-centred approach according to individual stage of readiness to change; and
- opportunity to refer to other specialists for consultation.

Factors related to providers:

- competence to deliver brief interventions for NCD risk factors;
- recognition of preventive work by the health system, colleagues and the community;
- perception of the provider as a role model; and
- motivation for conducting brief interventions.

Factors related to patients:

- strong motivation and health condition (e.g. more recent condition or acute symptoms of a chronic condition); and
- readiness to listen to a provider's advice and trust in the provider.

Other factor:

- supportive environment outside health-care settings.

6 Proposed actions

The study revealed several areas for action to increase uptake of brief interventions for NCD risk factors in primary care. The suggestions are based on examples drawn from the study results and are not exhaustive.

Delivery:

- inclusion of brief interventions in consultations and allocation of financial, organizational, informational and other resources;
- promotion of multidisciplinary teams, task-sharing and training of personnel to reduce physicians' workload by enabling other health-service providers to conduct brief interventions;
- use of a patient-centred approach to addressing NCD risk factors in a way that is the most relevant for the patient and focusing on health behaviour change to avoid information overload for the patient;
- if possible, use of mixed delivery (face-to-face, over the phone and online), depending on the patient's characteristics and needs, local acceptability and availability and long-term monitoring goals, in order to benefit from the advantages of each mode in a different period of counselling and follow-up; and
- ensure clear referral pathways for all NCD risk factors, with the possibility of referring patients proactively.

Training:

- training in delivery of brief interventions and NCD prevention and management, with a particular emphasis on "soft skills" (communications, building a safe and supportive environment, etc.);
- exploring opportunities for online or blended training;
- enabling health-service providers to participate in training and other capacity-building occasions (e.g. conferences, seminars) by holding them at a convenient time;
- providing opportunities for sharing experiences and receiving colleagues' feedback or supervision; and
- introducing brief interventions and motivational interviewing into basic medical training for various health-service providers.

Organizational support:

- including monitoring and evaluation of delivery of brief interventions in the electronic medical records system and introducing a reminder system;
- ensuring the availability of guidance and protocols, with timeframes and algorithms for brief intervention delivery and validated, recommended tools for measuring NCD risk factors;
- providing a list of trusted, evidence-based informational and supplementary

materials (if possible, developed or adapted locally) on brief interventions and NCD risk factors for both health-service providers and patients;

- considering various financial and non-financial instruments to support the delivery of brief interventions;
- raising awareness about the importance of prevention among health-service providers and the public; and
- complementing brief interventions with extensive information campaigns about healthy lifestyles for the general public.

7 Limitations of the study

Limited input from ministries of health to the survey. Although the findings of the survey of ministries of health formed the basis for the structure of the survey for health-service providers, because of the COVID-19 pandemic, we could not collect enough data to present the current situation in Member States in the WHO European Region.

Diversity of sample size. In the survey, 8350 responses were collected from 41 Member States of the WHO European Region. Of these, 98% were from the CIS, and 92% from Russian Federation. Therefore, the recommendations may not apply to all the countries in the Region.

Sampling strategy. Convenience sampling was used, i.e. the researchers relied on participants who were easily reachable and willing to participate. Furthermore, the willingness of health providers to participate might be related to their greater motivation for conducting brief interventions and/or more positive experience with this type of intervention. The sample might therefore not be representative of the wider population, limiting generalization of the findings. In future studies, more rigorous sampling methods should be used to ensure the validity and generalizability of the findings.

Online survey and in-depth interviews. Although 198 responses were collected from Uzbekistan in a paper-based survey, the survey and the in-depth interviews were conducted mainly online, which might have eliminated participants with insufficient Internet access.

Language of the survey and in-depth interviews. The survey was available in Azerbaijani, English, Russian and Uzbek, while the interviews were conducted only in English and Russian. Language might have been a barrier for participation of health-service providers.

Capacity to conduct interviews. Although 3800 respondents to the survey expressed their willingness to participate in interviews, the limited capacity of this project restricted the number of interviews to approximately 20. Additional evaluation at national level is recommended to assess the local situation.

Participants' background. The participants were in different countries, had different specialties and groups of patients, and their health systems and primary care structures differed. We were unable to evaluate the contextual factors that might have impacted the results of the study. The study design should be adapted to national, regional and local levels to provide more accurate results.

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Annex 1. Questionnaire

IN WHICH COUNTRY DO YOU PRACTISE?	NUMBER	%
Austria	2	0.02
Azerbaijan	231	2.77
Belgium	4	0.05
Bosnia and Herzegovina	2	0.02
Bulgaria	3	0.04
Croatia	3	0.04
Cyprus	1	0.01
Czechia	1	0.01
Denmark	2	0.02
Estonia	1	0.01
Finland	4	0.05
France	9	0.11
Georgia	7	0.08
Germany	2	0.02
Greece	6	0.07
Hungary	8	0.1
Iceland	2	0.02
Ireland	1	0.01
Israel	2	0.02
Italy	11	0.13
Kazakhstan	79	0.95
Kyrgyzstan	1	0.01
Lithuania	1	0.01
Luxembourg	2	0.02
Malta	11	0.13
Netherlands (Kingdom of the)	8	0.1
North Macedonia	2	0.02
Norway	7	0.08
Portugal	3	0.04
Romania	9	0.11
Russian Federation	7648	91.59
Serbia	8	0.1
Slovakia	1	0.01
Slovenia	1	0.01
Spain	8	0.1
Sweden	20	0.24
Tajikistan	1	0.01
Türkiye	4	0.05
United Kingdom	3	0.04
Ukraine	2	0.02
Uzbekistan	198	2.73
No answer	31	0.37
Total	8350	100

PLEASE STATE YOUR AGE (YEARS)	NUMBER	%
< 20	10	0.12
20–25	633	7.58
26–30	1018	12.19
31–35	968	11.59
36–40	1039	12.44
41–45	941	11.27
46–50	1173	14.05
51–55	983	11.77
56–60	831	9.95
61–65	532	6.37
66–70	163	1.95
> 70	59	0.71
Total	8350	100
FOR HOW MANY YEARS HAVE YOU WORKED IN YOUR POSITION AFTER QUALIFICATION?	**TOTAL**	**%**
< 1	2209	26.46
1–5	99	1.19
6–10	1213	14.53
11–15	1163	13.93
16–20	909	10.89
21–25	834	9.99
26–30	673	8.06
> 30	1250	14.97
Total	8350	100
PLEASE SELECT YOUR GENDER.	**NUMBER**	**%**
Female	7082	84.81
Male	1142	13.68
Other	9	0.11
Prefer not to say	91	1.09
No answer	26	0.31
Total	8350	100
WHAT IS YOUR ROLE IN PRIMARY HEALTH CARE?	**NUMBER**	**%**
Family doctor	183	2.19
General practitioner	2248	26.92
Therapist	105	1.26
Other medical specialty	2570	30.78
Nurse	2579	30.89
Midwife	79	0.95
Psychologist	12	0.14
Nutritionist or dietician	68	0.81
Health-care assistant	28	0.34
Other	475	5.69
No answer	3	0.04
Total	8350	100
IF YOU ARE IN ANOTHER MEDICAL SPECIALTY, PLEASE LIST IT.	**NUMBER**	**%**
Anaesthesiologist or resuscitater	33	1.28

Audiologist	1	0.04
Cardiologist	138	5.37
Chief physician	25	0.97
Chiropractor	1	0.04
Clinical pharmacologist	3	0.12
Coloproctologist	9	0.35
Dentist	51	1.98
Dentist orthopedist	1	0.04
Dentist surgeon	4	0.16
Dermatovenerologist	34	1.32
Emergency	1	0.04
Endocrinologist	149	5.8
Epidemiologist	8	0.31
Exercise therapy doctor	17	0.66
Functional diagnostics	119	4.63
Gastroenterologist	23	0.89
General practitioner trainer	1	0.04
Health-care management	6	0.23
Haematologist	5	0.19
Immunologist or allergist	18	0.7
Infectious diseases	22	0.86
Kinesiologist or rehabilitologist	1	0.04
Methodologist	51	1.98
Neonatologist	4	0.16
Nephrologist	2	0.08
Neurologist	197	7.67
Neurosurgeon	8	0.31
Obstetrician or gynaecologist	81	3.15
Occupational medicine	7	0.27
Oncologist	7	0.27
Ophthalmologist	187	7.28
Otorhinolaryngologist	127	4.94
Paediatrician	471	18.33
Paediatric cardiologist	9	0.35
Paediatric dentist	1	0.04
Paediatric endocrinologist	9	0.35
Paediatric neurologist	1	0.04
Paediatric ophthalmologist	3	0.12
Paediatric orthopedic traumatologist	3	0.12
Paediatric otorhinolaryngologist	1	0.04
Paediatric surgeon	21	0.82
Paediatric urologist-andrologist	1	0.04
Phthisiatrician	11	0.43
Physiotherapist	23	0.89
Psychiatrist	14	0.54
Psychotherapist	2	0.08
Pulmonologist	14	0.54
Radiologist	97	3.77
Reflexologist	3	0.12

Rheumatologist	13	0.51
Surgeon	149	5.8
Toxicologist	1	0.04
Traumatologist-orthopedist	99	3.85
Ultrasound	156	6.07
Urologist or andrologist	73	2.84
No answer	54	2.1
Total	2570	100

HAVE YOU EVER CONDUCTED BRIEF INTERVENTIONS FOR RISK FACTORS FOR NONCOMMUNICABLE DISEASES (NCDS) IN YOUR PRACTICE?	NUMBER	%
Noncommunicable diseases include cardiovascular diseases (such as coronary artery disease, peripheral vascular disease), cancers, chronic respiratory diseases (such as chronic obstructive pulmonary disease and asthma) and diabetes. The major NCD risk factors are smoking, alcohol consumption, unhealthy nutrition and physical inactivity. A brief intervention is a type of intervention that includes measurement of the risk factor, raising awareness of and assessing a patient's willingness to change, provides personalized information designed to increase motivation to improve health-related behaviour and takes approximately 3–5 min.		
Yes	6350	76.05
No	2000	23.95
Total	8350	100

If the answer to the last question was "Yes"

1	I USE GUIDELINES ON CONDUCTING EFFECTIVE BRIEF INTERVENTIONS.	NUMBER	%
	Strongly disagree	124	1.95
	Disagree	229	3.61
	Neutral	1008	15.87
	Agree	2145	33.78
	Strongly agree	2844	44.79
	Total	6350	100
2	I CONSIDER CONDUCTING BRIEF INTERVENTIONS A PART OF MY JOB.	NUMBER	%
	Strongly disagree	77	1.21
	Disagree	212	3.34
	Neutral	603	9.5
	Agree	2020	31.81
	Strongly agree	3438	54.14
	Total	6350	100
3	MOST OF MY PATIENTS REACT POSITIVELY WHEN I OFFER OR PROVIDE BRIEF INTERVENTIONS.	NUMBER	%
	Strongly disagree	72	1.13
	Disagree	218	3.43
	Neutral	810	12.76
	Agree	2287	36.02
	Strongly agree	2963	46.66
	Total	6350	100
4	I SEE BENEFITS FOR MY PATIENTS RESULTING FROM BRIEF INTERVENTIONS.	NUMBER	%

	Strongly disagree	68	1.07
	Disagree	253	3.98
	Neutral	1046	16.47
	Agree	2372	37.35
	Strongly agree	2611	41.12
	Total	6350	100
5	**WHEN CONDUCTING BRIEF INTERVENTIONS, I USE:**	**NUMBER**	**%**
	Face-to-face interventions	4348	68.47
	Online interventions based on digital technologies such as smartphone applications and virtual counselling	233	3.67
	Brief telephone interventions	1291	20.33
	Face-to-face or online interventions	19	0.3
	Face-to-face and telephone interventions	63	0.99
	Online and telephone interventions	59	0.93
	Face-to-face, online and telephone interventions	274	4.31
	No answer	63	0.99
	Total	6350	100
6	**I MEASURE AND ADDRESS TWO OR MORE NCDS RISK FACTORS IN BRIEF INTERVENTIONS.**	**NUMBER**	**%**
	Yes, in every consultation	1855	29.21
	Yes, in some patients each day	2284	35.97
	Yes, in some patients each week	1050	16.54
	Yes, in some patients each month	511	8.05
	Very rarely	544	8.57
	No, never	78	1.23
	Other interval	21	0.33
	No answer	7	0.11
	Total	6350	100
	PLEASE PROVIDE ANY ADDITIONAL INFORMATION ON THESE QUESTIONS.		
	HOW MUCH DO YOU AGREE WITH THE FOLLOWING STATEMENTS ON BRIEF INTERVENTIONS FOR NCD RISK FACTORS IN PRIMARY HEALTH CARE?		
7	**I AM KNOWLEDGEABLE ABOUT BRIEF INTERVENTIONS FOR NCD RISK FACTORS.**	**NUMBER**	**%**
	Strongly disagree	113	1.35
	Disagree	309	3.7
	Neutral	1961	23.49
	Agree	3662	43.86
	Strongly agree	2305	27.6
	Total	8350	100
8	**I FEEL CAPABLE OF CONDUCTING BRIEF INTERVENTIONS THEORETICALLY AND/OR PRACTICALLY.**	**NUMBER**	**%**
	Strongly disagree	161	1.93
	Disagree	359	4.3
	Neutral	1669	19.99
	Agree	3326	39.83
	Strongly agree	2835	33.95

	Total	8350	100
9	**IF I HAD THE OPPORTUNITY TO USE ONLINE BRIEF INTERVENTIONS, I WOULD DO SO.**	**NUMBER**	**%**
	Strongly disagree	781	9.35
	Disagree	1031	12.35
	Neutral	2446	29.29
	Agree	2025	24.25
	Strongly agree	2067	24.75
	Total	8350	100
10	**ONLINE TRAINING WOULD BE USEFUL TO IMPROVE MY KNOWLEDGE AND SKILLS IN PROVIDING BRIEF INTERVENTIONS.**	**NUMBER**	**%**
	Strongly disagree	363	4.35
	Disagree	483	5.78
	Neutral	1707	20.44
	Agree	2565	30.72
	Strongly disagree	3232	38.71
	Total	8350	100
11	**I FACE BARRIERS TO CONDUCTING BRIEF INTERVENTIONS IN MY DAILY PRACTICE.**	**NUMBER**	**%**
	Strongly disagree	1340	16.05
	Disagree	1527	18.29
	Neutral	2657	31.82
	Agree	1645	19.7
	Strongly agree	1181	14.14
	Total	8350	100
12	**PLEASE STATE THE THREE MAIN BARRIERS.**		
13	**I FEEL SUPPORTED AND MOTIVATED BY THE HEALTH SYSTEM OR THE LOCAL HEALTH-CARE SERVICE TO CONDUCT BRIEF INTERVENTIONS.**	**NUMBER**	**%**
	Strongly disagree	907	10.86
	Disagree	958	11.47
	Neutral	2865	34.31
	Agree	1992	23.86
	Strongly agree	1628	19.5
	Total	8350	100
14	**PLEASE SPECIFY THE ORGANIZATIONAL SUPPORT AND SPECIFIC TOOLS.**		
15	**DURING THE PAST 5 YEARS, I HAVE RECEIVED TRAINING IN:**	**NUMBER**	**%**
	Delivering brief interventions	1173	14.05
	NCD risk factor prevention and management	907	10.86
	No training related to NCDs or brief interventions	764	9.15
	Other	5115	61.26
	No answer	21	0.25
	Delivery of brief interventions, NCD risk factor prevention and management	361	4.32

	Delivery of brief interventions, NCD risk factor prevention and management, other	3	0.04
	NCD risk factor prevention and management, other	1	0.01
	No training related to NCDs or brief interventions, other	5	0.06
	Total	8350	100
16	**I HAVE MATERIALS SUCH AS INFORMATION ON PERFORMING SUCCESSFUL BRIEF INTERVENTIONS OR DETAILED INFORMATION FOR PATIENTS ON NCD RISK FACTORS OR LINKS TO INFORMATIVE WEBSITES THAT CAN BE GIVEN TO PATIENTS AFTER A CONSULTATION.**	**NUMBER**	**%**
	Conducting effective brief interventions	1159	13.88
	For patients on brief interventions	1656	19.83
	I have no materials	4964	59.45
	I use different materials	37	0.44
	No answer	22	0.26
	Conducting effective brief interventions for me and my patients	39	0.47
	I use different materials for conducting effective brief interventions.	473	5.66
	Total	8350	100
17.1	**I MEASURE NCD RISK FACTORS IN MY PATIENTS AT ALMOST EVERY CONSULTATION [SMOKING].**	**NUMBER**	**%**
	Yes	6347	76.01
	No	2003	23.99
	Total	8350	100
17.2	**I MEASURE NCD RISK FACTORS IN MY PATIENTS AT ALMOST EVERY CONSULTATION [ALCOHOL CONSUMPTION].**	**NUMBER**	**%**
	Yes	5845	70
	No	2505	30
	Total	8350	100
17.3	**I MEASURE NCD RISK FACTORS IN MY PATIENTS AT ALMOST EVERY CONSULTATION [UNHEALTHY DIET].**	**NUMBER**	**%**
	Yes	6699	80.23
	No	1651	19.77
	Total	8350	100
17.4	**I MEASURE NCD RISK FACTORS IN MY PATIENTS AT ALMOST EVERY CONSULTATION [PHYSICAL INACTIVITY].**	**NUMBER**	**%**
	Yes	6768	81.05
	No	1582	18.95
	Total	8350	100
18.1	**I AM CONFIDENT IN MEASURING NCD RISK FACTORS IN MY PATIENTS [SMOKING].**	**NUMBER**	**%**
	Yes	6597	79.01
	No	1753	20.99
	Total	8350	100
18.2	**I AM CONFIDENT IN MEASURING NCD RISK FACTORS IN MY PATIENTS [ALCOHOL CONSUMPTION].**	**NUMBER**	**%**
	Yes	6135	73.47

	No	2215	26.43
	Total	8350	100
18.3	**I AM CONFIDENT IN MEASURING NCD RISK FACTORS IN MY PATIENTS [UNHEALTHY DIET].**	**NUMBER**	**%**
	Yes	6783	81.23
	No	1567	18.77
	Total	8350	100
18.4	**I AM CONFIDENT IN MEASURING NCD RISK FACTORS IN MY PATIENTS [PHYSICAL INACTIVITY].**	**NUMBER**	**%**
	Yes	6817	81.64
	No	1533	18.36
	Total	8350	100
19.1	**I HAVE PRESCRIBED ONE OR MORE OF THE FOLLOWING [SMOKING CESSATION]:**	**NUMBER**	**%**
	Yes	5753	68.9
	No	2597	31.1
	Total	8350	100
19.2	**I HAVE PRESCRIBED ONE OR MORE OF THE FOLLOWING [ALCOHOL WITHDRAWAL]:**	**NUMBER**	**%**
	Yes	5309	63.58
	No	3041	36.42
	Total	8350	100
19.3	**I HAVE PRESCRIBED ONE OR MORE OF THE FOLLOWING [DIETARY ADVICE]:**	**NUMBER**	**%**
	Yes	6188	74.11
	No	2162	25.89
	Total	8350	100
19.4	**I HAVE PRESCRIBED ONE OR MORE OF THE FOLLOWING [PHYSICAL ACTIVITY]:**	**NUMBER**	**%**
	Yes	6235	74.67
	No	2115	25.33
	Total	8350	100
20.1	**I HAVE CLEAR REFERRAL PATHWAYS FOR FURTHER SERVICES AND USE THEM FOR MANAGING NCD RISK FACTORS [SMOKING]**	**NUMBER**	**%**
	Yes	5023	60.16
	No	3327	39.84
	Total	8350	100
20.2	**I HAVE CLEAR REFERRAL PATHWAYS FOR FURTHER SERVICES AND USE THEM FOR MANAGING NCD RISK FACTORS [ALCOHOL CONSUMPTION].**	**NUMBER**	**%**
	Yes	4795	57.43
	No	3555	42.57
	Total	8350	100
20.3	**I HAVE CLEAR REFERRAL PATHWAYS FOR FURTHER SERVICES AND USE THEM FOR MANAGING NCD RISK FACTORS [UNHEALTHY DIET]:**	**NUMBER**	**%**
	Yes	5655	67.72

	No	2695	32.28
	Total	8350	100
20.4	**I HAVE CLEAR REFERRAL PATHWAYS FOR FURTHER SERVICES AND USE THEM FOR MANAGING NCD RISK FACTORS [PHYSICAL INACTIVITY]:**	**NUMBER**	**%**
	Yes	5542	66.37
	No	2808	33.63
	Total	8350	100
	PLEASE PROVIDE ANY FURTHER INFORMATION, THOUGHTS OR IDEAS ABOUT BRIEF INTERVENTIONS IN PRIMARY HEALTH CARE.		

Annex 2. Guide for interviewing health-care providers on conducting brief interventions for noncommunicable diseases risk factors in primary health care

For health-care providers who conduct brief interventions

1. Introductory stage

In the previous phase of the study, you stated that you had conducted brief interventions for noncommunicable diseases (NCD) risk factors (question 8).

- What do you understand by the term "brief interventions"?
- Who decides whether brief interventions are necessary?
- At what stage of a patient's counselling are such interventions performed?
- Why do you conduct brief interventions for NCD risk factors?

2. Content stage

Counselling	Could you please tell us in more detail how you conduct brief interventions for reducing NCD risk factors?
Measurement of risk factors	In the online questionnaire, you said that you measure NCD risk factors. Could you please tell us in more detail how you do it? What methods do you use? You also stated that: ▶ (for those who measure all risk factors) You measure all NCD risk factors (question 17). Why? What do you consider to be the pros and cons of an integrated approach to measuring risk factors for NCDs? ▶ (for those who do not measure all risk factors) You measure____ (insert risk factors from question 17). Why do you measure these NCD risk factors? ▶ (for those who do not measure any risk factors) You do not measure NCD risk factors (see question 17. Could you please tell us why?
Mode of counselling	You stated that you conduct brief interventions ____ (from question 5: face-to-face, online, by phone). ▶ (If one method is used) Why did you choose this method? What results can be obtained with this method? Have you tried other methods? Which one worked best for you? Why? ▶ (If several methods are used) What are the pros and cons of using several methods of counselling? ▶ How long do your brief interventions usually take? Do you involve other health-care staff in counselling?

Use of an integrated approach	In the questionnaire, you indicated that you sometimes you conduct brief interventions for several risk factors simultaneously (question 6). How often do you provide advice on a set of NCD risk factors? What do you consider are the pros and cons of conducting brief interventions for two or more NCD risk factors at the same time?
Effectiveness	▶ What are your thoughts on brief interventions in terms of effectiveness? Why? ▶ Do you measure the effectiveness of your brief interventions? If yes, please, describe how you do it. How often do you do it? ▶ (for those who agreed in question 4) You agreed with the statement that you see positive effects of brief interventions in your patients. What positive effects have you observed? ▶ (for those who disagreed in question 4) You disagreed with the statement that you see positive effects of brief interventions in your patients. Could you please tell us how this is shown? ▶ In your opinion, what factors could increase the motivation of health workers to conduct brief interventions to reduce NCD risk factors?
Materials for consultation and for patients	You stated that you have materials for conducting effective brief interventions and additional information for your patients (name what is specified in question 16). What exactly do you have? How do you get the materials? How often do you get updated materials? How often do you use them in your consultations? If not, why not? You stated that you do not have materials for conducting effective brief interventions or additional information for your patients (question 16). Why not? In your opinion, would materials be useful to you and your patients?
Effective communication strategies	What do you think is the key to building a trusting relationship and effective communication with a patient? by the type of patients (e.g. according to age, educational level, sex)? How does it differ?
Assessment of experience	Is your experience in conducting brief interventions mostly negative or positive? What do you think is the reason?
Patient response	▶ (for those who disagreed in question 3) You disagreed with the statement that most of your patients respond positively to brief interventions. What do you think is the reason for this? ▶ (for those who agreed in question 3) You agreed with the statement that most of your patients respond positively to brief interventions. What do you think is the reason for this?

3. Final stage (training and professional development)

Interaction with the organization and training

Availability of support and its form	(question 13, overall agreement) In the previous survey, you stated that you feel supported and motivated by the health system to provide brief interventions. Could you please tell us how this support is shown? (question 13, overall disagreement) You stated that you do not feel supported or motivated by the health system to provide brief interventions. Is there something specific that you are missing? How do you think the support and motivation from the healthcare system could be improved?
Learning experience	(for those trained, question 15) You mentioned that in the past 5 years you have been trained in the area of ____ (Delivery of brief interventions/NCD risk factor prevention and management from question 15). What did you consider most helpful during this training? What have you started to put into practice? (for those non-trained, question 15) You mentioned that during the past 5 years you have not received training in ____ (Delivery of brief interventions/NCD risk factor prevention and management from question 15). Could you please clarify why? Would you be interested in taking such training? Would you take part in it if it was organized in your facilities?

Online training	(for those who agree, question 10) You agreed that "It would be useful to have online training opportunities to improve my knowledge and skills to provide brief interventions". Why? What do you expect from such training? (for those who disagree, question 10) You disagreed that "It would be useful to have online training opportunities to improve my knowledge and skills to provide brief interventions". Why?

Additional awareness-raising measures

Need for awareness-raising	Some people say that greater awareness of the necessary elements of effective brief counselling for NCD risk factors is necessary. What are your thoughts on this?
Ways to improve knowledge	What is your preferred way of learning more about the NCD risk factors? What do you need to improve your knowledge of brief interventions on NCD risk factors?
Benefits of methodological support	If you needed methodological support for brief interventions for NCD risk factors in primary health care, what type of support would you prefer? Why? What is your greatest need for methodological support?

For health-care providers who do not conduct brief interventions

1. Introductory stage

In the previous phase of the study, you mentioned that you do not conduct brief interventions for NCD risk factors (question 8)

- What do you understand by the term "brief interventions"?
- Who decides whether brief interventions are necessary?
- At what stage of a patient's counselling are such interventions performed?
- Why do you not conduct brief interventions for NCD risk factors?

2. Content stage

Measurement of risk factors	In the online questionnaire, you mentioned that you measure NCD risk factors. Could you please tell us in more detail how you do it? What method do you use? You also stated that: ▶ (for those who measure all risk factors) You measure all NCD risk factors (see question 17). Why? What are the pros and cons of an integrated approach to measuring NCD risk factors in your opinion? ▶ (for those who do not measure all risk factors) You measure____ (insert answers from question 17). Why do you measure these NCD risk factors? ▶ (for those who do not measure at all) You do not measure NCD risk factors (see question 17). Could you please tell us why?
Effectiveness	▶ What are your thoughts on brief interventions in terms of effectiveness? Why? ▶ In your opinion, what factors could increase the motivation of health workers to carry out brief interventions to reduce NCD risk factors?

Materials for consultation and for patients	You mentioned that you have materials for conducting effective brief interventions and additional supportive information for your patients (name what is specified in question 16). What exactly do you have? How do you get these materials? How often do you get updated materials? How often do you use them in your consultations? If not, why not? You mentioned that you do not have materials for carrying out effective brief interventions and additional supportive information for your patients (question 16). Why? In your opinion, would such materials be useful to you and your patients?
Effective communication strategies	In your experience, what do you consider the key to build a trusting relationship and effective communication with patients? Does your approach differ according to the characteristics of patients (e.g. age, educational level, sex)? How does it differ?

3. Final stage (training and professional development)

Interaction with the health system and training

Availability and type of support	(question 13, overall agreement) In the previous survey, you stated that you feel supported and motivated by the health system to provide brief interventions. Could you please tell us how this support is shown? (question 13, overall disagreement) You stated that you do not feel supported or motivated by the health system to provide brief interventions. Could you please tell us how you do not feel supported? Is there something specific that you are missing? How do you think the support and motivation from the health care system could be improved?
Learning experience	(for those trained, question 15) You mentioned that in the past 5 years you have been trained in _____ (Delivery of brief interventions or NCD risk factor prevention and management from question 15). What did you consider most helpful during training? What have you started to put into practice? (for those not trained, question 15) You mentioned that during the past 5 years you have not received training in _____ (Delivery of brief interventions or NCD risk factor prevention and management from question 15). Could you please clarify why? Would you be interested in taking such training? Would you take part in it if it was organized in your facilities?
Online training	(for those who agreed, question 10) You agreed that "It would be useful to have online training opportunities to improve my knowledge and skills to provide brief interventions". Why? What do you expect from such training? (for those who disagreed, question 10) You disagreed that "It would be useful to have online training opportunities to improve my knowledge and skills to provide brief interventions". Why?

Additional awareness-raising measures

Need for awareness-raising	Some people say that we need greater awareness of the necessary elements of effective brief counselling for NCD risk factors. What are your thoughts on this?
Ways to improve knowledge	What is your preferred way of learning more about the NCD risk factors? What help do you need to improve your knowledge of brief interventions for NCD risk factors?
Benefits of methodological support	If you needed methodological support for brief interventions for NCD risk factors in primary health care, what type of support would you prefer? Why? What is your greatest need for methodological support?

Annex 3. Supplementary analysis of the findings

The supplementary analysis was conducted to identify any differences or similarities by profession, sex, age or region on the needs of health-service providers for offering brief interventions. A second aim was to identify elements of brief interventions to be included in an online course.

Table A3.1. Needs for offering brief interventions by sex, age, region and profession reported by proportion of respondents

NEED	TOTAL	PROFESSION		SEX		AGE (YEARS)		REGION	
		MEDICAL DOCTORS	NURSES, OTHERS[a]	FEMALE	MALE	≤ 40	> 40	CIS COUN-TRIES	OTHERS
Material for staff	All/ almost all	All/almost all	All/ almost all	All/ almost all	All/ almost all	All/ almost all	All/ almost all	All/ almost all	All/ almost all
Material for patients	Many	Many	Few	Many	Many	Many	Many	Many	Some
Training in brief interventions	All/ almost all	All/almost all	All/ almost all	All/ almost all	All/ almost all	All/ almost all	All/ almost all	All/ almost all	All/ almost all
Organization	All/ almost all	All/almost all	All/ almost all	All/ almost all	All/ almost all	All/ almost all	All/ almost all	All/ almost all	All/ almost all
Delivery of a brief intervention in 3–5 min	Many	Many	Some	Many	Some	Many	Many	Many	Some

Note: CIS - Commonwealth of Independent States.

[a] Dieticians/nurses/public health professionals/psychotherapists

Participants' requests for support

1. Supportive materials for staff

> *To be very specific, it would be methodological guidelines or manuals that present the information in a clear and structured manner. – Dietician, Russian Federation (ID-1)*

2. Supportive materials for patients

> *It would be good if patients had something in their hands when they leave the doctor's office, not just words, but something they can hold on to. That person will no longer "harass" me, they can open up these materials and look through them. If they had some printed materials. – Primary-care physician, Russian Federation (ID-6)*

3. Delivery within 3–5 min

> *10-15 minutes. Very short, very short. Really focusing on one problem or one thing: How are you doing, how it worked with what we talked about last time, and then 10 minutes really, yah, and then maybe send the link afterwards or whatever, but it's really very short, very focused. – Dietician, Norway (ID-14)*

4. Training in brief interventions

> *Knowledge, theory and practice. There may be some new discoveries in behavioural factors, on how to behave, what is effective, what brochures and concepts should be available for patients after leaving a brief intervention. – Primary-care physician, Russian Federation (ID-7)*

A few participants mentioned training in more general communication.

5. Organizational support

> *[...] my impression is that brief interventions are not being promoted. So, maybe the first thing is that someone sets the direction that this is a good way to go, and then some actions are done to promote this kind of interventions. – Dietician, Spain (ID-15)*

Translation of results into a course

With inspiration from the Kern model *(1,2)*, we translated the results of the primary analyses and of this supplementary analysis into the content and form of a course on brief interventions for health-service providers. The programme, outlined below, will build the competence of health-service providers in conducting brief interventions (Table A3.2.). It could be tested and adjusted according to the results of a post-course evaluation.

To meet the main needs identified, the online course should focus on supportive materials for staff and patients, organizational needs and training in theory and

practice. In view of the limited time and resources of health-service providers in primary care, the course could be divided into five hierarchical modules to be provided in steps and accessible at any time.

Three levels of learning were used:

- knowing and understanding (level 1)
- competence and skills (level 2)
- master, judgement and approach (level 3).

Learning objectives:

- knowing, understanding and building competence in brief interventions and evidence-based guidelines on NCD risk factors for staff;
- knowing, understanding and building competence in use of online materials and brochures for patients;
- knowing and understanding how the local organization could support brief interventions in primary care;
- building skills in and practising brief interventions for NCD risk factors by simulation; and
- mastering brief interventions for all NCD risk factors.

Form and content:

The online course comprises four short modules and a local training module of 0.5–1 h each. The modules could include video tutorials, case examples, interactive quizzes and simulations, each followed by a short test to be passed before advancing. The programme is considered completed after real-life training with patients and colleagues and the final test.

1. Module on brief interventions and evidence-based guidelines for brief interventions for NCD risk factors; presentation of WHO “best buys” for brief interventions.

2. Module with examples on supportive materials (not commercial) for patients about brief interventions for NCD risk factors, including examples of adaptation of materials to local conditions.

3. Module on examples of local health system support for brief interventions, including access to materials, training, mapping of the local need for brief interventions in patient group, delegation to and involvement of relevant staff.

4. Module on training in brief interventions:
   a. introduction to NCD risk factors, measurement and communication in brief interventions with examples of different patient groups and feedback on successes and pitfalls from patients and experts; and
   b. role-play training with online interactive simulation for each NCD risk factor and feedback.

5. Local module on measurement and training in brief interventions locally with local patients and feedback and reflections from the patients and a trained colleague.

6. Online test with about 30 questions, including all five elements listed above.

Table A3.2. Course outline

MODULE 1 (ONLINE)	MODULE 2 (ONLINE)	MODULE 3 (ONLINE)	MODULE 4 (ONLINE)	MODULE 5 (LOCAL)
Brief interventions and NCD risk factors	Supportive online materials and brochures for patients	Local health system support and examples	Measurement of NCD risk factors: ▶ measurement ▶ communication ▶ case-based examples for different patient groups	Training observed by a trained colleague
Evidence-based guidelines for staff	Adaptation of materials to local conditions, with examples	Focus points: ▶ materials ▶ training ▶ mapping local needs ▶ staff: delegation and involvement	Role-play training and feedback through online interactive simulation	Collection of feedback and reflections from patients and the trained colleague
TEST 1	TEST 2	TEST 3	TEST 4	TEST 5

Conclusion

The supplementary analysis indicates the needs of health-service providers for conducting brief interventions. They include supplementary materials for staff and patients, training in brief interventions, health system support and delivery of brief interventions within 3–5 min. These needs can be met in an online course comprising five stand-alone modules with relevant learning objectives and content.

Perspectives

Training of health-service providers in brief interventions for NCD risk factors will have a large impact on patients, staff and the community. It will be of great importance for individual patients as well as for their families; for staff who obtain the desired competence and skills and will experience less frustration, greater work satisfaction and trust more in their abilities, and also for primary and secondary health-care staff, as healthier patients will reduce the need for contact and treatment of NCDs.

References

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2. Lamb CR, Shaw RD, Hilty BK, Wong SL, Rosenkranz KM. A targeted needs assessment for the fevelopment of a surgical sub-internship curriculum. J Surg Educ. 2021;78(6):e121–8. doi:10.1016/j.jsurg.2021.06.017.

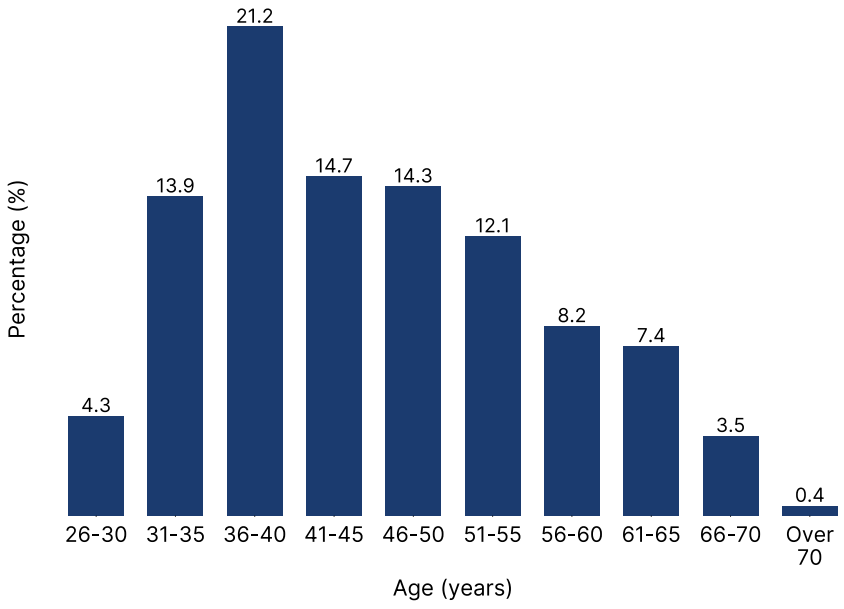
Annex 4. Analysis of survey results from health-service providers in primary care in Azerbaijan

This sub-sample analysis was based on responses from a limited number of participants (231 responses) and may not accurately reflect the characteristics and experiences of all health-service providers in Azerbaijan. The survey was conducted to gain an initial understanding of the issue, to lay the ground for subsequent research and to inform future policy interventions. Therefore, while the findings contribute valuable insights, they should be interpreted with caution, and further research with a more rigorous sampling strategy is necessary to validate and extend these initial findings.

A) Age

Most participants were aged 36–40 years (Fig. A4.1).

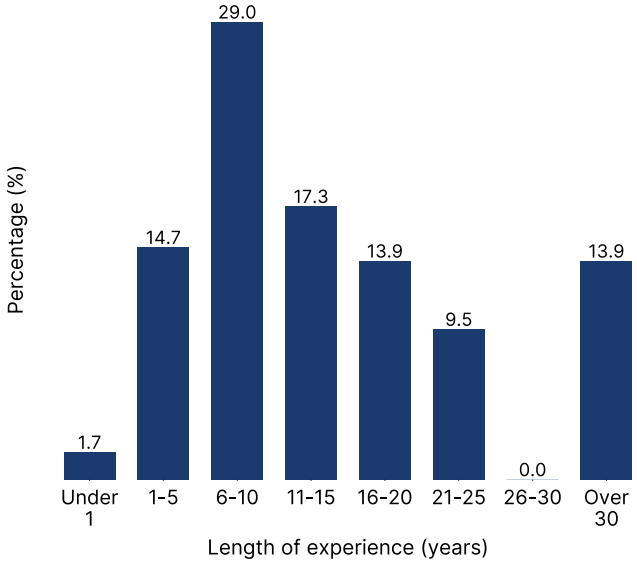
Fig. A4.1. Age distribution of participants



B) Number of years in position after having been qualified

Nearly 30% of respondents had been working in their position for 6–10 years after qualification. Nearly 55% had worked for more than 10 years (Fig. A4.2).

Fig. A4.2. Distribution of participants by experience in specialty



C) Gender

Nearly 88% of the participants were female.

D) Role in primary care

Few nurses, midwives and other non-physicians were represented in this sample, as 97% of the participants were physicians (Fig. A4.3) and mainly primary-care physicians (55%). The medical specialists included paediatricians, cardiologists, endocrinologists, obstetricians/gynaecologists, gastroenterologists and neurologists (Fig. A4.4).

Fig. A4.3. Distribution of participants by role in primary care

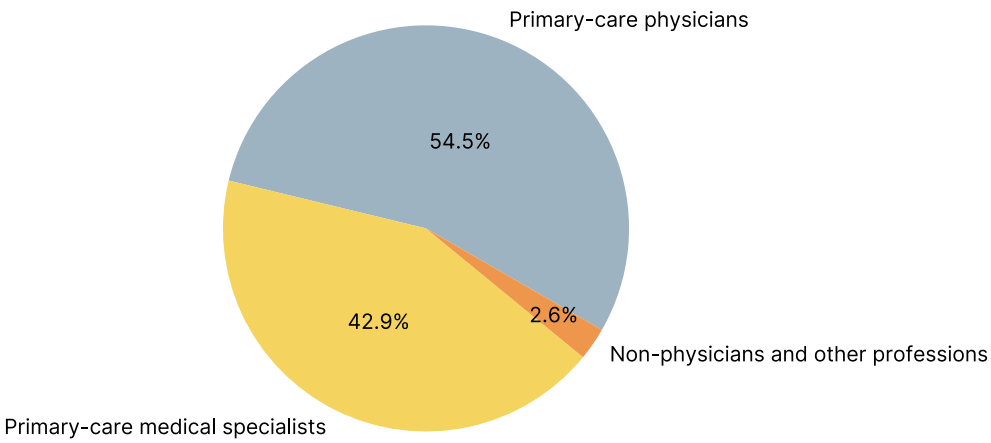
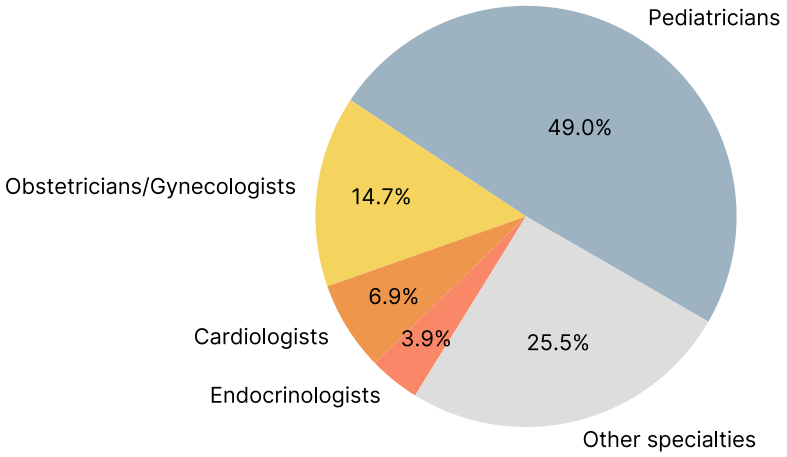


Fig. A4.4. Specialties of primary-care physicians

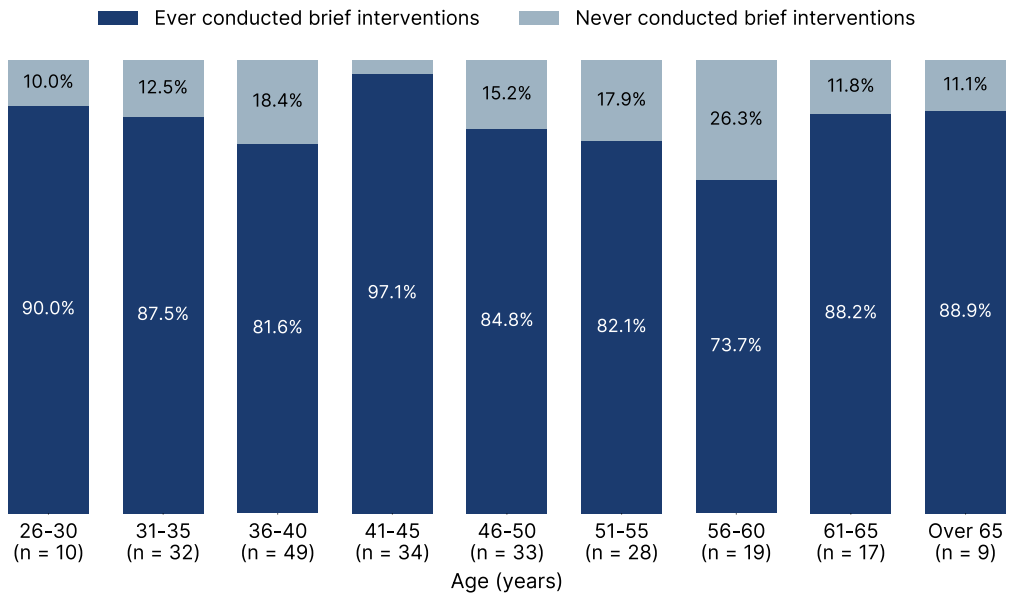


E) Conducting brief interventions for risk factors of NCDs in practice

Brief interventions were well recognized, with 86% (n = 198) of respondents reporting that they had ever conducted brief interventions, as compared with 76% of the participants in the main study.

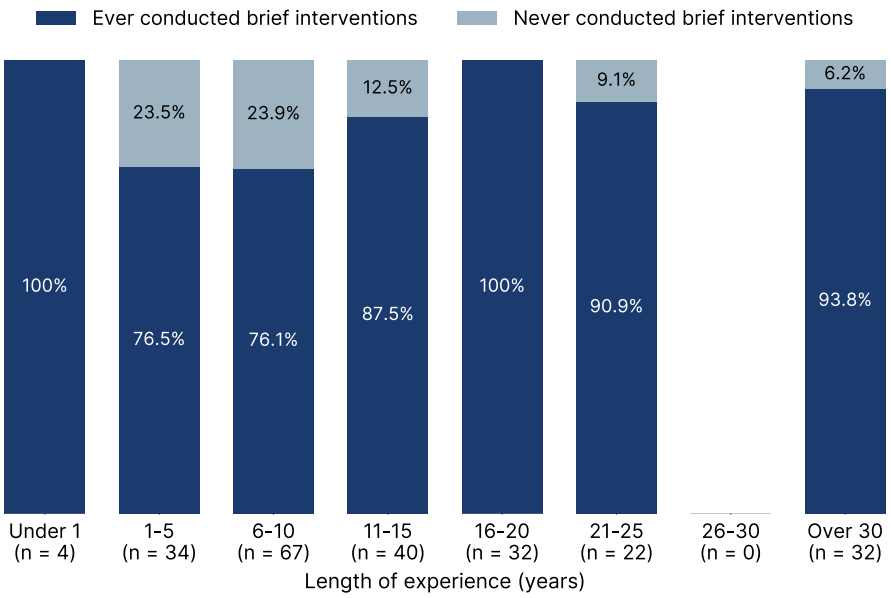
Delivery of brief interventions was frequent in all age groups, the highest proportion being by health-service providers aged 41–45 (97%) and the lowest by those aged 56–60 years (74%) (Fig. A4.5).

Fig. A4.5. Distribution of brief intervention delivery by age



The lowest percentage of brief intervention delivery was observed among participants who had worked in their current position for 1–10 years, almost one in five having never conducted a brief intervention (Fig. A4.6).

Fig. A4.6. Distribution of brief intervention delivery by health-service provider's work experience



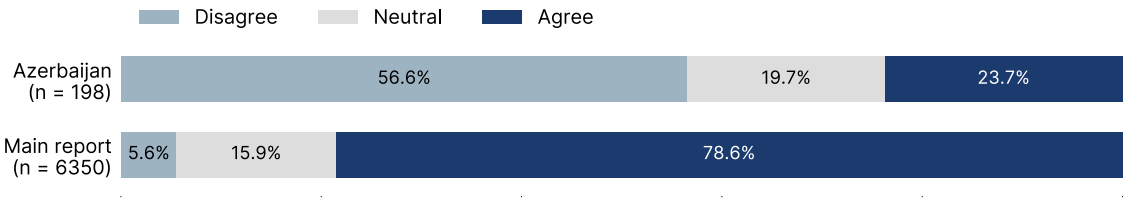
The frequency of brief intervention delivery also varied by primary-care role: 91% of primary-care physicians and 78% of specialists had ever conducted brief interventions in their practice.

If "Yes" (questions **1–6**, sub-sample of n = **198**)

1. I use guidelines on conducting effective brief interventions.

Among those who conducted brief interventions, only 24% stated that they used guidelines, whereas the proportion was 79% in the main study (Fig. A4.7).

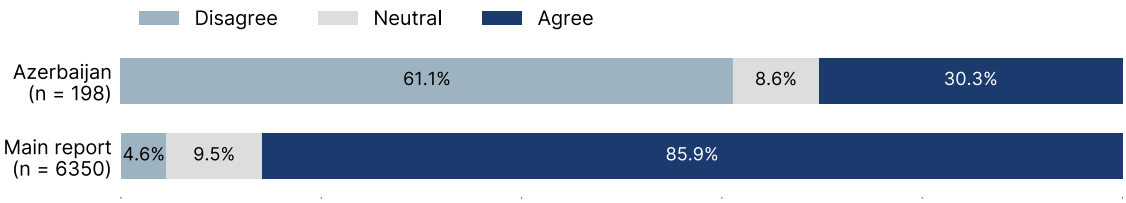
Fig. A4.7. Use of guidelines for delivering brief interventions in Azerbaijan and in the main study



2. I consider conducting brief interventions part of my job.

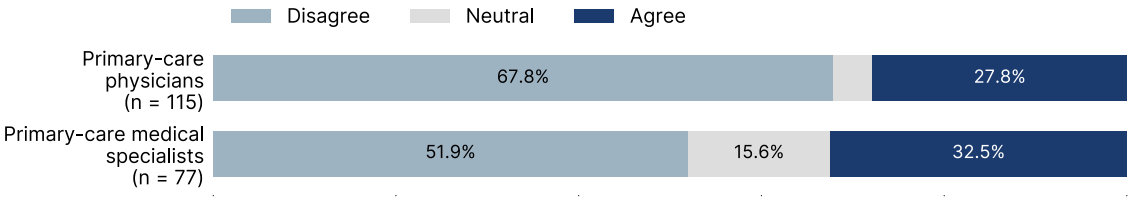
Only 30% of respondents considered that conducting brief interventions was a part of their job, as compared with 86% of all survey participants (Fig. A4.8).

Fig. A4.8. Providers' perception of brief interventions as a part of their job in Azerbaijan and in the main study



More primary-care physicians than specialists disagreed with the statement (Fig. A4.9).

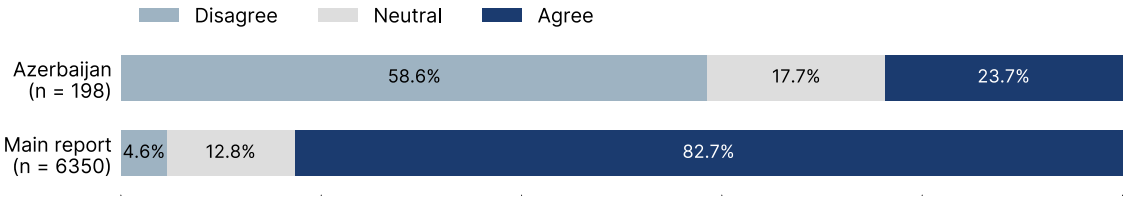
Fig. A4.9. Providers' perceptions of brief interventions as part of their job by role in primary care



3. Most of my patients react positively when I offer or provide brief interventions.

More than half (59%) of the respondents disagreed that patients reacted positively to provision of brief interventions, as compared with less than 5% in the main study (Fig. A4.10).

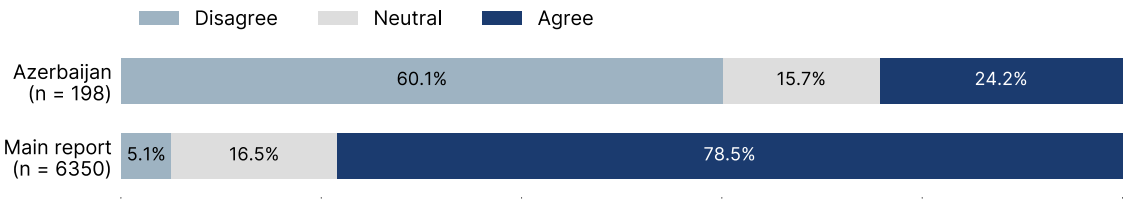
Fig. A4.10. Providers' perceptions of patients' reactions to brief interventions in Azerbaijan and in the main study



4. I see benefits resulting from brief interventions for my patients.

Most health-service providers (60%) in Azerbaijan saw no benefit of brief interventions in their patients; only 24% saw any benefit. In the main study, 78% of health-service providers saw benefits of brief interventions for their patients (Fig. A4.11).

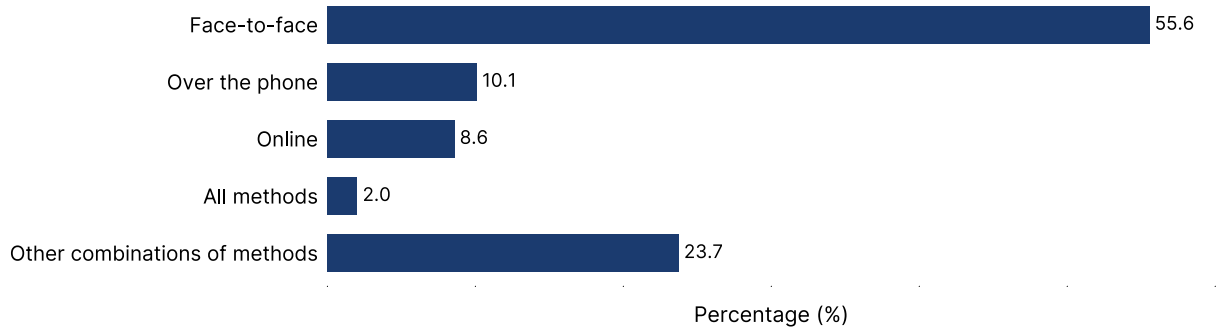
Fig. A4.11. Providers' perception of benefits for patients resulting from brief interventions in Azerbaijan and in the main study



5. Approach used for conducting brief interventions.

The format used most commonly for conducting brief interventions (56%) was face-to-face; 10% conducted brief interventions over the phone, and 9% provided online interventions. Every fourth respondent used a mixture of methods (Fig. A4.12).

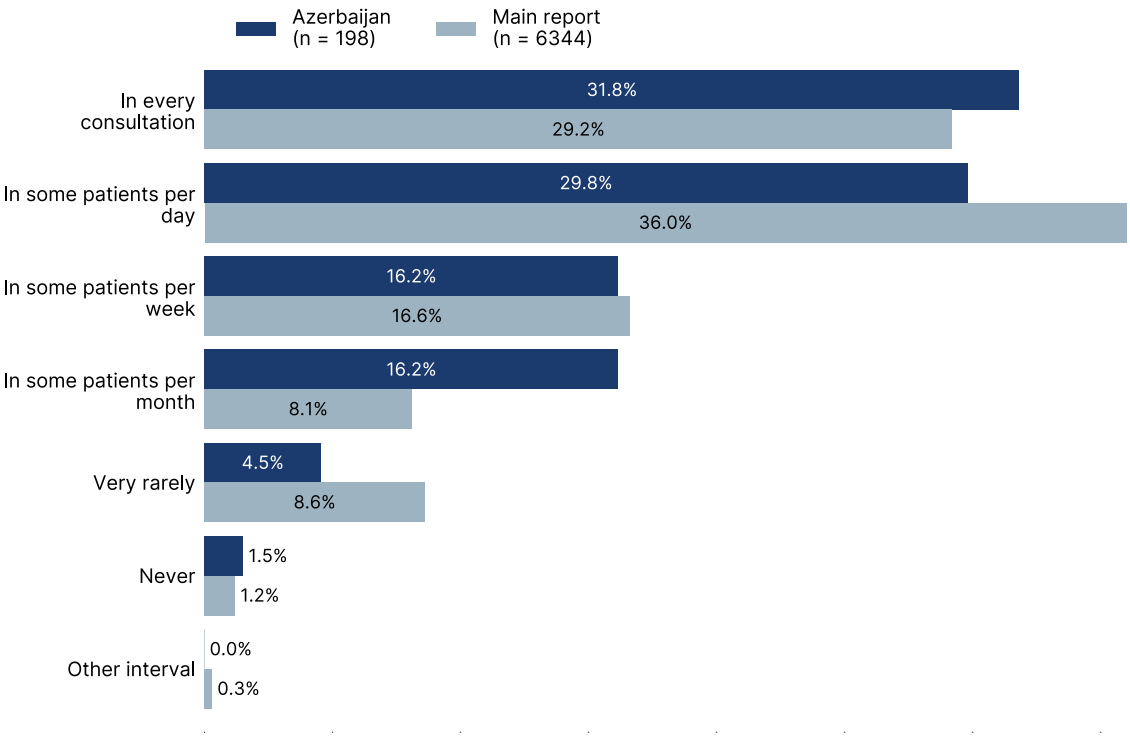
Fig. A4.12. Mode of brief intervention delivery



6. I measure and address two or more NCDs risk factors when conducting brief interventions during a consultation.

Nearly two thirds (62%) of all respondents who conducted brief interventions reported that they measured two or more NCD risk factors at every consultation or in some patients each day (Fig. A4.13). The results of the main study were similar.

Fig. A4.13. Frequency of measurement of two or more NCD risk factors at each visit in Azerbaijan and in the main study

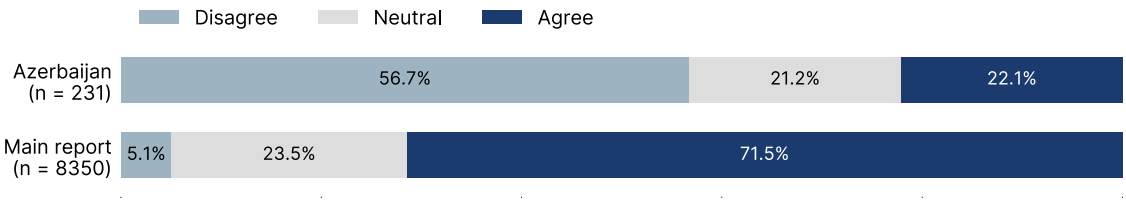


Agreement with the following statements (n = 231)

7. I have good knowledge of brief interventions for NCD risk factors.

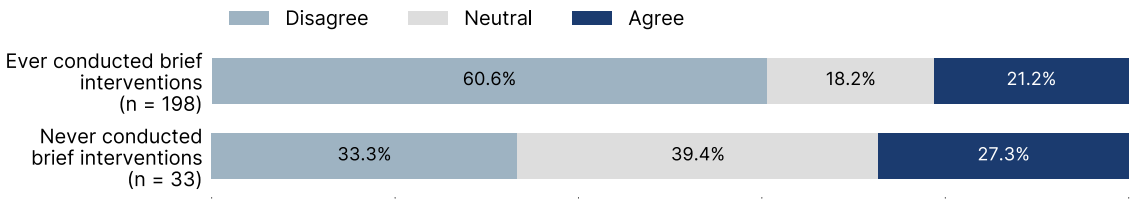
Only 22% of respondents reported that they had good knowledge of delivering brief interventions, regardless of whether they had used them in clinical practice, which is substantially lower than in the main report (71%) (Fig. A4.14).

Fig. A4.14. Perceived knowledge of brief interventions in Azerbaijan and in the main study



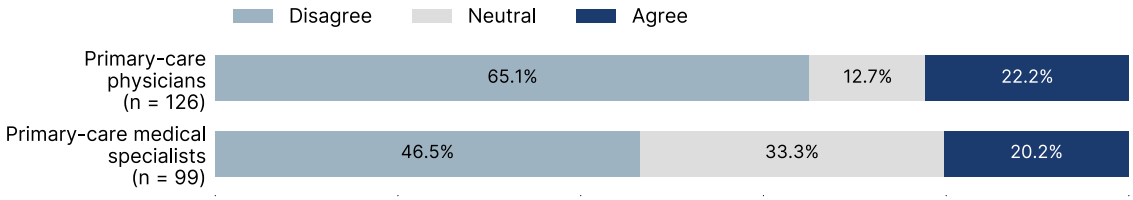
Most of those who had conducted brief interventions (60%) said that they did not have much knowledge of conducting them as compared with one third of providers who never conducted brief interventions (Fig. A4.15).

Fig. A4.15. Perceived knowledge of brief interventions



More primary-care physicians (65%) than specialists (46%) said they had little knowledge of brief interventions for NCD risk factors (Fig. A4.16).

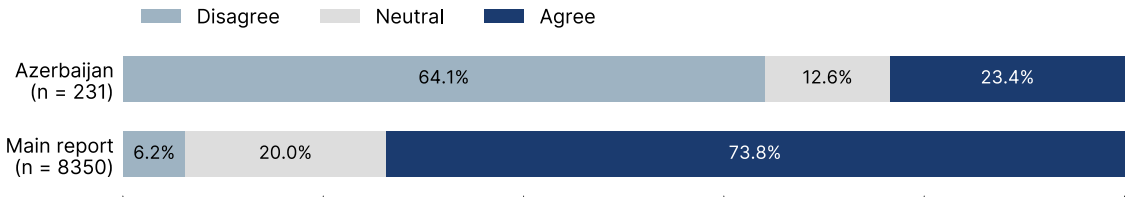
Fig. A4.16. Perceived knowledge of brief interventions by role in primary-care role



8. I feel capable of conducting brief interventions (theoretically and/or practically).

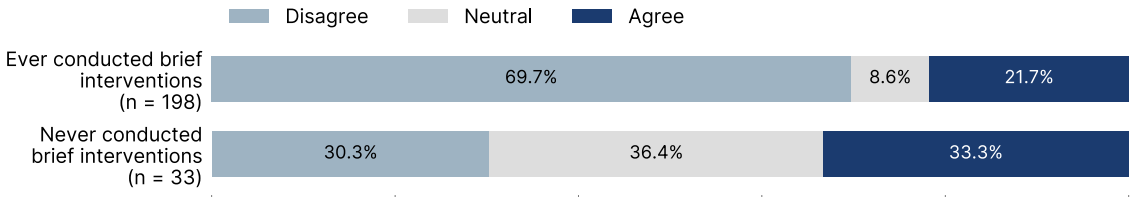
As for the previous question, most participants stated that they lacked capability to deliver brief intervention; only 23% considered themselves capable of doing so (Fig. A4.17).

Fig. A4.17. Perceived capability for conducting brief interventions in Azerbaijan and in the main study



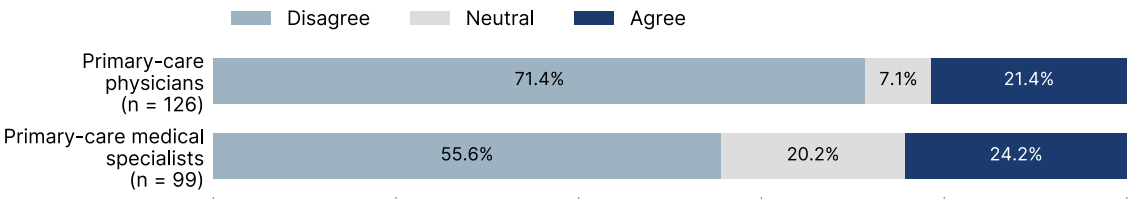
Most (70%) of those who had conducted brief interventions and only 30% who had not delivered them reported that they did not feel capable of conducting such interventions (Fig. A4.18).

Fig. A4.18. Perceived capability for conducting brief interventions



The perceived capability was also lower among primary-care physicians than among specialists (Fig. A4.19).

Fig. A4.19. Perceived capability for conducting brief interventions by role in primary care



9. If I had the opportunity to use online brief interventions, I would do so.

Only 29% of the participants agreed that they would use online brief interventions if given the opportunity, while half of the respondents expressed disagreement.

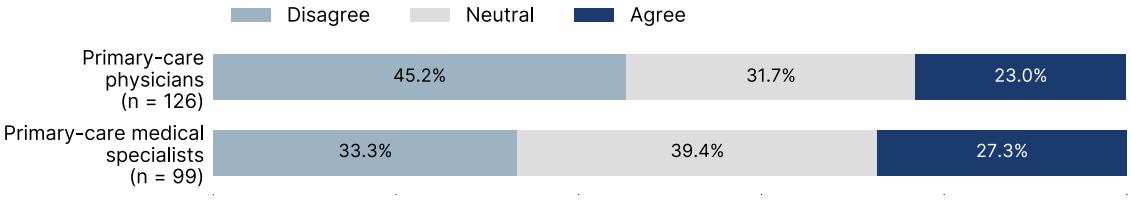
10. It would be useful to have online training opportunities to improve my knowledge and skills to provide brief interventions.

Almost half (49%) of the health-service providers in Azerbaijan did not consider that online training in delivering brief interventions would be useful, while 42% considered that it would help them to improve their knowledge and skills in this domain. In the main study, nearly 70% of the primary-care providers surveyed agreed that online training would be useful, and only 10% disagreed.

11. I face barriers that hinder my ability to conduct brief interventions in my daily practice.

Fewer participants in Azerbaijan (25%) reported facing barriers to conducting brief interventions than in the main study. In Azerbaijan, 39% of respondents did not consider that they faced barriers and 36% were unsure. Primary-care physicians reported facing fewer barriers than specialists (Fig. A4.20).

Fig. A4.20. Perception of barriers to delivery of brief interventions by role in



12. Please state the three main barriers.

- The most common factor stated by respondents was the short time allocated to appointments.
- Another barrier was patients' reluctance to receive brief interventions, insufficient motivation for behaviour change and poor compliance. Health-service providers

cited lack of awareness among patients and copious misinformation spread mostly online that undermines the importance of risk factor management.

- Limited examination capacity, poor working conditions and lack or unsatisfactory quality of Internet connection and/or equipment were also cited as significant barriers to brief intervention delivery.

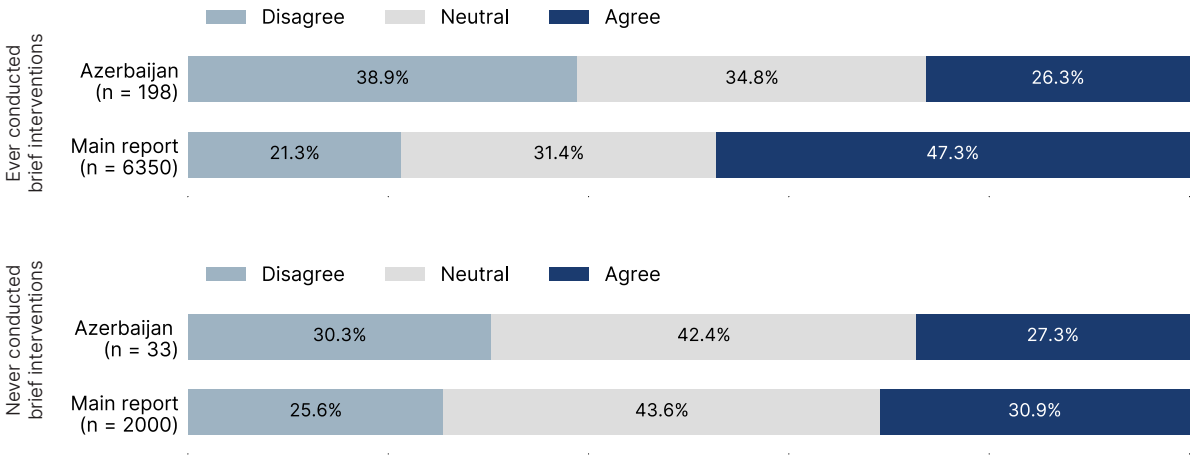
> *Patients' lack of information about online [brief] interventions, poor Internet connection, the high number of patients. – Primary-care physician, Azerbaijan*

> *Time constraints, untimely referral of patients, insufficient instrumental examinations. – Primary-care physician, Azerbaijan*

13. I feel supported and motivated by the health system or local health-care service to conduct brief interventions.

Only 26% of the respondents in Azerbaijan strongly agreed or agreed that they felt supported and motivated by the health system or local health-care service to conduct brief interventions, while 38% strongly disagreed or disagreed. In the main study, participants revealed a more positive picture: 43% felt supported and motivated, and 22% did not. More primary-care providers who had ever conducted brief interventions than those who had disagreed. The proportion of those who agreed was similar in the two groups, in contrast to the main study (Fig. A4.21).

Fig. A4.21. Perceived motivation and organizational support in Azerbaijan and in the main study



14. Please specify the organizational support and specific tools.

Most respondents cited organizational support in the form of educational activities such as conferences, seminars and training courses, both online and offline. Information materials, such as clinical protocols and brochures for health-service providers and patients, were mentioned as essential for conducting brief interventions.

> *There are no suitable conditions in my workplace.... Sometimes the patient is afraid to socialize.... Sometimes the patient cannot get rid of bad habits. If there is a complete methodology, it will be good. – Primary-care physician, Azerbaijan*

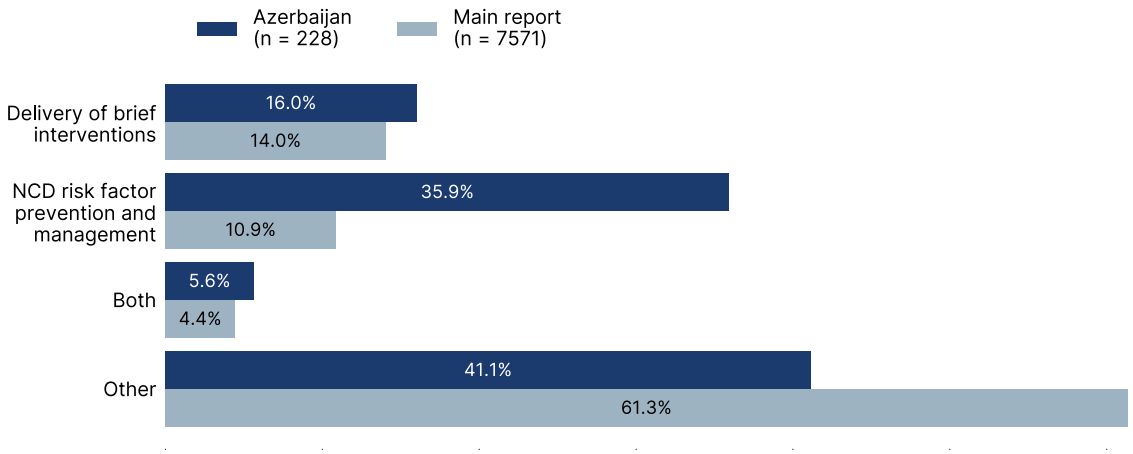
> *I do not know where to get support. – Obstetrician/gynaecologist, Azerbaijan*

> *The health service often organizes online webinars and provides booklets on brief interventions. – Primary-care physician, Azerbaijan*

15. During the last five years I have received training on:

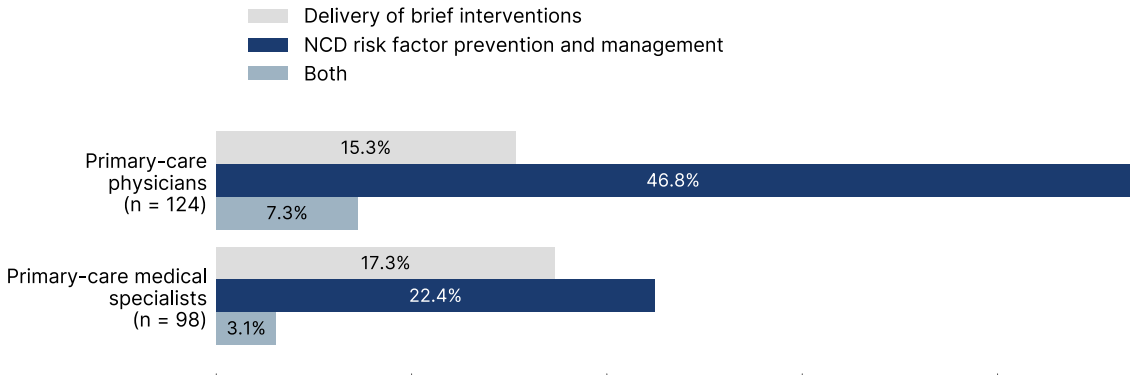
The observed situation with training on brief intervention delivery and/or NCD risk factor prevention and management within the past five years in Azerbaijan was different from the main study results, with the proportion of participants reporting receiving training on NCD risk factor prevention and management three times greater. Only 22% of Azerbaijani participants had received some form of training in brief interventions during the past 5 years, and only 6% had completed training in the delivery of brief interventions and prevention and management of NCD risk factors (Fig. A4.22).

Fig. A4.22. Training within the past 5 years in Azerbaijan and in the main study



The training received differed by specialty. About twice as many primary-care physicians than specialists had received training in either NCD risk factor prevention and management or in both NCD risk factors and brief interventions (Fig. A4.23). In general, training in NCDs was more common than that in brief intervention delivery.

Fig. A4.23. Training within the past 5 years by role in primary care



Nevertheless, more than 60% of those who had participated in training in brief interventions or NCDs still did not feel capable of delivering brief interventions (Fig. A4.24) or considered that they had good knowledge about delivery of brief interventions (Fig. A4.25).

Fig. A4.24. Providers' perceived capability to conduct brief interventions according to whether they had received training within the past 5 years

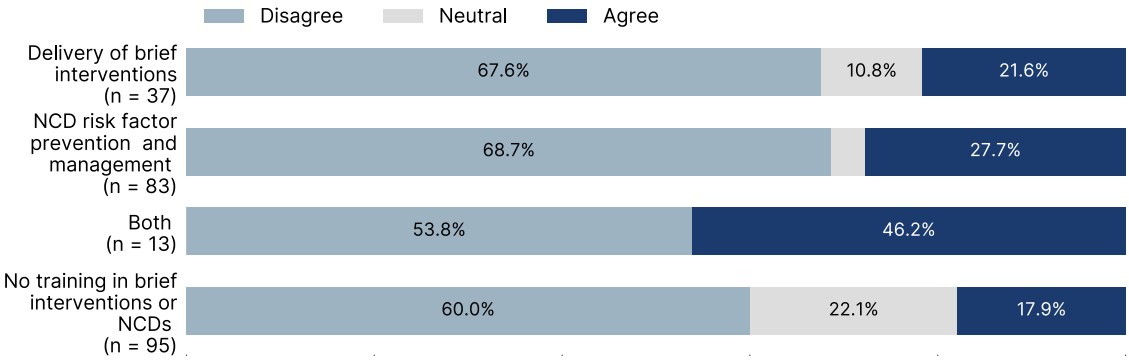
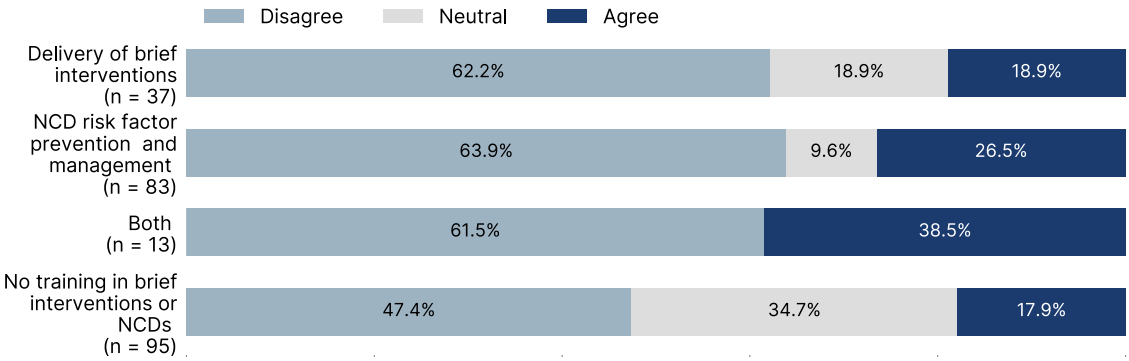
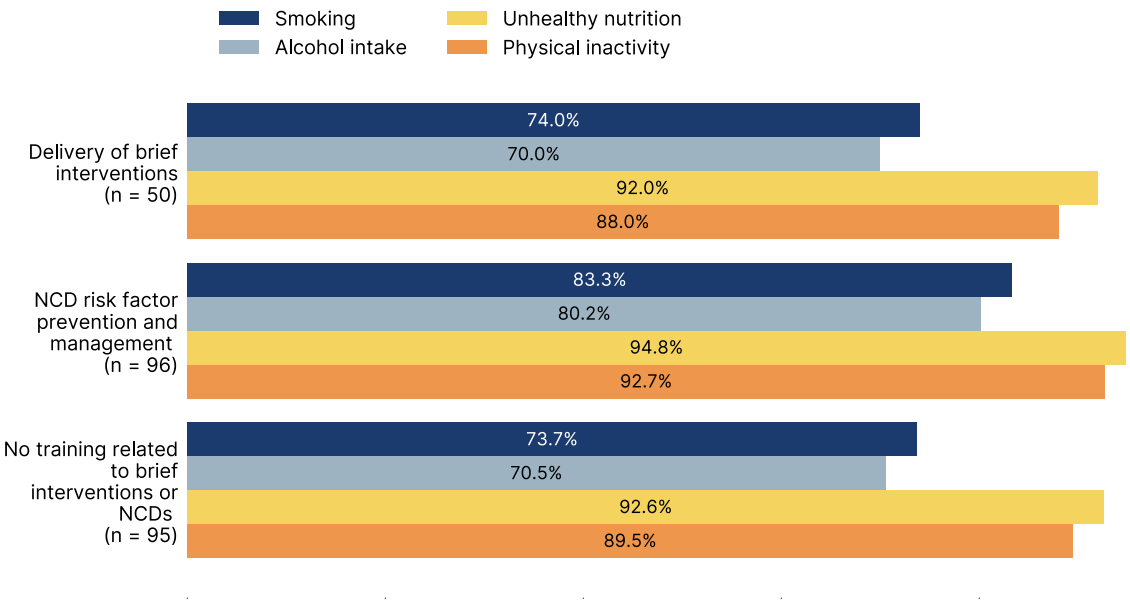


Fig. A4.25. Providers' perceived knowledge of brief interventions according to whether they received training within the past 5 years



We also examined whether respondents' confidence in measuring NCD risk factors differed according to their training. A marginally larger proportion of respondents who had received training in NCD risk factor prevention and management felt confident in measuring risk factors (88%) than those who had not been trained (81%) or had received no relevant training within the past 5 years (82%). Confidence in measuring alcohol intake and smoking was low, even among providers who had received training in brief interventions (Fig. A4.26).

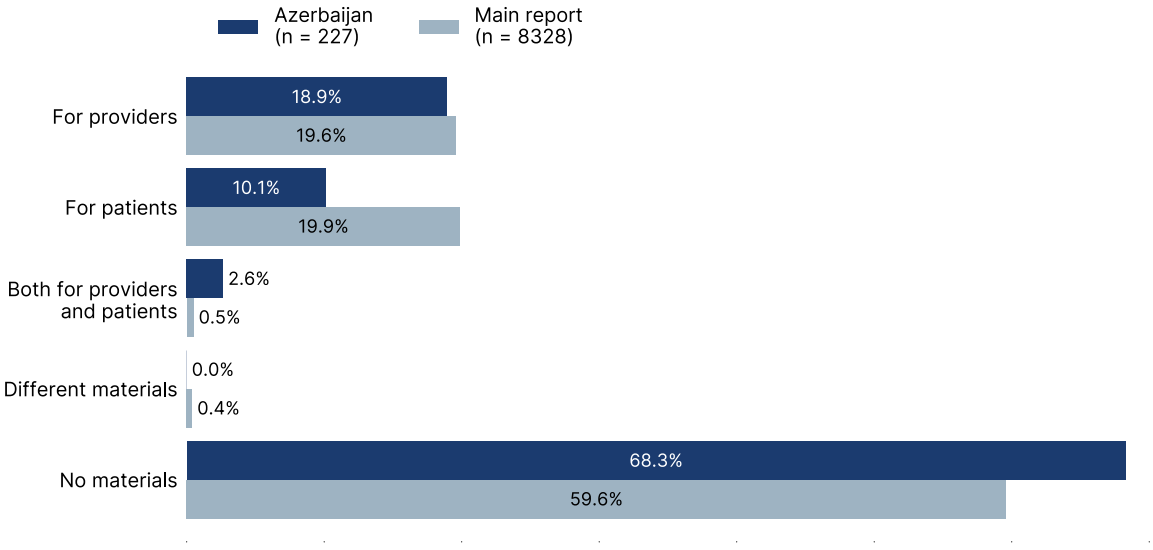
Fig. A4.26. Confidence in measuring NCD risk factors according to training received within the past 5 years



16. I have materials for: ...

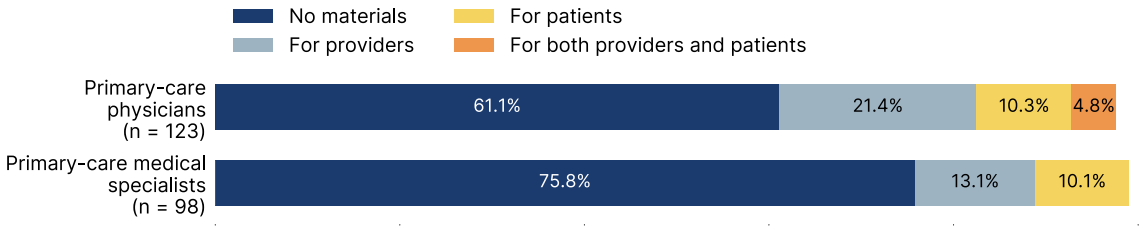
As in the main study, most participants in Azerbaijan lacked supportive materials for brief interventions. Nearly 68% of those surveyed had no material for either providers or patients. In the main study, about 20% had material on conducting brief interventions effectively, and 20% had materials for patients (Fig. A4.27).

Fig. A4.27. Availability of supportive materials in Azerbaijan and in the main study



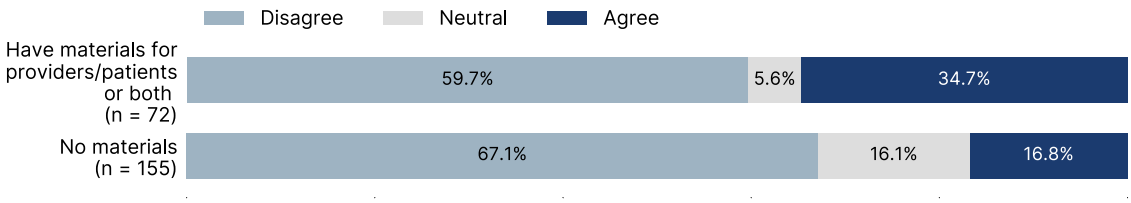
The availability of materials differed by profession: more primary-care physicians than specialists had supportive materials (Fig. A4.28).

Fig. A4.28. Availability of supportive materials according to role in primary care



The capability to conduct brief interventions differed slightly according to the availability of supportive materials, with more providers with such materials considering that they were capable of conducting brief interventions (Fig. A4.29).

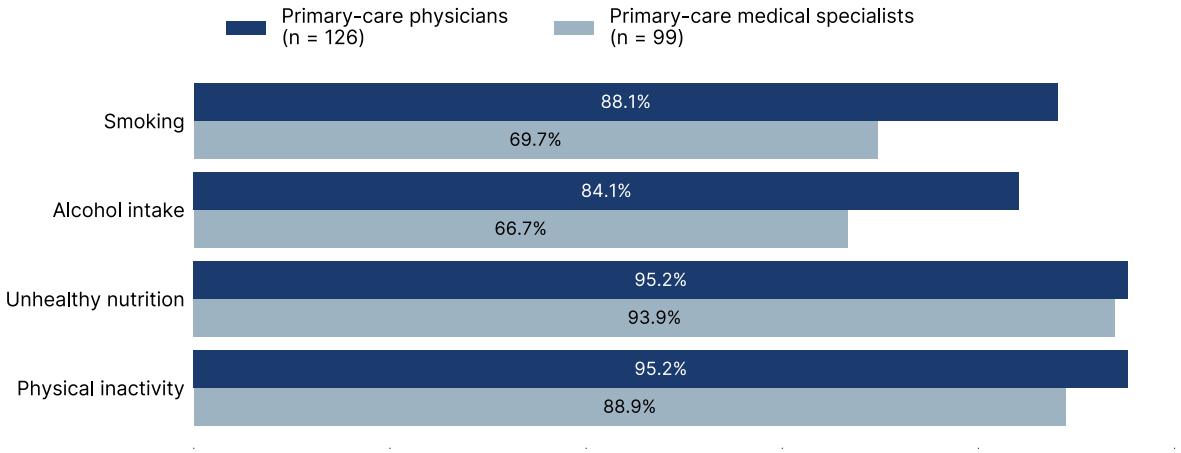
Fig. A4.29. Capability according to the availability of supportive materials



17. I measure NCD risk factors in my patients at almost every consultation.

Most respondents measured NCD risk factors at almost every consultation. Higher rates were observed for measuring an unhealthy diet and physical inactivity (95% and 93%, respectively), while 77% measured alcohol consumption, and 81% addressed smoking. The rates of measuring smoking and alcohol intake were higher among primary-care physicians than among specialists (Fig. A4.30).

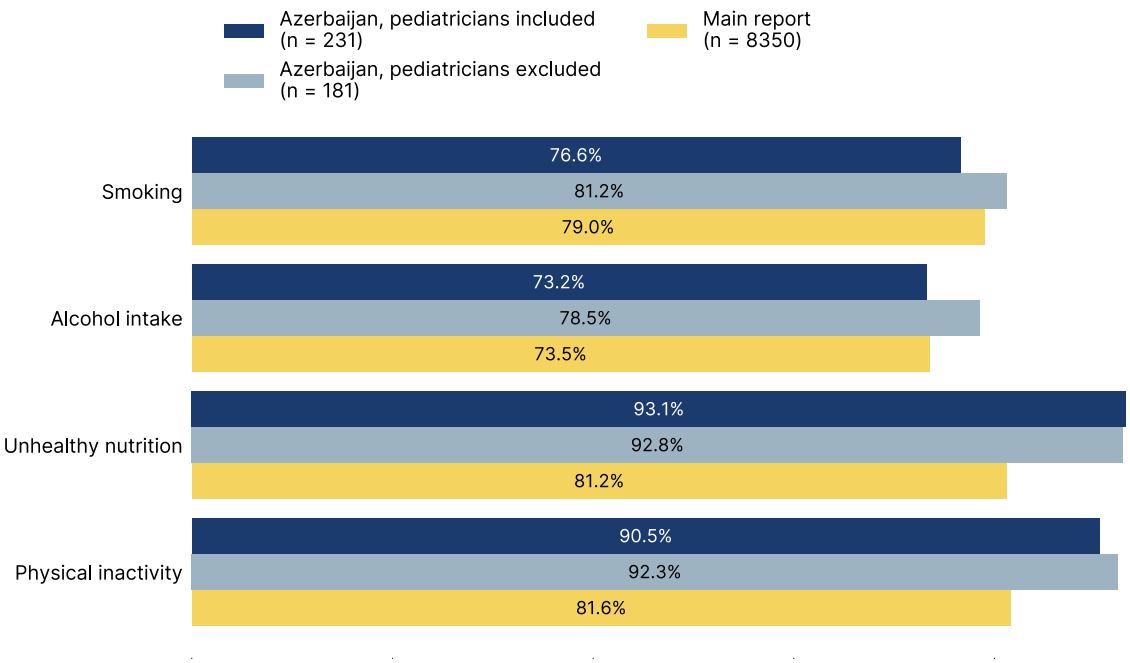
Fig. A4.30. Frequency of measurement of NCD risk factors in patients at almost every consultation according to role in primary care



18. I am confident in measuring NCD risk factors in my patients.

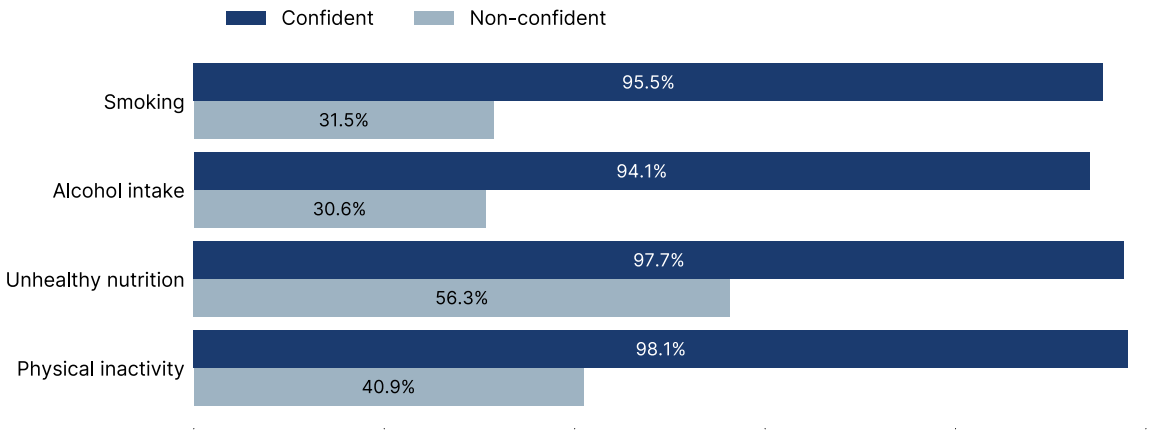
Confidence in measuring NCD risk factors in patients varied from 73% of respondents for alcohol consumption and 77% for smoking. More than 90% were confident in measuring unhealthy diet and physical inactivity. The proportions for smoking and alcohol consumption were higher after exclusion of paediatricians' answers from the analysis (Fig. A4.31), as only slightly more than half of paediatricians felt confident in measuring those two risk factors.

Fig. A4.31. Confidence in measuring NCD risk factors in Azerbaijan and in the main study



The rate of measurement of NCD risk factors depended on the providers' confidence. Over 94% of providers who expressed confidence in measuring smoking and alcohol intake reported that they measured them, while 31% did not. Similar differences were observed for measuring unhealthy diet and physical inactivity: only 16 (7%) were not confident in measuring unhealthy diet and 22 (10%) in measuring physical inactivity (Fig. A4.32).

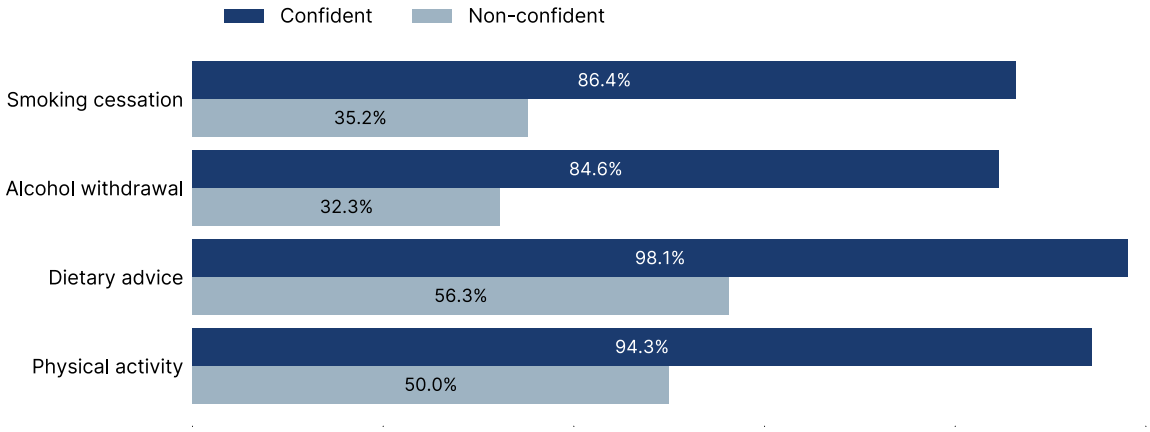
Fig. A4.32. Measurement of NCD risk factors according to providers' confidence



19. I have prescribed interventions for NCD risk factors.

Advice on diet and physical activity were the most commonly prescribed interventions (95% and 90%, respectively), while fewer providers prescribed smoking cessation and alcohol withdrawal (74% and 71%, respectively). Confidence seemed important for prescribing interventions for changing health behaviour. Of those who reported being confident in measuring risk factors, 86% prescribed smoking cessation and 85% prescribed alcohol withdrawal. Of the providers who did not feel confident in measuring those risk factors, only 35% prescribed smoking cessation and 32% prescribed alcohol withdrawal. Although the proportions for advice on diet and physical activity were higher, there was still a difference between providers who were confident and less confident (Fig. A4.33). These results are nevertheless more positive than in the main study.

Fig. A4.33. Prescription of interventions according to providers' confidence

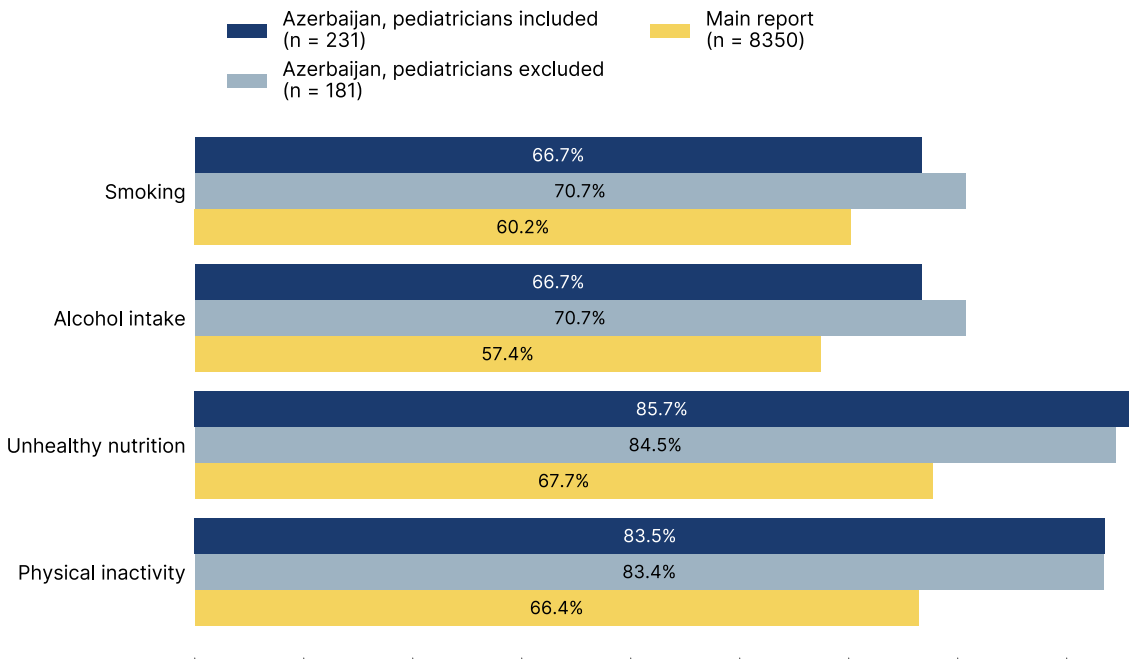


20. I have clear referral pathways for further services and use them for management of NCD risk factors.

Most primary-care providers said that they used referral pathways for patients with unhealthy behaviour. More respondents stated that they had clear pathways for referring patients with unhealthy diets (86%) and physical inactivity (84%), and

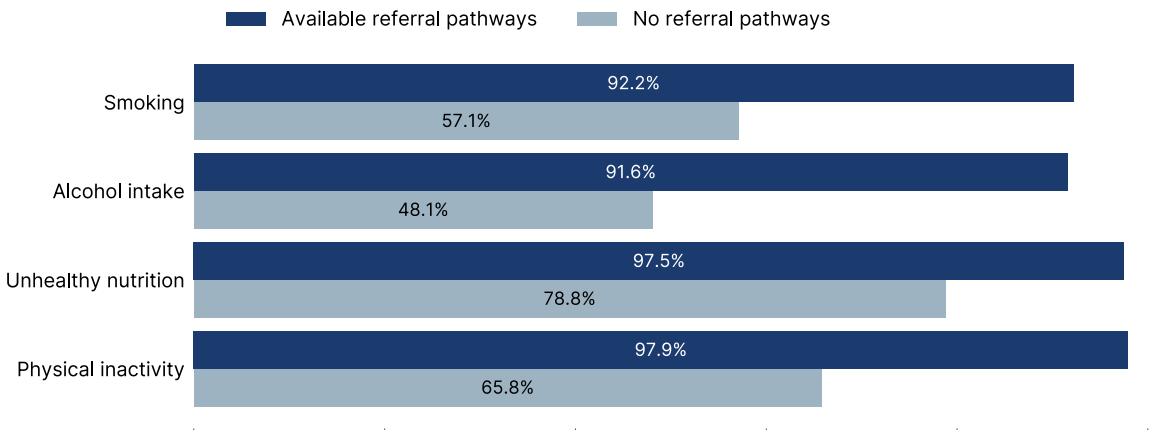
only 67% of health-service providers knew the referral pathways for smoking and alcohol consumption. The results were somewhat different when paediatricians were excluded from the analysis (Fig. A4.34).

Fig. A4.34. Availability of clear referral pathways and their use in the management of NCD risk factors in Azerbaijan and in the main study



As in the main study report, we also investigated whether the availability of clear referral pathways influenced measurement of risk factors by health-service providers. Thus, 92% of those with a clear referral pathway for patients who smoked also measured this risk factor. Only 57% of primary-care providers measured smoking if they did not have clear referral pathways. For alcohol consumption, 92% of respondents measured this factor, but only 48% did so if they could not refer patients. For insufficient physical activity, 98% measured this factor if referral was available and 66% if it was not. These results correspond to those of the main study, although the proportions who measured risk factors when referral was not available were higher in Azerbaijan. For unhealthy diet, the percentage was high whether (97%) or not (79%) referral was available (Fig. A4.35).

Fig. A4.35. Measurement of NCD risk factors according to availability of referral



Conclusion

The results of the analysis show that most health-service providers in Azerbaijan have used brief interventions to provide counselling on healthy behaviour. In comparison with the main study report, however, considerably fewer used guidelines or considered that conducting brief interventions was part of their job. Most respondents noted few positive reactions from patients and no health benefits of such interventions.

The rates of measurement of NCD risk factors and the frequency of measuring and addressing two or more NCD risk factors in an integrated approach were high. Unhealthy diets and physical inactivity were assessed at almost every consultation by nearly all primary-care providers. Alcohol intake and smoking were addressed less frequently.

The link between the availability of clear referral pathways and measurement of risk factors corresponded to that found in the main study. As in the main report, alcohol intake was measured least when clear referral pathways were not available.

Health-service providers in Azerbaijan reported much less knowledge and capability for delivering brief interventions than respondents in the other participating countries. Training coverage was, however, better in Azerbaijan than in the main report. Nevertheless, even after training within the past 5 years, primary-care providers in Azerbaijan reported lack of knowledge and capability to conduct brief interventions.

As in the main study, participants in Azerbaijan reported insufficient supportive materials. Fewer participants reported facing barriers to conducting brief interventions, and fewer health-service providers reported that they were supported and motivated by their health system than in the main study.

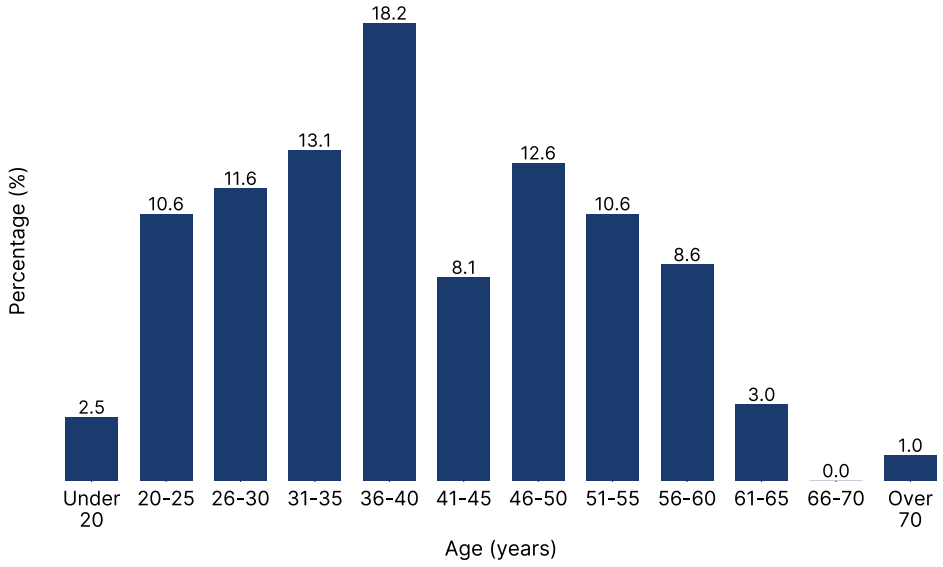
Annex 5. Analysis of survey results from health-service providers in primary care in Uzbekistan

This sub-sample analysis was based on responses from a limited number of participants (198 responses) and may not accurately reflect the characteristics and experiences of all health-service providers in Uzbekistan. The survey was conducted to gain an initial understanding of the issue at hand. Its purpose was to lay the ground for subsequent research and inform future policy interventions. Therefore, while the findings contribute valuable insights, they should be interpreted with caution, and further research with a more rigorous sampling strategy is necessary to validate and extend these initial findings.

Fig. A5.1. Age distribution of participants

A) Age

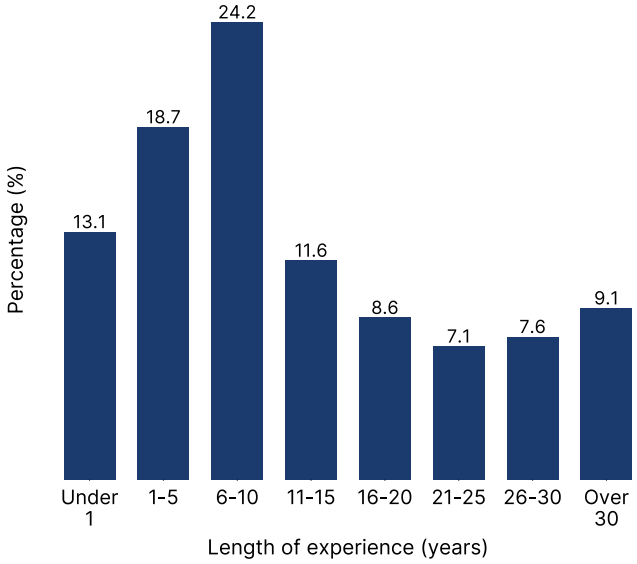
The most common age group was 36–40 years (Fig. A5.1).



B) Number of years in position after having been qualified

More than half (56%) of respondents had less than 10 years of experience in their current position after being qualified. For almost 25% of health-service providers, the work experience was 6–10 years (Fig. A5.2).

Fig. A5.2. Distribution of length of experience in the current specialty



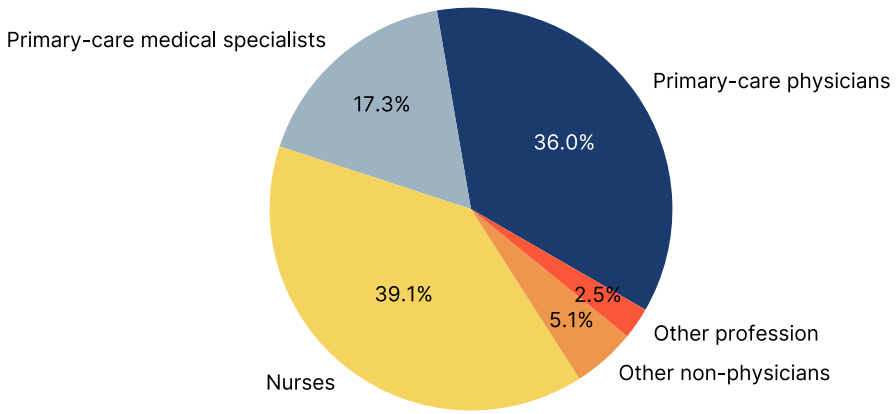
C) Gender

Nearly 84% of the participants were female.

D) Role in primary health care

Over half (53%) of the participants were physicians, the most prevalent specialty being primary-care physicians (36%). The specialists included paediatricians, obstetricians/gynaecologists, cardiologists, neurologists and oncologists. Almost 40% of respondents were nurses (Fig. A5.3).

Fig. A5.3. Distribution of participants by role in primary care



E) Conducting brief interventions for risk factors of NCDs in practice

More than three quarters (76%, n = 150) of those who provided answers reported that they had ever conducted brief interventions in their practice, as in the main study.

Use of brief interventions appeared to be more common among providers aged 46–60 years (Fig. A5.4) and among those with more extensive work experience (Fig. A5.5).

Fig. A5.4. Distribution of brief intervention delivery by age

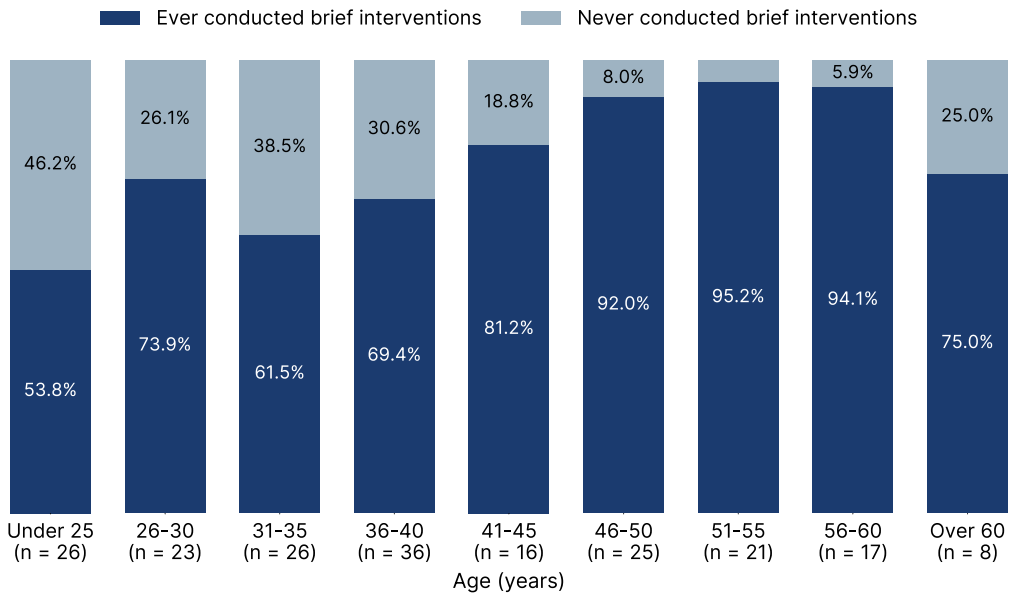
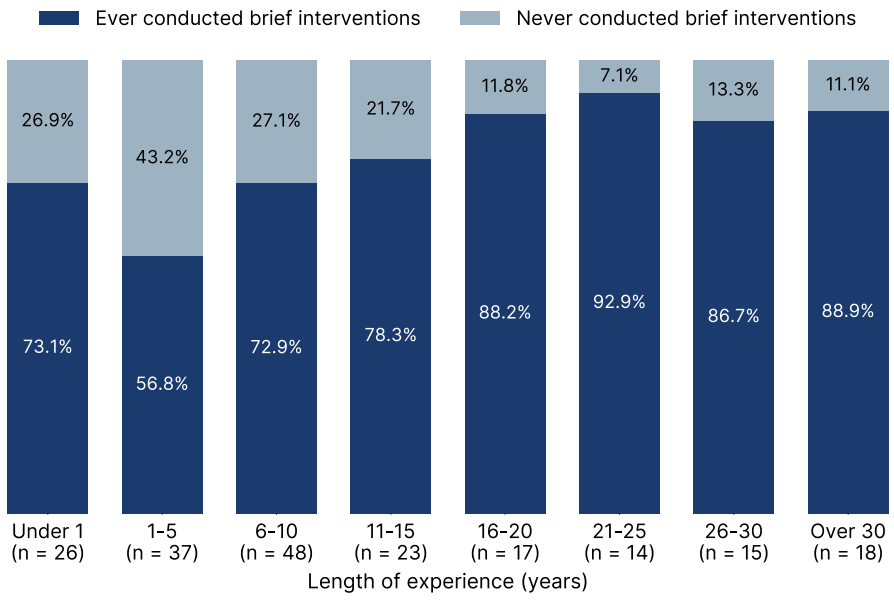


Fig. A5.5. Distribution of brief intervention delivery by health-service provider's work experience



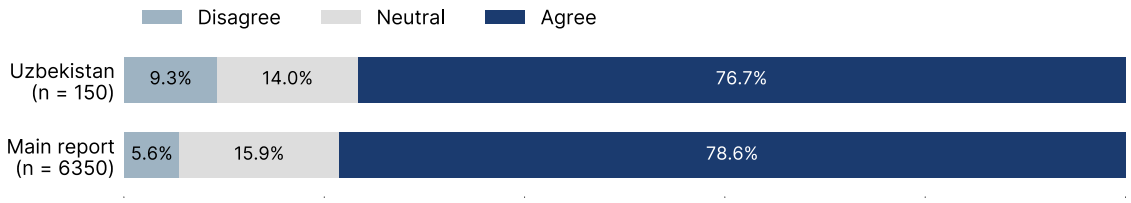
The frequency of brief intervention delivery varied by the role in primary care: 85% of all physicians and 69% of nurses implemented them in their practice.

If "Yes" (questions **1–6**, sub-sample of n = **150**)

1. I use guidelines on conducting effective brief interventions.

Among those who conducted brief interventions, 77% reported that they used guidelines (Fig. A5.6), similar to the result in the main report.

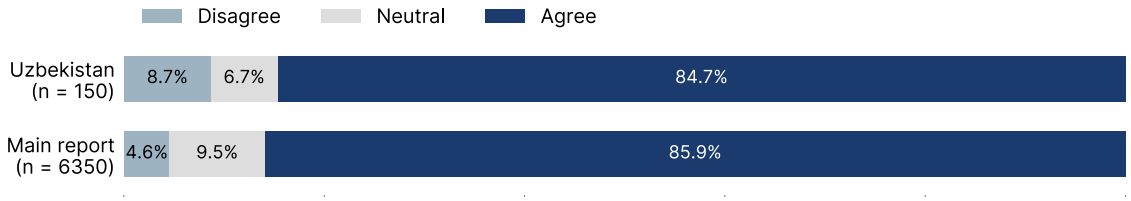
Fig. A5.6. Use of guidelines for delivering brief intervention delivery in Uzbekistan and in the main study



2. I consider conducting brief interventions part of my job.

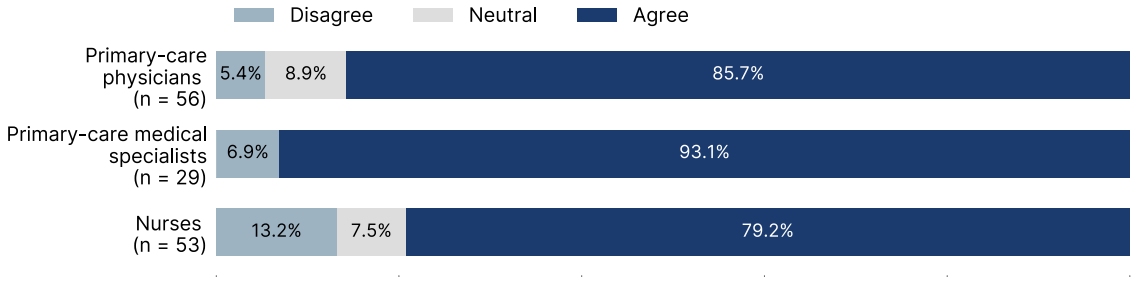
Among those providers who conducted brief interventions, 85% considered it part of their job, similarly to the main report (Fig. A5.7).

Fig. A5.7. Providers' perception of brief interventions as a part of their job in Uzbekistan and in the main study



The perception that brief interventions are part of their job differentiated slightly by profession (Fig. A5.8). The strongest agreement was among primary-care specialists (93%), followed by physicians (86%). Over 20% of nurses did not consider that conducting brief interventions was part of their job or answered neutrally.

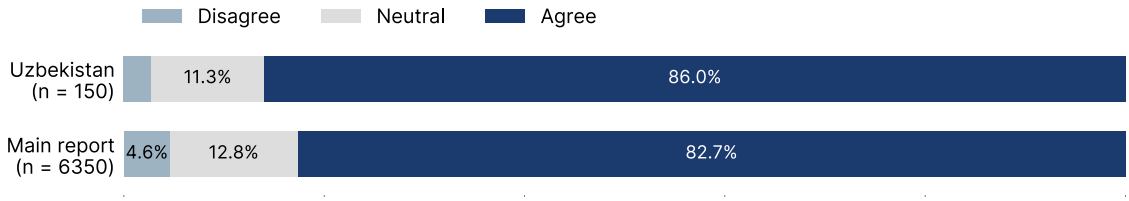
Fig. A5.8. Providers' perception of whether delivery of brief interventions is part of their job, by role in primary care



3. Most of my patients react positively when I offer or provide brief interventions.

Patients' reactions to the provision of brief interventions were overwhelmingly positive, as in the main report (Fig. A5.9). Thus, 86% of participants who conducted brief interventions reported a positive patient experience, while only 3% had received negative feedback from patients.

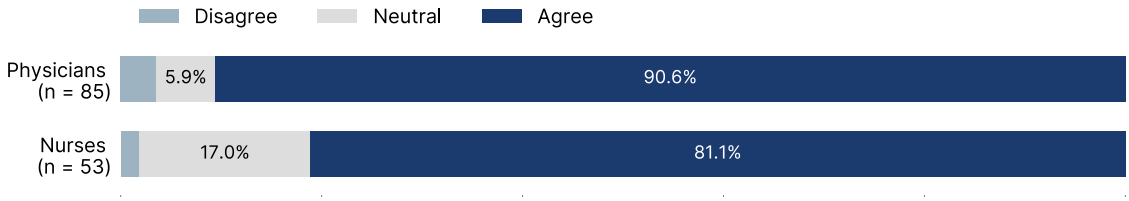
Fig. A5.9. Providers' perceptions of patients' reactions to brief interventions in Uzbekistan and in the main study



When asked if patients reacted positively to brief interventions, 91% of physicians and 81% of nurses agreed with the statement, while 17% of nurses gave a neutral answer (Fig. A5.10).

> *Patients trust the doctor's instructions more. – Nurse, Uzbekistan*

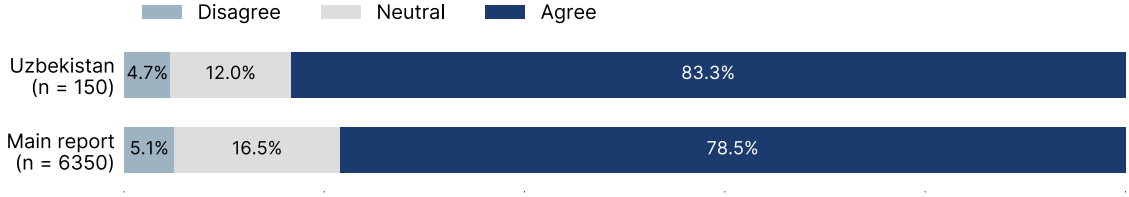
Fig. A5.10. Provider's perception of patients' reactions to brief interventions by role in primary care



4. I see benefits resulting from brief interventions for my patients.

Most health-service providers (83%) reported benefits resulting from brief interventions in their patients, while only 5% had seen no positive effect (Fig. A5.11). This result is even more positive than that in the main report.

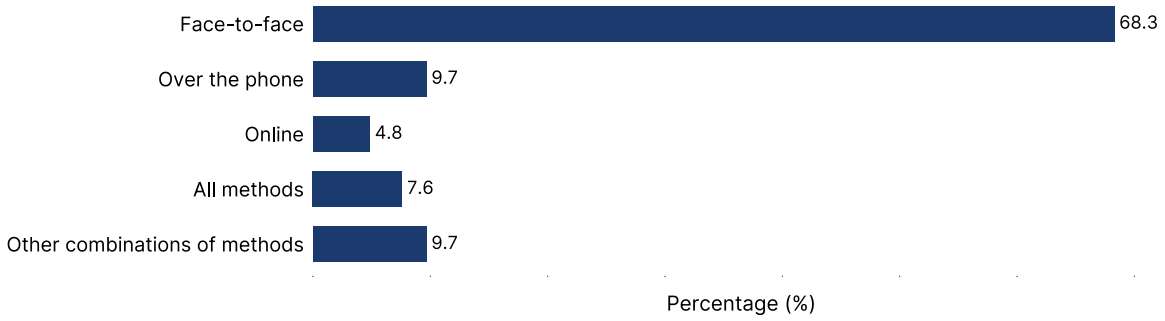
Fig. A5.11. Providers' perception of benefits for patients resulting from brief interventions in Uzbekistan and in the main study



5. Approach used for conducting brief interventions.

The format used most commonly for conducting brief interventions was face-to-face exclusively (68%); 10% provided brief interventions over the phone, 5% provided online interventions, and 17% used a mixture of methods (Fig. A5.12).

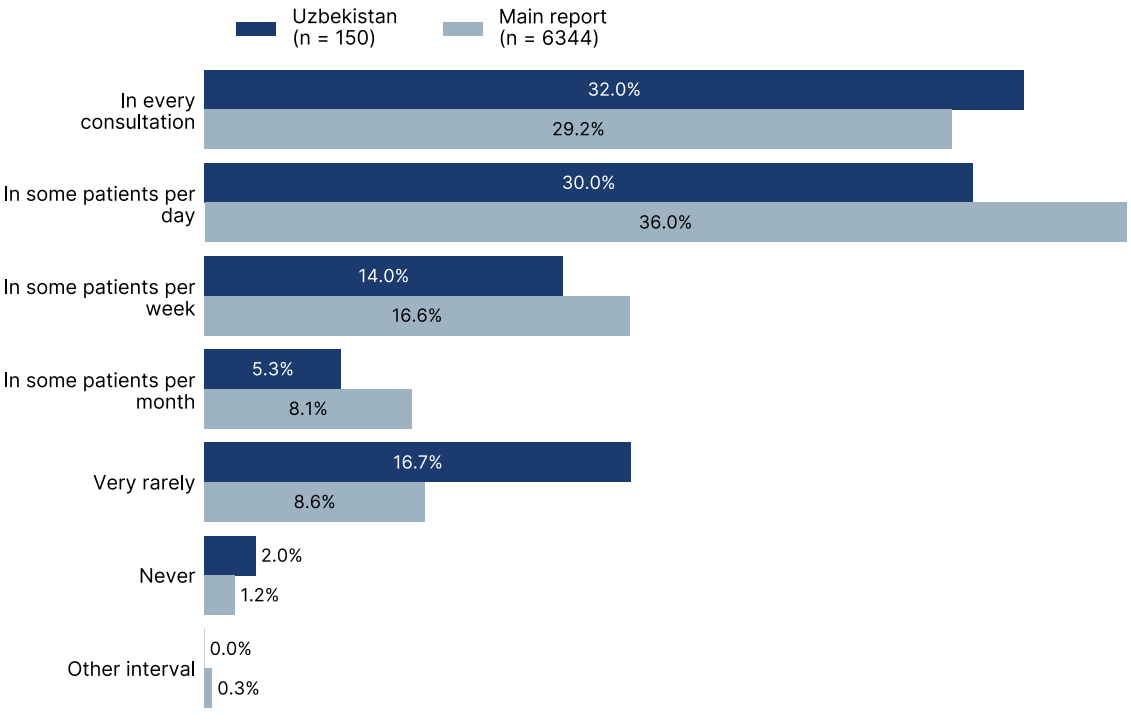
Fig. A5.12. Mode of delivery of brief interventions



6. Measurement and brief interventions for two or more NCD risk factors during a consultation.

The frequency of measuring and addressing two or more NCD risk factors in an integrated brief intervention was high, as in the main study. More than a half of the respondents who conducted brief interventions claimed they measured two or more NCD risk factors at every consultation or in some patients each day (Fig. A5.13); however, 17% noted that they addressed multiple risk factors very rarely whereas in the main report only about 9% of respondents claimed so.

Fig. A5.13. Frequency of measurement of two or more NCD risk factors at each visit in Uzbekistan and in the main study

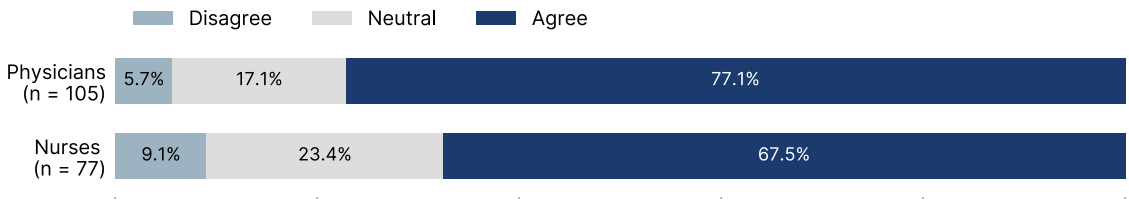


Agreement with the following statements (n = 198)

7. I have good knowledge of brief interventions for NCD risk factors.

As in the main report, 72% of respondents reported having good knowledge of brief interventions, regardless of whether they used them in clinical practice. Fewer nurses (68%) than physicians (77%) agreed with the statement (Fig. A5.14).

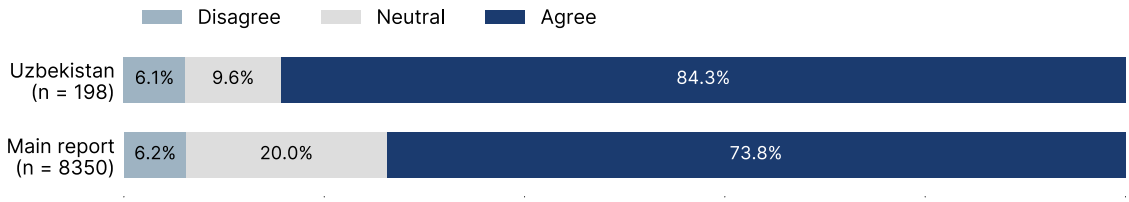
Fig. A5.14. Perceived knowledge of brief interventions by role in primary care



8. I feel capable of conducting brief interventions (theoretically and/or practically).

Most participants (84%) considered themselves capable of conducting brief interventions (10% higher than in the main study), and only 6% disagreed (Fig. A5.15). Perceived capability to conduct brief interventions was similar in physicians (86%) and nurses (83%).

Fig. A5.15. Perceived capability to conduct brief interventions in Uzbekistan and in the main study



9. If I had the opportunity to use online brief interventions, I would do so.

More than half of the respondents (59%) agreed that they would use online brief interventions in their practice if they were given the opportunity. Almost one third of those who completed the questionnaire (32%) expressed disagreement.

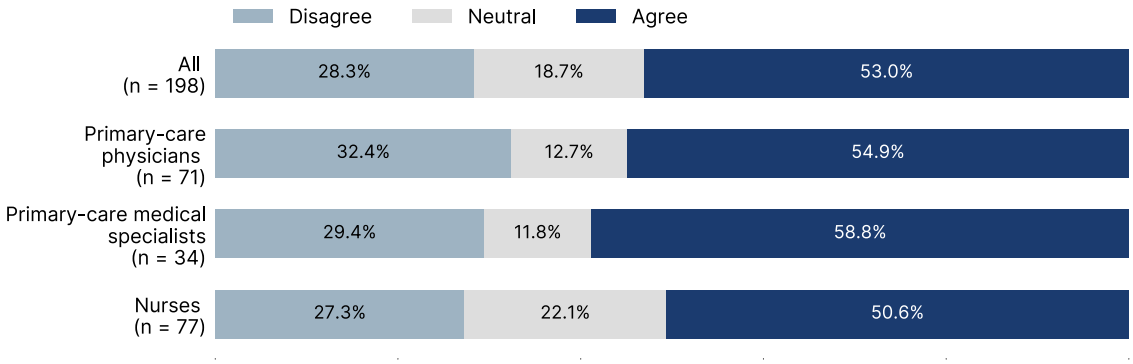
10. It would be useful to have online training opportunities to improve my knowledge and skills to provide brief interventions.

Overall, 65% considered online training as a good opportunity for improving their knowledge and skill in providing brief interventions, while 24% disagreed. In the main study, nearly 70% of the surveyed primary-care providers agreed that online training would be useful, and only 10% disagreed.

11. I face barriers to conducting brief interventions in my daily practice.

Barriers to delivering brief interventions were found by 53% of primary health-care providers, while 28% disagreed with the statement (Fig. A5.16). A slightly larger percentage of physicians reported no barriers to delivery of brief interventions, and nurses chose a neutral answer more frequently than others.

Fig. A5.16. Perception of barriers to delivery of brief intervention by role in primary care



12. Please state the three main barriers.

- The most commonly listed factor was the large number of patients, restricting the time available for appointments.
- Another barrier is excessive paperwork, which also reduces the time for communication with or examination of patients.
- Some providers noted that insufficient supportive materials and resources limited brief intervention practice.

> *During the consultation, I take two patients simultaneously. – Oncologist, Uzbekistan*

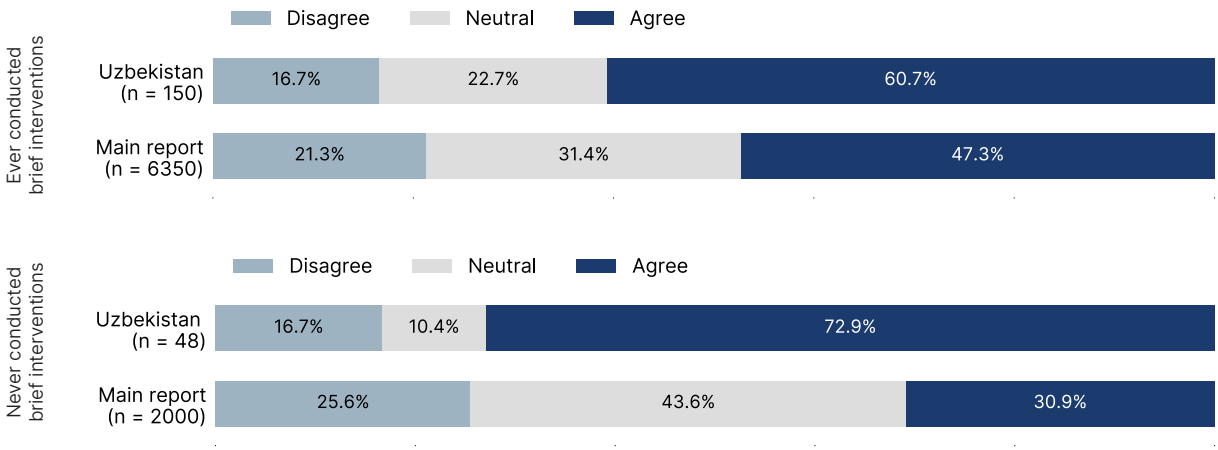
> *In a family practice, the general practitioner has little time to consult, and there are many patients. – Primary-care physician, Uzbekistan*

> *Lack of time, lack of visual materials, satisfactory level of motivational counselling skills – Primary-care physician, Uzbekistan*

13. I feel supported and motivated by the health system or local health-care service to conduct brief interventions.

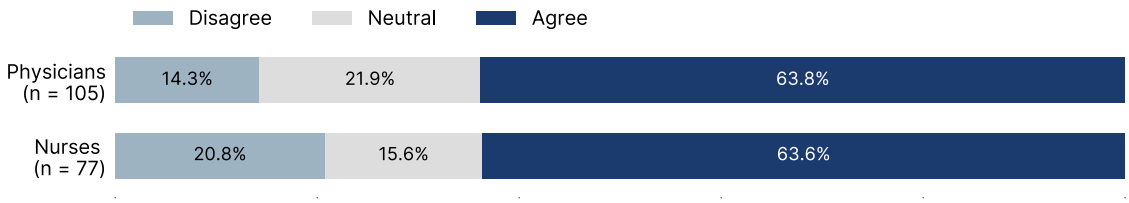
With respect to support from the health system for delivery of brief interventions, 64% of respondents strongly agreed or agreed that they felt supported and motivated by the health system or local health service, while 17% strongly disagreed or disagreed. A larger proportion of respondents who had never conducted brief interventions agreed with the statement. This result is slightly more positive than that in the overall report, in which only 43% of respondents in all countries considered themselves supported and motivated (Fig. A5.17).

Fig. A5.17. Perceived motivation and organizational support according to delivery of brief interventions in Uzbekistan and in the main study



No substantial difference was observed between physicians and nurses in perceptions of support and motivation, although a slightly larger percentage of nurses disagreed or strongly disagreed with the statement (Fig. A5.18).

Fig. A5.18. Perceived motivation and organizational support by role in primary care



14. Please specify the organizational support and specific tools.

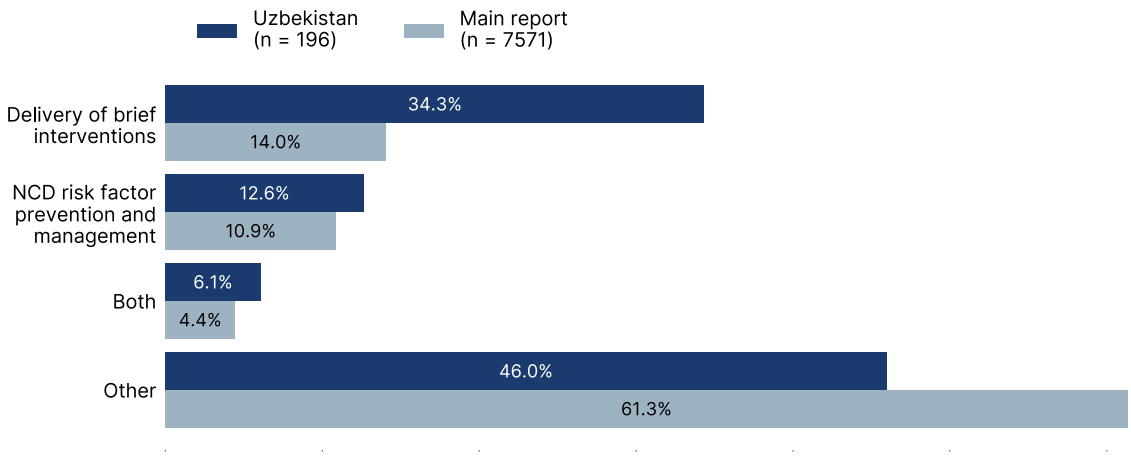
Most respondents did not indicate the form of support for conducting brief interventions. A few mentioned the provision of handouts and additional training, including that conducted by schools of health. Some participants implied that they used electronic devices such as computers and tablets to acquire relevant information.

> *[About system support] Did not see. Every day new laws come out that prevent us from working. – Nurse, Uzbekistan*

15. During the last five years I have received training on:

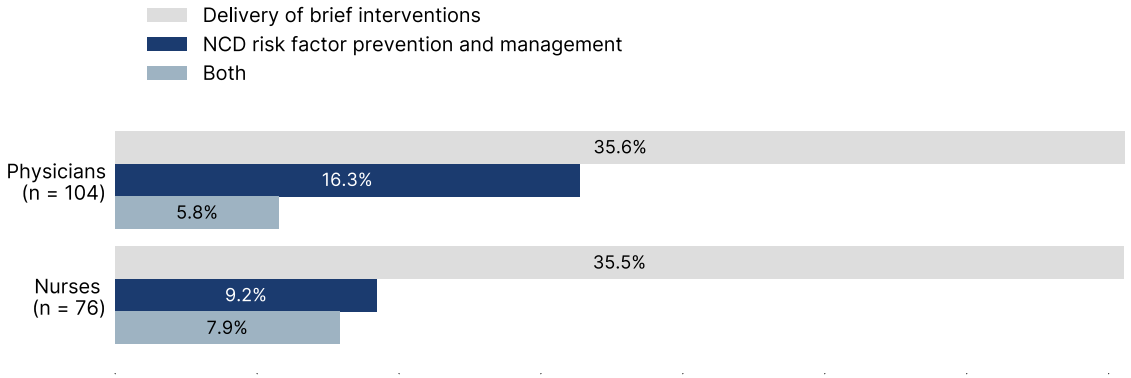
One third (34%) of respondents reported that they had received some form of training in delivering brief interventions in the past 5 years, which is 20% higher than in the main study (Fig. A5.19). Fewer participants had been trained in NCD risk factor prevention and management (13%), and about a half (46%) had received no training on these topics. Only 6% had completed training in both delivery of brief interventions and prevention and management of NCD risk factors.

Fig. A5.19. Training within the past 5 years in Uzbekistan and in the main study



The training received differed by specialty, with more physicians (16%) than nurses (9%) having received training in NCD risk factor prevention and management. The proportions that received training in delivering brief interventions were similar (Fig. A5.20).

Fig. A5.20. Received training within the past 5 years by role in primary care



Of those who received training in both brief intervention delivery and NCD risk factor prevention and management, 92% agreed considered that they had good knowledge and felt capable of conducting brief interventions (Figs A5.21 and A5.22). Training in either topic therefore appeared important with regard to their perceived knowledge but not their perceived capability.

Fig. A5.21. Providers' perceived knowledge of brief interventions after receiving training within the past 5 years

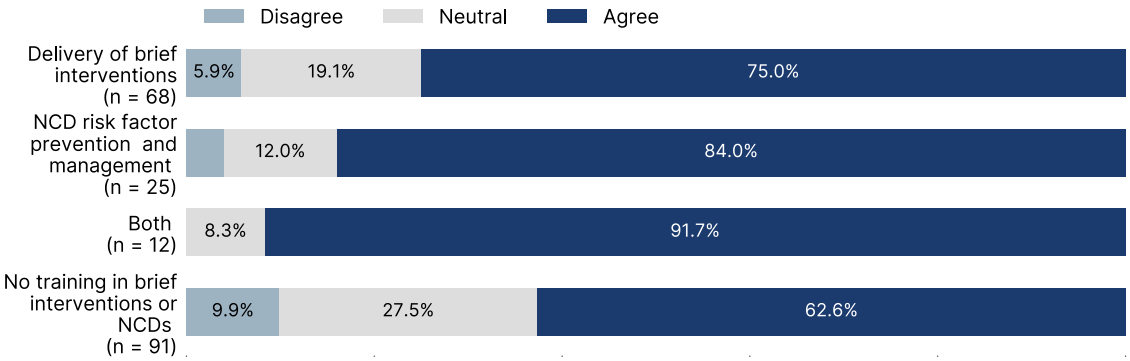
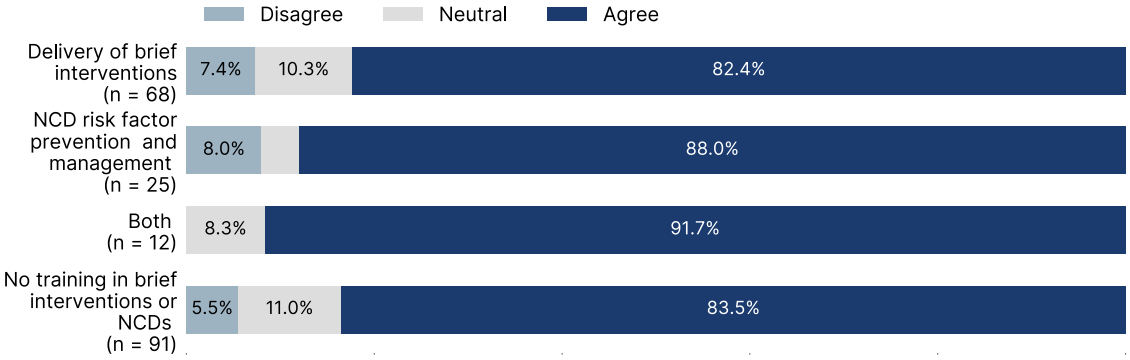
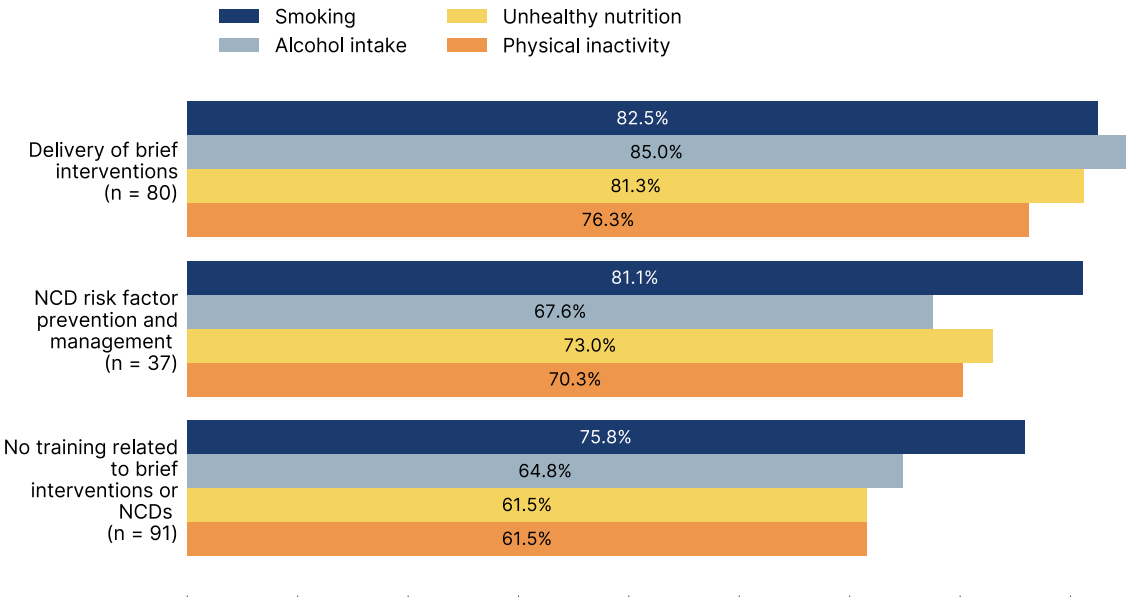


Fig. A5.22. Providers' perceived capability to conduct brief interventions according to whether they had received training within the past 5 years



We also studied whether respondents' confidence in measuring NCD risk factors differed according to their training. On average, more respondents who felt confident in measuring risk factors had received training in delivering brief inventions (81%) than those who had been trained in prevention and management of NCD risk factors (73%) or had received no relevant training within the past 5 years (66%). Respondents reported feeling relatively confident in measuring smoking even if they had received no training in NCD risk factors or brief interventions, and even greater confidence in measuring other risk factors, such as alcohol intake, unhealthy diet and physical inactivity (Fig. A5.23).

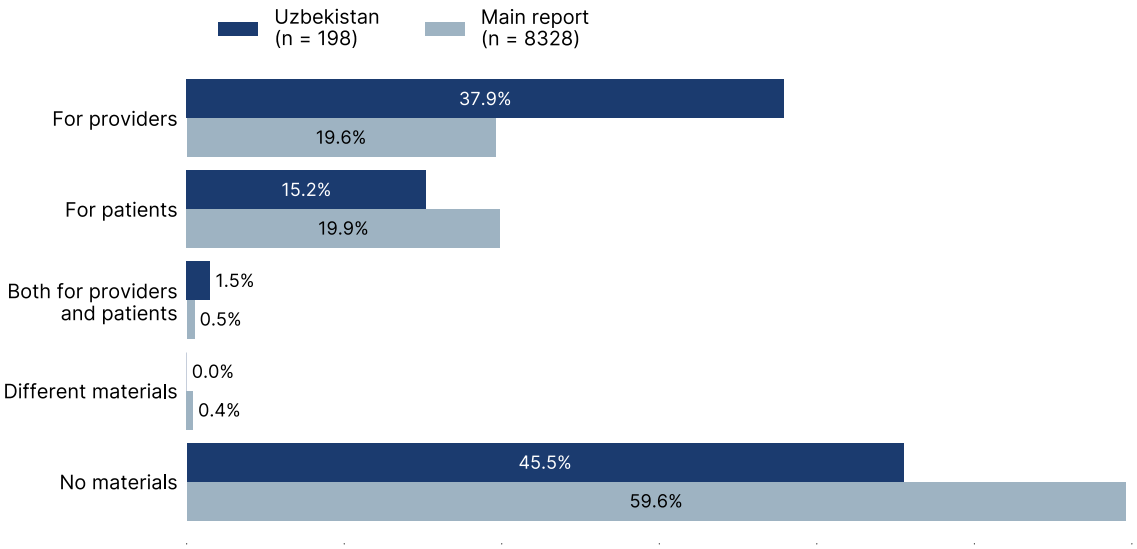
Fig. A5.23. Confidence in measuring NCD risk factors according to training received within the past 5 years



16. I have materials for: ...

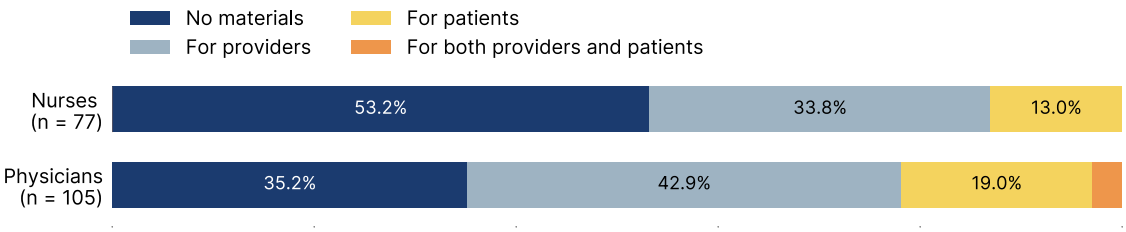
Nearly half of the surveyed participants (45%) had no material related to brief interventions, for either providers or their patients (Fig. A5.24). Over one third (38%) had materials on conducting brief interventions effectively, and only 15% had materials available for patients. Almost twice as many health-service providers in Uzbekistan than in the main study reported having materials for providers.

Fig. A5.24. Availability of supportive materials in Uzbekistan and in the main study



The availability of materials differed by profession: fewer nurses than physicians had materials for themselves or for patients (Fig. A5.25).

Fig. A5.25. Availability of supportive materials by provider's role in primary care



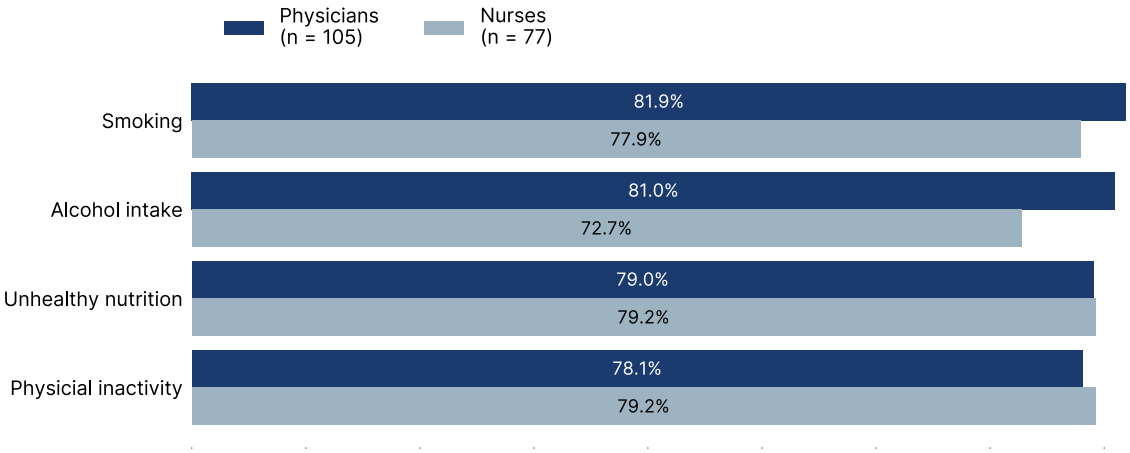
Capability to conduct brief interventions did not appear to differ according to whether they had supportive materials (85%) or did not (83%).

17. I measure NCD risk factors in my patients at almost every consultation.

Most health-service providers reported that they measured NCD risk factors at almost every consultation. Slightly higher rates were observed for smoking (77%). Alcohol consumption, unhealthy diet and physical inactivity were addressed by about 75% of respondents.

The rate of measuring NCD risk factors was similar for physicians and nurses (Fig. A5.26). The greatest difference was observed for alcohol intake, as 81% of physicians and 73% of nurses measured this risk factor.

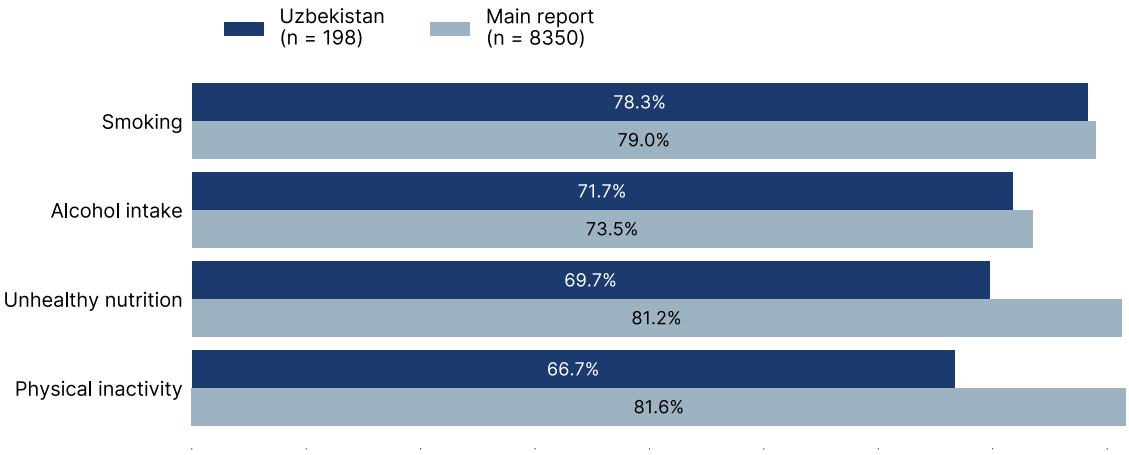
Fig. A5.26. Frequency of measurement of NCD risk factors in patients at almost every consultation according to role in primary care



18. I am confident in measuring NCD risk factors in my patients.

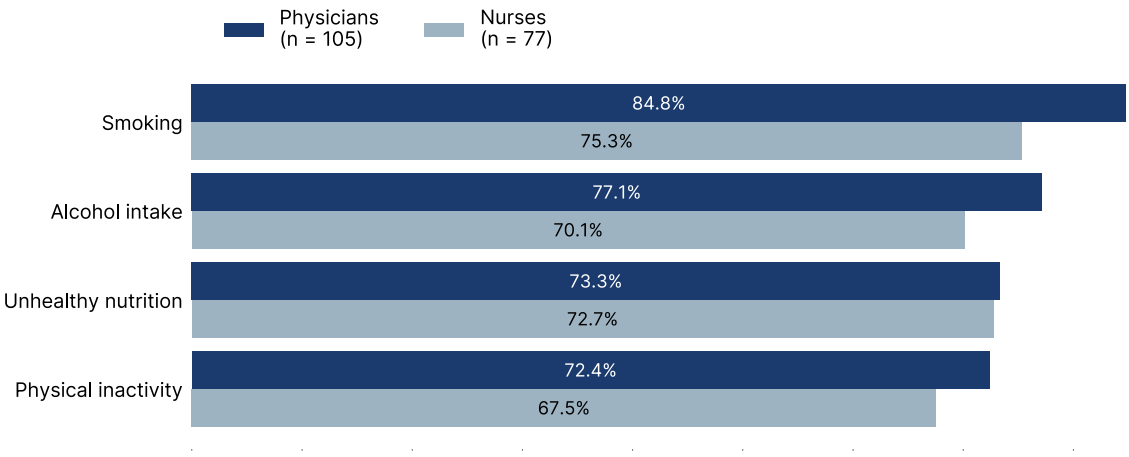
Confidence in measuring NCD risk factors in patients varied. Providers felt least confident in measuring physical inactivity, followed by unhealthy diet (70%) and alcohol consumption (72%). The greatest confidence was in measuring smoking (78%). The results of the main study were similar for smoking and alcohol intake, while over 80% of all respondents were confident in measuring unhealthy diets and physical inactivity (Fig. A5.27).

Fig. A5.27. Confidence in measuring NCD risk factors in Uzbekistan and in the main study



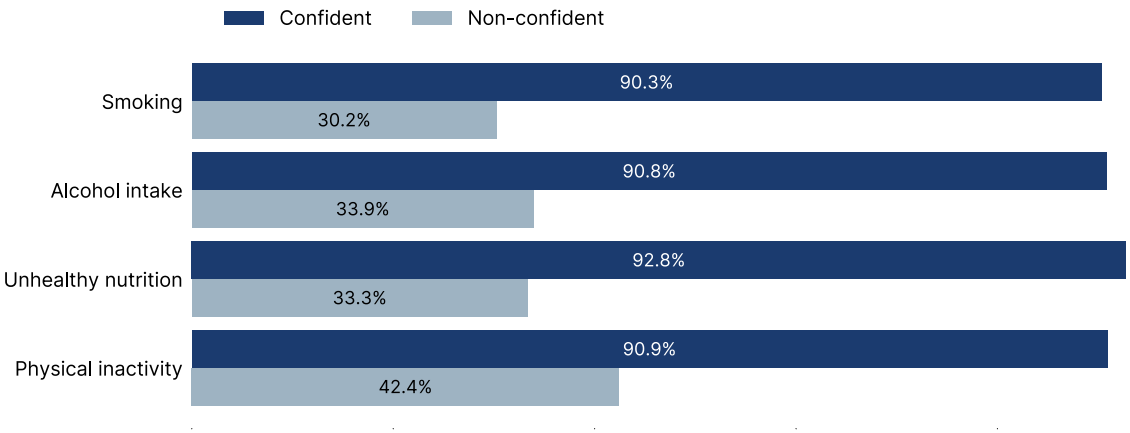
Physicians appeared to be more confident than nurses in measuring NCD risk factors. The largest difference in confidence was observed for measuring smoking and alcohol intake: 85% of physicians and 75% of nurses were confident in addressing smoking, and 77% and 70%, respectively, in measuring alcohol intake (Fig. A5.28).

Fig. A5.28. Confidence in measuring NCD risk factors by role in primary care



We also evaluated measurement of NCD risk factors according to the confidence of providers. Of those who were confident in measuring risk factors, over 90% reported that they measured them (Fig. A5.29). Of those who were not confident, 30% measured smoking, 33% measured unhealthy diets, 34% measured alcohol consumption, and 42% measured physical inactivity.

Fig. A5.29. Measurement of NCD risk factors according to confidence

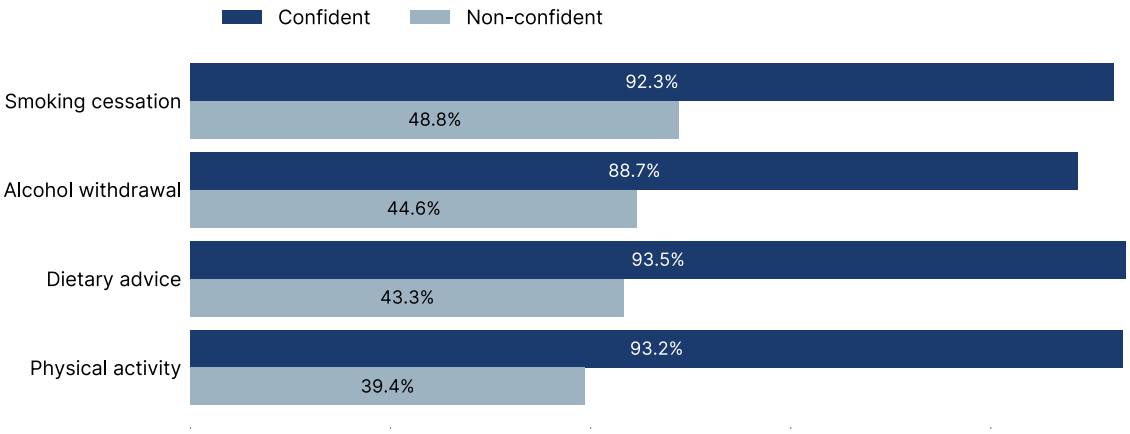


19. I have prescribed interventions for NCD risk factors.

The most frequently prescribed intervention in Uzbekistan was for smoking cessation (83%), followed by dietary advice (78%). Fewer providers had prescribed alcohol withdrawal (76%) or physical activity (75%).

The provision of prescriptions for changing health behaviour varied with the confidence of providers. Of those who reported being confident in measuring risk factors, 92% prescribed smoking cessation, 89% alcohol withdrawal, 93% dietary advice and 93% physical activity. Of the providers who did not feel confident in measuring risk factors, 49% prescribed smoking cessation, 45% alcohol withdrawal, 43% dietary advice and 39% physical activity (Fig. A5.30).

Fig. A5.30. Prescription of interventions for changing health behaviour according to confidence

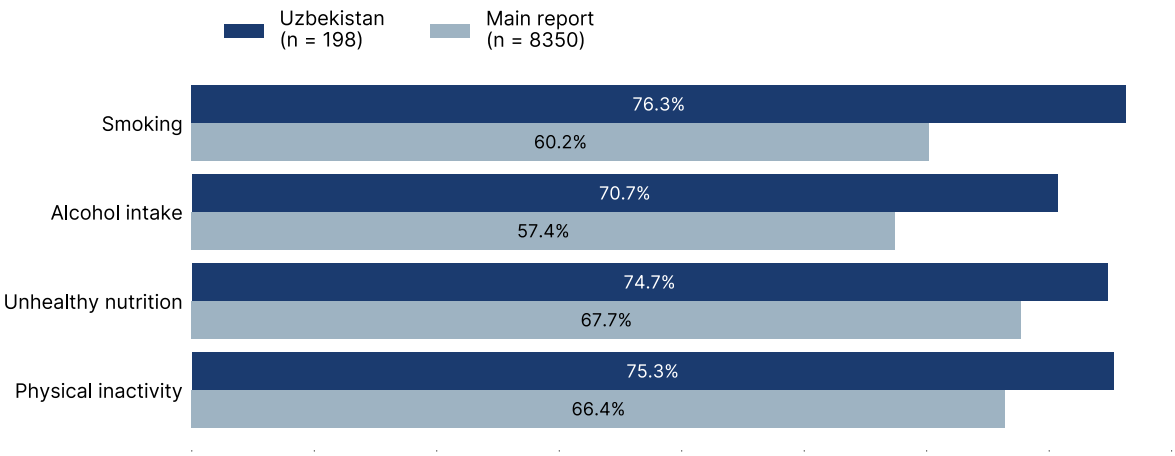


20. I have clear referral pathways for further services and use them for management of NCD risk factors.

Most respondents reported that they had access to referral services and used them for patients with unhealthy behaviour. A slightly smaller proportion of those surveyed

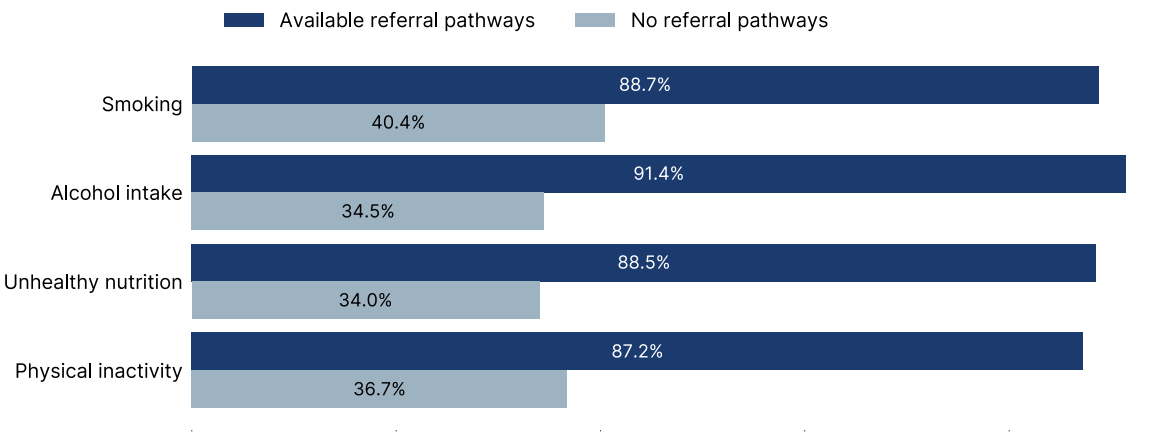
had clear referral pathways for alcohol intake (71%) than for other risk factors: smoking (76%), unhealthy diet (75%) and physical inactivity (75%). The proportions are higher than those in the main report, which ranged from 60% to 68% (Fig. A5.31).

Fig. A5.31. Availability of clear referral pathways and their use in the management of NCD risk factors in Uzbekistan and in the main study



We also examined whether measurement of risk factors differed based on the availability of clear referral pathways. For instance, 89% of providers who had a referral pathway for patients who smoked also measured this risk factor, while only 40% of those who did not have the possibility of referral measured smoking. A similar situation was observed for alcohol consumption: 91% of respondents with a referral pathway and only 34% of those without the possibility of referral measured alcohol consumption. For unhealthy diet, the proportions were 89% if referral was available and 34% if not, and, for insufficient physical activity 87% if referral was available and 37% if not (Fig. A5.32). These findings are considerably lower then in the main study, especially for unhealthy diet and physical inactivity.

Fig. A5.32. Measurement of NCD risk factors according to availability of referral



Conclusion

The results of the survey show that most health-service providers in Uzbekistan have used brief interventions to provide counselling on healthy behaviour to patients and consider this part of their job. In general, respondents reported a positive experience with use of brief interventions, both from the perspective of patients and the resulting health benefits.

The rates of measurement of NCD risk factors were high; however, use of an integrated approach to measuring and addressing two or more NCD risk factors was less popular. Marginally less confidence in measuring unhealthy diet and physical inactivity in patients was reported than in the main study. The intervention prescribed most frequently by respondents in Uzbekistan was smoking cessation.

Most participants considered themselves knowledgeable and capable of conducting brief interventions. Many health-service providers reported having received training in delivery of brief interventions within the past 5 years, resulting in good knowledge and confidence in measuring NCD risk factors. The availability of clear referral pathways appeared to be slightly greater in Uzbekistan than in the main study.

More providers in Uzbekistan than in the main study reported facing barriers to delivering brief interventions in their practice. Nevertheless, considerably more participants reported that they were supported and motivated by the health system or local health-care service to conduct brief interventions, although few examples of such support were provided. Almost twice as many health-service providers in Uzbekistan than in the main study reported having materials for providers.

About 40% of the survey participants in Uzbekistan were nurses, as compared with 30% in the main study. Fewer nurses than physicians used brief interventions in their practice, and they also reported slightly less knowledge and confidence and had fewer informational materials available.

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