



World Health
Organization

European Region

Integrated brief interventions for noncommunicable disease risk factors in primary care: the manual

BRIEF
PROJECT



Integrated brief interventions for
noncommunicable disease risk
factors in primary care: the manual

BRIEF
PROJECT

Abstract

Brief interventions are recognized by WHO as an effective measure to help people quit tobacco, reduce or stop alcohol use and increase physical activity. They can also help to achieve and maintain healthy eating behaviours and manage weight for those living with overweight and obesity. Brief interventions can translate to significant health benefits at population level when systematically applied to a large proportion of people. The uptake of these interventions in the WHO European Region, however, remains low. This manual is an integral part of the WHO European Office for the Prevention and Control of Noncommunicable Diseases BRIEF project. The manual provides a guide to implementing brief intervention programmes in primary care settings, highlighting facilitators and barriers to implementation. It emphasizes an integrated approach to brief interventions, dealing with all four main behavioural risk factors – tobacco use, alcohol use, unhealthy eating and physical inactivity – and the physiological risk factor of increased body mass index. The manual is in three parts: Part 1 describes the background and approaches to implementing primary care-based brief intervention programmes; Part 2 consists of annexes that present flow diagrams and more detailed guidance for delivery of brief interventions by primary care providers; and Part 3 presents supplementary materials that set out behavioural and cultural insights considerations on the use of brief interventions and examples of work being done on brief interventions in the Region.

Keywords HEALTH BEHAVIOUR, NONCOMMUNICABLE DISEASES, RISK FACTORS, PREVENTION, PRIMARY HEALTH CARE

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Abbreviations

AUDIT	Alcohol Use Disorders Identification Test
AUDIT-C	Alcohol Use Disorders Identification Test Consumption
BCI	behavioural and cultural insights
BMI	body mass index
CI	confidence interval
COM-B	capability, opportunity, motivation and behaviour (model of behaviour change)
d	standardized mean difference (Cohen's d)
ENDS	electronic nicotine delivery systems
ENNDS	electronic non-nicotine delivery systems
EPW	European Programme of Work, 2020–2025 – “United Action for Better Health”
FRAMES	feedback, responsibility, advice, menu, empathy and self-efficacy
GPAQ	Global Physical Activity Questionnaire
HCS	healthy conversation skills
HSI	Heaviness of Smoking Index
MCMP	Methodological Centre for Multifactorial Prevention (Russian Federation)
MECC	Making Every Contact Count (approach)
NCDs	noncommunicable diseases
NMRCTPM	National Medical Research Centre for Therapy and Preventive Medicine (Russian Federation)
NRT	nicotine replacement therapy
NSP	Nutrition Screening Protocol
OR	odds ratio
RE-AIM	reach, effectiveness, adoption, implementation and maintenance (framework)
RR	risk ratio
RUS-AUDIT	Alcohol Use Disorders Identification Test adapted for use in Russian Federation and other Russian-speaking countries
SMART	specific, measurable, achievable, relevant and timely (approach)
SMARTER	specific, measurable, action-oriented, realistic, timed, evaluated and reviewed (planning)
STAR	situation, task, action, result (method)
STC	Starting the Conversation

Executive summary

Noncommunicable diseases (NCDs) pose a significant threat to the health of people worldwide. NCDs caused 90% of deaths and 84% of years lived with disability in the WHO European Region in 2019. A total of 87% of NCD deaths in the Region were caused by the major behavioural and biological risk factors.

Brief interventions are recognized by WHO as an effective measure to help people to overcome these behavioural risk factors, such as tobacco use, alcohol use and lack of physical activity. Cost–effectiveness analysis suggests it is worth investing in implementing and scaling-up these interventions to reduce the overall burden of disease from NCDs. Brief interventions can also help to achieve and maintain healthy eating and help manage weight for those living with overweight and obesity. The uptake of these interventions in the WHO European Region, however, remains low.

As part of the BRIEF project, this manual offers guidance to primary care services on measuring exposure to behavioural risk factors and supporting patients to:

- quit tobacco;
- reduce or stop alcohol use;
- eat more healthily;
- be more physically active; and
- help with weight management for people living with overweight and obesity.

The guidance on brief intervention programmes presented in this manual reflects an understanding of the limited time available in patient consultations. The manual provides some effective tools that can be used during consultations.

The manual is divided into three parts. **Part 1** consists of four chapters and describes the background and approaches to implementing primary care-based brief intervention programmes.

A wealth of evidence demonstrates that simple brief intervention programmes delivered by primary care providers are effective and cost–effective in helping patients to quit tobacco, reduce or stop alcohol use, eat more healthily, be more physically active and manage weight. **Chapter 1** summarizes this evidence and discusses the elements of effective advice and the feasibility of delivering brief intervention programmes in primary care settings.

To be effective, brief interventions delivered by primary care providers need to be embedded in wide-ranging organizational and system support, be adequately financed, and be guided by appropriate informational support. Delivery of brief interventions is best done through multidisciplinary teams and by health-literate primary care centres. **Chapter 2** describes the structural support systems that need to be put in place to ensure that primary care has the ability and capacity to deliver brief interventions to scale.

Chapter 3 indicates how primary care-based brief interventions to reduce exposure to behavioural risk factors for NCDs are best monitored and evaluated at country, regional and primary care centre levels. It also discusses the reach, effectiveness, adoption, implementation and maintenance (RE-AIM) Framework.

Drawing on the first three chapters, **Chapter 4** concludes Part 1 of the manual by describing the approach and elements of training programmes to help increase brief intervention activity substantially. Training needs to be implemented through a coordinated approach that ensures appropriate system-level support, available referral options and alignment with existing clinical guidelines and care pathways. It also should be tailored to local-level needs and focus on patient-centred and health-literacy skills.

Part 2 consists of annexes that present flow diagrams and more detailed guidance for delivery of brief interventions by a primary care provider – these five annexes cover guidance on helping people to change exposure to risk factors through an integrated approach, quit tobacco, reduce or stop drinking alcohol, eat more healthily and be more physically active.

Part 3 presents supplementary materials that set out behavioural and cultural insights considerations on the use of brief interventions and examples of work being done on brief interventions in the Region.

Overall, the manual stresses the importance of increasing health literacy to improve health outcomes and promotes a person-centred approach, shared decision-making and the multidisciplinary of primary care teams.

Introduction

As part of the BRIEF project, this manual offers guidance to primary care services on measuring exposure to behavioural risk factors and supporting patients to:

- quit tobacco;
- reduce or stop alcohol use;
- eat more healthily;
- be more physically active; and
- help with weight management for people living with overweight and obesity.

The guidance on brief intervention programmes presented in this manual reflects an understanding of the limited time available in patient consultations. The manual provides some effective tools that can be used during consultations.

Part 1 of the manual describes the background and approaches to implementing primary care-based programmes to advise adult populations on the main behavioural risk factors for noncommunicable diseases (NCDs) and other conditions. Part 2 comprises annexes that present flow diagrams and more detailed guidance for delivery of brief interventions by primary care providers using integrated approaches across all risk factors, but also singly for quitting tobacco, reducing or stopping alcohol use, eating more healthily, being more physically active and providing support for weight management. Part 3 presents supplementary materials that set out behavioural and cultural insights considerations on the use of brief interventions and examples of work being done on brief interventions in the Region.

The scale of the problem

A relatively small group of chronic health conditions is responsible for a large part of the disease burden of the WHO European Region. NCDs (the major groups of which are cardiovascular diseases, cancers, chronic respiratory diseases, diabetes and mental disorders) caused 90% of deaths and 84% of years lived with disability in the WHO European Region in 2019. Cardiovascular diseases and total cancers were responsible for 45% and 24% of deaths respectively. A total of 87% of NCD deaths in the Region were caused by the major behavioural and biological risk factors (1).

NCDs are linked by common behavioural risk factors, underlying socioeconomic and demographic determinants and opportunities for intervention, including those to support patients to quit tobacco, reduce or stop alcohol use, ensure healthy eating and increase physical activity.

Inequalities and social determinants of health – the conditions in which people are born, grow, live, work and age – play a significant role in the prevalence of NCDs and exposure to the risk factors. People in the most disadvantaged groups in terms of social determinants are at greater risk of chronic disease. They have lower incomes,

fewer resources to make healthy choices on education, employment, housing and participation in civic society, are less able to exert control over their lives and have reduced access to health services (2).

NCDs affect all countries of the WHO European Region, but countries with lower incomes carry an additional burden. Their health systems usually have fewer resources for the prevention and early detection of NCDs and provision of comprehensive health care to people with such diseases.

In May 2013, the World Health Assembly endorsed WHO's Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020 (3). The Global Action Plan has six objectives, the achievement of which will support the attainment of the nine NCD targets by 2025 at country level and facilitate the realization of the United Nations Sustainable Development Goal 3, on good health and well-being.

Brief interventions are recognized by WHO as an effective measure to help people to quit tobacco, reduce alcohol use and increase physical activity. Cost-effectiveness analysis suggests it is worth investing in implementing and scaling-up these interventions to reduce the overall burden of disease from NCDs (4). Brief interventions can also help to achieve and maintain healthy eating and help manage weight for those living with overweight and obesity. Brief interventions on all four behavioural risk factors and the integration of risk-factor counselling are included in the HEARTS technical package for cardiovascular disease management in primary care (5). Uptake of these interventions in the Region nevertheless remains low (6).

Primary care settings present ideal opportunities for measuring exposure to behavioural risk factors, improving health literacy and providing advice on behaviour change. The activities can be undertaken during various encounters, including new patient registrations and dedicated health checks, and in all consultations. The WHO Astana Declaration strongly emphasizes primary care's role in ensuring universal health coverage and calls for disease prevention and health promotion to be prioritized by primary care services to meet people's health needs across the life-course (7).

The European Programme of Work, 2020–2025 – “United Action for Better Health” (8) (EPW) commits to ensuring universal access to people-centred quality health services across the continuum of care, from clinical prevention, through early detection and screening, treatment and rehabilitation, to palliative care. EPW's flagship initiative on Healthier Behaviours calls for better incorporation of behavioural and cultural insights (BCI) by engaging disciplines beyond the biomedical sphere and improving service responsiveness to people's health needs by building better understanding of social, behavioural and cultural factors (8).

Risk factors covered by this manual

The manual covers the four main behavioural risk factors for NCDs – **tobacco use, alcohol use, unhealthy eating and physical inactivity** – and one physiological risk factor, **increased body mass index (BMI)**. It provides guidance for primary care providers on healthy behaviour change for adult populations.

Exposure to all these risk factors can be changed with support from primary care providers. Appropriate change can prevent the development of NCDs and their complications, disability, ill health and premature death.

Changing risk factors can also provide cobenefits such as reductions in greenhouse-gas emissions (9) that may mitigate global heating (10). Increasing physical activity through urban active travel (11) improves health while reducing greenhouse-gas emissions (12). Healthy eating with shifts to plant-based foods and reducing alcohol intake improve health and reduce greenhouse-gas emissions (13–17). Reducing prevalence of tobacco use would lessen the impact of tobacco on the earth, from its cultivation and production to the pollution caused by cigarette butts and their toxins in marine and terrestrial life (18).

Tobacco use

The WHO European Region is among those with the highest prevalence of tobacco-smoking among adults. Prevalence overall is 25%, with 18% among women (19). Tobacco use and exposure to second-hand smoke caused 1.64 million deaths in the WHO European Region in 2019, being responsible for 24.9% of all male deaths and 9.8% of female (1). All forms of tobacco use are harmful, and there is no safe level of exposure to tobacco or to second-hand tobacco smoke (20). In addition to causing illness and death, tobacco is a driver of health inequities, as tobacco use and the harm done by tobacco are greater among those with more socioeconomic disadvantage (21). Socioeconomic inequities in tobacco consumption in Europe are extensive and are widening, both between and within countries.

While data for the WHO European Region as a whole are not available, population-based surveys of adults in 29 countries find that current e-cigarette use ranges from less than 1% in Spain (in 2020) to almost 11% in Estonia (in 2018) (22). E-cigarettes are not risk-free; many of the long-term health effects of e-cigarette use are still unknown, but there is growing evidence to show that these products have negative acute effects on cardiovascular and respiratory health (22,23). Smokers tend to switch to e-cigarette use rather than quit nicotine use, with some practising dual use of cigarettes and e-cigarettes (22,23). Dual use may sustain nicotine dependence and have more deleterious effects on users' health than use of e-cigarettes or conventional cigarettes alone (22).

Quitting tobacco brings immediate and long-term benefits. Smokers who stop smoking in their 30s and 40s, for example, gain almost 10 years of life compared to those who continue to smoke (24).

Brief advice should be offered every time a primary care provider interacts with a patient who smokes. Offering advice to all smokers is more effective at community level than offering advice only to those who express a wish to stop smoking (25).

Alcohol use

The WHO European Region has the highest proportion of current drinkers and highest level of per capita alcohol consumption in its population of all WHO regions. Consequently, it is the region with the highest contribution of alcohol to all-cause mortality worldwide (26).

The average total alcohol per capita consumption of pure alcohol in people aged 15 years and over in the Region in 2019 was 9.5 litres (4.3 litres for women and 15.2 for men). This signalled almost no change since 2016 (27,28). The difference between men and women translates into a higher burden of alcohol-attributable deaths in men, which contributes to the pronounced gender gap in life expectancy found particularly in countries in the east of the Region (29).

Alcohol is a cause of more than 200 diseases and injuries and is responsible for about 1 million deaths each year in the WHO European Region (28). It is classified by the International Agency for Research on Cancer as a Group 1 carcinogen, which places it in the same category as asbestos, tobacco and radiation (30). There is no safe level of exposure.

Forty-year-old men and women who drink more than 350 g of alcohol a week (about five standard drinks¹ a day or the equivalent of 1250 ml of beer, 500 ml of wine or 50 ml of spirits) lose 4–5 years of life compared with those who drink 100 g of alcohol or less a week (about 1.5 standard drinks¹ a day) (31). Health professionals play a key role in informing drinkers about alcohol and related risks.

Alcohol contains over seven calories per gram, which is more than either carbohydrates or protein and almost as many as pure fat. These calories have no nutritional value. Various alcoholic beverages have high amounts of sugar. The relationship between alcohol consumption and body weight is complex and is influenced by many factors, but alcohol calories are considered to be an important contributor to obesity (32–34). Evidence shows that calories coming from alcohol contribute more to weight gain in people with high fat consumption and low levels of physical activity who already live with overweight and have a positive family history of obesity. This highlights the need for an integrated approach to risk-factor assessment and counselling (35). At the same time, awareness of how alcohol is contributing to weight gain and potential obesity has been low among patients and health-service providers alike, especially in relation to young drinkers (36–38).

¹ A standard drink is a measure of alcohol consumption that represents a hypothetical beverage that contains a fixed amount of pure alcohol. The concept of a standard drink was introduced to help conceptualize and measure the absolute alcohol content of various beverage types and serving sizes. Various European countries have a standard drink which is equivalent to 10–12 g of pure alcohol. However, standard drink sizes vary, and the precise meaning may depend on the country and cultural context. In this manual, a standard drink is equivalent to 10 g of pure alcohol.

The goal with alcohol use is either for people (particularly heavy drinkers) to drink less or stop drinking alcoholic beverages altogether, shifting to other types of drinks that will not cause harm. Abstinence should be the goal for groups such as pregnant women, people with organ damage (brain or liver, for example) and alcohol-attributable diseases like alcoholic gastritis or pancreatitis. Abstinence should also be the target for adolescents, whose brain development may be hindered by alcohol use.

Primary care providers should measure patients' alcohol consumption at each interaction. Offering advice to all drinkers is more effective at community level than offering advice only to those who express a wish to reduce their alcohol use (39).

Unhealthy eating patterns

Surveys in most countries of the WHO European Region indicate excessive consumption of calories, saturated fats, trans fats, sugar and salt, and low consumption of vegetables, fruits and whole grains (40). Unhealthy eating patterns contribute to a large proportion of NCDs, including cancers, cardiovascular diseases and type 2 diabetes (40).

The goal with healthy eating is to encourage a whole-food approach that includes (41,42):

- eating more fruits, vegetables, legumes (lentils, beans), nuts and whole grains (unprocessed maize, millet, oats, wheat and brown rice), including at least 400 g (five portions) of fruit and vegetables per day, excluding potatoes, sweet potatoes, cassava and other starchy roots;
- controlling fat intake (not more than 30% of daily energy) and replacing most saturated fats (found in fatty meat, butter, palm and coconut oil, cream, cheese, ghee and lard) with unsaturated fats (found in fish, avocado and nuts, and in sunflower, soybean, canola and olive oils);
- reducing the amount of consumed salt to less than 5 g (equivalent to about one teaspoon) per day, including the salt in bread and processed, cured and preserved foods, and using iodized salt;
- choosing milk and dairy products (kefir, sour milk, yoghurt and cheese) that are low in both fat and salt; and
- selecting foods that are low in sugar (less than 10% of total energy intake but ideally less than 5%).

By assessing the eating patterns of all their patients and giving advice to modify their intake, primary care providers can significantly help them to improve their eating behaviours.

Physical inactivity

According to the available data, 30% of adults in the WHO European Region take little or no physical activity (43). Physical inactivity is among the leading behavioural risk factors for death and disability in the Region (1). It is estimated to contribute

to 1 million deaths per year and to be the primary cause of approximately 21–25% of breast and colon cancers, 27% of type 2 diabetes and approximately 30% of ischaemic heart disease (44,45). Maintaining sufficient levels of physical activity is becoming more and more difficult because of systemic and environmental factors that have made daily living and working environments increasingly sedentary.

The goals for physical activity are (46):

- for all adults (including older adults, adults and older adults with chronic conditions, adults living with disability, and pregnant and postpartum women) to reduce sedentary behaviours, such as sitting, by replacing sedentary behaviours with physical activity of any intensity;
- for all adults (including older adults, adults and older adults with chronic conditions, and adults living with disability) to undertake at least 150–300 minutes of moderate-intensity aerobic physical activity per week, or at least 75–150 minutes of vigorous-intensity aerobic physical activity, or an equivalent combination;
- for all adults (including older adults, adults and older adults with chronic conditions, and adults living with disability) to undertake muscle-strengthening activities at moderate or greater intensity that involve all major muscle groups on two or more days a week, as these provide additional health benefits;
- for adults aged 65 years or more, adults and older adults with chronic conditions, and adults living with disability, as part of their weekly physical activity, to undertake varied multicomponent physical activity that emphasizes functional balance and strength training at moderate or greater intensity (such as dancing or tai chi) on three or more days a week, to enhance functional capacity and prevent falls; and
- for pregnant and postpartum women to undertake at least 150 minutes of moderate-intensity aerobic physical activity per week and incorporate a variety of aerobic and muscle-strengthening activities (adding gentle stretching may also provide benefits); women who before pregnancy habitually engaged in vigorous-intensity aerobic activity or who were physically active can continue these activities during pregnancy and the postpartum period.

Within primary care, all adult patients should be asked about their level of physical activity and sedentary behaviour, with brief advice provided to increase physical activity.

Increased BMI

Obesity is a complex multifactorial disease defined by excessive adiposity that impairs health. It is linked to an increased risk of many NCDs such as coronary heart disease, hypertension and stroke, certain types of cancer, type 2 diabetes, gallbladder disease, dyslipidaemia, musculoskeletal conditions like osteoarthritis and gout, and pulmonary diseases, including sleep apnoea (47,48).

For adults, WHO defines overweight as a BMI greater than or equal to 25 kg/m² and obesity as a BMI greater than or equal to 30 kg/m² (49). Overweight and obesity affects almost 60% of adults in the WHO European Region (49). Recent estimates

show that overweight and obesity are the fourth-highest cause of mortality in the WHO European Region, after hypertension and risks associated with unhealthy eating behaviours and tobacco use. They are responsible for over 1.2 million deaths annually in the Region, corresponding to more than 13% of total deaths. They are also the behavioural factors that are most likely to increase the risk of disability, causing 7% of total years lived with disability in the Region (50).

The goal for people living with overweight or obesity is to manage their weight by consulting a health-service professional and following recommendations depending on their individual health status. Aggressive weight-loss programmes might not be indicated in persons with active disease or who are in older age.

By assessing the BMI of all their patients and giving advice to modify their consumption of foodstuffs and be more physically active, or providing any other recommendations depending on the patient's individual health status, primary care providers can help their patients manage their weight.

Integrated approaches

Exposure to behavioural risk factors can cluster for the same individuals, especially those living in socioeconomically disadvantaged communities. The impact of multi-exposure on negative health outcomes tends to be multiplicative rather than additive (51).

Given that the skills in helping people change their exposure to behavioural risk factors are similar across risk factors, it makes sense to measure exposure in an integrated manner and offer help to change as appropriate. The goal is to change exposure to all behavioural risk factors, but this appears more feasible in some cases when done sequentially rather than all at once. A clear exception is pursuing combined approaches to healthy eating and increased physical activity when supporting people who live with overweight or obesity to manage weight. Prioritization of the sequence is a balance between health risk and the patient's preferences.

Why primary care?

Primary care can deliver universal health coverage and plays a vital role in promoting health and preventing diseases. Health-service providers in primary care comprise a wide range of workers and can include family doctors/general practitioners, nurses, midwives, community health workers, physician assistants, rehabilitation workers, nutritionists/dietitians, care managers, social workers, pharmacists, dentists, health promoters, counsellors, opticians and support staff. Primary care providers across a range of disciplines have a wealth of attributes to help populations and patients manage and change exposure to behavioural risk factors. These include:

- an ongoing relationship with patients;
- a focus on intersectoral and interdisciplinary interaction as the basis for providing ongoing health care;

- the ability to reach most of the population across the life-course;
- the opportunity to raise awareness of the impact of behavioural risk factors on health to individuals and local communities;
- the capability to provide tailored brief interventions for behavioural risk factors to all adults;
- the capacity to offer effective treatments;
- the ability to provide follow-up and make referrals to local support and more specialist help if needed; and
- more broadly, a willingness to advocate for environmental support and policy changes to make healthy choices easy choices.

The evidence base supporting the effectiveness of brief interventions in primary care settings in changing exposure to behavioural risk factors is extensive (see Chapter 1). The success of a service or a public health intervention is measured by its **reach** (the number of people who receive the service or intervention), its **effectiveness** (the proportion of people who change their behaviour as a result of the service or intervention) and its **cost per person to deliver** (52).

Brief interventions can translate to significant health benefits at population level when systematically applied to a large proportion of people, thereby ensuring high reach (or coverage). It is important to note, however, that brief interventions alone will not tackle NCDs and exposure to NCD risk factors. They form part of a suite of actions that need to be implemented alongside policies that impact on price, products, availability, commercial communications, and living and working environments.

What kind of brief intervention programmes are being considered?

While there is no single formal definition of a brief intervention, the brief intervention programmes covered by this manual have two seamless elements based on a conversation between a health-service provider and a patient:

- measurement of exposure to a behavioural (tobacco use, alcohol consumption, unhealthy eating and physical inactivity) or a physiological (increased BMI) risk factor; and
- discussion, including advice as appropriate, about helping change exposure to the risk factor.

A brief intervention in this manual therefore is a combination of measurement and brief advice. Referral to local support or specialist consultation can be arranged according to the needs of the patient.

The manual uses the **Five A's brief intervention model** to structure the encounter between the provider and the patient:

- **ask** and measure exposure to the risk factor using a brief measurement tool, followed by clinical assessment as needed;
- **advise** patients to change exposure to the risk factor to: stop (as in tobacco use); lower intake levels or stop (alcohol, for example); or increase participation levels (like physical activity);
- **assess** the patient's readiness to change exposure to the risk factor;
- **assist** patients in acquiring the motivation, self-help skills or support needed for change; and
- **arrange** follow-up support and repeated counselling as required, including referral to specialist treatment if needed.

The manual proposes a menu of four options for the encounter, dependent on the time available (Table 1).

Table 1. Options per time available

TIME AVAILABLE	OPTIONS
No time available	Give a leaflet or provide online resources on the benefits of, and recommendations for, behaviour change Leave the door open for a next visit to address this issue
Very short time available (3–5 minutes or less)	Ask about exposure to the risk factor(s) Use very brief advice on the benefits and best ways to change health behaviour Act by offering help on ways to change health behaviour
Normal consultation time available (5–10 minutes)	Use brief intervention, based on the Five A's Brief Intervention Model: <ul style="list-style-type: none"> ▶ ask and measure exposure to the risk factor(s); ▶ advise on the benefits and best ways to change behaviour; ▶ assess patients' readiness to change; ▶ assist with helping to develop a plan to change behaviour; and ▶ arrange a follow-up session and referral to a specialist for more in-depth consultation, if indicated
Longer time available (more than 10 minutes)	Use brief interventions, based on the Five A's brief intervention model: <ul style="list-style-type: none"> ▶ ask and measure exposure to the risk factor(s); ▶ advise on the benefits and best ways to change behaviour; ▶ assess patients' readiness to change – if patient is not ready to change, use the Five R's model^a to help motivate change; ▶ assist with helping to develop a plan to change behaviour; and ▶ arrange a follow-up session and referral to a specialist for more in-depth consultation, if indicated

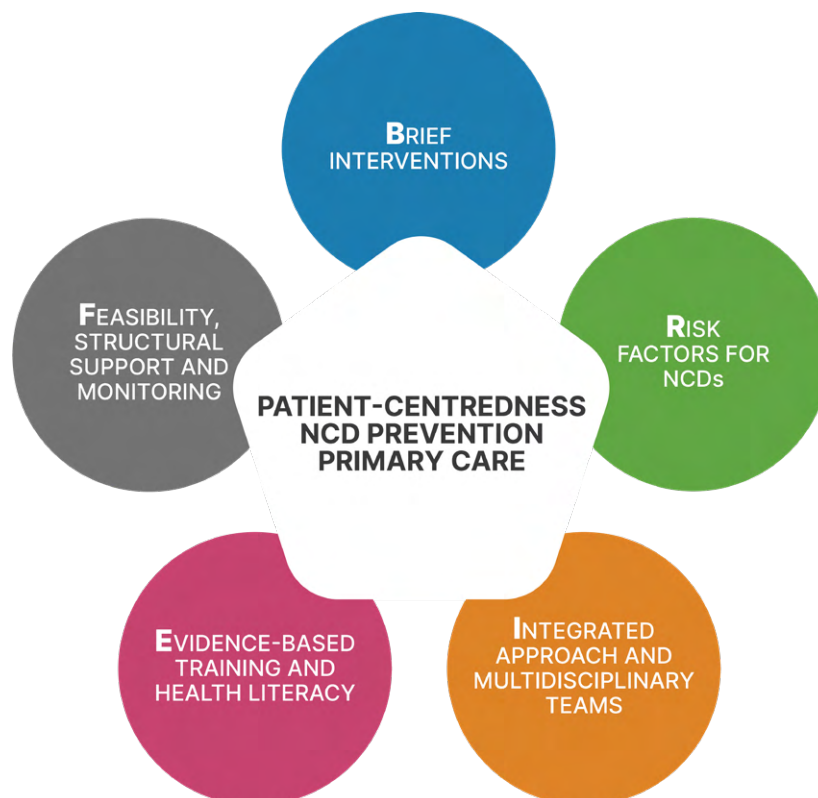
^a Five R's model: identify relevance of changing behaviour; identify potential risks in continuing risky behaviour; identify potential benefits – rewards – of changing behaviour; identify barriers – roadblocks – to changing behaviour; and through repetition, re-assess readiness to change.

Primary care providers should always refer all patients to, and encourage them to use, available web-based, computer-based and mobile applications to support them in their behaviour change.

This manual

This manual is an integral part of the WHO European Office for the Prevention and Control of Noncommunicable Diseases BRIEF project (Fig. 1). The project aims to promote an integrated approach to brief interventions delivery and underline the key elements of a successful brief intervention programme.

Fig. 1. BRIEF project



The manual provides a guide to implementing brief intervention programmes in primary care settings, highlighting facilitators and barriers to such implementation. It emphasizes an integrated approach to brief interventions, dealing with all four main behavioural risk factors of tobacco use, alcohol use, unhealthy eating and physical inactivity, and the physiological risk factor of increased BMI.

The manual stresses the importance of increasing health literacy to improve health outcomes (53,54). Better health literacy enhances people's ability to gain access to, understand and use information in ways that promote and maintain good health for themselves, their families and their communities (55). Brief interventions help identify the specific needs of patients, enabling providers and health organizations to better understand patient's health literacy needs and take appropriate actions. This process can build a longer-term structure for conversations and supportive relationships between patients and primary care providers over time.

This comprehensive manual can be used by:

- primary care providers of all disciplines and other health workers in different settings and practices;

- managers and directors of primary care centres and services;
- managers and directors of health-service delivery systems and those with responsibility for primary care services and their role in preventing NCDs; and,
- teachers in colleges and universities of medical, nursing and other health-related professions.

The manual is presented in three parts.

Part 1 describes the background and approaches to implementing primary care-based brief intervention programmes and is aimed mainly at health-service delivery system managers who plan and organize the delivery of brief interventions.

Part 2 is intended for primary care providers and consists of annexes presenting flow diagrams and more detailed guidance on the delivery of a brief intervention by primary care providers. The annexes are:

- Annex 1 – guidance for helping people to change exposure to risk factors through an integrated approach;
- Annex 2 – guidance for helping people to quit tobacco;
- Annex 3 – guidance for helping people to reduce or stop drinking alcohol;
- Annex 4 – guidance for helping people to eat more healthily and manage weight, if indicated; and
- Annex 5 – guidance for helping people to be more physically active.

Part 3 presents supplementary materials that set out BCI considerations on the use of brief interventions and examples of work being done on brief interventions in the Region.

Chapter 1 of Part 1 summarizes the evidence for the effectiveness and cost-effectiveness of primary care-based programmes in quitting tobacco, reducing or stopping alcohol use, eating more healthily, doing more physical activity, managing weight and approaching all risk factors in an integrated way. The chapter also discusses the elements of effective advice and the feasibility of delivering brief intervention programmes in primary care settings. **Chapter 2** describes the structural support systems that need to be put in place to ensure primary care services have the ability and capacity to deliver brief interventions to scale. **Chapter 3** indicates how primary care-based brief interventions to reduce exposure to behavioural risk factors are best monitored and evaluated at country and regional levels and at primary care centre level. Drawing on the first three chapters, **Chapter 4** concludes Part 1 by describing the approach and elements of training programmes for primary care providers that have been shown to increase their brief interventions activity substantially.

Take-home messages

- Primary care providers are in an ideal position to help their patients to quit tobacco, reduce or stop alcohol use, eat more healthily and be more physically active, and to support weight management for patients living with overweight or obesity.
- Primary care providers should evaluate patients' risk status at each interaction. By measuring exposure to the risk factor of all their patients and giving advice on modifying behaviour, primary care providers can significantly help their patients.
- Even with very little time during a consultation, patients can be asked and advised about their exposure to risk factors for NCDs.
- The manual's detailed guidance annexes offer simple ways to deliver brief patient-centred interventions that help people change their exposure to risk factors singly or in combination.

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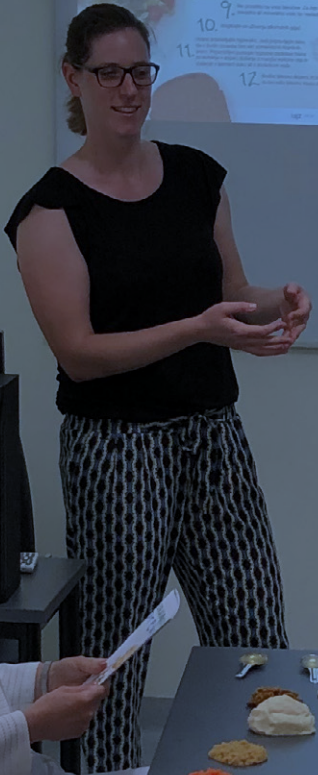
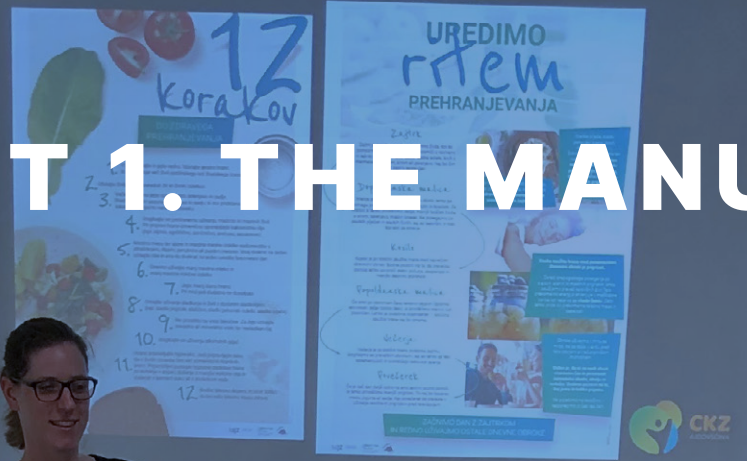
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PART 1. THE MANUAL

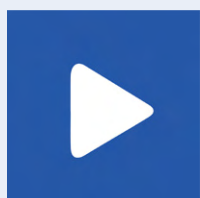


1 Effectiveness and cost-effectiveness



A wealth of evidence demonstrates that simple brief intervention programmes delivered by primary care providers are effective and cost-effective in helping patients quit smoking, reduce or stop alcohol use, eat more healthily, be more physically active and manage their weight. In addition to single risk-factor approaches (such as helping a patient to reduce alcohol consumption), integrated approaches across these risk factors are also effective, although require more time to deliver. The key ingredient to effectiveness is a trustful conversation with shared decision-making between a provider and a patient, resulting in identification of the risk factors that need to be prioritized for modification. The modality of the advice and the length of the intervention moderate the impact of the advice only to a small extent.

1.1 Introduction

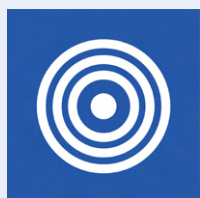


This chapter considers the effectiveness and cost-effectiveness of brief intervention programmes delivered by primary care providers to help change patient exposure to behavioural risk factors. For effectiveness, absolute changes and risk ratios are presented where possible. The chapter also looks at the elements of effective advice and the feasibility of delivering brief interventions in primary care.

Health-service providers in primary care comprise a wide range of workers and can include family doctors/general practitioners, nurses, midwives, community health workers, physician assistants, rehabilitation workers, nutritionists/dietitians, care managers, social workers, pharmacists, dentists, health promoters, counsellors, opticians and support staff.

Brief interventions can be delivered through a range of delivery modes, including face-to-face, telemedicine and digital-based programmes delivered directly to people. Digital programmes seem to work best when facilitated by contact with a primary care provider.

1.2 Effectiveness and cost-effectiveness



1.2.1 Quitting tobacco

A review of 67 reviews for the United States Preventive Services Task Force demonstrated the effectiveness of combined behavioural support and pharmacotherapy (the mainstay of interventions) for smoking cessation, with the size of the effect estimates remaining remarkably stable over the last 30 years (1). Average quit rates for smoking abstinence at six months was 15.2% for smokers who received behavioural support and pharmacotherapy compared to 8.6% for smokers who received usual care or minimal support, with a risk ratio (RR) of 1.83 (95% confidence interval (CI), 1.68 to 1.98; 52 trials; n = 19 488) (2).

Reviews have studied the impact of behavioural therapy alone compared with various controls and found that the following interventions improved quit rates at six months:

- smoking cessation advice from a physician, with a pooled RR of 1.76 (95% CI: 1.58 to 1.96; 28 trials; n = 22 239) (3);
- smoking cessation advice from a nurse with a pooled RR of 1.29 (95% CI: 1.21 to 1.38; 44 trials; n = 20 881) (4);
- behavioural support when added to pharmacotherapy, compared with pharmacotherapy alone (RR, 1.15 [95% CI: 1.08 to 1.22]; 65 trials; n = 23 331) (5); and
- individual counselling with a cessation specialist compared with minimal contact control (RR, 1.48 [95% CI: 1.34 to 1.64]) (6).

Reviews have compared the differential impact of pharmacotherapies to placebo or no drug with behavioural support provided to both intervention and control participants in all cases. The pooled RR for abstinence at six months was:

- nicotine replacement therapy (NRT), 1.55 (95% CI: 1.49 to 1.61; 133 trials; n = 64 640) (7);
- bupropion, 1.64 (95% CI: 1.52 to 1.77; 46 trials; n = 17 866) (8); and
- varenicline, 2.24 (95% CI: 2.06 to 2.43; 27 trials; n = 12 625) (9).

In addition, for pharmacotherapies:

- combined NRT (typically a long- and short-acting therapy) is more effective for quitting at six months (or more) than a single form of NRT (RR, 1.25 [95% CI: 1.15 to 1.36]; 14 trials; n = 11 356) (10);
- pooled analysis of trials directly comparing NRT and bupropion do not suggest a difference between the two types of pharmacotherapy (RR, 0.99 [95% CI: 0.91 to 1.09]; 10 trials; n = 8230) (8); and
- varenicline has been shown to be superior to both NRT (RR, 1.25 [95% CI: 1.14 to 1.37]; eight trials; n = 6264) (9) and bupropion (RR [bupropion versus varenicline], 0.71 [95% CI: 0.64 to 0.79]; six trials; n = 6286) (8) in achieving abstinence at six months or more.

Reviews have studied the impact of digital interventions:

- proactive telephone counselling (not initiated by a quit line) compared to various controls (RR, 1.25 [95% CI: 1.15 to 1.35]) (11);
- mobile phone-based interventions compared to usual care of minimal intervention (RR, 1.54 [95% CI: 1.19 to 2.00]) (12); and
- the Internet (interactive and tailored) compared to self-help or usual care (RR, 1.15 [95% CI: 1.01 to 1.30]) (13).

Five trials included in the review of reviews of Patnode et al. (1) considered the use of electronic cigarettes as an aid to stopping smoking, with no consistent findings when compared to placebo or standard NRT.

Combined behavioural and pharmacological interventions delivered in primary care settings for smoking cessation are found to be cost-saving, providing substantial health benefits at low cost (14,15).

1.2.2 Reducing or stopping alcohol use

Although the evidence base is much less developed for alcohol than for tobacco, meta-analyses find that measurement and brief advice programmes delivered in primary care settings have a clinically important effect in reducing the amount of alcohol consumed by both male and female heavy drinkers (16–22). Randomized controlled trials have shown little difference in outcomes for the same group of patients between talking therapy delivered by a general practitioner and specialist therapy delivered by a psychiatrist (23–25).

A Cochrane systematic review and meta-analysis included 34 trials undertaken in general practice and emergency department settings that reported consumption at 12 months follow-up (22). The mean baseline consumption was 310 g/week, which had reduced over time since an original review in 2007 from 313 g/week to 181 g/week.

At 12 months follow-up, participants ($n = 15\,197$, mean age 43 years) receiving a brief intervention drank a mean 20 g of alcohol a week less than those with minimal or no intervention (95% CI: 12 to 28). Data from 11 trials that reported outcomes by gender found that both men (3486 participants) and women (1350 participants) reported reductions in alcohol consumption following a brief intervention compared with controls (mean difference for men was -42 g/week (95% CI: -65 to -20) and for women -30 g/week (95% CI: -59 to -2), with no statistical difference between men and women.

Studies undertaken in emergency department settings found less impact in reducing alcohol consumption than those in general practice settings (8811 participants), with a mean difference of -10 g/week (95% CI: -18 to -2) versus -26 g/week (95% CI: -37 to -14).

Trials that tested simple advice-based interventions (8243 participants) found greater impact in reducing alcohol consumption than those that tested more interactive counselling-based interventions (5537 participants), with a mean difference of -33 g/week (95% CI: -46 to -20) versus -0.2 g/week (95% CI: -3 to 3).

The greater the baseline consumption, the greater the reduction in alcohol consumption due to a brief intervention. For every 10 g/week increase in baseline consumption, the mean difference in consumption between brief intervention and minimal or no intervention increased by 1.6 g/week (95% CI: 1.0 to 2.3). In other words, compared to someone who consumes 30 drinks per week (300 g), the brief intervention will reduce the consumption of someone who consumes 60 drinks per week (600 g) by an extra five drinks per week.

Increasing treatment exposure was not associated with greater reductions in alcohol consumption. For each increase of one minute in the treatment exposure, the mean difference between the brief intervention and minimal or no intervention arms was 0.2 g/week (95% CI: -0.5 to 0.9 ; $P = 0.57$). Likewise, but based on just three studies

(552 participants), there was no difference in consumption between participants who received an extended intervention and those who received a brief intervention, although the associated CI was very wide (mean difference 2 g/week, (95% CI: -42 to 45)).

Brief interventions delivered in primary care settings to reduce heavy drinking are also found to be cost-effective (26–28) or even cost-saving (29).

Systematic reviews and meta-analyses indicate that digital interventions are effective in reducing alcohol consumption among heavy drinkers (30). A systematic review of technology-based alcohol interventions in primary care found that 17 of 24 studies demonstrated reduced drinking due to the technology-based intervention, with 13 of 31 suggesting that technology-based interventions were superior to care as usual (31). The technology-based intervention seemed more effective when associated with provider involvement and the reported use of an implementation strategy to deliver the intervention.

When considering the modality of the digital intervention, a systematic review of 22 studies suggested that telemedicine was an effective tool in reducing alcohol consumption and increasing patients' accessibility to health services or providers (32). A meta-analysis of 10 trials, however, found that alcohol interventions for heavy drinkers through text messaging failed to reduce reported weekly alcohol consumption compared with no or basic health information. The overall reduction was 18.6 g/week, but with CIs crossing zero (95% CI of reduction = -2.38 to 39.61) (33).

Systematic reviews of the effect of mobile apps have found some (34), limited (35) and no (36) impact in reducing alcohol consumption.

1.2.3 Promoting healthy eating

One meta-analysis of a range of advice and counselling interventions in primary care settings to promote healthy eating demonstrated an increase in consumption of fruits, vegetables and fibre and a decrease in consumption of total fat, with a consequent reduction in serum cholesterol levels (37). The increase in fruit consumption was 0.25 servings per day (95% CI: 0.01 to 0.49) and in vegetable consumption 0.50 servings per day (95% CI: 0.13 to 0.87). The pooled effect on consumption of fibre was estimated to be 1.97 g of fibre per day (95% CI: 0.43 to 3.52) with a mean decrease in total fat intake of 5.2% of total energy (95% CI: 1.50 to 8.80) and a mean decrease in serum cholesterol of 0.10 mmol/L (95% CI: 0.00 to 0.19).

Another meta-analysis of advice on eating behaviours delivered by dietitians in primary care settings, albeit with several consultations that were lengthier than is required for brief advice, reported a positive impact of advice in improving eating behaviours, diabetes outcomes and weight-loss outcomes (38).

One systematic review of the cost-effectiveness of programmes of advice on eating behaviours delivered in primary care settings included 36 randomized controlled trials and systematic reviews conducted in healthy people and people with obesity, type 2 diabetes or cardiovascular risk. Advice on healthy eating for people with

obesity or cardiovascular risk factors was found to be cost-effective, but there was no conclusive evidence for the cost-effectiveness of such advice among people without obesity, type 2 diabetes or cardiovascular risk (39).

A systematic review of 26 studies found that remotely delivered self-monitoring of eating behaviours and tailored feedback that can be delivered digitally was effective in leading to improvements in eating habits, albeit with a small effect size (standardized mean difference of 0.17 (95% CI: 0.10 to 0.24)) (40).

A systematic review of 37 studies found no evidence for mobile apps in changing health behaviour related to physical activity, eating behaviours or a combination (36). The review did not differentiate between mobile apps as a standalone health intervention or as a supportive adjunct to a primary care-initiated behavioural intervention.

1.2.4 Increasing physical activity

Reviews and meta-analyses find that physical activity advice delivered in primary care settings is effective in increasing levels of physical activity, with the likelihood of advice increasing physical activity compared with no advice ranging between 1.22 and 1.42 (lower 95% CI limit: 1.03 to 1.17; higher 95% CI limit: 1.41 to 1.73) (41–43).

Brief intervention programmes delivered in primary care settings to increase physical activity are also found to be cost-effective or even cost-saving (44,45).

A systematic review of behavioural interventions to promote physical activity among adults aged 18–64 years identified 32 studies with outcomes at between six and nine months. The pooled standardized mean difference was 0.28 (95% CI: 0.20 to 0.35), equivalent to 136 more minutes of physical activity per week for intervention participants compared to controls (46). For the 31 studies that reported outcomes at 9–15 months, the standardized mean difference was 0.20 (95% CI: 0.13 to 0.26), equivalent to 105 more minutes of physical activity per week for intervention participants compared to controls. The greatest increase in physical activity was found for interventions implemented in non-primary care settings and those that emphasized self-monitoring and follow-up. The increase in physical activity for interventions implemented in primary care was a nonsignificant standardized mean difference of 0.10 (95% CI: –0.05 to 0.24).

Another systematic review included healthy adults (aged 18 or older) who were inactive (defined as less than 150 minutes of moderate- or 75 minutes of vigorous-intensity activity per week, or fewer than 10 000 steps per day) (47). Behavioural interventions were delivered in different settings, including leisure centres and primary care. The behaviour targeted was physical activity in 20 studies, physical activity and sedentary behaviour in two, physical activity and eating behaviours in three, and physical activity, eating behaviours and smoking in one.

The average intervention length was 21 weeks (range 0–61) and the average length between the intervention finishing and the last follow-up measurement was 41 weeks (range 24–121). Sixteen studies provided sufficient continuous data (such as minutes per week/day of walking or moderate/vigorous activity) to pool for a

follow-up meta-analysis. At follow-up, intervention participants engaged in more physical activity ($d = 0.21$ [0.12–0.30]), with increases ranging from 5–95 minutes/week of physical activity and 421–1370 steps/day.

Of the two studies that reported sedentary behaviour outcomes (sitting time in both studies), only one reported group differences, showing no intervention effect at follow-up. Studies targeting only physical activity showed a small significant effect size at follow-up (standardized mean difference (d) = 0.22 [0.11 to 0.32]), while those targeting multiple behaviours showed a small nonsignificant effect size ($d = 0.19$ [–0.00–0.39]). Studies that included “Action planning”, “Instruction on how to perform the behaviour”, “Prompts/cues”, “Behaviour practice/rehearsal”, “Graded tasks”, and “Self-reward” showed larger effect sizes at follow-up than studies that did not.

There is some evidence that web-based interventions can be effective in increasing physical activity, although the impact seems small, tapering off after three months and not consistent across all studies (48–50). A systematic review of 22 studies involving adults aged over 50 years suggested that digital behaviour-change interventions could increase physical activity and reduce sedentary time and systolic blood pressure (51). A systematic review of 14 studies suggested that mobile apps could promote physical activity, although the impacts were modest and of short duration, with better results for applications that aimed only to increase physical activity than those that included other health behaviours (52).

1.2.5 Managing body weight

A systematic review of behavioural interventions to reduce weight delivered in primary care settings for adults living with overweight or obesity found evidence of weight loss, but only by small amounts (1.36 kg at 12 months and 1.23 kg at 24 months) (53). A more recent meta-analysis of 45 randomized controlled trials also found a small impact of advice, reducing weight by 1.80 kg, BMI by 0.80 kg/m² and waist circumference by 2.28 cm (54).

Health providers’ advice should help direct patients towards effective interventions. For example, very brief 30-second advice to recommend and facilitate primary care patients to attend an evidence-based commercial weight management service was associated with greater weight loss compared to a control group who were simply advised to lose weight (55). Greater effectiveness was achieved when the health providers’ tone, enthusiasm and sense of personal conviction in the message were conveyed.

Advice on eating behaviours delivered for people with obesity in primary care settings is found to be cost-effective (39).

A meta-analysis of a web-based programme found a modest but significant additional weight-loss effect compared with non-web-user control groups (–0.68 kg, $P = 0.03$) (56). Using the web-based programme as an adjunct to obesity care was effective (–1.00 kg, $P < 0.001$), but using it as a substitute for face-to-face support was unfavourable (+1.27 kg, $P = 0.01$).

There is some evidence for telemedicine interventions delivered over the long term (at least six months) in improving BMI, whether for diabetes control, hypertension

control, weight loss or increasing physical activity, and for people with and without diabetes or hypertension (57). While evidence increasingly supports the use of telemedicine approaches to help people who live with overweight or obesity to manage weight, further evaluation may be needed to ensure that such brief interventions have similar validity as face-to-face interventions, since visual cues, such as being aware of a person's BMI or mobility problems, may be missed during a telephone or virtual consultation.

1.2.6 Integrated risk-factor approaches

Individual behavioural risk factors are often treated as though they exist in silos, but rarely do they occur alone. Usually, they co-occur with health-compromising behaviours and other socioenvironmental influences that heighten health risk (58). Behaviours that predispose to health risk occur in two main groups: high-exposure risk behaviours, exposure to which needs to decrease (including smoking, alcohol use and unhealthy eating habits); and low-exposure behaviours, exposure to which needs to increase (such as healthy eating and physical activity). The pervasiveness of, and clustering among, health-compromising behaviours call for intervention strategies that can change multiple health behaviours efficiently and effectively (59–68).

Evidence from systematic reviews and meta-analyses demonstrate beneficial effects with integrated risk-factor approaches across a range of risk-factor behaviours (69–74). There is evidence for positive synergies, in particular programmes that deal with both eating behaviours and physical activity (75,76), but also for some other behavioural risk factors (77). Sequential interventions that target more than one risk behaviour seem to do better than simultaneous interventions (78,79), with the relative disadvantage of simultaneous over sequential interventions being greater with the number of risk behaviours involved (79). This needs to be considered among disadvantaged groups, for whom behavioural risk factors tend to cluster more (80,81), by addressing risk factors sequentially (78), driven by patient involvement in the decision-making process. There is also evidence that changing smoking behaviours simultaneously with other behaviours is less effective than targeting smoking in sequence with other behaviours (71,82).

Provision of health checks in primary care settings has a long history (83–85). Evaluation of health checks in the United Kingdom (86–89) found that attending a health check is associated with modest reductions in behavioural risk factors that are sustained over six years, with the largest benefit observed for reduction in smoking prevalence.

Successful implementation of health checks requires full engagement of those responsible for its commissioning, management and delivery (90). Reasons for lack of attendance and concerns by patients about health checks include a lack of clarity of purpose and the need for more proactive support in changing behaviours (91,92). Barriers that result in those at risk being least likely to attend for health checks (93) could explain the lack of impact on reducing overall mortality (94). The success of health checks in primary care is dependent on long-term resource mobilization to ensure sustainability (95).

1.3 Elements of effectiveness



The contact, conversation and information-sharing between provider and patient predict the effect of primary care-driven behaviour change. The mode and length of the advice, the intervention setting and the delivery provider seem to have little independent impact on outcomes (96–98).

1.3.1 Length of intervention

In general, it seems that neither the length nor the intensity of the brief advice has much bearing on outcomes. Outcomes from shorter and less intense advice sessions seem to be as good as those from longer and more intense interventions across the range of behavioural risk factors. This applies to alcohol use (97), unhealthy eating (96) and physical inactivity (41,42). Just asking about the behavioural risk factor appears to have some, albeit very low, impact on behaviour change (99,100).

1.3.2 Method (modality) of intervention

It also seems that in general, the method (modality) of the intervention has little bearing on outcomes. Simple brief advice seems as effective as interventions based on social cognitive theories or transtheoretical models across the range of behavioural risk factors. This applies to smoking cessation (101), reduction of alcohol use (102), increasing physical activity (43) and healthy eating (96).

1.3.3 Ongoing engagement for repeated attempts

It can take several or many attempts to achieve stable long-term behaviour change. With smoking, for example, it may take anything from six to 30 attempts to quit before long-term smoking cessation is achieved (103). Support to combat the negativity associated with failure and to refresh awareness of the wide benefits of quitting may support the re-engagement process and shorten gaps between quit attempts. Exploring previous attempts to manage weight may reveal a perception of healthy eating failure after initial success, when the description might more accurately be healthy eating success but long-term maintenance failure. Changing the focus towards tactics for weight-loss maintenance may open up a willingness to retry previous evidence-based weight-management approaches, but with more awareness of long-term maintenance support options.

1.3.4 Salience and environmental support

Salience and environmental support are important (see Chapter 2). For example, advice to increase physical activity seems more effective when patients desire more preventive advice and are aware of physical activity recommendations (41). Advice to increase physical activity seems more effective in the presence of exercise referral and physical activity prescription schemes (104–114).

1.4 Feasibility of brief intervention programmes



The feasibility of brief intervention programmes is a key component of implementation in the real world, determining whether the ideas and findings can be shaped to be relevant and sustainable (115).

Evidence from systematic reviews, meta-analyses and multicountry studies based on implementation science strongly demonstrates that provider behaviour can be changed to increase coverage of the adult population within a catchment area who have been measured and assessed for risk-factor exposure and given appropriate advice to quit tobacco (116,117) reduce alcohol use (118–122), improve eating behaviours (123) and increase physical activity (124).

1.4.1 Feasibility of measuring risk-factor exposure

The eligibility of brief intervention programmes for behavioural risk factors in the real world depends on the measurement instruments used and their acceptability to patients and health-service providers. Improving the number of patients whose exposure to behavioural risk factors is measured requires that any existing barriers, such as cost and time constraints, lack of administrative support, workflow incompatibility, limited provider awareness of validated measurement instruments, provider discomfort or lack of confidence, lack of treatment resources for referring high-risk patients after measurement and stigma, be addressed and overcome (125–130). Dealing with time constraints is essential, with measurement times varying according to the behaviour targeted: for example, measuring eating behaviours and levels of physical activity can take almost twice as long as measuring tobacco and alcohol use (131).

Beside eligibility, the number of patients actually engaging in measurement is also an important marker of feasibility. Interest among potential participants varies according to the targeted population and the targeted risk factor. Although some patients may be reluctant to be measured for a behavioural risk factor, this should not deter providers from offering to provide measurement approaches to all patients. Studies from a number of countries have suggested that the large majority of primary care patients agree that their health-service provider should ask them about their alcohol consumption (132–134). Similarly, studies have indicated that most patients registered for non-acute visits accept that they will be measured for behavioural risk factors via telephone conversations (130). Patients' engagement in measurement depends on their motivation to receive it and on primary care providers' capability, motivation and opportunity to deliver it. Undertaking measurement is enhanced by providers having the necessary incentives, resources, training and time availability, and an understanding that patient-provider relationships are not impaired (135,136).

1.4.2 Feasibility of giving advice to help change risk-factor exposure

Brief interventions generally are well accepted by primary care providers and patients (137,138). The feasibility of giving brief advice relies on several factors, among which are the provider's level of training, availability of resources to deliver

the advice, and the content, fidelity and duration of the advice (139,140). Inclusion in primary care consultations requires that brief interventions should be of short duration (140). Providers should be ready to accept that some patients may reject, or not respond to, the intervention and therefore should seek to find a balance between the opportunity to deliver the intervention and patients' possible rejection and non-response.

Providing adequate training to primary care providers is key to implementing brief interventions (see Chapter 4). Providers can be trained to deliver very brief interventions within a few hours (140,141). Training can increase health-service providers' confidence in their skills and help them manage concerns about the effects on patient-provider relationships of discussing sometimes delicate risk behaviours (135,142). Providing primary care providers with simple resources (such as printed materials) can contribute to the feasibility of offering advice.

A high turnover of health-service providers and the high-risk behaviours of some providers can act as impediments to implementing brief intervention programmes (143).

1.5 Take-home messages

- Delivering brief interventions to help patients reduce their exposure to risk factors for NCDs can have a lasting influence on improving patients' health and well-being.
- Patients welcome such interventions, which can be delivered for single risk factors or in combination through an integrated approach.
- The key element of a brief intervention is a patient-centred conversation with a well prepared primary care provider.

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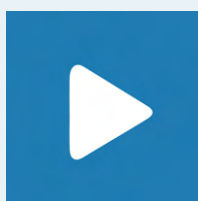
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2 Structural support



To be effective, brief interventions delivered by primary care providers to help their patients reduce risk-factor exposure need to have wide ranging organizational and system support, adequate financing, and be supported with appropriate information for staff and patients. Delivery of brief interventions is best done through multidisciplinary teams in health-literate primary care centres. Primary care brief intervention programmes should not be done in isolation but need to be embedded in environmental support at local and national levels that help make the healthy choices the easy choices through health literacy principles, and through fiscal and availability policies.

2.1 Introduction



Despite evidence on the effectiveness and cost-effectiveness of primary care-based brief intervention programmes in reducing behavioural risk-factor exposure, summarized in Chapter 1, very little data are available on the extent to which brief interventions are delivered in primary care settings and the proportion of the adult population (in terms of reach or coverage) who have had their behavioural risk-factor exposure measured. In some countries, health checks (including measurements of alcohol consumption (1)) have been made on half the eligible population (2,3), but for the most part, coverage seems very low (4). A European study, for example, found that prior to intervention, only 6% of consulting patients had had their alcohol consumption measured (5).

It seems likely that most countries have wide gaps between what could potentially be done and what is actually done. The proportion of the adult population who have had their behavioural risk-factor exposure measured and advice delivered as appropriate could be much increased. Increasing coverage can lead to health impacts at population level. In relation to alcohol, for example, it has been estimated that if 25% of the adult population in Germany were to have their alcohol consumption measured over five years, alcohol consumption in the community would drop by 6%, increasing to 11% if 50% of the population were measured (6). Unless coverage is increased, many at-risk patients will leave their primary care appointment unaware of the risks of their health behaviours or of how they might be contributing to their current ill health (4).

Increasingly, clinical guidelines call for primary care providers to implement brief intervention programmes for behavioural risk factors. Guidelines place demands on the accountability and legal responsibilities of primary care services in areas such as medical negligence litigation, where, as standard, breach of duty is measured against accepted practice as determined by clinical guidelines (7).

A systematic review of 36 systematic reviews that aimed to identify crossdisciplinary barriers and enablers to delivering advice to change behavioural risk-factor exposure found four main barriers – negative attitudes towards patients, negative perceptions of patient motivation, perceived lack of time and perceived lack of prioritization – and three enablers – positive attitudes towards delivering advice, the importance of training and contextual enablers (such as having the time to deliver interventions,

working in a setting perceived to be conducive to delivering interventions, and having an organizational system to support delivery). Four factors were found to act as both barriers and enablers – health-service professionals’ own health behaviour, the professional role, knowledge and skills, and availability of resources and support (8). The authors concluded that three areas need to be addressed to increase provider involvement in delivering brief interventions to reduce behavioural risk-factor exposure:

- enhancing health-service providers’ positive perceptions about their role in delivering interventions and their patients’ need for behaviour-change interventions;
- supporting health-service providers to identify opportunities to deliver interventions during routine practice; and
- delivering training targeting the identified crossdisciplinary barriers and enablers.

Many programmes aimed at increasing coverage have focused on providers by, for example, delivering training (discussed in Chapter 4). Successful implementation of health interventions within complex health systems, however, demands that a range of underlying structural and support systems be addressed. This chapter discusses system-based organizations and structures for implementing brief intervention programmes across the behavioural and physiological risk factors (tobacco use, alcohol consumption, eating behaviours, physical inactivity and increased BMI) in primary care settings.

The chapter considers six building blocks for structural support:

- **organizational and system support:** ensuring that health-service delivery system structures and care pathways are in place to implement brief intervention programmes;
- **financial incentives for primary care-based programmes:** raising adequate funds for health in ways that ensure people can use services and are protected from financial hardship or impoverishment that might be associated with having to pay for services;
- **informational support:** ensuring that information systems are set up and structured to promote active measurement and brief advice, in addition to monitoring and evaluation of performance and reach;
- **multidisciplinary teams and making every contact count:** ensuring that a wide range of professional disciplines within and outside primary care services are actively involved in brief intervention programmes, making every contact count;
- **health-literate individuals and organizations:** ensuring that health-literate individuals are actively involved in their health choices, supported by organizational health-literate primary care premises; and
- **supportive environments:** ensuring that pricing policies, labelling and physical environments enable healthy choices as the easier choices.

2.2 Organizational and system support



2.2.1 Alignment of priorities

The successful implementation of brief intervention programmes in primary care requires alignment of priorities across national, regional and local levels. Lack of alignment of priorities can result in duplication of work or false choices between health programmes. In practical terms, a lack of alignment of priorities may manifest as siloed working, time constraints and, from the patient's perspective, a fragmented approach.

Statutory processes can be set up to implement joint strategic needs assessments and planning as practical tools to support integration and collaborative commissioning of priorities that are jointly agreed by statutory bodies, provider organizations and engaged communities (9). Clear programme governance structures for leadership and evidence-based programme guidance and accountability are required to articulate the programme's value and gain to sustain stakeholder confidence and ensure consistent roll-out (10).

2.2.2 Funding

Political terms and associated funding cycles can have major impacts on the funding and sustainability of public health programmes such as primary care-based brief intervention programmes. Funding cycles need to realistically consider the longer-term nature of public health interventions before benefits and outcomes are even measurable, let alone systematized. Uncertainty in commissioning and funding can affect the quality of the provider network and its capacity to respond to population health needs.

In relation to data and indicators, insufficient formative evaluation of programme implementation and effectiveness can be an obstacle to generating evidence to support continued investment and improvement of brief intervention programmes. More details on monitoring and evaluation are presented in Chapter 3.

2.2.3 Care pathways

The implementation of primary care-based brief intervention programmes can be compromised in the absence of comprehensive care pathways that facilitate access to specialist management and treatment when needed. Treatment services can provide more specialist assistance to help difficult-to-manage cases and provide specialist services for management of end-organ damage resulting from prolonged high levels of risk-factor exposure. Primary care is at the interface between community and more specialist services, offering first contact with health services; as such, primary care can achieve greater integration and coordination between community support programmes and secondary care.

Ethical considerations can arise when risk factors or elevated risks are identified but referral mechanisms to wider support and treatment services for patients are absent. Developing comprehensive pathways reflective of local needs is likely to improve the continuity of care experience from the patient's perspective and increase effective

implementation of programmes. This may also go some way towards increasing providers' confidence in the ability of brief intervention programmes to effectively deliver outcomes.

2.2.4 Capacity-building for primary care centre managers

Capacity-building for managers and directors of primary care centres and services is necessary to deliver primary care-based brief intervention programmes to reduce risk-factor exposure. Skill development is required for programme adoption and ongoing programme support.

2.2.4.1 SKILL DEVELOPMENT FOR PROGRAMME ADOPTION

At least five areas of skills are required of managers and directors in relation to programme adoption. Managers and directors must:

- demonstrate the superiority of the brief interventions package, its simplicity and its alignment with the latest evidence on reducing risk-factor exposure and preventing NCDs;
- engage with identified leaders and build their capacity to understand the difference between simply raising awareness of better practice and what it takes to lead and ensure broad adoption of the brief interventions package through guiding and supporting large-scale change;
- communicate the value of the brief interventions package in preventing and managing NCDs to leadership and primary care providers;
- identify and adjust, as appropriate (and possible), relevant regulatory and administrative policies at primary care centre level to expedite the adoption of the brief interventions package; and
- identify gaps in health-service delivery system performance and the urgent need to reduce risk-factor exposure and prevent NCDs to promote the needed will and energy to bring implementation of the brief interventions package to scale.

2.2.4.2 SKILL DEVELOPMENT FOR ONGOING PROGRAMME SUPPORT

At least five areas of skills for managers and directors of primary care centres and services are required in relation to ongoing programme support.

- **Developing provider capacity for scale-up:** while frontline staff at primary care level can be trained in basic quality-improvement methods, scale-up will require team leaders who can use change-management approaches to guide and mentor teams on the front line and improvement specialists who can lead and design quality-improvement programmes for those who need additional training.

- **Developing infrastructure for scale-up, which ideally should be achieved through redesign rather than addition of new resources:** structural needs include additional tools (such as protocols, instruments, checklists and data-capture systems), communication systems (like materials and messages, mentoring relationships and structured programmes) and availability of key personnel (including data managers, quality-improvement mentors and local champions) who are specifically assigned to enable better health-service delivery system performance.
- **Designing reliable data-collection and reporting systems that track and provide feedback on the performance of key processes and outcomes:** routine data systems will need to be accurate, complete and timely. Data-tracking key processes and outcomes that are targeted by the intervention can be shared regularly with frontline staff and system leaders to inform ongoing improvement.
- **Setting up learning systems to capture change ideas that are shown to result in improved performance and assembling ideas into a change package:** knowledge should be shared between local stakeholders and primary care centres.
- **Instituting design for sustainability throughout the whole scale-up process:** factors that enhance sustainability include high reliability of the new processes, monitoring systems to ensure desired results are being achieved, and support for structural elements and ongoing learning systems. To sustain the scale-up process, leaders should commit to a learning system that includes continuous feedback of data to identify and close gaps in performance.

2.2.5 Practical examples

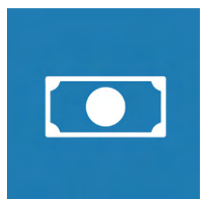
Capacity-building for managers and directors of primary care centres and services can be delivered through the creation of local stakeholder groups, local tailoring and adaptation of protocols and guidelines, and ensuring local ownership for sustainability. Local stakeholder groups can be set up, with representatives from academia, local health and public health departments, health service commissioners and practitioners, and patient and public engagement groups. These groups can ensure the adaptation and tailoring of brief intervention packages that are relevant to local needs, address adoption and support mechanisms for implementation, and deal with facilitators and barriers as they are identified. Based on local experiences, local stakeholder groups can work (where relevant) with country-level partners to ensure that pathways are proposed to embed the package into sustainable and routine practice.

Recruiting so-called change champions (11) can support innovations through the phases of initiation, development and implementation. Champions may be associated with a specific project (project champions) or lead change for entire organizations (organizational change champions). Characteristics of an effective change champion include enthusiastically promoting an innovation, making connections between people, mobilizing resources, building support by conveying a compelling vision, boosting skills and confidence, and fighting organizational inertia or resistance.

Four important facilitators should be in place at primary care centre level, ensuring that:

- the electronic health record system, where it is available, provides on-screen prompts for primary care providers to ask about and measure exposure to behavioural risk factors, with prompts for appropriate action in offering advice;
- patient information and advice material, including information on local support services, is available in the form of leaflets or booklets;
- task allocation and role responsibilities are clearly defined within the primary care team to specify who does what and when, including, where these are available, the use of specific functions within the primary care centre, such as smoking cessation advice, or overall measurement and brief advice for behavioural risk factors; and
- provider information is available on a range of specialist support and treatment services to which patients could be referred, if needed or indicated.

2.3 Using financial incentives for primary care-based programmes



Systematic improvements to mainstream primary care funding are fundamental to ensuring sustainable and longer-term adoption of prevention activities, including brief intervention programmes to change risk-factor exposure. Brief advice for behaviour change should be included in health insurance plans and health-service providers should be paid for the service.

Financial incentives, while only a small part of the full funding stream, can be used to support the prioritization of brief intervention programmes in primary care. It is important to ensure, however, that financial incentives do not have an adverse effect in leading to the disproportionate prioritization of activities that can be measured at the expense of overall patient care or other national or local priorities (12). An approach that reflects wider system priorities and achievements while balancing incentivization of activity and outcome is required.

The effect of payment models has been explored, suggesting that paying for performance is likely to be less effective. Conversely, payments applied to specific purposes, including quality improvement, are more likely to succeed than using funding for physicians' income, with the size of incentive payments relative to revenue seeming not to be associated with the outcomes (13).

2.3.1 Practical examples

Financial incentives appear to be effective in increasing delivery of brief interventions in primary care for alcohol (5,14). However, the effect on delivery of interrupted incentives over 10 years has been explored in the United Kingdom

(England), with results suggesting that creating such incentives did not immediately translate into higher provision and withdrawing incentives seemed to rapidly decrease provision (15).

Some evidence shows that health-service providers are more likely to offer advice on health behaviour change if: it represents a portion of their capitation payment; their performance measures are publicly reported; they receive public recognition; they receive economic benefit; and they have greater technological capacity for clinical information (16). A systematic review suggested that financial incentives for physicians did not influence long-term practise change, while education, training and enablement in the context of collaborative team-based approaches did (17).

Incentives in most health-service delivery systems are directed at providers, but a possible evolution, already happening in some countries, is to direct incentives to end users. For example, a Cochrane review of 33 studies covering more than 21 600 participants found that in relation to financial incentives for smoking cessation (including cash payments or vouchers for goods and groceries offered directly or collected and redeemable online), the pooled relative risk for quitting with incentives at longest follow-up (six months or more) compared with controls was 1.49 (95% CI: 1.28 to 1.73). With incentives, 10.6% of smokers had quit smoking at six months or longer on follow-up, compared to 7.1% of smokers who received usual care or non-incentive-based interventions (18).

2.4 Informational support



Implementing primary care-based brief intervention programmes requires robust data on risk-factor prevalence, processes and activities to reduce risk-factor exposures, and also outcome data.

Primary care providers agree that data need to be shared to improve and tailor patient care, but insist that issues around data security, patient consent and quality assurance must be met (19). Just as interoperability between data systems is a crucial facilitator of collaboration between sectors, information standards, codes of practice and transparency are required to help facilitate greater trust. The use of jointly agreed guidelines, together with patient engagement, will support the creation of the right environment for better success and safety in data-sharing (20). National and local arrangements need to comply with relevant country and international data-protection legislation.

The benefits of designing such datasets, particularly at the outset, include:

- allowing an assessment of the evolving prevalence and burden of behavioural risk factors at the required level of detail;
- allowing a targeted approach towards invitation and follow-up of predetermined higher-risk patients from existing data (risk stratification);
- potentially supporting real-time decision-support tools using patient records to promote personalized care;

- enabling and supporting financing and possibly incentivization (such as performance-related pay based on target achievements);
- enabling practitioner feedback mechanisms that can be published regularly to improve implementation and quality through audits and dashboards;
- enabling collaboration between community, primary care and specialist services required for achieving the targeted patient outcomes; and
- supporting programme evaluations that can be channelled into informed and reasonable decision-making processes to improve service provision.

2.5 Multidisciplinary teams and making every contact count



Ideally, primary care should operate through multidisciplinary teams that (depending on local circumstances) may include a wide range of providers – family doctors/general practitioners, nurses, midwives, community health workers, physician assistants, rehabilitation

workers, physiotherapists, psychologists, nutritionists/dietitians, care managers, social workers, pharmacists, dentists, health promoters, counsellors, opticians and support staff. There are many other potential members, including some taking on new roles in evolving systems, such as patient navigators and life coaches.

All types of primary care workers potentially can be involved in delivering simple brief intervention programmes. In the case of a primary care team with a diverse mix of skills, clear role definitions that spell out individuals' responsibilities can be assigned and tailored training provided. Appropriately recruited, compensated, trained and integrated community health workers can contribute to improved access, responsiveness, satisfaction and outcomes. Ultimately, the decision on what professions to include in the delivery of brief interventions and to what extent will depend on context and guidelines at local and country levels.

Competency frameworks and clear career paths delivered and supported by health-service-provider professional societies are key to supporting staff motivation. Competencies may vary according to specific job duties and requirements. Many organizations and health-service-provider professional societies have developed competency frameworks that establish career paths, which may vary according to the specific area of practice or specialty area. These frameworks tend to distinguish between core competencies, which are essential and crucial for health-service delivery, and technical competencies, which cover various fields of expertise relevant to specific work.

Competencies can be defined at various levels that health-service providers may progressively pursue, with each level describing behavioural indicators that show how individuals can demonstrate acquisition of the competency. In essence, for primary care-based brief intervention programmes to be implemented, key competencies for their delivery should be clearly identified, setting out scientific knowledge from community to individual level and management knowledge with system and practice foci.

A larger provider workforce that exists outside the immediate primary care health-service delivery system can also be tapped to deliver brief interventions.

2.6 Health-literate individuals and organizations



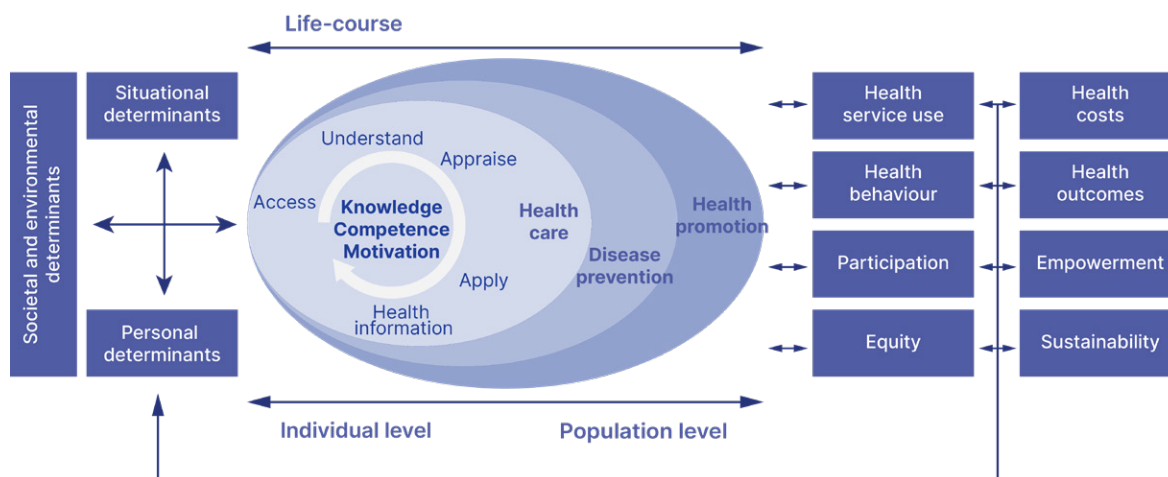
2.6.1 Health literacy of individuals

The ultimate goal of delivering brief intervention programmes in primary care is to support users of health services to make decisions and choices that will create behaviour change. Behaviour change can be challenging. Patients may have different views from clinicians on the importance of particular health goals and health risks (21) or may not be readily able to implement behaviour changes due to their circumstances. The success of behaviour-change interventions therefore depends on shared decision-making through patient-centred approaches that ensure coproduction of activated, informed, engaged and motivated patients (22). Implementing a strengths-based and collaborative approach in which the patient and provider interact with one another as equal partners (23) and the patient's own needs and preferences are considered is key.

Training in communication and collaboration (alongside medical technical skills) has been delivered in many countries of the WHO European Region to improve patient-centredness and increase sensitivity to individual cultural and socioeconomic circumstances and viewpoints (24). Provider-centred approaches and a lack of holistic assessment of individual health needs nevertheless remain common elements of the primary care service delivery model in some countries of the Region (25). It therefore is important when implementing country-based programmes that comprehensively address behavioural risk factors to stress the need for primary care providers to apply more patient-centred approaches when assessing individuals' behavioural risk factors. Individual preferences and readiness for change (25) should be considered, with decisions guided by patient preferences and values (26).

Health literacy is important for person-centred service delivery because it facilitates users to take an active role in defining their care plan, make informed decisions and discuss their specific health goals and challenges in primary care (27). Health-literacy principles help users to build relationships with providers and take overall responsibility for their own health and well-being (27) (Fig. 2).

Fig. 2. Integrated model of health literacy



Source: Sørensen et al. (28). Reproduced with permission from BioMed Central Ltd under the Creative Commons Attribution License (<https://creativecommons.org/licenses/by/2.0>).

2.6.2 Organizational health literacy

In addition to individual health literacy, the delivery of brief interventions in primary care to reduce risk-factor exposure should be based on optimal levels of organizational health literacy (29), which can be benchmarked against 10 attributes (30). Primary care services:

1. have **committed, continuous and knowledgeable leadership** that makes health literacy integral to their mission and values and to services' structures and day-to-day operations;
2. **integrate health literacy** into strategic and operational planning, quality improvement, goals and measures;
3. **prepare the workforce to address health-literacy issues** by meeting staff health-literacy training needs and promoting effective communications, and monitor progress;
4. **provide easy access** to information and services and **use clear signage or instructions** to help people find their way in facilities (such as clear signs, directions, forms and helpful staff who offer information in plain language) and online;
5. **address health literacy in high-risk situations**, such as crises, and clinical emergencies or transitions by providing clear and useful communication and services;
6. **communicate clearly** about available health-support services by providing information that is easy for people to find, understand and use;
7. **include members of groups served** (including people with limited literacy and numeracy skills) in the design, implementation and evaluation of health information and services;

8. meet the needs of **audiences with a range of health-literacy skills** while avoiding stigmatization, and test communication materials with intended audiences to verify comprehension and information usefulness;
9. use **health-literacy strategies** in oral communication to implement clear communication techniques, reinforce spoken information and communication with other formats that help people remember the information, learn how to find more information when they need it, and encourage feedback; and
10. design and distribute print, audiovisual and social media content involving **intended users of the information** to contribute to all steps of the content-development process to create **clear messages** that are easy to understand and use to help people make informed health decisions.

Improving the capacity of primary care to provide services that meet health-literacy principles can be considered a patient-centred health-service innovation; such an innovation may provide strong support for positive behaviour change following the delivery of brief interventions.

2.7 Supportive environments



Despite long recognition that the wider environment and social circumstances determine health choices (31), a systemic culture of individualizing responsibility for behaviour change exists within health-service delivery systems. An ongoing cultural shift is required to move from this to an environmental approach to support reduced exposure to behavioural risk factors. There is little point in primary care providers offering advice to their patients to reduce risk-factor exposure if the local environment does not facilitate, or even hinders, the making of healthy choices.

Risk-factor exposure, singly and in combination, is much higher among individuals and communities with lower education levels and incomes (32). These groups also tend to be harder to reach with non-targeted public health activity. If inequalities in the adoption and practise of increased risk-factor exposure are to be addressed, any roll-out of brief intervention programmes should be differentially targeted at communities with lower education levels and incomes. Such approaches have the potential to deliver the greatest improvement in health for a given investment (32).

2.7.1 Taxation

Healthier pricing and taxation policies should be put in place to ensure that healthier products are cheaper than those that are non-healthy. While pricing policies have been used to decrease consumption of products that impact negatively on health, such as tobacco, alcohol and certain foodstuffs related to overweight and obesity, the positive side of the price equation involves decreasing costs of healthy foods, such as fruit and vegetables, whole grains, fish and lean meat (33).

2.7.2 Reformulation

In addition to pricing policies, food and beverage manufacturers should take increased responsibility for their products, including reformulating them to contain less salt, sugar, trans fats and alcohol (34). Portion-size reduction and responsible marketing strategies are also important steps the food sector can take.

Foods and food groups need better labelling to differentiate between more healthy and less healthy foods, with clear and understandable information on caloric and nutritional value and salt and sugar content. Health-warning labels should be placed on high-risk products, including those that are carcinogenic, such as alcohol (35).

2.7.3 Marketing

The marketing of harmful products, including advertising, sponsorships and promotions, needs to be substantially limited and regulated and, in the case of tobacco, banned altogether. Banning all forms of tobacco marketing has helped create an environment more conducive to healthier choices, supported by price measures and smoke-free policies. The same approach should be considered for alcohol, given the harms that alcohol causes and the evidence that partial marketing restrictions do not fully protect children, young people and adults, thereby increasing their consumption and risks. Plain packaging is another measure related to marketing that, along with labelling showing the harms of tobacco, has contributed to people's decision to stop smoking (36).

2.7.4 Urban design

Urban design can have a major impact on enhanced physical activity (37–42). An analysis of 14 cities worldwide found that the difference in physical activity between participants living in the least and most activity-friendly neighbourhoods ranged from 68 to 89 minutes per week (40). Municipalities with active-living-oriented provisions (such as pavements, bike–pedestrian connectivity, and mixed-use and bike lanes) (43) and municipalities with safer physical environments (44) have higher rates of physical activity than those that do not.

2.8 Take-home messages

- Reducing exposure to risk factors for NCDs requires a systemic approach with policies that make the healthy choice the easy choice. The delivery of brief intervention programmes by primary care providers is one part of this.
- The impact of brief intervention programmes is enhanced when delivered through multidisciplinary teams in health-literate primary care centres, and with environmental support that promotes health behaviour change.
- Structural support needs to be provided across the domains of organization, finance, information and pathways for referral.

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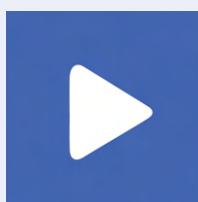
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3 Monitoring and evaluation



Monitoring and evaluation need to be designed and implemented at the outset for all primary care-based programmes that help reduce exposure to risk factors for NCDs. Monitoring and evaluation should include assessment of how well teams are doing in increasing programme coverage of the proportion of the adult population who have received measurement and brief advice to reduce risk-factor exposure. Monitoring and evaluation, which can take place at primary care centre, local, regional and country levels, can be undertaken with the reach, effectiveness, adoption, implementation and maintenance (RE-AIM) Framework. Ongoing monitoring and evaluation can assess progress against programmes' aims, activities and outcomes and identify areas for course correction when progress is less than anticipated.

3.1 Introduction



Plans for monitoring and evaluating the implementation of all primary care-based programmes to measure and advise on behavioural risk-factor exposure should be made at the outset. Monitoring and evaluation demonstrate whether the programme is accomplishing its goals, identify programme weaknesses and strengths, issues in the programme that need revision and areas that meet or exceed expectations.

Beside efficacy, the main goals of brief intervention programmes are to increase the coverage of the proportion of the adult population who have had their exposure to behavioural risk factors measured, and to increase the proportion of those identified as at-risk who are offered advice to reduce risk exposure. These goals should be the main outcome indicators for the success of the programme.

Monitoring and evaluation should consider the factors that determine the success or otherwise of the programme and provide an assurance that all segments of the population (differentiated by levels of exposure and socioeconomic characteristics) are reached.

When designing behavioural interventions, it is necessary to plan structured monitoring, evaluation and reporting tools to guarantee accountability and achieve results at country, regional or primary care centre level.

Monitoring and evaluation frameworks help to assess the effectiveness of programmes by tracking outcome measures related to their goals and objectives. To ensure best quality, monitoring and evaluation should be conducted with an adapted existing framework. Several frameworks for monitoring and evaluation have been developed and used for different fields and purposes (1–3). The choice of the monitoring and evaluation framework will depend on the local characteristics, the available resources and the programme being evaluated.

This manual proposes use of the RE-AIM Framework, as it is one of the most frequently applied implementation frameworks (4–8). A vast range of supportive resources for the RE-AIM Framework is also available (9).

3.2 The RE-AIM Framework



RE-AIM is an acronym consisting of five dimensions that relate to health behaviour interventions: reach, effectiveness, adoption, implementation and maintenance (4,5,10). The goal of RE-AIM is to encourage programme planners and managers, programme deliverers, funders and policy-makers to pay more attention to essential programme elements (including external validity) that can improve the sustainable adoption and implementation of effective, generalizable, evidence-based brief intervention programmes to reduce exposure to behavioural risk factors.

The RE-AIM Framework can be used at country, regional and primary care centre level, or in combinations. When monitoring and evaluating the implementation of primary care-based brief intervention programmes to reduce exposure to behavioural risk factors, the five RE-AIM dimensions might be as follows (4) (Fig. 3).

Reach (or coverage) assesses the absolute number, proportion and representativeness of adult patients who are engaged in the brief intervention programme, addressing reasons why or why not. This dimension determines if the brief intervention has effectively reached the targeted population (adult patients). It is essential to identify any characteristics of subgroups of the population (such as economically disadvantaged patients) who may not have been reached. Achieving reach requires: strong relationships with health systems and the targeted population of adults; the use of appropriate promotion and communication strategies to implement and support the programme; and the identification of barriers to participation for providers and patients.

Effectiveness and efficacy assess the impact of the brief intervention programmes on individual risk-factor exposure and health outcomes (including potential negative effects), broader impacts (such as quality-of-life and economic outcomes) and variability across subgroups (those living with deprivation, for instance). This step is critical for the long-term sustainability of the programme. In this framework, efficacy or effectiveness is measured at the level of the individual and is reflective of the success of an intervention when implemented. Individual data on short- and long-term outcomes, including exposure to behavioural risk factors, hospitalizations and premature death, can be collected through electronic medical records that are linked, where possible, to hospital and mortality data. The possible negative or unintended consequences of the intervention should be reported. This dimension uses evidence-based programmes, includes organizational partners, assesses the available resources (such as the skills of primary care providers), develops and maintains effective documentation on programme processes, and solicits ongoing feedback from the populations of providers and patients.

Adoption assesses the absolute number, proportion and representativeness of settings and intervention agents (primary care providers and centres that deliver the programme) who are willing to initiate and implement a programme, and why. Understanding how adoption of the brief intervention programmes varies among settings (different kinds of primary care centres and other types of health centres), primary care providers who deliver the brief intervention (such as physicians, nurses

and health assistants) and brief intervention modalities is critical to the current and potential impact of the brief intervention programme. This dimension requires an understanding of the system in which the programme will be used, the inclusion of organizational decision-makers in programme development, provision of data demonstrating reach, and the effectiveness and ease of delivery.

Implementation assesses at primary care centre level health-service providers' fidelity to the various elements of brief intervention, including key functions and components such as consistency of delivery as intended and the time and cost of delivering the brief intervention. This dimension uses participatory procedures, provides resources to implement the programme, and includes the necessary training and technical support during the early stage of implementation.

Maintenance assesses at primary care centre level the extent to which the brief intervention programme becomes institutionalized and part of the routine organizational practices and policies within the primary care centre. This dimension accesses reusable resources at low cost, gradually implements and extends the programme, creates groups of programme participants, builds the programme on existing infrastructures, reinforces the programme among participants and staff, implements the programme within regular practice and assures buy-in from users of the programme.

Fig. 3. Possible RE-AIM parameters at country or regional level

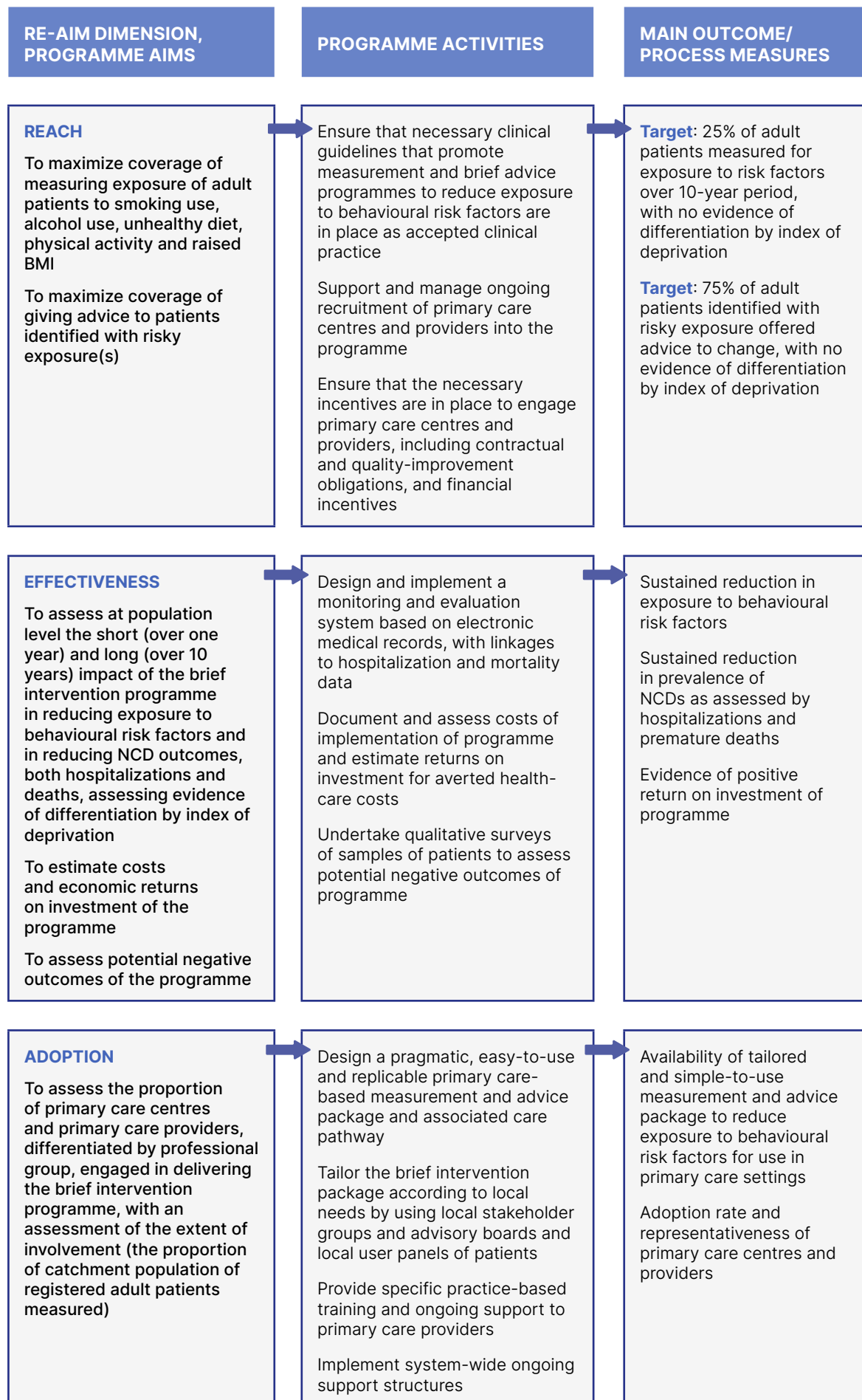
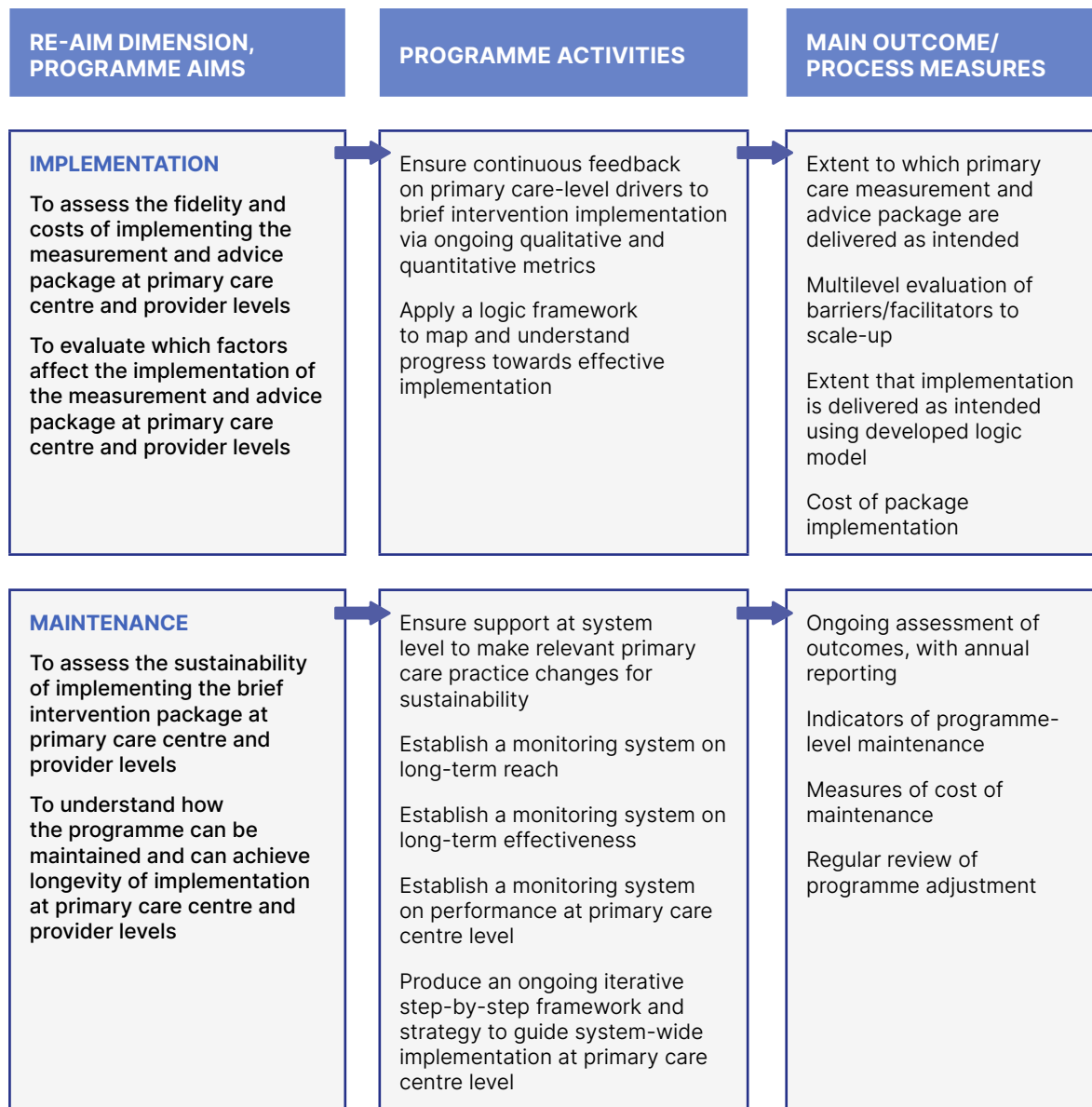


Fig. 3 contd



3.3 Undertaking monitoring and evaluation



3.3.1 When should monitoring and evaluation be undertaken?

Monitoring and evaluation is an integral part of programmatic and strategic planning and should be incorporated into all aspects of planning from the inception of designing and implementing primary care-based brief intervention programmes to reduce exposure to behavioural risk factors.

Programmes ideally involve continuous monitoring and evaluation or routine collection of data and information to gauge if brief interventions are being implemented according to expectations, and if barriers or challenges need to be addressed. Specific activities may require set moments of monitoring and evaluation. For example, with a series of training sessions, key monitoring moments could be set after a certain number of sessions. With an awareness-raising campaign, key monitoring moments could be set after each aspect of planning and implementing the campaign (such as determining exposure to information disseminated through the media after key periods).

3.3.2 Ensuring the success of monitoring and evaluation activities

Monitoring and evaluation should focus on information that is feasible to collect and is essential for programme management. It is important to avoid overpromising what data can be collected. It is better to collect less data well than a lot of data poorly. Programme staff should consider in detail the staff time and resource costs of data-collection to see what is reasonable. Ideally, electronic medical health records should be used to monitor coverage of brief interventions. This requires clear definition and agreement of clinical record codes that are used to record measurement, advice-giving and referral activities.

To be successful, monitoring and evaluation activities should ensure:

- the availability of relevant registering tools and reporting procedures that can be used for evaluation;
- the availability of relevant data/information sources and feasible measurement strategies;
- comprehensive monitoring of other influencers that affect movement along the logic chain and, ultimately, the chances of success;
- a systematic, structured and comprehensive approach is adopted to collecting, reporting and analysing data, including assignment of adequate staff resources; and
- a choice of indicators that are understandable and agreed by all programme stakeholders.

3.4 Take-home messages

- Monitoring and evaluation need to be built into all programmes from the outset at primary care and local and regional/country levels.
- The RE-AIM Framework is a tried and tested model for delivering monitoring and evaluation.
- The RE-AIM Framework provides information on how well the programme is doing in terms of its reach and coverage and ongoing information that can be used for course corrections if the programme is not achieving its expected results.

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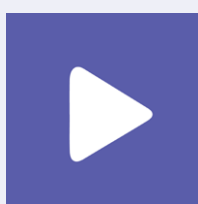
5 All references accessed 12 October 2022.

4 Training primary care providers



There is clear evidence that trained providers measure and advise more patients to reduce their exposure to risk factors for NCDs than their untrained peers. Training needs to be implemented through a coordinated approach that ensures appropriate system-level support, available referral options and alignment with clinical guidelines and care pathways. It needs to be tailored to local-level needs and must focus on patient-centred and health literacy skills. Face-to-face training should be skills-based, helping providers to converse with their patients in assessing and advising on risk-factor exposure. Face-to-face training needs to be delivered in short blocks to enable busy health-service providers to attend and can be supplemented with digital-based courses.

4.1 Introduction



Communicating with patients and giving health advice is a core task for primary care providers. Trained providers have opportunities to supply more consistent and effective advice to help their patients change their exposure to behavioural risk factors (1).

Evidence from systematic reviews, meta-analyses and multicountry studies has demonstrated that training can improve provider behaviour in:

- increasing coverage of the adult population with measurement of behavioural risk-factor exposure; and
- giving appropriate advice to quit tobacco (2,3), reduce alcohol use (4–8), improve eating behaviours (9) and increase physical activity (10,11).

At the outset, training on brief intervention delivery must go hand in hand with ensuring that the system enablers discussed in Chapter 2 are in place to overcome any real-life barriers to brief intervention programmes. There is no point in delivering training if system enablers are not in place to overcome concerns among primary care providers about time pressures, risk of causing offence, lack of referral options and lack of confidence in the impact of prevention in general and brief interventions in particular (12). The impact of training in helping to change provider activity will be considerably enhanced when operating in a broader supportive environment (see Chapter 1).

An important issue to address in training is what might be termed disease hierarchy. This is when brief interventions for behavioural risk factors are perceived as low-priority or low-prestige topics and therefore not worthy of major focus, particularly in the presence of competing pressures within a time-limited consultation (12).

Training needs to emphasize the importance of changing exposure to behavioural risk factors to improving patients' health and reducing the risks and consequences of a wide range of clinical comorbid conditions that providers normally deal with, such as cancers, cardiovascular diseases, gastrointestinal conditions and mental health disorders. Despite behaviour change having a major impact on a wide array of disease outcomes, training needs to reframe disease management discussions away from a common focus on pharmacological interventions and laboratory-based

disease monitoring toward supportive and patient-centred behaviour change. Training also needs to reframe attitudes that risky behaviours only result from patients' personal choices, and address assumptions health-service providers might hold that patients always know about the risks or do not want providers to discuss their health risks with them.

4.2 Training at systems level



4.2.1 Training and systems-level change

Primary care providers' ability to attend training and subsequently implement brief interventions may be contingent on a range of barriers that need to be addressed. The process of developing and implementing training programmes can be used to identify and drive needed changes at systems level. Measures to aid implementation of training for primary care providers should therefore start by pinpointing the barriers that those delivering brief interventions will face and considering how they can be overcome at system and local levels (13).

While some barriers will be common across geographically separated primary care settings, others will be setting-specific. A local needs assessment should be conducted to ensure no important barrier is missed.

After identifying barriers to delivering brief interventions, system- and local-level managers must decide which barriers to target. It will not be possible to address all barriers, no matter how important, and those that can be addressed will differ from setting to setting.

4.2.2 Support from system-level stakeholders

Gaining support for training from system-level stakeholders (such as health authorities at country, regional and municipal levels) is vital to ensuring primary care providers are supported in their work. Ideally, system-level stakeholders should:

- view the implementation of brief intervention programmes to reduce exposure to behavioural risk factors as paramount to achieving health gains;
- negotiate time for trainers to deliver training and for providers to attend;
- establish training accreditation; and
- where possible, negotiate the inclusion of risk-factor-specific performance indicators in providers' contracts and, if not available, consider commissioning the elaboration of guidelines.

4.2.3 Training and consistent health messaging

Reliable and consistent resources need to be available to enable health providers in primary care to deliver consistent messaging. Generating resources at national level allows for economies of scale to be made and may help promote consistency of service delivery across a whole country, particularly in relation to social marketing

campaigns (14). Large variations across regions and municipalities exist within many countries, however, so messaging may be better tailored and owned at regional or municipal level.

4.2.4 Training within a coordinated approach

Coordinating activity across the full range of health sectors (including public health) and environmental, education and related industry and commercial organizations can facilitate behaviour change by creating strong and consistent messages and improve the impact of brief interventions delivered in primary care. Where health providers feel their work alone will be inadequate to initiate and sustain behaviour change, policy changes and environmental and industry action may help boost health providers' motivation by demonstrating that brief intervention delivery is part of a much wider coordinated approach.

4.2.5 Training and available referral options

Training providers to reduce exposure to behavioural risk factors needs to be supported by referral options as part of care pathways, so it is important to ensure onward referral options are clear, accessible and are covered in the training. This includes working with local service providers in the public, private and voluntary sectors on developing traditional, online or e-referral systems, updating contact information and creating and posting flyers/posters/social media posts to advertise the service, and ensuring the service is simple to access and easy for health providers to recommend.

4.2.6 Training aligned with guidelines and care pathways

Training needs to be aligned with clinical guidelines and care pathways to ensure that important issues are covered. The following questions require responses.

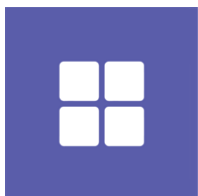
- Is the programme aimed at all people or targeted groups, such as those diagnosed with a secondary disease because of the risk factor, high-risk groups of vulnerable people, those living in high-deprivation areas, and people with multimorbidity and the presence of other risk-factor clusters?
- At what point should offering brief advice be recommended for risk factors that have a varying continuum, such as alcohol use, physical inactivity or increased BMI?
- Will advice be tailored to the clinical situation, so that an intervention appropriate to the patient's needs is offered? With weight management, for example, clinical pathways might differ depending on the level of BMI and other patient characteristics.

Where complex support is required, such as in severe and complex obesity, end-organ damage due to alcohol or in the presence of mental health disorders, it is vital that simplistic or tokenistic brief advice is not seen as an alternative to the structured exploration and treatment such complex conditions might require.

4.2.7 Importance of undergraduate and postgraduate education on brief interventions

Including brief intervention concepts across all behavioural risk factors in early and continuing provider education will help to generate familiarity and normalize brief intervention delivery. Education in brief interventions is as important as that for any other life-enhancing or life-saving intervention, and realizes compelling economic returns. Theoretical teaching approaches provide learning around the evidence underpinning brief interventions. Required communication skills are best learnt in practical settings. Credit-rating of postgraduate education needs to be established and education strategies and modes defined (in-person, distance-learning, workshops, masterclass or a combination) (15).

4.3 Training at local level



4.3.1 Training tailored to the local context

Training is most appropriate when tailored to the needs, opportunities and concerns of trainees. It is helpful to undertake a short pre-training survey of trainees to ask about their needs, opportunities and concerns, and sensitize the trainees to the upcoming course. A post-training survey could also be conducted, using the same survey instrument and method to identify if trainees' concerns have been assuaged and needs met.

4.3.2 Training as a multidisciplinary activity

Where possible, training should be organized as a multidisciplinary activity, involving doctors, nurses and other relevant providers, and be credited accordingly. Training needs to address the clinical backgrounds and expectations of the trainees. It is important to stress that advice to change behavioural risk-factor exposure across tobacco and alcohol use, unhealthy eating and physical inactivity can produce outcomes as beneficial as those of pharmacotherapy (16), emphasizing the need for such conversations to involve all providers, including doctors (17).

Shared training platforms across provider groups can promote understanding of how others within the same team learn, function and contribute. Hearing the perspectives of allied health workers and sharing ideas and learning from new sources in shared training platforms create added value and can improve efficiency and patient care through better awareness of skills, interests and services within the wider primary care team. Including patient perspectives, whether through presenting in-person or case vignettes, can bring a powerful dynamic to training and boost understanding of the need for patient-centred approaches.

4.3.3 Training and managing local barriers

Training can address a wide range of issues to help primary care providers to be more at ease when delivering brief intervention programmes. Training can cover time

management and how best to incorporate brief intervention programmes within busy schedules. It can set out the evidence of effectiveness and address fear of causing offence within its communication skills component, ensuring appropriate resources and referral support options are in place when the brief intervention is launched. The importance of each behaviour change can be elevated, putting the major benefits clearly into perspective alongside other aspects of medical care (16).

Barriers that training needs specifically to address differ by the characteristics of the providers. Some evidence suggests that female providers, young providers, those in lower staff grades and those with poorer health and lower mental well-being are less likely to feel comfortable in having health conversations with patients across all behavioural risk factors (13). Providers' health behaviours may also affect their interactions with patients. For example, providers who do not adhere to healthy eating and physical activity guidelines are less likely to initiate a conversation with patients about healthy eating and being more active (13).

Training needs to be delivered to match the needs of busy practitioners (18). Local managers need to:

- ensure that training is delivered within the health providers' work time, with systems in place to manage their usual work tasks;
- stress that new clinical skills will be gained through the training that will make a real difference to the health of their patients while simultaneously reducing a wide range of comorbid conditions; and
- ensure that accreditation for training is provided.

4.4 Constructing a training programme: components



4.4.1 Aims, objectives and outcomes of the programme

Design of the training programme must be defined by learning objectives and should include the list of knowledge, competencies and skills trainees should comprehend and/or demonstrate after the training. Developing communication skills is an essential part of training, as good communication skills are crucial for providing behavioural interventions and advice. Knowledge of the subject, a positive attitude and empathy are necessary to enhance competence and boost trainees' motivation to provide brief interventions.

Training should focus on integrated risk factors, balancing the risk that the intensity of training for each risk factor may be less than if each factor was approached individually. Addressing all factors in the same training package helps trainees appreciate that brief intervention core skills are the same no matter the risk factor being addressed.

4.4.2 Training on communication skills

4.4.2.1 RAISING SENSITIVE TOPICS

Training to deliver brief interventions can be effective in improving health providers' confidence. Simple phrases can generate a patient-centred conversation. Examples of so-called safe openers include asking if it is OK to ask – “Is it OK if I ask you about your weight?” – or asking about feelings: “How do you feel about your weight/smoking/eating habits/physical activity/alcohol intake?” Both approaches are respectful and give the patient a choice on whether to engage in discussion. Neither opener risks conveying health providers' judgement about the issue (19,20). Asking about feelings immediately enables the patient to explain where they are in relation to the topic raised and the resulting conversation can go in different directions depending on the response.

4.4.2.2 POSITIVE PHRASING AND PERSONALIZATION

Training should encourage a communication style in which the health provider is specific, positive and personal. For instance, “I think it could be really good for you”, rather than “Healthy eating/stopping smoking/etc. is a good thing”. It should also be linked specifically to the offer of help. Brief intervention therefore should be personalized to the person, not the person's illness. Recommending smoking cessation because of a person's worsening lung disease, for example, is less effective than offering smoking cessation support simply because the person smokes (21).

4.4.2.3 MOTIVATIONAL INTERVIEWING TECHNIQUES

While adoption of motivational interviewing approaches does not offer any guarantee of behaviour change, learning its techniques can improve health providers' confidence in communication and support patient-centred care, which in turn supports integration of brief intervention delivery across holistic health concerns (22). Training on communication skills for brief intervention delivery should preferably be succinct (“Tell me what to say and how to say it”), so comprehensive training on the use of motivational interviewing is best done independently for those specifically wishing to develop these skills.

4.4.3 Training on health literacy

Health literacy is linked to literacy in general and aims to enable people to maintain or improve their quality of life during the life-course. It encompasses people's knowledge, motivation and competencies to access, understand, appraise and apply health information to make judgements and decisions in everyday life concerning their health-care, disease-prevention and health-promotion behaviours (23,24). Health literacy therefore is both a means and an outcome of actions aimed at promoting the empowerment and participation of people in their health care.

Training for health providers should include health-literacy practices and education competencies (25,26). It should help providers understand the importance of health literacy across all its dimensions and how patients can be helped to increase their health literacy (23,24), taking into account culturally relevant information when

measuring and giving advice on risk-factor exposure for their patients (Table 2). User groups of patients representing a broad spectrum of cultural backgrounds could be brought in to advise on relevant aspects of communication and information.

Table 2. Health-literacy skills across the dimensions of health care, disease prevention and health promotion

Health literacy	Access or obtain information relevant to health	Understand information relevant to health	Appraise, judge or evaluate information relevant to health	Apply or use information relevant to health
Health care	1) Ability to access information on medical or clinical issues	2) Ability to understand medical information and derive meaning	3) Ability to interpret and evaluate medical information	4) Ability to make informed decisions on medical issues
Disease prevention	5) Ability to access information on risk factors	6) Ability to understand information on risk factors and derive meaning	7) Ability to interpret and evaluate information on risk factors	8) Ability to judge the relevance of the information on risk factors
Health promotion	9) Ability to update oneself on health issues	10) Ability to understand health-related information and derive meaning	11) Ability to interpret and evaluate information on health-related issues	12) Ability to form a reflected opinion on health issues

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Two simple health-literacy-driven communication skills are important when having conversations with patients (24):

- **use plain and simple language rather than medical terminology or complex words or sentences** to ensure the patient understands the first time the provider explains something; and
- **teach back** by asking patients in a friendly way to explain in their own words what they have learnt from the conversation and what they need to know or do – this checks if the provider has explained the issue well to the patient or if it needs to be re-explained.

4.4.4 Training on goal-setting

A common method for considering goal-setting for an individual patient's behaviour change is the SMART approach (specific, measurable, achievable, relevant and timely) (Table 3) (27).

Table 3. SMART goals

SMART GOALS	DESCRIPTION
Specific	What exactly do I want to achieve? Who is involved? What am I setting out to do? Where will it happen?
Measurable	How will I track progress and measure what I am doing? How will I know I am achieving my goal? Is it the right measure for what I am actually achieving?
Achievable	Is there a good chance of success or is my goal out of reach? Am I setting out to succeed or risking predictable failure?
Relevant	Is this goal worthwhile for me? Is it my own goal or someone else's?
Timely	Is my time frame clear to me? Do I have a start date and completion date in mind?

An example of a SMART goal might be, "Because I am not feeling very fit, I shall start attending the gym on Tuesday after work, because I finish earlier on Tuesdays. I will aim to go every week for the next six weeks, and then see if I have enjoyed it."

An example of a non-SMART goal might be, "The doctor said I'm so unhealthy I must give up smoking and lose 10 kg. I'll have to, otherwise I'll have to start those blood pressure tablets the doctor threatened me with."

Exploring which measures of progress the patient intends to use can open discussion on feasibility and whether goals are realistic. Choosing realistic outcomes is essential for advice to be taken up. For example, increasing physical activity alone is unlikely to lead to weight loss without addressing calorie intake at the same time. Goals set by patients may not necessarily match those considered necessary by providers but should be respected in the interests of providing individualized care. Goals and motivational drive are influenced by many complex and sometimes confounding variables, which can lead to ambivalence. Training in having a conversation around goal-setting and exploring ambivalence based on motivational interviewing skills may be a useful addition to the delivery of the brief advice.

4.4.5 Training on understanding socioeconomic and income disadvantage

People who live with socioeconomic and income disadvantage face structural barriers to getting the health support they need and acting on offered advice to change exposure to behavioural risk factors (28). It is not uncommon for health providers to misunderstand and even experience feelings of prejudice towards those who live with disadvantage. Teaching more widely about health inequalities and the socioeconomic determinants of health can help shape providers' attitudes and address any internal biases that might be present (29).

Training needs to stress the importance of ensuring that brief intervention programmes to help change exposure to behavioural risk factors reaches all people and not just those who are easy to reach, who may also be more socioeconomically advantaged. Otherwise, there is a risk of widening health inequalities (30). Disadvantaged groups can also be asked to relate examples of their lived experience as part of training so that providers can understand the needs and strengths of people directly from those who may have most socioeconomic and income disadvantage.

4.4.6 Training on ethical issues

While ethical issues may not necessarily be a component of all training programmes, including ethical questions in interactive training sessions can help generate deeper interest, debate and understanding among health-service providers. Examples of ethical questions could include the following.

- Should health-service providers flag-up concerns about a behavioural risk factor when no support service is available, affordable or accessible?
- Is reaching patients who are easy to reach but not those who are hard to reach at least partly justifiable because it is helping some people in the community?
- Does delivery of unfeasible brief advice, such as when a patient may not have transport to get to an otherwise accessible support service, risk widening health inequalities?
- Might a health-service provider be condoning unrealistic goals, and thereby setting people up to fail, by recommending simple brief advice to patients who have complex and interlinked health needs and difficulties?
- How should a health provider respond to a parent who is unwilling to take up advice to stop smoking or reduce heavy drinking and who therefore potentially is putting their children at risk of harm?

4.4.7 Training on data-recording

Computer data-recording is fundamental to ensuring targeted and appropriate brief intervention delivery. Training elements include emphasizing the importance of data-recording, explaining correct codes to use and encouraging responses to prompts so the system can support effective and efficient care.

4.4.8 Training on digital brief intervention delivery

Evidence that face-to-face delivery of brief intervention programmes can translate effectively to being delivered during remote consultations via digital and telemedicine approaches is growing. These approaches nevertheless seem to be more effective when supported and facilitated by patients' health-service providers (see Chapter 1), so training should address electronic formats and how they should be managed.

4.4.9 Training on understanding service funding

Training should provide brief explanations of relevant funding matters, such as how a brief intervention is commissioned or whether it is covered through insurance funding. Reflection on whether the work is considered a core or additional-to-core role may influence expectations of payment for delivering the service. Concerns about overflowing workloads and perceptions of people already working at maximum capacity in primary care may mean that addressing the funding aspects of what could be considered new work is crucial to encouraging health-service providers to engage. Health-service providers may otherwise raise legitimate questions about what work the new brief intervention is to replace, or how they can free-up capacity to take on the additional role.

4.5 Constructing a training programme: delivery



Training should be delivered by known and respected local experts who have been trained as trainers to cover the field of primary care-based brief interventions for behavioural risk factors.

The goal of training is to change providers' behaviour, closing the gap between low brief intervention delivery and systematic delivery of brief interventions to all adult patients. Managers should think about how to assure the training contents are delivered consistently across all training sessions. When training needs to be delivered by more than one team, preparatory work is essential to homogenize delivery.

4.5.1 Face-to-face training courses

Face-to-face training is the mainstay of education delivery, enabling didactic information to be taught but also allowing a variety of interactive formats, such as discussions, role plays, debates, videos, quizzes and case discussions, to be included. Communication skills benefit from role-playing opportunities that enable trainees to explore and become comfortable with the phrases they express when delivering brief interventions.

4.5.2 E-learning

This commonly used educational tool enables interactive learning and can include evaluation and certification. It is particularly useful for conveying fact-based knowledge. Completion of e-learning can be used by service commissioners to demonstrate compliance with essential skill requirements and trigger payments for participation.

4.5.3 Blended learning

Blended learning combines face-to-face teaching with e-learning, precourse preparation and practical experience. This layered approach has many advantages,

enabling each required component to be taught using the most suitable method (31). Blended learning can reduce the costs involved in delivering entirely face-to-face training and increase flexibility around when and where training takes place.

4.5.4 Training the trainers and cascade training

Confidence and expertise among trainers will influence how training filters through to the wider workforce. The level to which training is needed will depend on the complexity of the brief intervention and the behavioural risk factor the intervention addresses. An initial training exercise aimed at trainers can provide an exploratory setting in which essential components of the brief intervention, such as reference sources, referral links and contacts, can be checked as being clear and in place before wider roll-out for other providers commences.

Cascade training for brief interventions should be succinct and tailored to the specific audience involved in delivery. Planning should include course attendance certification to ensure the training can be recognized as part of each health-service provider's continuing development portfolio.

4.5.5 Outline of a training course: example

An example outline for a training course delivered over two three-hour sessions is shown in Table 4. The training could be delivered by one or two trainers, with up to 24 trainees. Such a course would only be the initial training – opportunities should be available for ongoing and booster training to address any concerns and needs expressed by providers as they gain experience in delivering brief intervention programmes to help reduce NCD risk-factor exposure among their patients.

Table 4. Example outline of a training course

ACTIVITY	DURATION (MINUTES)
Session 1	180
Unit 1. Introduction and about the course	30
1 Welcome and introductions	
2 Course overview, handouts and precourse reading	
3 Discussion of expectations of the course	
4 Ground rules of the course	
5 Preliminary knowledge and skills assessment	
6 Summary	
Unit 2. Introduction to changing health behaviours	30
1 Epidemiology of behavioural risk factors and noncommunicable diseases, including socioeconomic determinants	
2 Health behaviour change principles and stages	
3 Attitudes to health behaviour change	
4 Models of brief interventions	
5 Effectiveness of brief interventions	
6 Summary	
Unit 3. Patient-centred approach and core communication skills	120
1 Principles of the patient-centred approach	
• Individual health literacy	
• Organizational health literacy	
• Shared decision-making	
2 Communication skills	
• Starting the consultation	
• Open-ended questions	
• Empathy	
• Reflective listening	
• Minding tone of the voice, body language and gestures	
• Affirmations	
• Compassion	
• Awakening	
• Summarizing	
• Motivational interviewing technique: main principles and processes	
3 Summary	

Table 4 contd

ACTIVITY	DURATION (MINUTES)
Session 2	180
Unit 4. Integrated approach to delivery of brief interventions, Part 1	100
1 When to offer a brief intervention	
2 Managing multiple behavioural risk factors	
3 Asking about and measuring exposure to behavioural risk factors	
4 Advising on the benefits and best ways to change behaviour	
5 Assessing patients' readiness to change	
6 If patient is not ready to change, using the Five R's model to help motivate change	
7 Assisting with helping to develop a plan to change behaviour	
8 Arranging a follow-up session and referral, if indicated	
9 Dealing with difficult situations	
10 Summary	
Unit 5. Integrated approach to delivery of brief interventions, Part 2	60
1 Multidisciplinary team working	
2 Time management and time availability	
3 Contractual obligations and service funding	
4 Digital brief interventions	
5 Data-recording, monitoring and evaluation	
6 Ethical issues	
7 Summary	
Unit 6. Closing	20
1 Postcourse assessment	
2 Feedback on the course	

WHO resources to support training initiatives are shown in Box 1.

Box 1. WHO resources to support training initiatives^a

- Strengthening health systems for treating tobacco dependence in primary care. Geneva: World Health Organization; 2013 (<https://apps.who.int/iris/handle/10665/84388>).
- Toolkit for delivering the 5A's and 5R's brief tobacco interventions in primary care. Geneva: World Health Organization; 2014 (<https://apps.who.int/iris/handle/10665/112835>).
- WHO alcohol brief intervention training manual for primary care. Copenhagen; WHO Regional Office for Europe; 2017 (<https://apps.who.int/iris/handle/10665/346078>).
- Pryke R, Breda J, Jewell J, Ramos Salas X. Training in nutrition, physical activity and obesity in primary care settings: course workbook. Copenhagen; WHO Regional Office for Europe; 2019 (<https://apps.who.int/iris/handle/10665/346477>).
- Training for primary care providers: brief tobacco interventions (WHO e-learning course). In: Virtual Campus for Public Health of PAHO/WHO [website]. Washington (DC): Pan American Health Organization; 2022 (<https://www.campusvirtualsp.org/en/course/training-primary-care-providers-brief-tobacco-interventions-2021-who-e-learning-course>).

a All references accessed 12 October 2022.

4.6 Take-home messages

- Trained primary care providers measure and advise more patients to reduce exposure to risk factors for NCDs than providers who are not trained.
- Training should be practical and skills-based, helping providers strengthen their patient-centred communication skills when conversing with patients.
- Face-to-face training needs to be delivered with short courses to enable busy primary care providers to attend and can be supplemented with digital-based learning.

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PART 2. ANNEXES



Annex 1. Integrated approaches



There are many options in primary care to assess a patient's exposure to behavioural risk factors and to give advice to help people change their exposure. This can be done:

- when a patient registers with, or newly attends, a primary care centre;
- during an invited health check;
- when a patient consults with a health condition that can be due to unhealthy exposure to a behavioural risk factor (such as raised blood pressure or depression); or
- when a patient consults for any reason.

Each option has advantages and disadvantages, and it is for the primary care centre to decide the approach best suited to the patient's needs. Administering a health questionnaire when a patient registers or during an invited health check is a structured way of undertaking brief intervention programmes, but it takes a long time for the centre to achieve high coverage of patients who have been assessed.

Undertaking the measurement and brief advice during a regular consultation for a condition that can be due to unhealthy exposure to a behavioural risk factor (such as raised blood pressure or depression) is an easy way to raise the issues and relates the behaviour to the consulting condition. Patients in these circumstances can be more motivated for change (high impact).

Undertaking the measurement and brief advice when a patient consults for any reason extends the length of the consultation, but provides a more rapid way of reaching many patients (high coverage).

Health-service providers in primary care comprise a wide range of workers and can include family doctors/general practitioners, nurses, midwives, community health workers, physician assistants, rehabilitation workers, nutritionists/dietitians, care managers, social workers, pharmacists, dentists, health promoters, counsellors, opticians and support staff. Ideally, all types of health-service providers who can potentially be involved in delivering simple brief intervention programmes in primary care should be involved (see Part 1, Chapter 2 for more details).

Measuring exposure to behavioural risk factors

As with all individual topic areas, measurement should cover exposure and assessments of tobacco use, alcohol use, eating and physical activity. The following questionnaires (Table A1.1–A1.4) can be utilized and adapted as appropriate for each country (for more details of the questions for each risk factor, see Annexes 2–5).

Table A1.1. Example questionnaires: Heaviness of Smoking Index

IF THE PATIENT SMOKES CIGARETTES	RESPONSE	SCORE
1. How soon after you wake up do you smoke your first cigarette?	After 60 minutes	0
	31–60 minutes	1
	6–30 minutes	2
	Within 5 minutes	3
2. How many cigarettes do you typically smoke per day?	10 or fewer	0
	11–20	1
	21–30	2
	31 or more	3
TOTAL:		

Table A1.2. Example questionnaires: AUDIT-C

AUDIT-C QUESTIONS ^a	SCORING SYSTEM					SCORE
	0	1	2	3	4	
1. How often do you have a drink containing alcohol?	Never	Monthly or less	2–4 times per month	2–3 times per week	4 or more times per week	
2. How many standard ^b drinks of alcohol do you drink on a typical day when you are drinking?	1–2	3–4	5–6	7–9	10 or more	
3. How often do you have 6 or more standard drinks on one occasion?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
TOTAL:						

AUDIT-C: Alcohol Use Disorders Identification Test Consumption.

^a Where country-specific AUDIT (Alcohol Use Disorders Identification Test) or AUDIT-C questions and cut-off scores for giving advice exist, these should be used (for example, see AUDIT (1) and WHO Regional Office for Europe (2)).

^b A standard drink is a measure of alcohol consumption that represents a hypothetical beverage that contains a fixed amount of pure alcohol. The concept of a standard drink was introduced to help conceptualize and measure the absolute alcohol content of various beverage types and serving sizes. Various European countries have a standard drink which is equivalent to 10–12 g of pure alcohol. However, standard drink sizes vary, and the precise meaning may depend on the country and cultural context. This manual refers to a standard drink that is equivalent to 10 g of pure alcohol.

Table A1.3. Example questionnaires: Starting the Conversation^{ab}

ASK ABOUT THE FREQUENCY OF CONSUMPTION OVER THE PREVIOUS FEW MONTHS				SCORE
	0 POINTS	1 POINT	2 POINTS	
1. Fast food meals or snacks per month	Fewer than 1 time	1–3 times	4 or more times	
2. Servings of fruit and vegetables per day	5 times or more	3–4 times	2 or fewer times	
3. Regular soft drinks, juices or other sugary beverages per month	1 time or fewer	1–2 times	3 or more times	
4. Servings of beans, nuts, chicken or fish per week	3 or more times	1–2 times	Fewer than 1 time	
5. Regular chips/crisps or crackers per week	1 time or fewer	2–3 times	4 or more times	
6. Sugary desserts and other sweets per week	1 time or fewer	2–3 times	4 or more times	
7. Use of butter or meat fat per week	2–3 times or fewer	4–6 times	7 or more times	
TOTAL:				

^a This manual does not recommend any particular tool to fully assess eating habits but provides examples of tools that can be used to raise questions on eating patterns.

^b For the purposes of this manual, the questions have been adapted to better reflect the WHO nutritional guidelines. It should be noted, however, that unlike the original tool, this version of the tool has not been validated.

Table A1.4. Example questionnaire: Global Physical Activity Questionnaire

Next, I am going to ask you about the time you spend doing different types of physical activity in a typical week. Please answer these questions even if you do not consider yourself to be a physically active person.

Think first about the time you spend doing work. Think of work as the things that you have to do, such as paid or unpaid work, study/training, household chores, harvesting food/crops, fishing or hunting for food and seeking employment [insert other examples if needed]. In answering the following questions, vigorous-intensity activities are activities that require hard physical effort and cause large increases in breathing or heart rate, and moderate-intensity activities are activities that require moderate physical effort and cause small increases in breathing or heart rate.

ACTIVITY AT WORK	RESPONSE	ANSWER
1. Does your work involve vigorous-intensity activity that causes large increases in breathing or heart rate like <i>[carrying or lifting heavy loads, digging or construction work]</i> for at least 10 minutes continuously?	Yes No <i>If No, go to Q4</i>	
2. In a typical week, on how many days do you do vigorous-intensity activities as part of your work?	Number of days	
3. How much time do you spend doing vigorous-intensity activities at work on a typical day?	In hours and minutes	
4. Does your work involve moderate-intensity activity that causes small increases in breathing or heart rate, such as brisk walking <i>[or carrying light loads]</i> for at least 10 minutes continuously?	Yes No <i>If No, go to Q7</i>	
5. In a typical week, on how many days do you do moderate-intensity activities as part of your work?	Number of days	
6. How much time do you spend doing moderate-intensity activities at work on a typical day?	In hours and minutes	
TRAVEL TO AND FROM PLACES	RESPONSE	ANSWER
The next questions exclude the physical activities at work that you have already mentioned. Now I would like to ask you about the usual way you travel to and from places. For example, to work, for shopping, to market, to a place of worship [insert other examples if needed].		
7. Do you walk or use a bicycle (pedal cycle) for at least 10 minutes continuously to get to and from places?	Yes No <i>If No, go to Q10</i>	
8. In a typical week, on how many days do you walk or bicycle for at least 10 minutes continuously to get to and from places?	Number of days	
9. How much time do you spend walking or bicycling for travel on a typical day?	In hours and minutes	
RECREATIONAL ACTIVITIES	RESPONSE	ANSWER
The next questions exclude the work and transport activities that you have already mentioned. Now I would like to ask you about sports, fitness and recreational activities (leisure).		
10. Do you do any vigorous-intensity sports, fitness or recreational (leisure) activities that cause large increases in breathing or heart rate like <i>[running or football]</i> for at least 10 minutes continuously?	Yes No <i>If No, go to Q13</i>	
11. In a typical week, on how many days do you do vigorous-intensity sports, fitness or recreational (leisure) activities?	Number of days	

Table A1.4 contd

12. How much time do you spend doing vigorous-intensity sports, fitness or recreational activities on a typical day?	In hours and minutes
13. Do you do any moderate-intensity sports, fitness or recreational (leisure) activities that cause a small increase in breathing or heart rate, such as brisk walking, [cycling, swimming, volleyball] for at least 10 minutes continuously?	Yes No <i>If No, go to Q16</i>
14. In a typical week, on how many days do you do moderate-intensity sports, fitness or recreational (leisure) activities?	Number of days
15. How much time do you spend doing moderate-intensity sports, fitness or recreational (leisure) activities on a typical day?	In hours and minutes
SEDENTARY BEHAVIOUR	RESPONSE
ANSWER	
The following question is about sitting or reclining at work, at home, getting to and from places or with friends, including time spent [sitting at a desk, sitting with friends, travelling in car, bus, train, reading, playing cards or watching television], but do not include time spent sleeping.	
16. How much time do you usually spend sitting or reclining on a typical day?	In hours and minutes

Assessing weight status

As a physiological attribute, body mass index (body weight in kg/height in m²) (BMI) should also be measured, provided the patient has given consent to do so.

Advice to change exposure to NCD risk factors

Anyone who smokes or uses any tobacco products should be advised to quit, with brief advice supplemented with intensive behavioural support and pharmacotherapy, if appropriate, and/or referral to population-level support or cessation clinics, if available.

In general, anyone with an AUDIT-C score of 5 or more should be advised to drink less alcohol. If only question 1 of the AUDIT-C is asked, anyone with a score of 4 should be advised to drink less alcohol. People should be advised that alcohol causes cancer, for which there is no level of consumption that is risk-free. Women who are trying to become pregnant or are pregnant or who are breastfeeding should be advised not to drink any alcohol. All people with alcohol-related end-organ damage (including, for example, brain damage and cirrhosis of the liver) should be advised not to drink any alcohol. Where country-specific AUDIT or AUDIT-C questions and cut-off scores for giving advice exist, these should be used (see, for example, AUDIT (1)).

Adults should be advised to (3,4):

- eat more fruits, vegetables, legumes (lentils, beans), nuts and whole grains (unprocessed maize, millet, oats, wheat and brown rice), including at least 400 g (five portions) of fruit and vegetables per day, excluding potatoes, sweet potatoes, cassava and other starchy roots;

- control fat intake (not more than 30% of daily energy) and replace most saturated fats (found in fatty meat, butter, palm and coconut oil, cream, cheese, ghee and lard) with unsaturated fats (found in fish, avocado and nuts, and in sunflower, soybean, canola and olive oils);
- reduce the amount of consumed salt to less than 5 g (equivalent to about one teaspoon) per day, including the salt in bread and processed, cured and preserved foods, and use iodized salt;
- choose milk and dairy products (kefir, sour milk, yoghurt and cheese) that are low in both fat and salt; and
- select foods that are low in sugar (less than 10% of total energy intake but ideally less than 5%).

Everyone should be advised to be active, particularly those who spend much time being sedentary. The goals should be (5):

- for all adults (including older adults, adults and older adults with chronic conditions, adults living with disability, and pregnant and postpartum women) to reduce sedentary behaviours, such as sitting, by replacing sedentary behaviours with physical activity of any intensity;
- for all adults (including older adults, adults and older adults with chronic conditions, and adults living with disability) to undertake at least 150–300 minutes of moderate-intensity aerobic physical activity per week, or at least 75–150 minutes of vigorous-intensity aerobic physical activity, or an equivalent combination;
- for all adults (including older adults, adults and older adults with chronic conditions, and adults living with disability) to undertake muscle-strengthening activities at moderate or greater intensity that involve all major muscle groups on two or more days a week, as these provide additional health benefits;
- for adults aged 65 years or more, adults and older adults with chronic conditions, and adults living with disability, as part of their weekly physical activity, to undertake varied multicomponent physical activity that emphasizes functional balance and strength training at moderate or greater intensity (such as dancing or tai chi) on three or more days a week, to enhance functional capacity and prevent falls; and
- for pregnant and postpartum women to undertake at least 150 minutes of moderate-intensity aerobic physical activity per week and incorporate a variety of aerobic and muscle-strengthening activities (adding gentle stretching may also provide benefits); women who before pregnancy habitually engaged in vigorous-intensity aerobic activity or who were physically active can continue these activities during pregnancy and the postpartum period.

Anyone living with a BMI of 25 kg/m² or greater should be offered the opportunity of consenting to a supportive, patient-centred conversation about their weight to consider the benefits of weight management. This could be achieved through a combination of healthier eating and increased physical activity (as proposed above) or other individual recommendations depending on health status. Aggressive weight-loss programmes might not be indicated in persons with active disease or who are in older age.

The focus of this manual is on helping people who live with a BMI of 25 kg/m² or greater with options to manage their weight, but the issues of **underweight and nutritional deficiencies** also need to be addressed. Malnutrition risk should also be assessed in all people with involuntary weight loss and in individuals without overweight and obesity, but also in people who live with overweight and obesity. People with a BMI of 18.5 kg/m² or less or with significant involuntary weight loss (such as over 10% indefinite of time or more than 5% over the last three months) at any BMI should be considered as living with underweight and/or with malnutrition (6). Malnutrition could also be a complication of many noncommunicable diseases (NCDs) and is commonly associated with nutritional deficiencies and negative clinical outcomes (7).

The clinical diagnosis and management of malnutrition is beyond the scope of this manual. Validated and simple tools for primary health care are the Malnutrition Universal Screening Tool and the Mini Nutritional Assessment® for older adults, as recommended by the European Society of Clinical Nutrition and Metabolism (8). The diagnosis of malnutrition can be made following the algorithm according to the Global Leadership Initiative on Malnutrition (9,10).

Approaches for advice

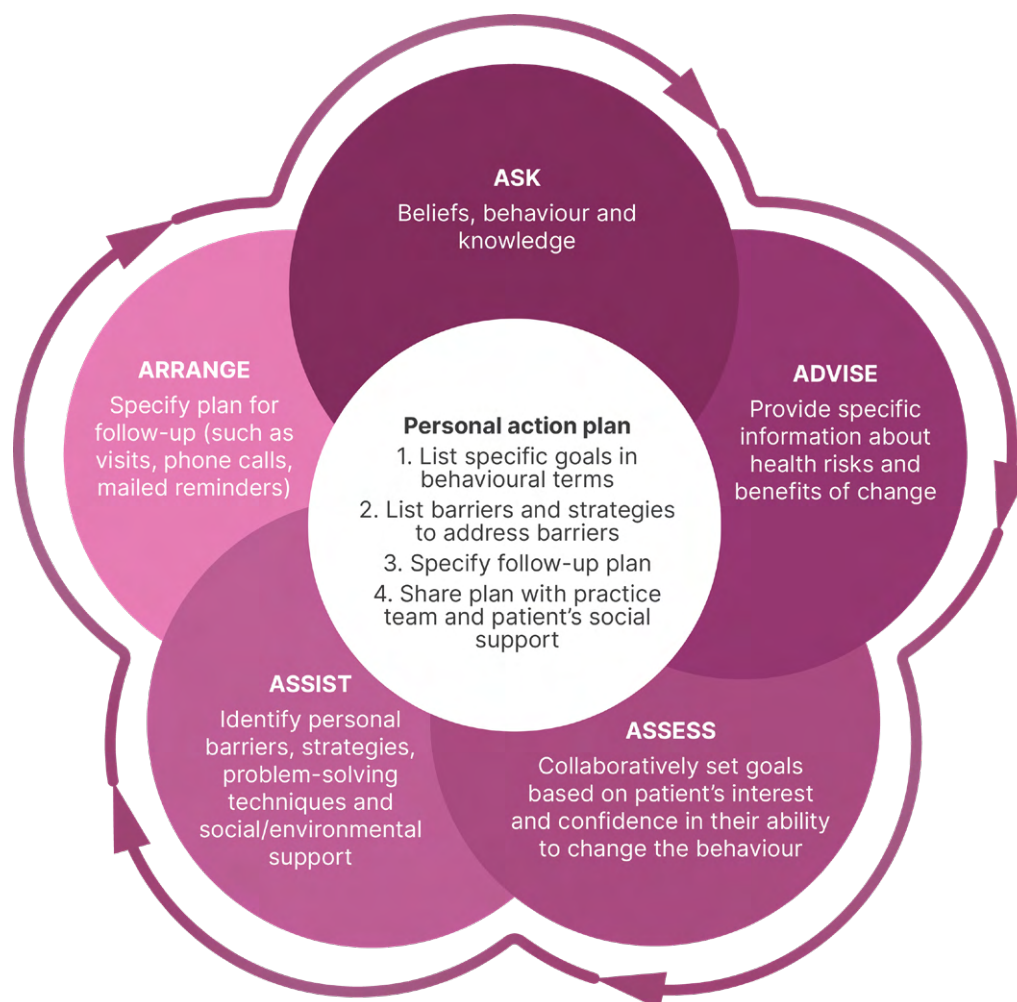
The approach for brief advice to change each individual risk factor is described in Annexes 2–5. Integrated approaches address different types of risk behaviours: high-exposure risk behaviours, exposure to which needs to decrease or stop (such as cigarette smoking and alcohol use); and low-exposure risk behaviours, exposure to which needs to improve (such as healthy eating and physical activity).

There are positive benefits to giving advice that deals with increasing healthy eating and physical activity together, while it seems that advice on changing smoking behaviour is more effective when given on its own, rather than simultaneously with advice relating to other behaviours. In the presence of adverse behaviour risk factors that cut across those that need to decrease and those that need to increase, it appears that sequential interventions targeting more than one behaviour are better than simultaneous interventions; the decision-making process on which behaviour to address first should be driven by patient involvement.

The Five A's brief intervention model

Common to all behavioural risk factors, structured brief advice can be offered using a recognized evidence-based resource such as the **Five A's brief intervention model** – **A**sk, **A**dvice, **A**ssess, **A**ssist and **A**rrange (Fig. A1.1).

Fig. A1.1. Five A's brief intervention model



Source: adapted from Glasgow et al. (11). Reprinted from American Journal of Preventive Medicine, 27/(2S), Glasgow RE, Goldstein MG, Ockene JK, Pronk NP, Translating what we have learned into practice principles and hypotheses for interventions addressing multiple behaviors in primary care, 88–101, © 2004, with permission from Elsevier.

When delivering the Five A's brief intervention model, the components of the advice can be based on **FRAMES**(12):

- **F**eedback (on the patient's health risk related to their smoking, alcohol use, eating habits and physical activity);
- **R**esponsibility (change is the patient's responsibility);
- **A**dvice (provision of clear advice when requested);
- **M**enu (what are the options for change?);
- **E**mpathy (an approach that is warm, reflective and understanding); and
- **S**elf-efficacy (optimism about the behaviour change).

Assess readiness to change

Assessing the patient's readiness to start making a change can be done by asking two simple questions (13).

1. Are you ready to have eating habits that include more healthy options? Be more physically active? Be a non-smoker? Drink less alcohol?
2. Do you think you will be able to make the change?

Q1	YES	NOT SURE	NO
Q2	YES	NOT SURE	NO

Answers in the light zone: suggest going to the next step of advice. Answers in the dark zone: the patient may not be ready for change – use the **Five R's model**:

1. **Relevance** – encourage the patient to indicate why changing behaviour of exposure to the risk factor is personally relevant;
2. **Risks** – ask the patient to identify potential negative consequences of their current behaviour;
3. **Rewards** – ask the patient to identify potential benefits of changing their current behaviour;
4. **Roadblocks** – ask the patient to identify barriers or impediments to changing their behaviour; and
5. **Repetition** – the motivational intervention should be repeated every time an unmotivated patient has an interaction with a health-care provider; patients who have not managed to change their behaviour should be informed that most people make repeated attempts before they are successful.

Assist with setting goals and action plans

The SMART criteria can be used to set goals. **SMART** stands for **S**pecific, **M**easurable, **A**chievable, **R**ealistic, and **T**imely in Part 1 (14). An example of a SMART goal is, "I will engage in 30 minutes of aerobic physical activity five days a week for the next four weeks."

Well defined goals are necessary for goal attainment because they help people focus their desires and intentions and create a standard by which success can be measured. A SMART goal should be motivating and appropriately challenging and be achievement-based. A limitation of SMART goals, however, is that they do not specify **how** the goal will be implemented. In the example mentioned above, physical activity can be achieved in various ways: walking around the block, running on a track, going to the gym, one 30-minute bout of physical activity or three 10-minute bouts.

To facilitate implementation of SMART goals, people can be assisted with developing action plans that specify **where**, **when** and **how** a goal will be implemented. Action plans should be made by the person, shared with others, be of short duration (such

as one week) and be re-evaluated every week. People can be asked to rate their confidence for carrying out their action plan on a 10-point scale. If confidence is rated lower than a 7, a more feasible action plan should be selected.

Flow diagram and guidance

The flow diagram and more detailed guidance for managing an integrated approach to risk factors are presented in Fig. A1.2 and Fig A1.3, with different approaches used depending on the time available.

No time available: give a leaflet on the benefits of, and recommendations for, behaviour change. Ensure that the leaflet provides links to available country-relevant, web-based, computer-based and mobile applications to support patients in their behaviour change. Leave the door open for a next visit to address this issue.

3–5 minutes or less available: ask about exposure to the risk factor(s); use very brief advice on the benefits and best ways to change health behaviour; act by offering help on ways to change health behaviour.

5–10 minutes available: use brief intervention, based on the **Five A's brief intervention model**: ask and measure exposure to the risk factor(s); advise on the benefits and best ways to change behaviour; assess patients' readiness to change; assist with helping to develop a plan to change behaviour; and arrange a follow-up session and referral to a specialist for more in-depth consultation, if indicated.

More than 10 minutes available: use brief intervention, based on the **Five A's brief intervention model**: ask and measure exposure to the risk factor(s); advise on the benefits and best ways to change behaviour; assess patients' readiness to change; if patient is not ready to change, use the **Five R's model** to help motivate change (identify relevance of changing behaviour; identify potential risks in continuing risky behaviour; identify potential benefits and rewards to changing behaviour; identify barriers and roadblocks to changing behaviour; and, through repetition, re-assess readiness to change); assist with helping to develop a plan to change behaviour; and arrange a follow-up session and referral to a specialist for more in-depth consultation, if indicated.

Always refer all patients to, and encourage them to use, available web-based, computer-based and mobile applications to support them in their behaviour change.

Fig. A1.2. Flow diagram for helping people change exposure to risk factors – integrated approach

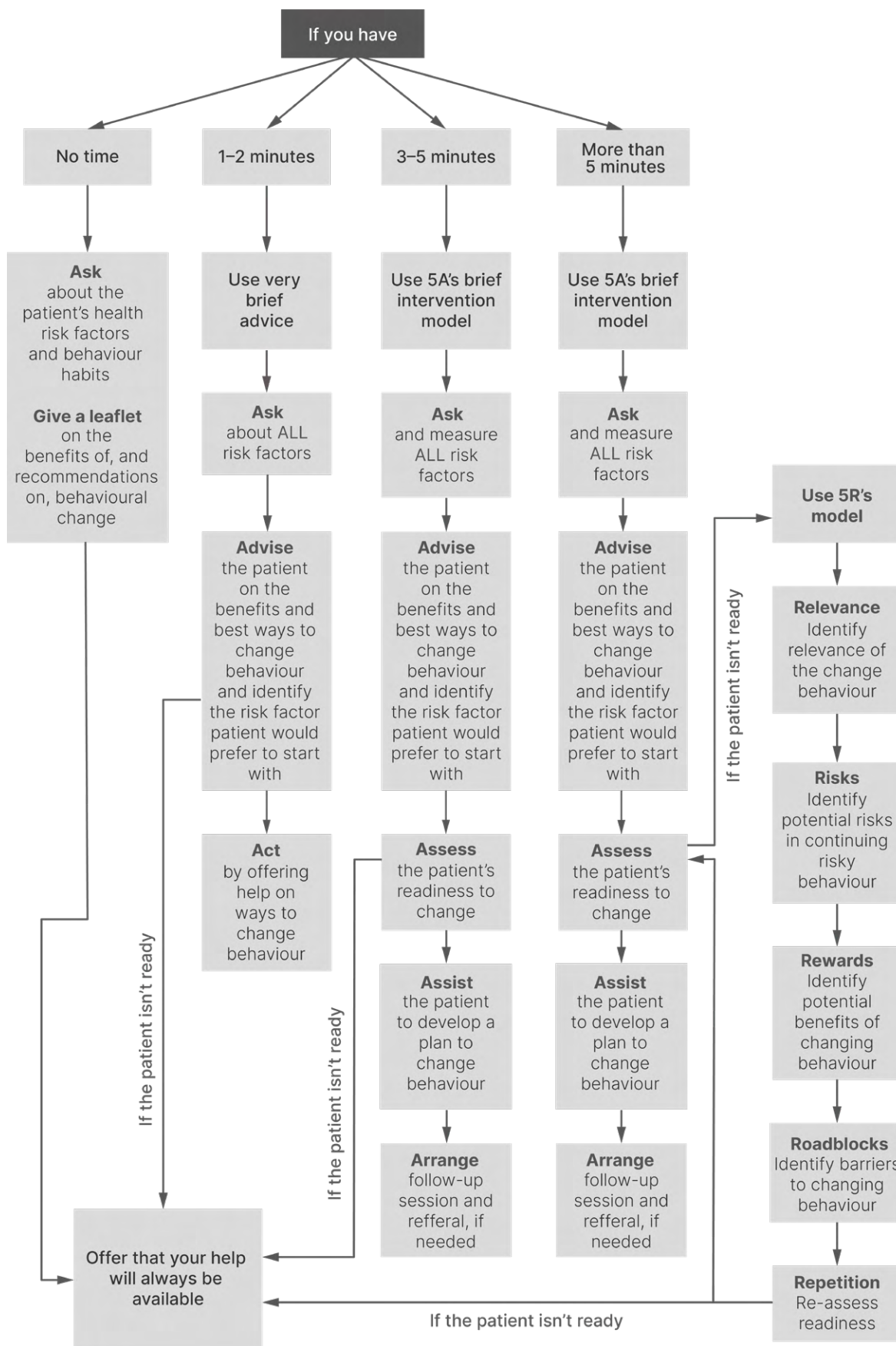


Fig. A1.3. Guidance for helping people change exposure to risk factors – integrated approach (should be adapted to local context)

NO TIME

Ask about risk factors and behaviour habits, note in the patient's file, and provide leaflet/resources of information on risk-reduction benefits, recommendations and steps to achieve reduction, and links to web-based, computer-based and mobile applications to support patients in their behaviour change. Follow-up next time the patient consults

3–5 MINUTES

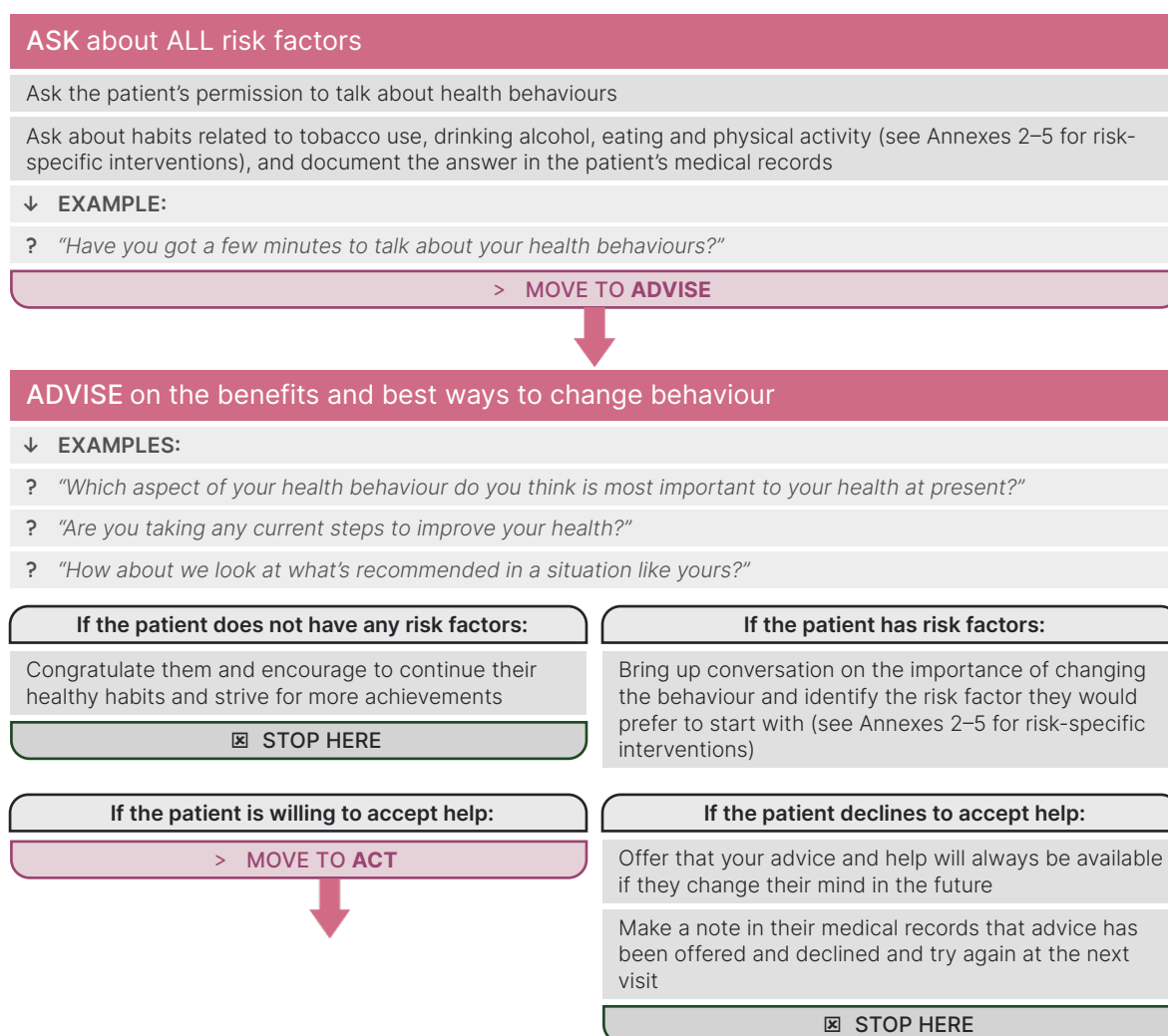


Fig. A1.3 contd



ACT by offering help

Congratulate them on their decision to change and act on their response to advice by facilitating referral to a local support centre or alternative support (such as another health-care provider, online services, self-help materials etc.) (see Annexes 2–5 for risk-specific interventions)

If referring the patient to a specialist, ask your team to help them arrange an appointment or arrange it for them

Make sure to follow-up at next consultation on any progress and provide more time for the conversation if possible

↓ **EXAMPLES:**

? *“Here is some information that may address your concerns about your health; would you like to take a look?”*

? *“What do you think about attending a [name of specialist service, such as dietitian, smoking cessation officer] who can give you specific support?”*

STOP HERE

5–10 MINUTES

ASK about and measure ALL risk factors

Ask the patient's permission to talk about their health behaviours

Ask about habits related to tobacco use, drinking alcohol, eating and physical activity (see Annexes 2–5 for risk-specific interventions), and document the answer in the patient's medical records

↓ **EXAMPLES:**

? *“Is it ok if I ask you some health-behaviour questions to update your health record?”*

? *“Are you happy to talk now about your health behaviour and how it affects your health?”*

> **MOVE TO ADVISE**



ADVISE on the benefits and best ways to change behaviour

↓ **EXAMPLES:**

? *“Which aspect of your health behaviour do you think is most important to your health at present?”*

? *“We know addressing [risk factor] can bring health benefits. Would it be helpful to discuss which changes would be most relevant to your situation?”*

? *“Would you like me to make some suggestions?”*

? *“Would you like me to explain how this can be achieved?”*

If the patient does not have any risk factors:

Congratulate them and encourage to continue healthy habits and strive for more achievements

STOP HERE

If the patient has risk factors:

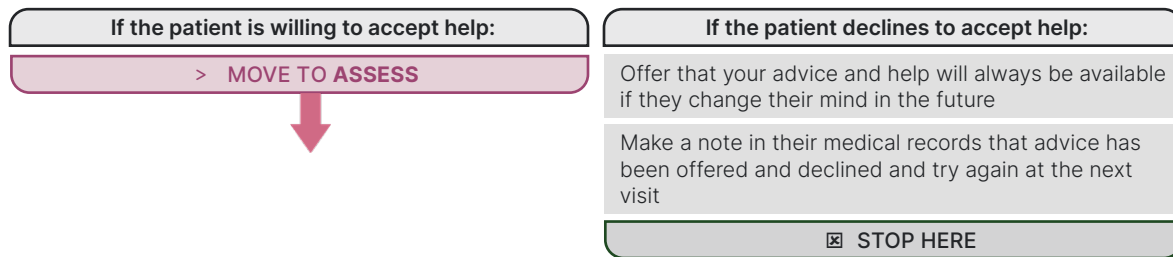
Bring up conversation on the importance of changing the behaviour and identify the risk factor they would prefer to start with (see Annexes 2–5 for risk-specific interventions)

Advice should be simple, clear, strong and personalized

Don't build too personal a connection with the patient's conditions to avoid resistance

Stay positive!

Fig. A1.3 contd



ASSESS the patient's readiness to change

Assess with two questions

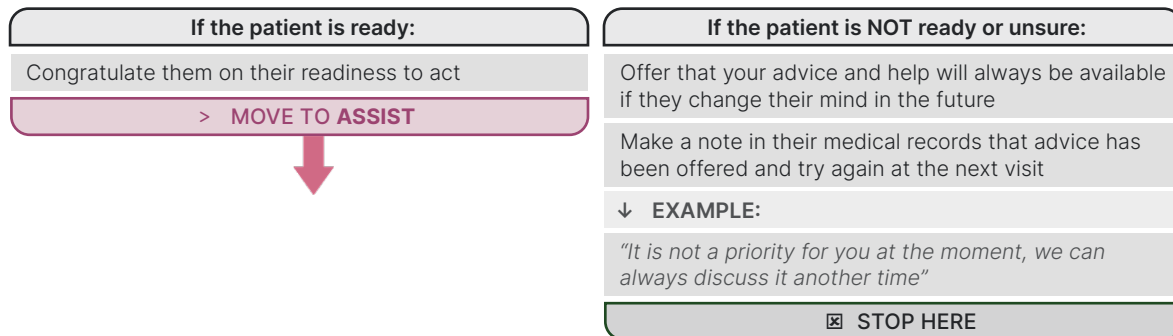
Q1 "Would you like to change [risk-specific behaviour]?"

Q2 "Do you think you have a chance of achieving it successfully?"

Q1	YES	NOT SURE	NO
Q2	YES	NOT SURE	NO

Any answer in the shaded area indicates that the person is not yet ready to change. In this case, effort needs to be made to increase motivation for change

Answers in the white area suggest you and the patient can move on to the next step



ASSIST with helping to develop goals and a plan to change the behaviour

Use the STAR method to develop a behaviour-change plan

Share practical ways to start and basic information on risk factor

Help identify areas in daily life where they could start

Help to set up goals and action plans

Provide social support

Provide supplementary materials and other referral resources or support services if applicable

See Annexes 2–5 for risk-specific interventions

The support given needs to be described **positively** but realistically

↓ **EXAMPLES:**

? "What may get in your way to making healthier choices in your life?"

? "What ways have you already thought about to help you improve your health behaviour?"



Fig. A1.3 contd



ARRANGE a follow-up session and/or referral

If referring the patient to a specialist, ask your team to help them arrange an appointment or arrange it for them

Use practical methods such as telephone, personal visit and mail/email to do the follow-up

Following-up with the patient is recommended to be done through teamwork if possible (see Annexes 2–5 for risk-specific interventions)

Follow-up on any challenges faced by the patient but also any successes

If the patient is changing the behaviour, congratulate them on their success if they are following the advice provided

If the patient is experiencing challenges, remind them of the benefits and variety of ways to change the behaviour, discuss ways to address challenges and encourage recommitment, and link with additional support and resources if available

Schedule next follow-up

↓ EXAMPLES:

? "Would you find follow-up helpful to continue your efforts?"

? "Would you like to follow-up on this challenge next time we see each other?"

? "There is an excellent specialist on the challenge you are facing. Would you like to give it a try?"

? "You must be pleased with the results of all your efforts."

? "You must be really proud of yourself."

MORE THAN 10 MINUTES

ASK about and measure ALL risk factors

Ask the patient's permission to talk about their health behaviours

Ask about habits related to tobacco use, drinking alcohol, eating and physical activity (see Annexes 2–5 for risk-specific interventions), and document the answer in the patient's medical records

> MOVE TO ADVISE



ADVISE on the benefits and best ways to change behaviour

If the patient does not have any risk factors:

Congratulate them and encourage them to continue their healthy habits and strive for more achievements

☒ STOP HERE

If the patient has risk factors:

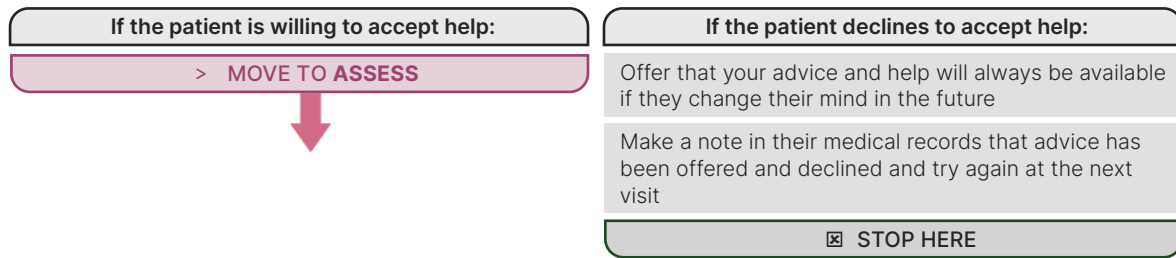
Bring up conversation on the importance of changing the behaviour and identify the risk factor they would prefer to start with (see Annexes 2–5 for risk-specific interventions)

Advice should be simple, clear, strong and personalized

Don't build too much of a personal connection with the patient's conditions to avoid resistance

Stay positive!

Fig. A1.3 contd



ASSESS the patient's readiness to change

Assess with two questions

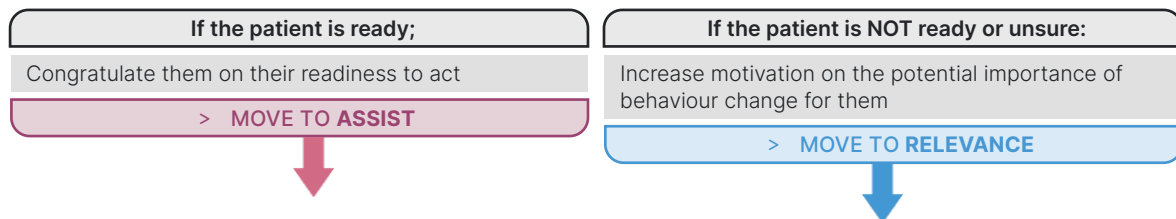
Q1 "Would you like to change [risk-specific behaviour]?"

Q2 "Do you think you have a chance of achieving it successfully?"

Q1	YES	NOT SURE	NO
Q2	YES	NOT SURE	NO

Any answer in the shaded area indicates that the person is not yet ready to change. In this case, effort needs to be made to increase motivation for change

Answers in the white area suggest that you and the patient can move on to the next step



ASSIST with helping to develop a plan to change the behaviour

Use the STAR method to develop a behaviour-change plan

Share practical ways to start and basic information on risk factor

Help identify areas in daily life where they could start

Help to set up goals and action plans

Provide social support

Provide supplementary materials and other referral resources or support services if applicable

See Annexes 2–5 for risk-specific interventions

The support given needs to be described **positively** but realistically



Fig. A1.3 contd



ARRANGE a follow-up session and/or referral

If referring the patient to a specialist, ask your team to help them arrange an appointment or arrange it for them

Use practical methods such as telephone, personal visit and mail/email to do the follow-up

Following up with the patient is recommended to be done through teamwork if possible (see Annexes 2–5 for risk-specific interventions)

Follow-up on any challenges faced by the patient but also any successes

If the patient is changing the behaviour, congratulate them on their success if they are following the advice provided

If the patient is experiencing challenges, remind them of benefits and variety of ways to change the behaviour, discuss ways to address challenges and encourage recommitment, and link with additional support and resources if available

Schedule next follow-up

☒ STOP HERE

RELEVANCE

Encourage the patient to indicate how changing behaviour is relevant to them

↓ **EXAMPLE:**

? "How is being [risk-specific behaviour change] most personally relevant to you?"

> MOVE TO RISKS OR STOP HERE DEPENDING ON THE PATIENT



RISKS

Encourage the patient to identify potential negative consequences of risky behaviour

↓ **EXAMPLE:**

? "What do you know about the risks of being [risk factor] to your health? What particularly worries you?"

> MOVE TO REWARDS OR STOP HERE DEPENDING ON THE PATIENT



REWARDS

Ask the patient to identify potentially relevant benefits for them

↓ **EXAMPLE:**

? "Do you know how [risk-specific behaviour change] would affect these risks?"

> MOVE TO ROADBLOCKS OR STOP HERE DEPENDING ON THE PATIENT



ROADBLOCKS

Ask the patient to identify barriers

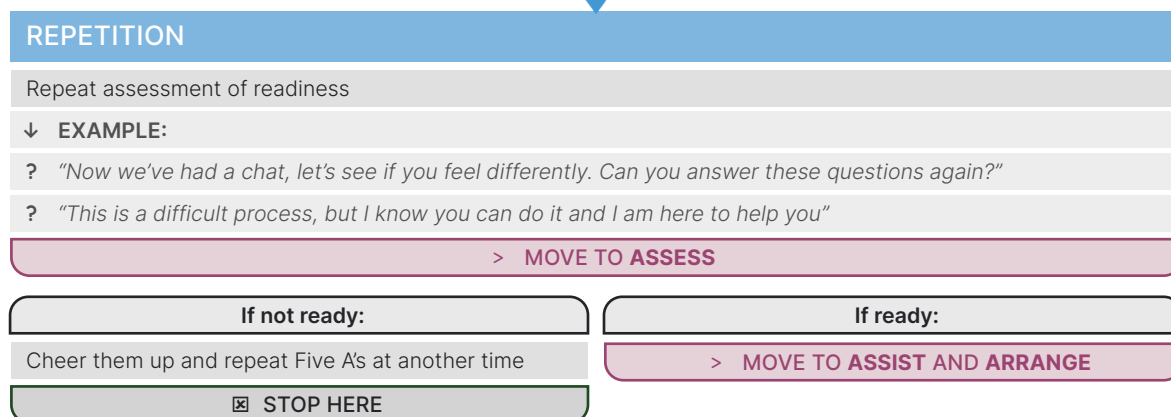
↓ **EXAMPLE:**

? "So, what would be difficult about [risk-specific behaviour change] for you?"

> MOVE TO REPETITION OR STOP HERE DEPENDING ON THE PATIENT



Fig. A1.3 contd



STAR: Situation, Task, Action, Result (method).

Source: WHO (13,15), National Centre for Smoking Cessation and Training (16), Public Health Scotland (17), Aveyard et al. (18), Sherson et al. (19), Health Education England (20).

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Annex 2. Quitting tobacco



A wide range of tobacco products is available, including smoking tobacco products (such as cigarettes, kreteks, cigars, cigarillos and waterpipes), smokeless tobacco products (like snuff, chewing tobacco, dip and nasvay) and a new group of novel and emerging products called heated tobacco products.

Another distinctive group of products includes electronic nicotine delivery systems (ENDS), electronic non-nicotine delivery systems (ENNDS) and other nicotine products such as nicotine pouches. ENNDS are essentially the same as ENDS, but the e-liquids used are marketed as nicotine-free. Regardless of the type, tobacco and nicotine products can cause addiction and health problems.

The information below refers specifically to offering help to quit cigarette smoking, but it can be adapted to cover other tobacco products depending on the country situation and patterns of product use.

Measuring nicotine dependence determined by cigarette smoking

All patients should be asked if they use any tobacco products. The Heaviness of Smoking Index (HSI) (1–4) should be calculated to measure nicotine dependence determined by cigarette smoking (Table A2.1). Nicotine dependence is categorized using a six-point scale across three categories: 5–6, high nicotine dependence; 2–4, medium; and 0–1, low dependence.

Table A2.1. Heaviness of Smoking Index

IF YOU SMOKE CIGARETTES	RESPONSE	SCORE
1. How soon after you wake up do you have your first cigarette?	After 60 minutes	0
	31–60 minutes	1
	6–30 minutes	2
	Within 5 minutes	3
2. How many cigarettes do you typically smoke per day?	10 or fewer	0
	11–20	1
	21–30	2
	31 or more	3
TOTAL:		

Source: National Institute on Drug Abuse (5).

Helping people quit smoking

Anyone who smokes or uses any tobacco- and nicotine-containing products should be advised to stop.

The distinction between brief and intensive tobacco interventions is described elsewhere (6). Studies examining more intensive individualized behavioural support from a specialized stop-smoking practitioner have found this increased the chance of someone who smokes making a successful attempt to stop smoking even when added to briefer behavioural interventions provided by their treating health-care provider (risk ratio (RR) 1.57, 95% confidence interval (CI): 1.40 to 1.77), with longer duration and greater intensity of support increasing the chances of success even more (7). Intensive and more specialized support can also be offered to people who smoke in group settings with similar effectiveness in supporting them to be successful in stopping (8).

Technology makes it possible to adapt many of the principles underpinning individual or group-based face-to-face stop-smoking interventions and deliver them over new platforms. Telephone-based supports, or quit lines, are the most established approach to leveraging technology. Studies have found them to be effective in helping people stop smoking (9). There is also evidence that automated text-message-based smoking cessation interventions result in greater quit rates than minimal smoking-cessation support (10), but evidence regarding the effectiveness of smartphone apps is less certain and further well designed studies are required in this area.

Technology also enables real-time video to be used to deliver behavioural support, although evidence of its effectiveness is uncertain and further well designed studies are also required in this area (11). The Internet is used to deliver behavioural support to help people stop smoking; the design and delivery of Internet-based interventions is diverse, but in general, interventions that include tailored support and interaction with the user are more effective than those without such features. Again, certainty of evidence is a challenge in terms of drawing firm and generalizable conclusions, given that interventions and comparisons are often diverse and study design is limited (12).

Brief advice to quit tobacco use can be supplemented with intensive behavioural support and pharmacotherapy, if appropriate. Combining behavioural and pharmacotherapy interventions can double the chances of successful quitting. Pharmacotherapy includes nicotine replacement therapies (NRT) and medications that do not contain nicotine (varenicline, bupropion) but alleviate withdrawal symptoms.

There is a comprehensive evidence base supporting the effectiveness and safety profile of pharmacological support to help people stop smoking (13):

- compared with placebo, NRT and bupropion increase the chance of someone being successful in their quit attempt by almost two-fold (odds ratios (OR) 1.84; 95% CI: 1.71 to 1.99, and 1.82; 95% CI: 1.60 to 2.06 respectively); varenicline increases the chances almost three-fold (OR 2.88; 95% CI: 2.40 to 3.47);

- bupropion and NRT have similar effectiveness, and different forms of NRT are similar when used in single form, but varenicline is superior to single forms of NRT and to bupropion; combining NRT with varenicline increases the chances of successful quitting compared with varenicline alone (14,15); and
- in relation to NRT, combination therapy is more effective than the use of a single form of NRT and, in general, more intense dosing is more effective at helping people stop smoking than less intense dosing (16).

The flow diagram and more detailed guidance for helping people to stop smoking are presented in Fig. A2.1 and Fig. A2.2.

Fig. A2.1. Flow diagram for helping people to quit smoking

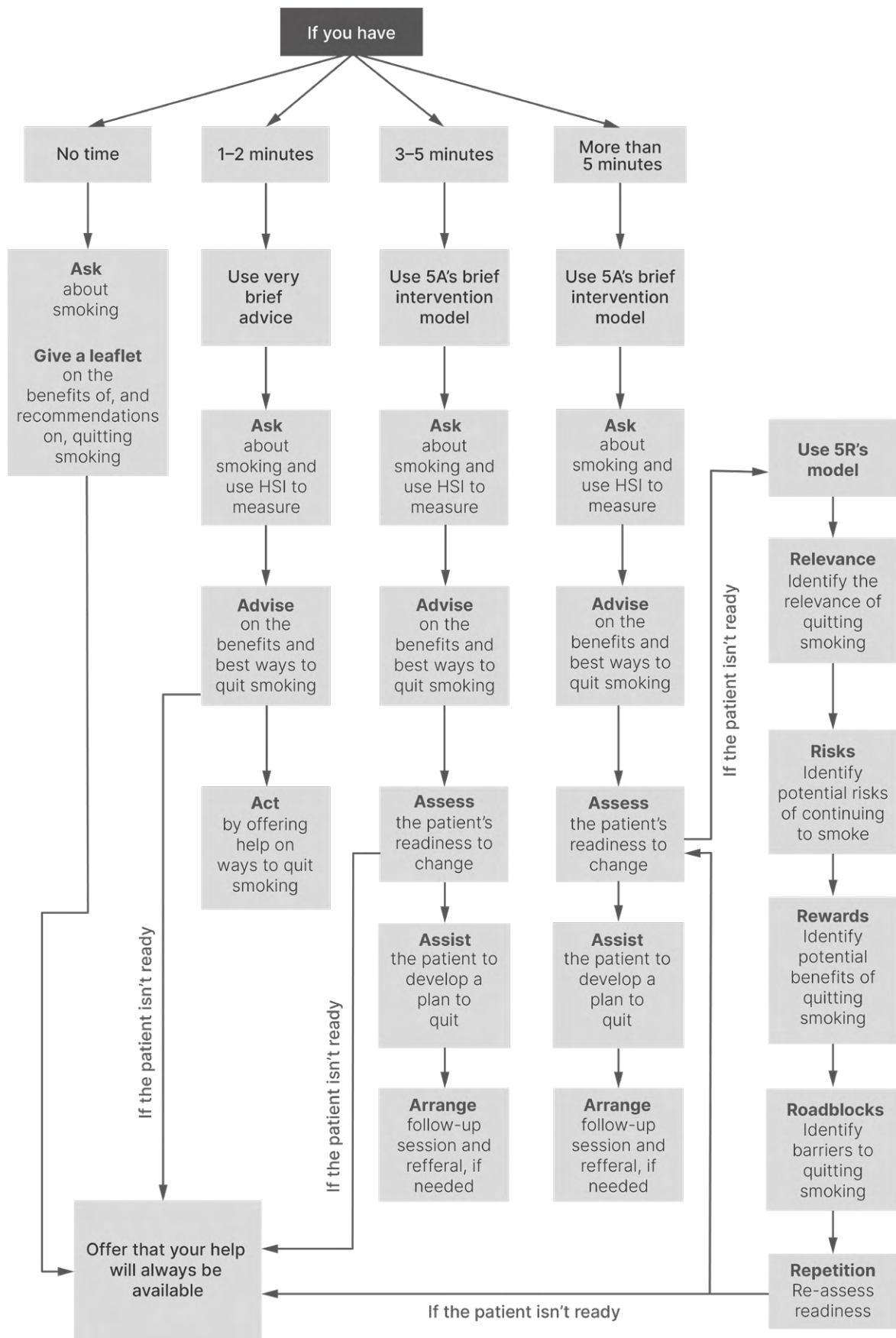


Fig. A2.2. Guidance for helping people to quit smoking (should be adapted to local context and patterns of any tobacco products use)

NO TIME

Ask about smoking cigarettes (or use of any tobacco- or nicotine-containing products), note in the patient's file, and provide a leaflet/resource with information on the harm done by tobacco use, on the recommendations and benefits of quitting, on the steps that can be taken to quit, including links to web-based, computer-based and mobile applications to support patients in stopping smoking. Follow-up next time the patient consults.

1-2 MINUTES

ASK about and measure smoking using the HSI

Ask the patient's permission to talk about their smoking habits

Measure the HSI for cigarette smokers as described above

↓ EXAMPLES:

? "Have you got a few minutes to talk about your smoking?"

? "Do you use any tobacco products?"

> MOVE TO ADVISE

ADVISE on the benefits and best ways of quitting smoking

↓ EXAMPLES:

? "Quitting smoking is an important thing you can do for your health. It helps reduce the chances of getting many serious illnesses, including high blood pressure, heart diseases and a number of cancers."

? "By quitting you can also increase your economic wealth. Have you counted how much you spend on cigarettes?"

? "Of course, it can be difficult to make the decision to quit. But do you think your family/friends will support you in this?"

If the patient scores 0-2 on the HSI:

Let them know that their level of addiction is low and they have a very good chance of quitting and maintaining abstinence of smoking

If the patient scores 3-4 on the HSI:

Let them know that their level of addiction is moderate; bring up the conversation on the importance of quitting tobacco and its health and economic benefits

If the patient scores 5-6 on the HSI:

Let them know that their level of addiction is high; bring up the conversation on the importance of quitting tobacco and its health and economic benefits

If the patient is willing to accept help:

> MOVE TO ACT

If the patient declines to accept help:

Offer that your advice and help will always be available if they change their mind in the future

Make a note in their medical records that advice has been offered and declined and try again at the next visit

☒ STOP HERE

Fig. A2.2 contd



ACT by offering help

Congratulate them on their decision to aim to quit smoking

Act on their response to advice by giving them self-help materials and informing them of online services that can be used from their phone or other digital advice

If referring the patient to a specialized centre (if available), ask your team to help them to arrange an appointment or arrange it for them

Make sure to follow-up at the next session on any progress and provide more time for the conversation if possible

↓ EXAMPLES:

? *"It is very good that you plan to quit smoking. Shall we make an appointment for a month's time to see how you are getting on?"*

? *"Here is a small booklet giving more information about tobacco use and effective ways to quit. At the back is a link to a website that many of my patients have found helpful."*

☒ STOP HERE

3–5 MINUTES

ASK about and measure smoking using the HSI

Ask the patient's permission to talk about their smoking habits

Measure the HSI for cigarette smokers as described above

↓ EXAMPLES:

? *"Do you mind discussing your smoking with me today?"*

? *"Do you use any tobacco products?"*

> MOVE TO ADVISE



ADVISE on the benefits and best ways of quitting smoking

Let the patient know their score and explain what the level of addiction means, as described above

Bring up the conversation on the importance of quitting smoking

Advice should be simple, clear, strong and personalized

Don't build too personal a connection with the patient's conditions to avoid resistance

Stay positive!

↓ EXAMPLES:

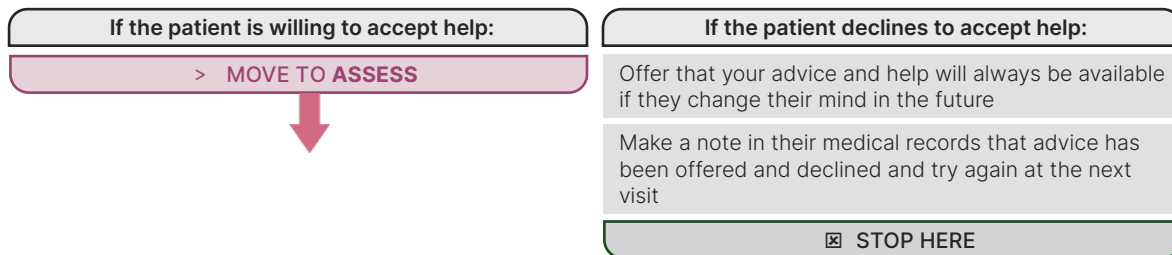
? *"What do you not like about being a smoker?"*

? *"What is your understanding of the benefits of quitting?"*

? *"Some of my patients have found that quitting smoking has helped them feel better. Do you think it may be helpful for you as well?"*

? *"It's surprising how fast the body recovers from all damaging effects of tobacco use after quitting. Have you heard about it?"*

Fig. A2.2 contd



ASSESS the patient's readiness to change

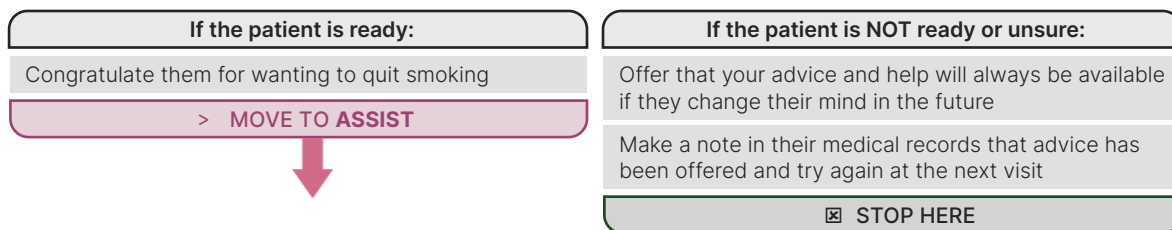
Assess with two questions:

Q1 "Would you like to be a non-tobacco user?"

Q2 "Do you think you have a chance of quitting successfully?"

Q1	YES	NOT SURE	NO
Q2	YES	NOT SURE	NO

Any answer in the shaded area indicates that the person is not yet ready to change. In this case, effort needs to be made to increase motivation for change. Answers in the white area suggest that you and the patient can move on to the next step



ASSIST with helping to develop a plan to quit smoking

Share practical ways to start and basic information on nicotine effects

Use the STAR method to develop a behaviour-change plan

Help identify areas in their normal daily life where they could start to avoid smoking

Help to identify situations that encourage them to smoke and discuss things that they could do to avoid these situations

Provide supplementary materials and other referral resources or support services if applicable

Provide social support such as involving family and friends

The support given needs to be described **positively** but realistically

↓ **EXAMPLES:**

? "I am going to give you this short booklet that gives advice on quitting smoking. Let's go through it."

? "Can you think of healthier habits that you enjoy and that you could do instead of smoking?"

? "What may get you on your way to quitting smoking?"

? "What would improve your confidence to quit?"

> **MOVE TO ARRANGE**



Fig. A2.2 contd



ARRANGE a follow-up session and/or referral

If referring the patient to a specialist centre, ask your team to help them to arrange an appointment or arrange it for them

Use practical methods such as telephone, personal visit and mail/email to do the follow-up

Following-up with the patient is recommended to be done through teamwork if possible

The first follow-up contact should be arranged during **the first week**; a second follow-up contact is recommended within **one month** after the quit date

Discuss medication opportunities if relevant

Follow-up on any challenges faced by the patient, but also any successes

If the patient does not smoke, congratulate them on their success if they are following the advice provided

If the patient is experiencing challenges, remind them of the benefits and variety of ways to quit smoking, discuss ways to address challenges and encourage recommitment, and link with additional support and resources if available

Schedule next follow-up

↓ **EXAMPLES:**

? *"Last time we met you were going to have a go at quitting smoking. How did you get on?"*

? *"Can I ask you about your smoking again next time?"*

STOP HERE

Fig. A2.2 contd

MORE THAN 5 MINUTES

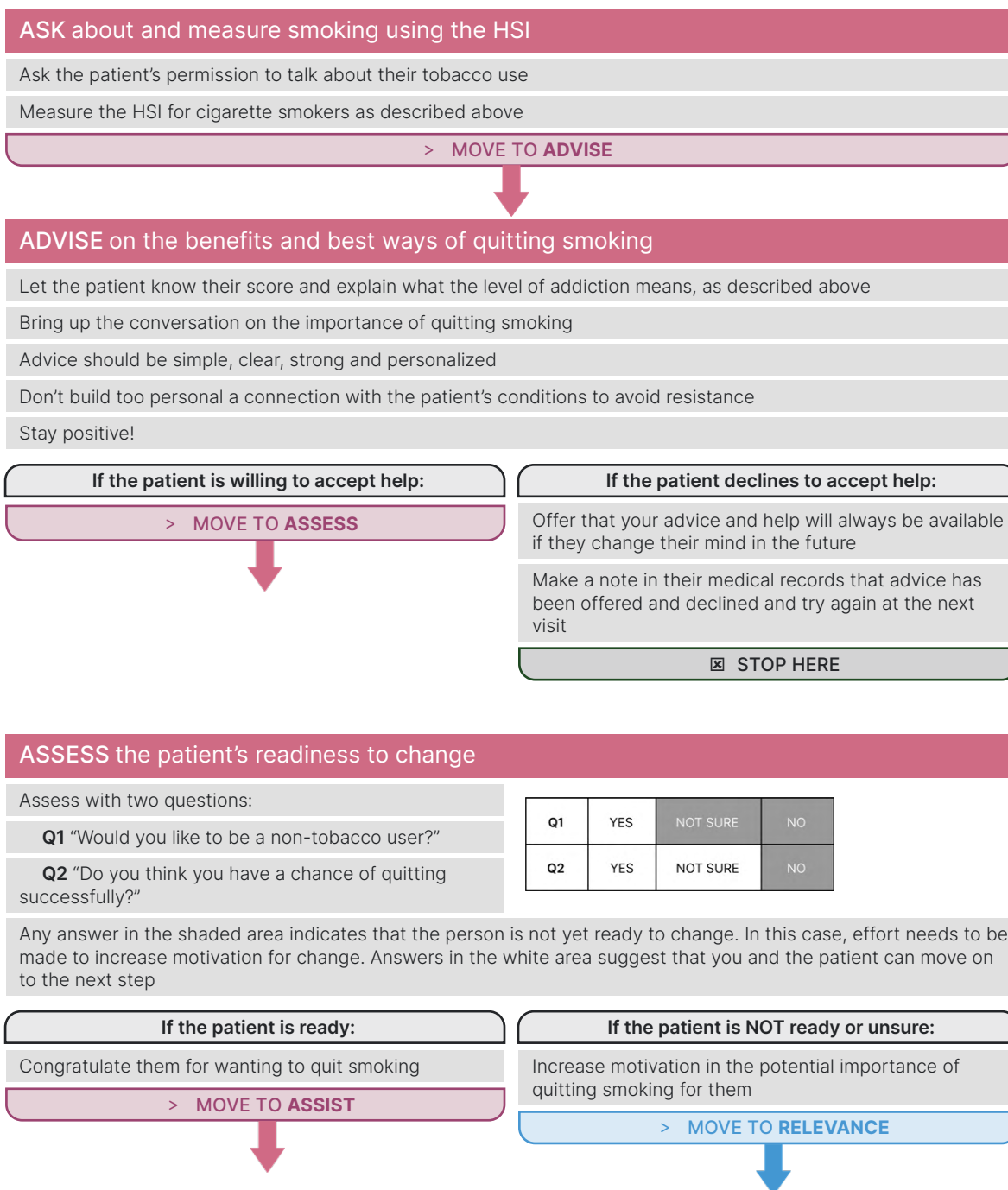


Fig. A2.2 contd



ASSIST with helping to develop a plan to quit smoking

Share practical ways to start and basic information on nicotine effects

Use the STAR method to develop a behaviour-change plan

Help identify areas in their normal daily life where they could start to avoid smoking

Help to identify situations that encourage them to smoke and discuss things they could do to avoid these situations

Provide supplementary materials and other referral resources or support services if applicable

Provide social support such as involving family and friends

The support given needs to be described **positively** but realistically

> MOVE TO ARRANGE



ARRANGE a follow-up session and/or referral

If referring the patient to a specialist centre, ask your team to help them to arrange an appointment or arrange it for them

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Discuss medication opportunities if relevant

Follow-up on any challenges faced by the patient, but also any successes

If the patient does not smoke, congratulate them on their success if they are following the advice provided

If the patient is experiencing challenges, remind them of the benefits and variety of ways to quit smoking, discuss ways to address challenges and encourage recommitment, and link with additional support and resources if available

Schedule next follow-up

STOP HERE

RELEVANCE

Encourage the patient to indicate how avoiding smoking in their daily life is relevant to them

↓ **EXAMPLE:**

? "How is quitting most personally relevant to you?"

> MOVE TO RISKS OR STOP HERE DEPENDING ON THE PATIENT



RISKS

Encourage the patient to identify potential negative consequences of heavy smoking that are relevant to them

Examples of risks: shortness of breath; respiratory infections; cancer; heart disease; stroke; high blood pressure

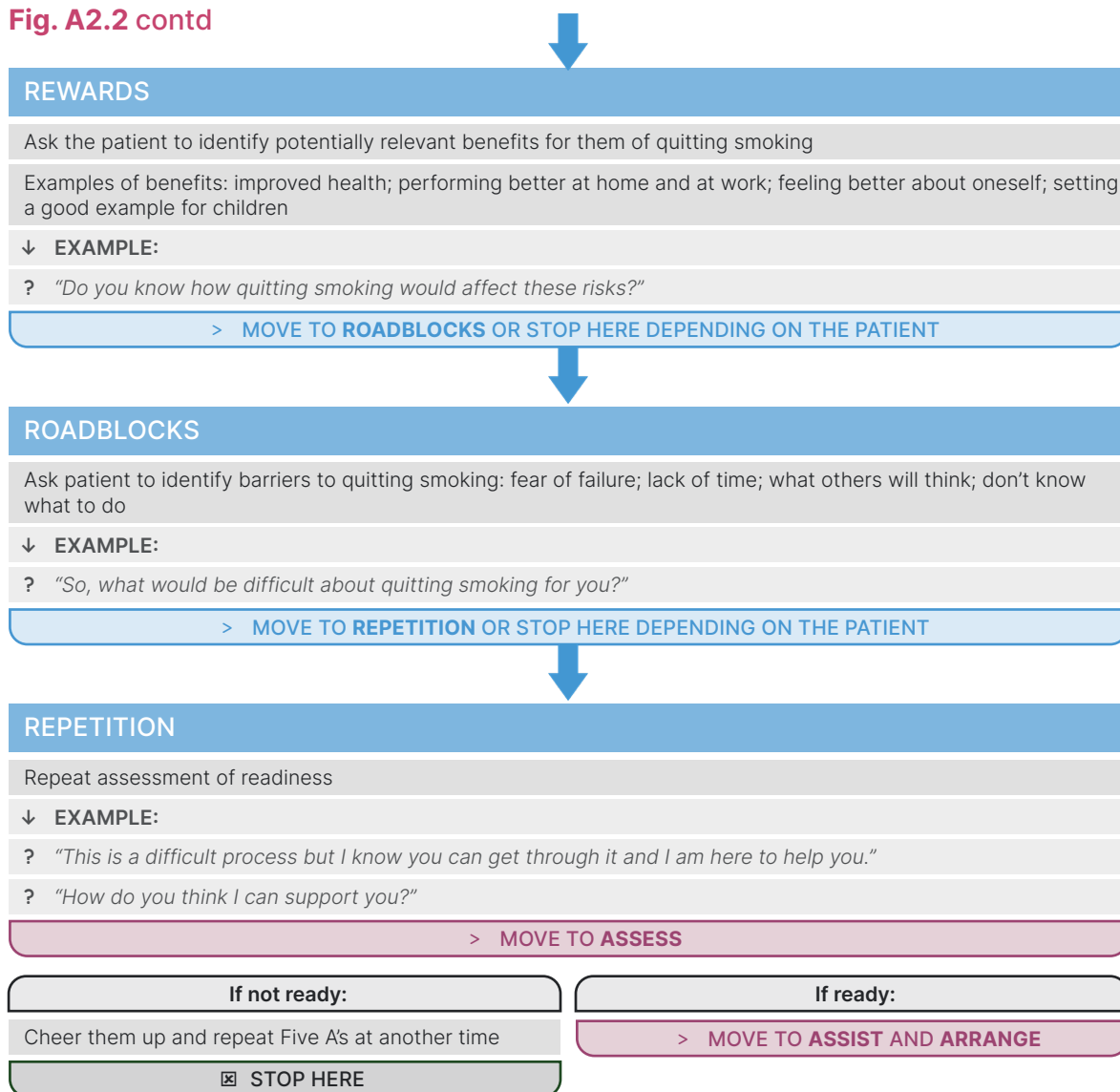
↓ **EXAMPLE:**

? "What do you know about the risks of tobacco use to your health? What particularly worries you?"

> MOVE TO REWARDS OR STOP HERE DEPENDING ON THE PATIENT



Fig. A2.2 contd



STAR: Situation, Task, Action, Result (method).

Source: WHO (6,17), National Centre for Smoking Cessation and Training (18), Public Health Scotland (19), Aveyard et al. (20), Sherson et al. (21), Health Education England (22).

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**Annex 3. Drinking less
alcohol or quitting**



Measuring alcohol consumption

Many tools can be used in primary care to measure and assess alcohol consumption. One such validated tool commonly used in studies of the impact of provider advice is the three-item Alcohol Use Disorders Identification Test Consumption (AUDIT-C) (1,2), the scores of which increase with increasing levels of alcohol consumption (3).

AUDIT-C comprises the three alcohol-consumption questions out of the full 10-item AUDIT tool originally developed by WHO (4), with the extra seven questions in the full AUDIT being a checklist of items used to assess the extent to which drinking is interfering with the daily life and social functioning of the individual. Where available, country-adapted versions of AUDIT and AUDIT-C (such as RUS-AUDIT in the Russian Federation (5)) and relevant cut-off scores should be used. The RUS-AUDIT-S might be used in other contexts and countries beyond the Russian Federation as it does not rely on the concept of a standard drink, which has been demonstrated to be a major difficulty in using the AUDIT in Russian-speaking patients (6).

All people should be asked the first AUDIT-C question; if the answer is other than “Never”, questions 2 and 3 should be completed (Table A3.1).

Table A3.1. AUDIT-C questions and scoring

AUDIT-C QUESTIONS	SCORING SYSTEM					SCORE
	0	1	2	3	4	
1. How often do you have a drink containing alcohol?	Never	Monthly or less	2–4 times per month	2–3 times per week	4 or more times per week	
2. How many standard ^a drinks of alcohol do you drink on a typical day when you are drinking?	1–2	3–4	5–6	7–9	10 or more	
3. How often do you have 6 or more standard drinks on one occasion?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
TOTAL:						

^a A standard drink is a measure of alcohol consumption that represents a hypothetical beverage that contains a fixed amount of pure alcohol. The concept of a standard drink was introduced to help conceptualize and measure the absolute alcohol content of various beverage types and serving sizes. Various European countries have a standard drink which is equivalent to 10–12 g of pure alcohol. However, standard drink sizes vary, and the precise meaning may depend on the country and cultural context. In this manual, a standard drink is equivalent to 10 g of pure alcohol.

Source: WHO et al. (4).

Helping people to drink less alcohol or quit

In general, anyone with an AUDIT-C score of 5 or more should be advised to drink less alcohol or quit. If only question 1 of the AUDIT-C is asked, anyone with a score of 4 should be advised to drink less alcohol or quit.

People should be advised that alcohol causes cancer, for which there is no level of consumption that is risk-free. Women who are trying to become pregnant and women who are pregnant or are breastfeeding should be advised not to drink any alcohol. All people with alcohol-related end-organ damage (including, for example, brain damage and cirrhosis of the liver) should be advised not to drink any alcohol. Where country-specific AUDIT or AUDIT-C questions and cut-off scores for giving advice exist, these should be used (7).

For the RUS-AUDIT, men with a score of 6 and more and women with a score of 4 and more should be advised to drink less alcohol or quit (8).

The flow diagram and more detailed guidance for helping people to drink less alcohol or quit are presented in Fig. A3.1 and Fig. A3.2.

Fig. A3.1. Flow diagram for helping people to drink less alcohol or quit

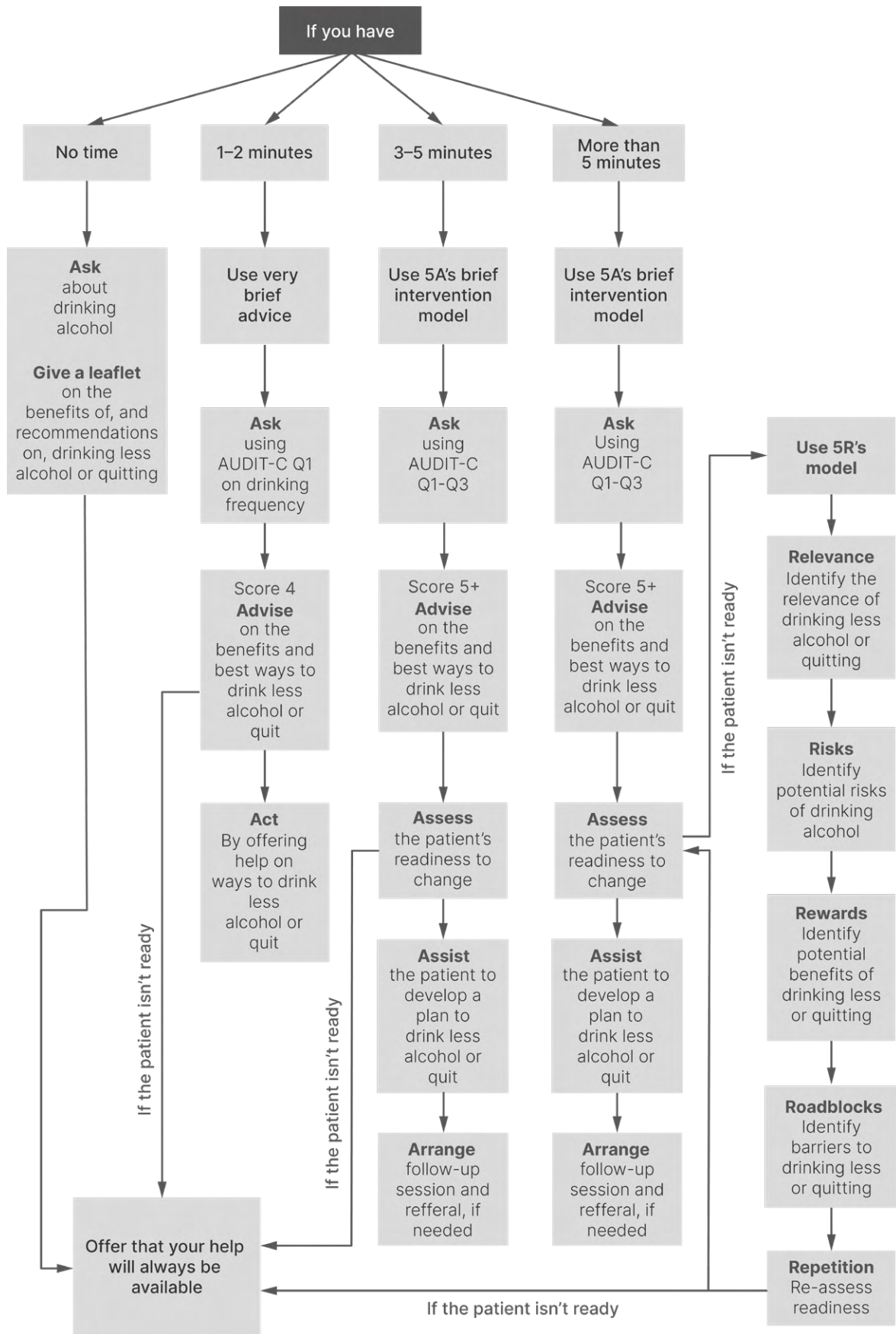


Fig. A3.2. Guidance for helping people to drink less alcohol or quit (should be adapted to local context)

NO TIME

Ask about alcohol consumption, note in the patient's file, and provide a leaflet/resource with information on the harm done by alcohol, on the recommendations and benefits of drinking less or quitting, and on the steps that can be taken to drink less or quit alcohol, including links to web-based, computer-based and mobile applications to support patients in drinking less or quitting alcohol. Follow-up next time the patient consults.

1-2 MINUTES

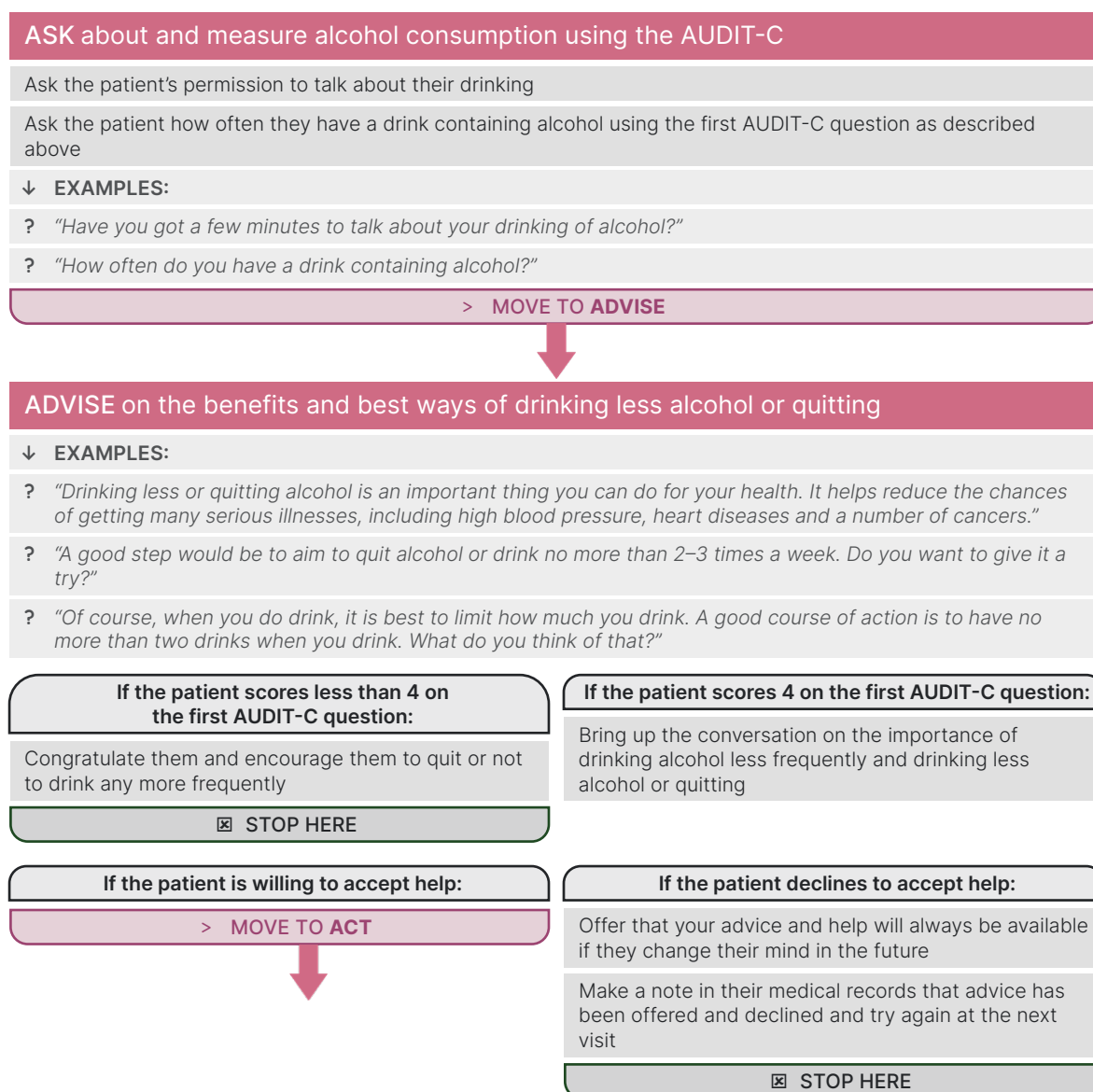


Fig. A3.2 contd



ACT by offering help

Congratulate them on their decision to aim to drink less frequently or quit alcohol

Act on their response to advice by giving them self-help materials and informing them of online services that can be used from their phone or other digital device

If you have any clinical concern that the patient might have a serious alcohol problem, consider referral for specialist help

Make sure to follow-up at the next session on any progress and provide more time for the conversation if possible

↓ EXAMPLES:

? *"It is very good that you plan to quit/drink alcohol less frequently – remember, when you do drink, try to stick to no more than two drinks on any one occasion. Shall we make an appointment for a month's time to see how you are getting on?"*

? *"Here is a small booklet giving more information about alcohol and ways to drink less or quit. At the back is a link to a website that many of my patients have found helpful."*

☒ STOP HERE

3–5 MINUTES

ASK about and measure alcohol consumption using the AUDIT-C

Ask the patient's permission to talk about their drinking

Ask and complete and score the three AUDIT-C questions as described above

↓ EXAMPLES:

? *"Have you got a few minutes to talk about your drinking of alcohol?"*

? *"How often do you have a drink containing alcohol?"*

? *"How many units of alcohol do you drink on a typical day when you are drinking?"*

? *"How often do you have six or more units on one occasion?"*

> MOVE TO ADVISE



ADVISE on the benefits and best ways of drinking less alcohol or quitting

↓ EXAMPLES:

? *"What do you like about drinking alcohol?"*

? *"What do you not like about drinking less alcohol?"*

? *"Some of my patients have found that drinking less alcohol has helped them to feel better. Do you think it may be helpful for you as well?"*

? *"It's surprising how even drinking slightly less alcohol can help one to feel better. How do you feel about your current level of drinking alcohol?"*

If the patient scores less than 5 on the three AUDIT-C questions:

Congratulate them and encourage them to quit or not to drink any more frequently

☒ STOP HERE

If the patient scores 5 or more on the three AUDIT-C questions:

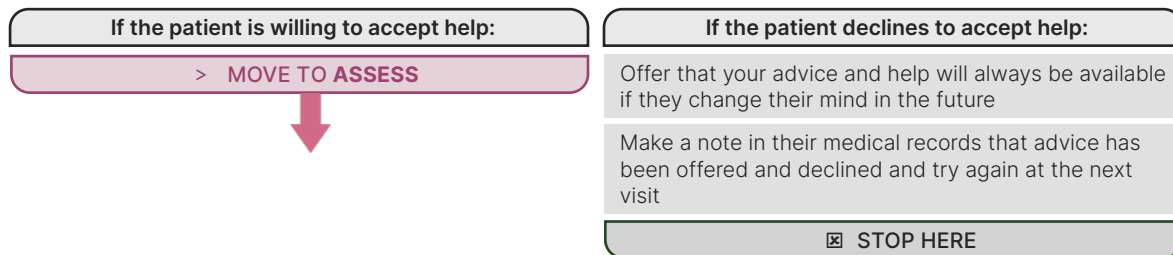
Bring up the conversation on the importance of drinking less alcohol or quitting

Advice should be simple, clear, strong and personalized

Don't build too personal a connection with the patient's conditions to avoid resistance

Stay positive!

Fig. A3.2 contd



ASSESS the patient's readiness to change

Assess with two questions

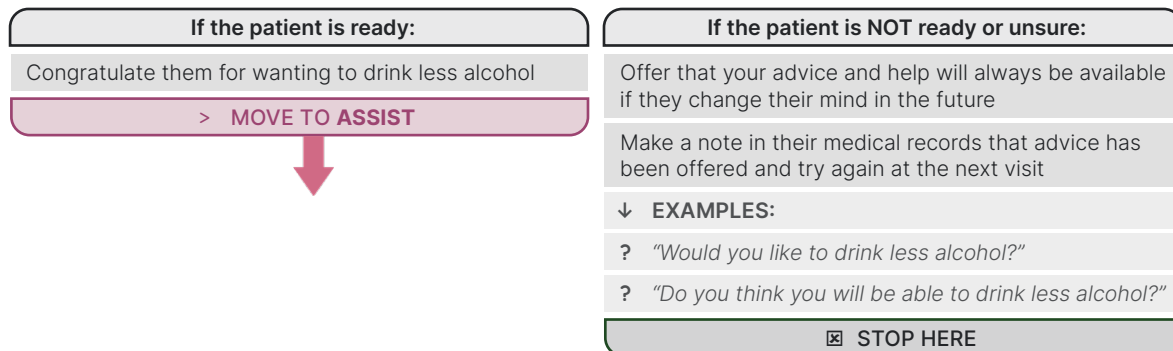
Q1 "Would you like to drink less alcohol?"

Q2 "Do you think you will be able to drink less alcohol?"

Q1	YES	NOT SURE	NO
Q2	YES	NOT SURE	NO

Any answer in the shaded area indicates that the person is not yet ready to change. In this case, effort needs to be made to increase motivation for change

Answers in the white area suggest that you and the patient can move on to the next step



ASSIST with helping to develop a plan to drink less alcohol or quit

Share practical ways to start and basic information on alcohol

Use the STAR method to develop a behaviour-change plan

Help identify areas in their normal daily life where they could start to drink less often and to drink smaller amounts

Help to identify situations that encourage them to drink more and discuss things they could do to avoid these situations

Help to set up realistic and achievable goals to drink less often and drink less alcohol at a time

Provide supplementary materials and other referral resources or support services if applicable

Provide social support such as involving family and friends

The support given needs to be described **positively** but realistically.

↓ **EXAMPLES:**

? "I am going to give you this short booklet that gives tips on drinking less. Let's go through it."



Fig. A3.2 contd



ARRANGE a follow-up session and/or referral

If you have any clinical concern that the patient might have a serious alcohol problem, consider referral for specialist help

Use practical methods such as telephone, personal visit and mail/email to do the follow-up

Following-up with the patient is recommended to be done through teamwork if possible, in **one month**

Follow-up on any challenges faced by the patient but also any successes

If the patient is drinking less, congratulate them on their success if they are following the advice provided

If the patient is experiencing challenges, remind them of the benefits and variety of ways to drink less, discuss ways to address challenges and encourage recommitment, and link with additional support and resources if available

Schedule next follow-up

↓ **EXAMPLES:**

? "Last time we met you were going to have a go at drinking less alcohol. How did you get on?"

? "Can I ask you about your drinking again next time?"

? "Let's go for the three alcohol questions" (complete AUDIT-C)

If AUDIT-C score has improved:

? "I can see you have done very well – what did you do to drink less?"

If AUDIT-C score has not improved:

? "It can be quite difficult to change. What do you think you could do to make it easier next time?"

☒ **STOP HERE**

MORE THAN 5 MINUTES

ASK about and measure alcohol consumption using the AUDIT-C

Ask the patient's permission to talk about their drinking habits

Ask and complete and score the three AUDIT-C questions as described above

> **MOVE TO ADVISE**



ADVISE on the benefits and best ways of drinking less alcohol or quitting

If the patient scores less than 5 on the three AUDIT-C questions:

Congratulate them and encourage them to quit or not to drink any more frequently

☒ **STOP HERE**

If the patient scores 5 or more on the three AUDIT-C questions:

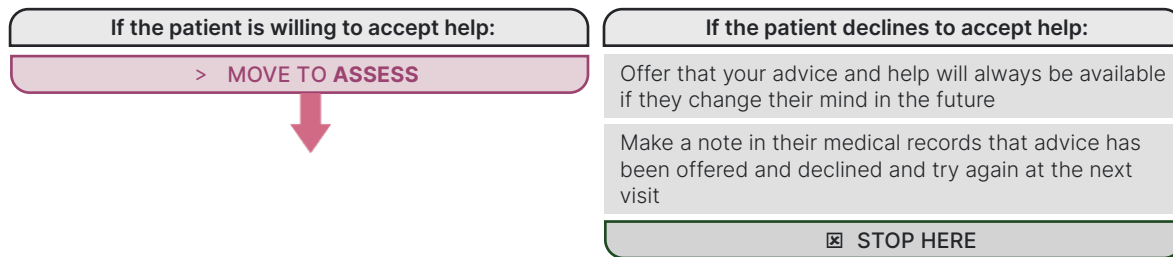
Bring up the conversation on the importance of drinking less alcohol or quitting

Advice should be simple, clear, strong and personalized

Don't build too personal a connection with the patient's conditions to avoid resistance

Stay positive!

Fig. A3.2 contd



ASSESS the patient's readiness to change

Assess with two questions

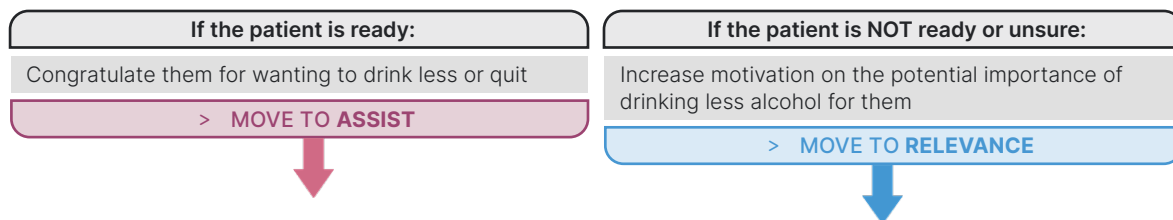
Q1 "Would you like to drink less alcohol?"

Q2 "Do you think you will be able to drink less alcohol?"

Q1	YES	NOT SURE	NO
Q2	YES	NOT SURE	NO

Any answer in the shaded area indicates that the person is not yet ready to change. In this case, effort needs to be made to increase motivation for change

Answers in the white area suggest that you and the patient can move on to the next step



ASSIST with helping to develop a plan to drink less alcohol or quit

Share practical ways to start and basic information on alcohol

Use the STAR method to develop a behaviour-change plan

Help identify areas in their normal daily life where they could start to drink less often and to drink less amounts at a time

Help to identify situations that encourage them to drink more and discuss things they could do to avoid these situations

Help to set up realistic and achievable goals to drink less often and to drink less amounts at a time

Provide supplementary materials and other referral resources or support services if applicable

Provide social support such as involving family and friends

The support given needs to be described **positively** but realistically

> **MOVE TO ARRANGE**

Fig. A3.2 contd



ARRANGE a follow-up session and/or referral

If you have any clinical concern that the patient might have a serious alcohol problem, consider referral for specialist help

Use practical methods such as telephone, personal visit and mail/email to do the follow-up

Following-up with the patient is recommended to be done through teamwork if possible, in **one month**

Follow-up on any challenges faced by the patient but also any success

If the patient is drinking less, congratulate them on their success if they are following the advice provided

If the patient is experiencing challenges, remind them of the benefits and variety of ways to drink less, discuss ways to address challenges and encourage recommitment, and link with additional support and resources if available

Schedule next follow-up

☒ STOP HERE

RELEVANCE

Encourage the patient to indicate how drinking less alcohol in their daily life is relevant to them

↓ **EXAMPLE:**

? *"How is drinking less alcohol most personally relevant to you?"*

> MOVE TO RISKS OR STOP HERE DEPENDING ON THE PATIENT



RISKS

Encourage the patient to identify potential negative consequences of heavier drinking that are relevant to them

Examples of risks: poor mental health / depression; cancer; heart disease; stroke; high blood pressure; accidents and injuries

↓ **EXAMPLE:**

? *"What do you know about the risks of heavy drinking to your health? What particularly worries you?"*

> MOVE TO REWARDS OR STOP HERE DEPENDING ON THE PATIENT



REWARDS

Ask the patient to identify potentially relevant benefits for them to drink less or quit

Examples of benefits: improved health; performing better at home and at work; feeling better about oneself; setting a good example for children

↓ **EXAMPLE:**

? *"Do you know how drinking less would affect these risks?"*

> MOVE TO ROADBLOCKS OR STOP HERE DEPENDING ON THE PATIENT



ROADBLOCKS

Ask the patient to identify barriers to drinking less alcohol or quitting: fear of failure; lack of time; what others will think; don't know what to do

↓ **EXAMPLE:**

? *"So, what would be difficult about drinking less alcohol for you?"*

> MOVE TO REPETITION OR STOP HERE DEPENDING ON THE PATIENT



Fig. A3.2 contd



REPETITION	
Repeat assessment of readiness	
↓ EXAMPLES:	
? "So, now we've had a chat, let's see if you feel differently. Can you answer these questions again ... ?"	
? "This is a difficult process but I know you can do it and I am here to help you."	
? "How do you think I can support you?"	
> MOVE TO ASSESS	
If not ready:	If ready:
Cheer them up and repeat Five A's at another time	> MOVE TO ASSIST AND ARRANGE
<input checked="" type="checkbox"/> STOP HERE	

STAR: situation, task, action, result (method).

Source: WHO (9,10), National Centre for Smoking Cessation and Training (11), Public Health Scotland (12), Aveyard et al. (13), Sherson et al. (14), Health Education England (15).

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Annex 4. Eating healthily and, if indicated, managing body weight



Measuring healthy eating

Many tools can be used in primary care to measure patients' eating habits. Different tools can be recommended depending on the local cultural eating habits and available time during the consultation. This manual therefore **does not recommend any particular tool** to fully assess eating habits, but provides some examples of tools that can be used to raise the question of eating patterns. These tools can be used in primary care settings, but food examples should be adapted to local contexts. The cited tools also have been evaluated by the American Heart Association for assessing the quality of foodstuff consumption in the adult population of the United States of America (1).

Not all WHO nutrition recommendations are reflected in these questions. Depending on the patient's eating habits, issues relating to, for example, salt intake and wholegrain intake should be also addressed according to WHO guidance (2). The issues of red and processed meat consumption are discussed in a number of national guidelines (3,4), scientific papers (5–7) and an evaluation by the International Agency for Research on Cancer (8), but it should be noted that currently there is no WHO recommendations on this.

A 24-hour dietary recall method or food-frequency questionnaires are widely used for more detailed assessment of patients' eating behaviours. Measurement of the quality of consumed foodstuffs at population level can be achieved through use of the Diet Quality Questionnaire (9). The questionnaire was adapted to the dietary patterns of several countries in the WHO European Region. Health-service providers can benefit from consulting the questionnaire to use **relevant local examples of foods in their practice**.

Starting the Conversation (STC) was designed for use in primary care and health promotion settings to quickly assess eating behaviours and assist health-care providers to give healthy eating advice as part of measures to prevent and manage noncommunicable diseases (NCDs) (10). The version presented in this manual is an adaptation of the original tool (10) and its recent modifications (1,11). The original tool and the modified versions contained separate questions on fruits and vegetables, and provided different names for some foods, frequencies of intake and descriptions of score points. For the purposes of this manual, these questions have been adapted to better reflect the WHO nutritional guidelines. It should be noted, however, that unlike the original tool, this version of the tool **has not been validated**.

The left column of Table A4.1 indicates the most healthy consumption practices (scored 0), the middle column indicates less healthy practices (scored 1) and the right column indicates the least healthy practices (scored 2). The summary score ranges from 0 to 16, where 0 represents the healthiest and 16 the unhealthiest eating habits (10). Regardless of the summary score, this tool can help primary care providers identify eating patterns that can be addressed to benefit patients' health.

Table A4.1. Starting the Conversation

STARTING THE CONVERSATION ^a				
ASK ABOUT THE FREQUENCY OF THESE INTAKES OF FOODSTUFFS OCCURRING OVER THE PREVIOUS FEW MONTHS				SCORE
	0 POINTS	1 POINT	2 POINTS	
1. Fast food meals or snacks per month	Fewer than 1 time	1–3 times	4 or more times	
2. Servings of fruit and vegetables per day	5 times or more	3–4 times	2 or fewer times	
3. Regular soft drinks, juices or other sugary beverages per month	1 time or fewer	1–2 times	3 or more times	
4. Servings of beans, nuts, chicken or fish per week	3 or more times	1–2 times	Fewer than 1 time	
5. Regular chips/crisps or crackers per week	1 time or fewer	2–3 times	4 or more times	
6. Sugary desserts and other sweets per week	1 time or fewer	2–3 times	4 or more times	
7. Use of butter or meat fat per week	2–3 times or fewer	4–6 times	7 or more times	
TOTAL:				

^a This manual does not recommend any particular tool for fully assessing eating habits, but provides some examples of tools that can be used to raise questions on eating patterns.

A more rapid assessment can be used in settings with tight time constraints or to initiate the conversation on eating habits (12) (Table A4.2).

Table A4.2. Nutrition Screening Protocol (NSP) (Powell and Greenberg screening tool)

	3 POINTS	2 POINTS	1 POINT	0 POINTS	SCORE
1. How often per week do you eat 5 or more fruits and vegetables?	0–1 days a week	2–3 days a week	4–5 days a week	6–7 days a week	
2. How often do you consume sugary food/drinks (juice, sweeteners in coffee or tea, sugary sodas)?	0–1 days a week	2–3 days a week	4–5 days a week	6–7 days a week	
TOTAL:					

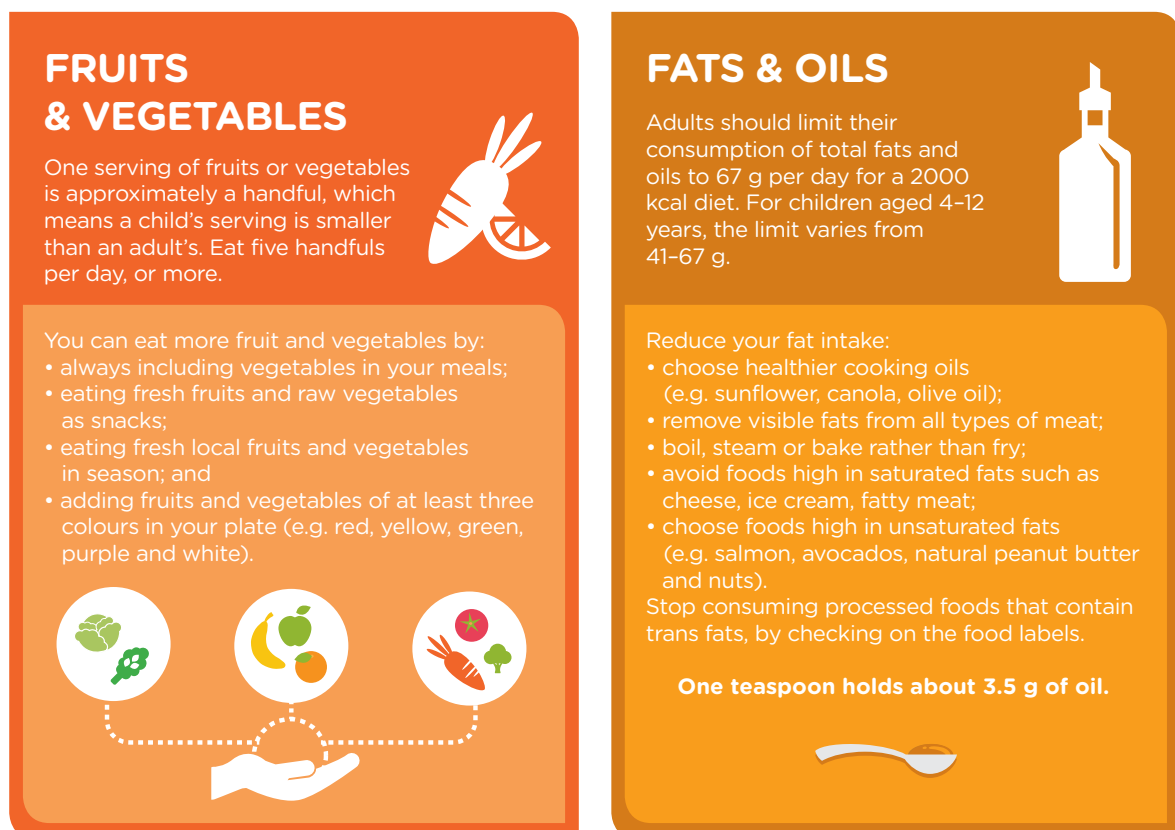
Further advice on healthy eating is recommended for patients with a score of 3 and greater (see below).

Helping people to eat safer and healthier

Based on Fig. A4.1 (13), all adults should be advised to (14,15):

- **eat more** fruits, vegetables, legumes (lentils, beans), nuts and whole grains (unprocessed maize, millet, oats, wheat and brown rice), including at least 400 g (five portions) of fruit and vegetables per day, excluding potatoes, sweet potatoes, cassava and other starchy roots;
- **control** fat intake (not more than 30% of daily energy) and replace most saturated fats (found in fatty meat, butter, palm and coconut oil, cream, cheese, ghee and lard) with unsaturated fats (found in fish, avocado and nuts, and in sunflower, soybean, canola and olive oils);
- **reduce** the amount of consumed salt to less than 5 g (equivalent to about one teaspoon) per day, including the salt in bread and processed, cured and preserved foods, and use iodized salt;
- **choose** milk and dairy products (kefir, sour milk, yoghurt and cheese) that are low in both fat and salt; and
- **select** foods that are low in sugar (less than 10% of total energy intake but ideally less than 5%).

Fig. A4.1. Guide to a healthy diet (part 1)



Source: WHO Regional Office for the Western Pacific (13).

In most countries, salt tends to come from processed foods (such as ready meals, processed meats like bacon, ham and salami, cheese and salty snacks) or foods

consumed frequently in large amounts (like bread). In addition, salt is added to foods during cooking (in bouillon, stock cubes, soy sauce and fish sauce, for instance) or at the point of consumption (table salt).

Some foods and drinks contain high amounts of sugars. These include sugary snacks, candies/sweets and sugar-sweetened beverages (all types of beverages containing free sugars, such as soft drinks, fruit or vegetable juices and drinks, liquid and powder concentrates, flavoured water, energy and sports drinks, ready-to-drink tea and coffee, and flavoured milk drinks) (Fig. A4.2).

Everybody should also be advised to perform safe food-handling practices in line with **WHO's Five Keys to Safer Food** (16) by:

- keeping the kitchen, hands and utensils clean
- separating raw and cooked food
- cooking food thoroughly
- keeping food at safe temperatures
- using safe water and raw materials.

Fig. A4.2. Guide to a healthy diet (part 2)



Source: WHO Regional Office for the Western Pacific (13).

Assessing weight status

Weight status should be assessed by measuring the body mass index (BMI) (body weight in kg/height in m²). For adults, WHO defines overweight and obesity as follows (17):

- overweight is a BMI greater than or equal to 25 kg/m²
- obesity is a BMI greater than or equal to 30 kg/m².

BMI provides the most useful population-level measure of overweight and obesity as it is the same for both sexes and for all ages of adults. It nevertheless should be considered a rough guide, because it may differ by ethnic group and may not correspond to the same degree of adiposity and body composition in different individuals.

Helping people to manage their weight, if they consent

Anyone living with a BMI of 25 kg/m² or greater should be offered the opportunity of consenting to a supportive, patient-centred conversation about their weight to consider the benefits of weight management. This could be achieved through a combination of healthier eating and increased physical activity or other individual recommendations depending on health status. Aggressive weight-loss programmes might not be indicated in persons with active disease or who are in older age.

At individual level, people can be helped to (17):

- limit energy intake from total fats and sugars;
- increase consumption of fruit and vegetables, as well as legumes, wholegrains and nuts; and
- engage in regular physical activity (at least 150 minutes a week spread throughout the week).

The flow diagram and more detailed guidance for helping people to eat more healthily are presented in Fig. A4.3 and Fig. A4.4.

Underweight and nutritional deficiencies

The focus of this manual is on helping people who live with a BMI of 25 kg/m² or greater with options to manage their weight. Malnutrition risk should also be assessed in all people with involuntary weight loss and in individuals without overweight and obesity, but also in people who live with overweight and obesity.

People with a BMI of 18.5 kg/m² or less or with significant involuntary weight loss (such as over 10% indefinite of time, or more than 5% over the last three months) at any BMI should be considered as living with underweight and/or with malnutrition (18). Malnutrition could also be a complication of many noncommunicable diseases (NCDs) and is commonly associated with nutritional deficiencies and negative clinical outcomes (19).

The clinical diagnosis and management of malnutrition is beyond the scope of this manual. Validated and simple tools for primary care are the Malnutrition Universal Screening Tool and the Mini Nutritional Assessment® for older adults, as recommended by the European Society of Clinical Nutrition and Metabolism (20). The diagnosis of malnutrition can be made following the algorithm according to the Global Leadership Initiative on Malnutrition (21,22).

Fig. A4.3. Flow diagram for helping people to eat more healthily

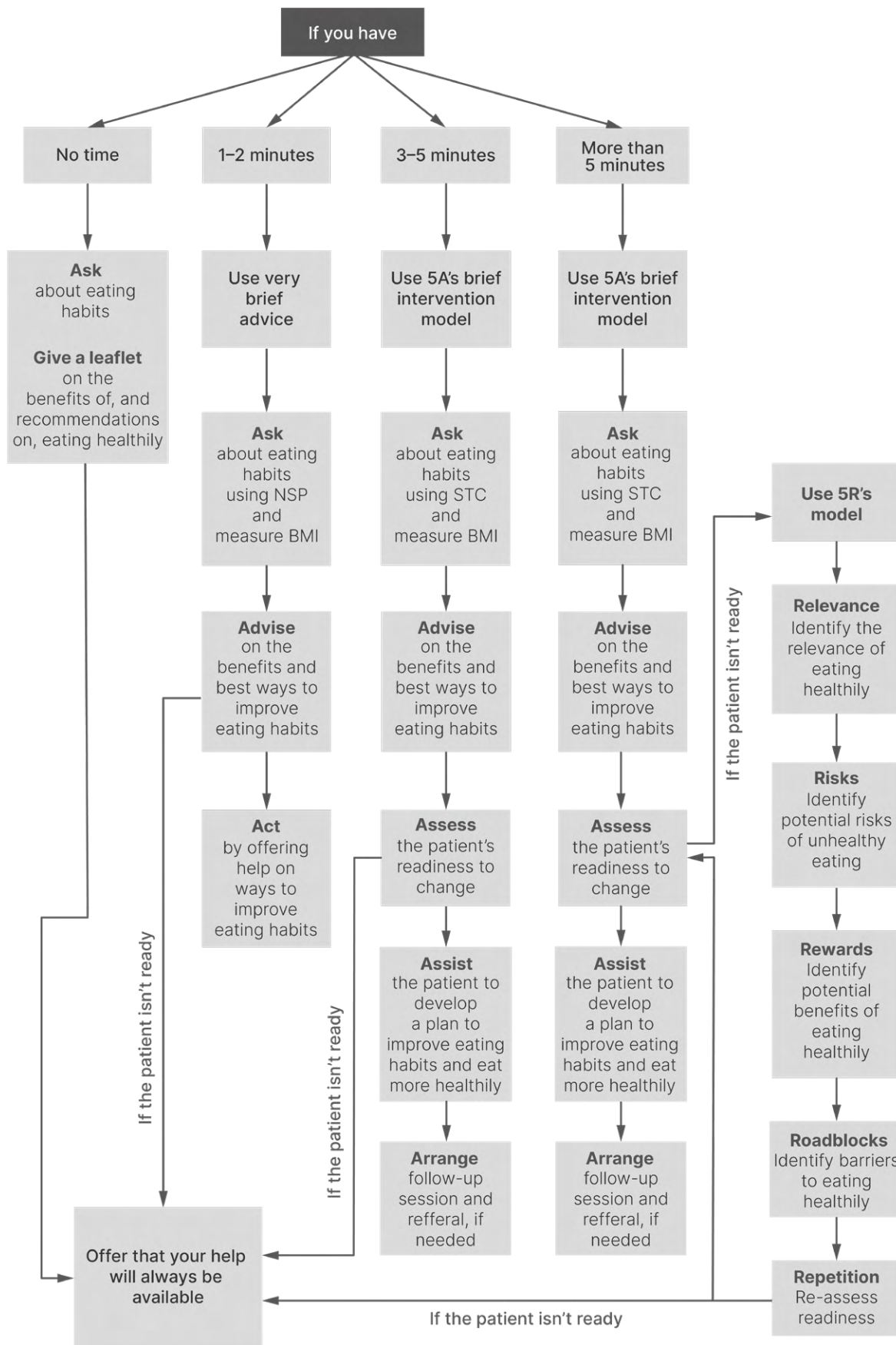


Fig. A4.4. Guidance for helping people to eat more healthily (should be adapted to local context)

NO TIME

Ask about eating habits, note in the patient's file, and provide a leaflet/resource with information, recommendations and benefits of safe and healthy eating and on the steps that can be taken to maintain balanced and healthy eating habits, including links to web-based, computer-based and mobile applications to support patients in healthy eating choices. Follow-up next time the patient consults.

1-2 MINUTES

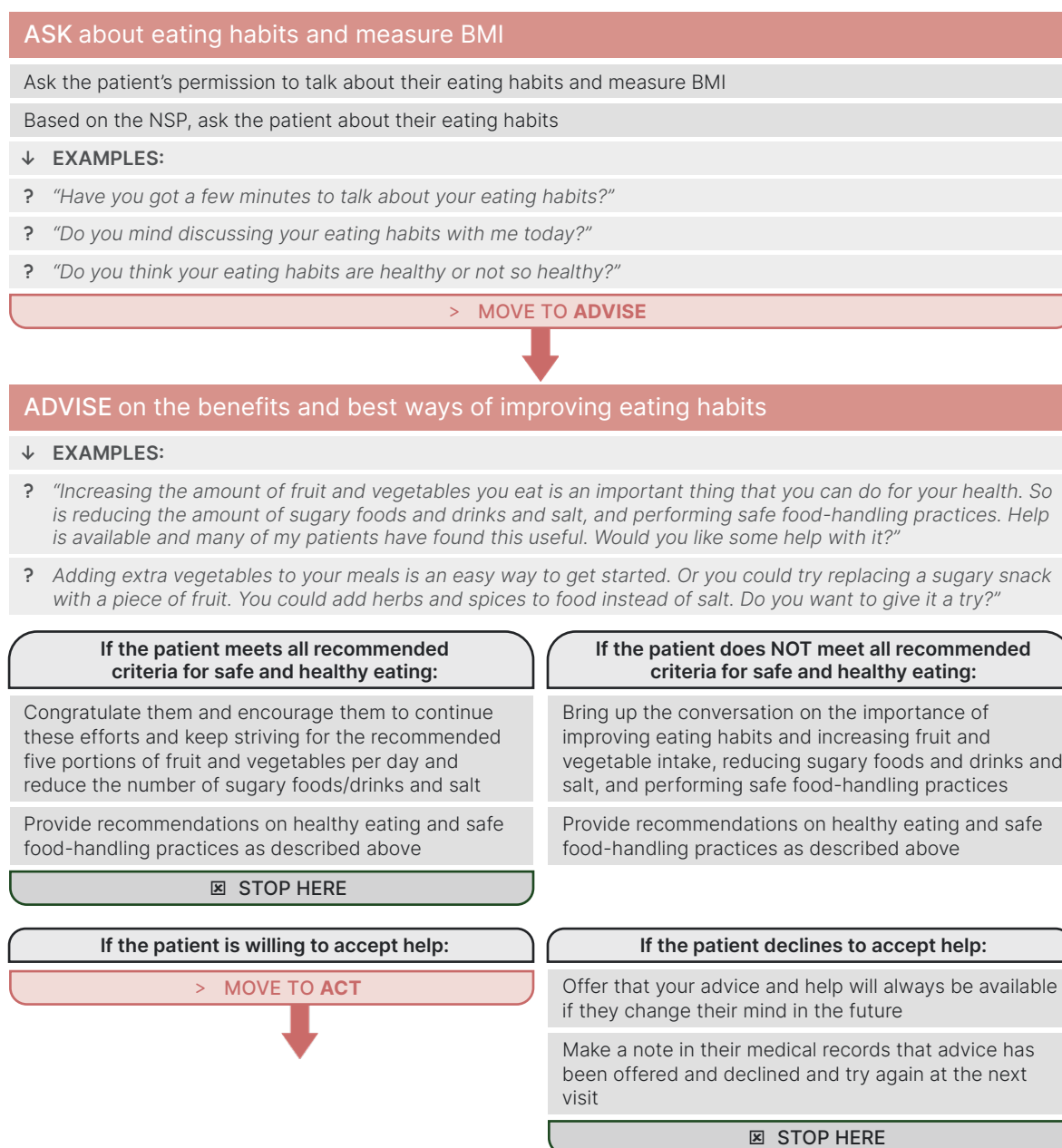


Fig. A4.4 contd



ACT by offering help

Congratulate them on their decision to eat more healthily and act on their response to advice by facilitating referral to a local centre or alternative support (such as a dietitian, another health-care provider or specialist, weight management group, online services or self-help materials)

If referring the patient to a specialist (such as a dietitian or nutritionist), ask your team to help them to arrange an appointment or arrange it for them

Make sure to follow-up at the next session on any progress and provide more time for the conversation if possible

↓ **EXAMPLES:**

? *"Would you like me to schedule an appointment for you to see our registered dietitian/practice nurse/lifestyle advisor next month?"*

? *"Lots of patients of mine found this leaflet very useful in helping them to improve their eating habits. Would you like to take a look?"*

3–5 MINUTES

ASK about eating habits and measure BMI

Ask the patient's permission to talk about their eating and measure BMI

Based on Starting the Conversation, ask the patient about their eating habits

Measure BMI

↓ **EXAMPLES:**

? *"Have you got a few minutes to talk about your eating habits?"*

? *"Do you think you eat healthily or not so healthily?"*

? *"Do you have at least five portions of fruit and/or vegetables each day?"*

? *"Do you eat a lot of sugary foods or drink sugary drinks?"*

? *"Do you eat much salty food?"*

? *"Do you mind if I weigh you today?"*

> **MOVE TO ADVISE**



ADVISE on the benefits and best ways of improving eating habits

↓ **EXAMPLES:**

? *"What do you not like about eating unhealthily?"*

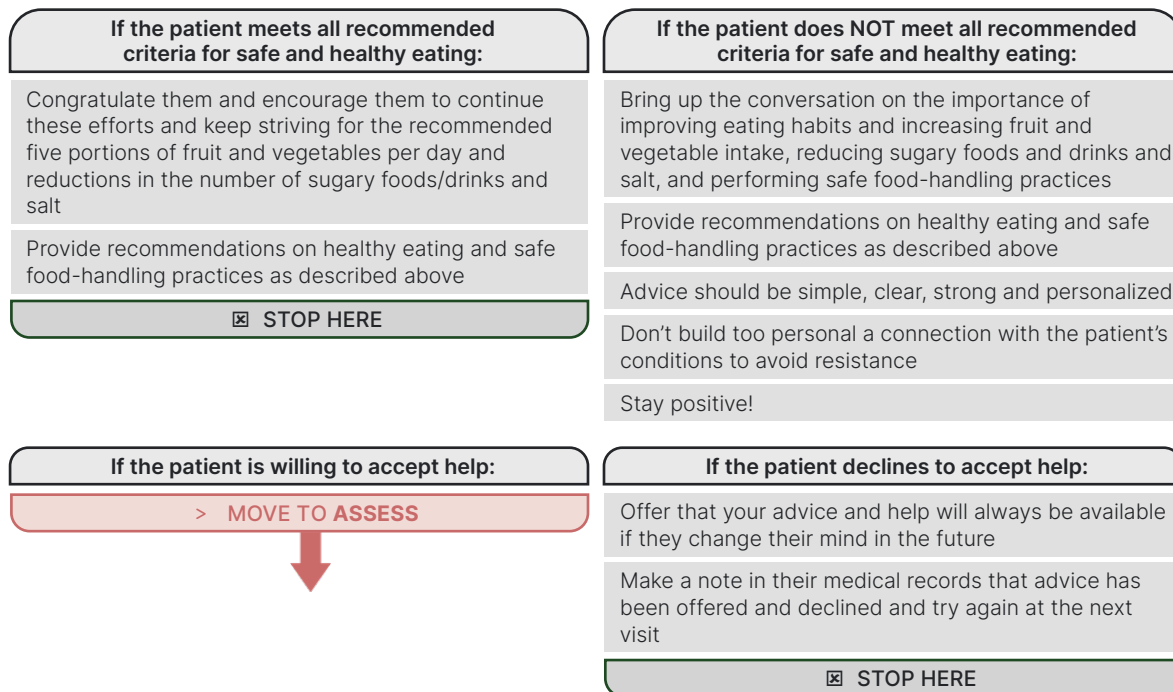
? *"What do you not like about eating very few fruits and vegetables?"*

? *"Some of my patients have found that eating more fruit and vegetables has helped them to feel better. Do you think it may be helpful for you as well?"*

? *"It's surprising how even a small increase in the amount of fruit and vegetables you eat can help you to feel better. How do you feel about the amount you eat at the moment?"*

? *"You are more likely to stick to good eating habits if your family join in. Do you think you could ask them?"*

Fig. A4.4 contd



ASSESS the patient's readiness to change

Assess with questions

Q1 "Would you like to eat more healthily?"

Q2 "Do you think you have a chance to increase your fruit and vegetable intake successfully?"

Q1	YES	NOT SURE	NO
Q2	YES	NOT SURE	NO

Any answer in the shaded area indicates that the person is not yet ready to change. In this case, effort needs to be made to increase motivation for change

Answers in the white area suggest that you and the patient can move on to the next step

↓ EXAMPLES:

? *Options for Q2*

? Q2 "Do you think you could swap a sugary snack or drink for a healthier alternative?"

? Q2 "Do you think you could add less salt to your food?"

? "If it is a bad time to talk about it today, we always can come back to it later."

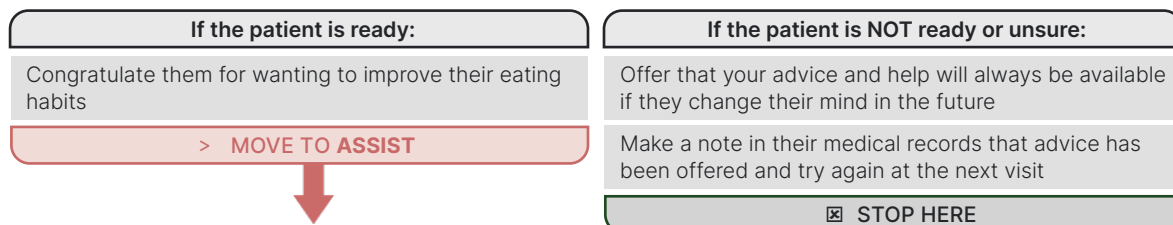


Fig. A4.4 contd



ASSIST with helping to develop a plan to improve their eating habits

Share practical ways to start and basic information on healthy eating, such as eating more fruit and vegetables and gradually cutting down on salt intake

Use the STAR method to develop a behaviour-change plan

Engage the patient in conversation and allow time for them to share ideas

Provide supplementary education materials for healthy eating and other referral resources or support services (such as a weight management group or apps to track food and nutrient intakes) if applicable

Provide social support such as involving family and friends

The support given needs to be described **positively** but realistically

↓ EXAMPLES:

? "Can you think of ways to increase the amount of fruit and vegetables you eat every day?"

? "Can you think of healthier types of food that you enjoy and that you could eat instead of the less healthy option?"

? "What may get in your way to making healthier choices in eating?"

? "What would improve your confidence to eat healthier?"

> MOVE TO ARRANGE



ARRANGE a follow-up session and/or referral

If referring the patient to a specialist (such as a dietitian or nutritionist), ask your team to help them to arrange an appointment or arrange it for them

Use practical methods such as telephone, personal visit and mail/email to do the follow-up

Following up with the patient is recommended to be done through teamwork if possible

Follow-up on any challenges faced by the patient, but also any successes

If the patient is eating more healthily: congratulate them on their success if they are following the advice provided

If the patient is experiencing challenges: remind them to view the process as a learning experience and that it takes time to establish new eating habits, review circumstances and discuss ways to address challenges and encourage recommitment to their plan, link with more intensive support if available and remind the patient of any additional support and resources that are available

Decide on the timeline and schedule next follow-up contact

↓ EXAMPLES:

? "Would you find follow-up helpful to continue your efforts to eat more healthily?"

? "Would you like to follow-up on eating more healthily next time?"

? "When would you like to come back and talk about eating more healthily?"

? "We have access to registered dietitians (or other appropriate onward referral) who can support you to make these healthy changes. Would you like me to refer you to them?"

☒ STOP HERE

Fig. A4.4 contd

MORE THAN 5 MINUTES

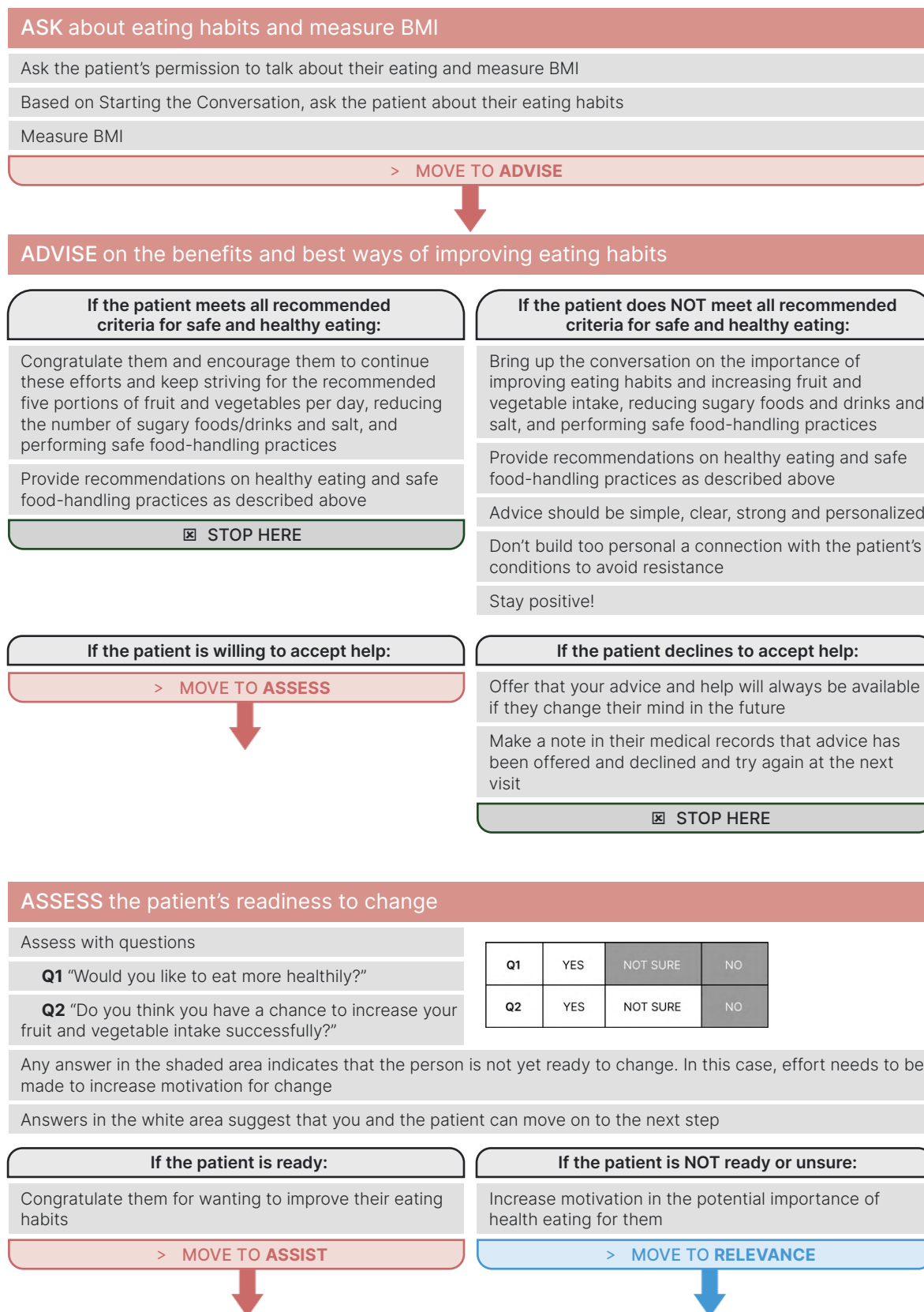


Fig. A4.4 contd



ASSIST with helping to develop a plan to improve their eating habits

Share practical ways to start and basic information on healthy eating, such as eating more fruit and vegetables and gradually cutting down on salt intake

Use the STAR method to develop a behaviour-change plan

Engage the patient in conversation and allow time for them to share ideas

Provide supplementary education materials for healthy eating and other referral resources or support services (such as a weight-management group or apps to track food and nutrient intakes) if applicable

Provide social support such as involving family and friends

The support given needs to be described **positively** but realistically

> MOVE TO ARRANGE



ARRANGE a follow-up session and/or referral

If referring the patient to a specialist (such as a dietitian or nutritionist), ask your team to help them to arrange an appointment or arrange it for them

Use practical methods such as telephone, personal visit and mail/email to do the follow-up

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Decide on the timeline and schedule the next follow-up contact

☒ STOP HERE

RELEVANCE

Encourage the patient to indicate how eating healthily in their daily life is relevant to them

↓ **EXAMPLE:**

? *"How is improving your eating habits personally relevant to you?"*

> MOVE TO RISKS OR STOP HERE DEPENDING ON THE PATIENT



RISKS

Encourage the patient to identify potential negative consequences of eating unhealthily that are relevant to them

Examples of risks: overweight; poor mental health/depression; cancer; heart disease; stroke; diabetes; hypertension

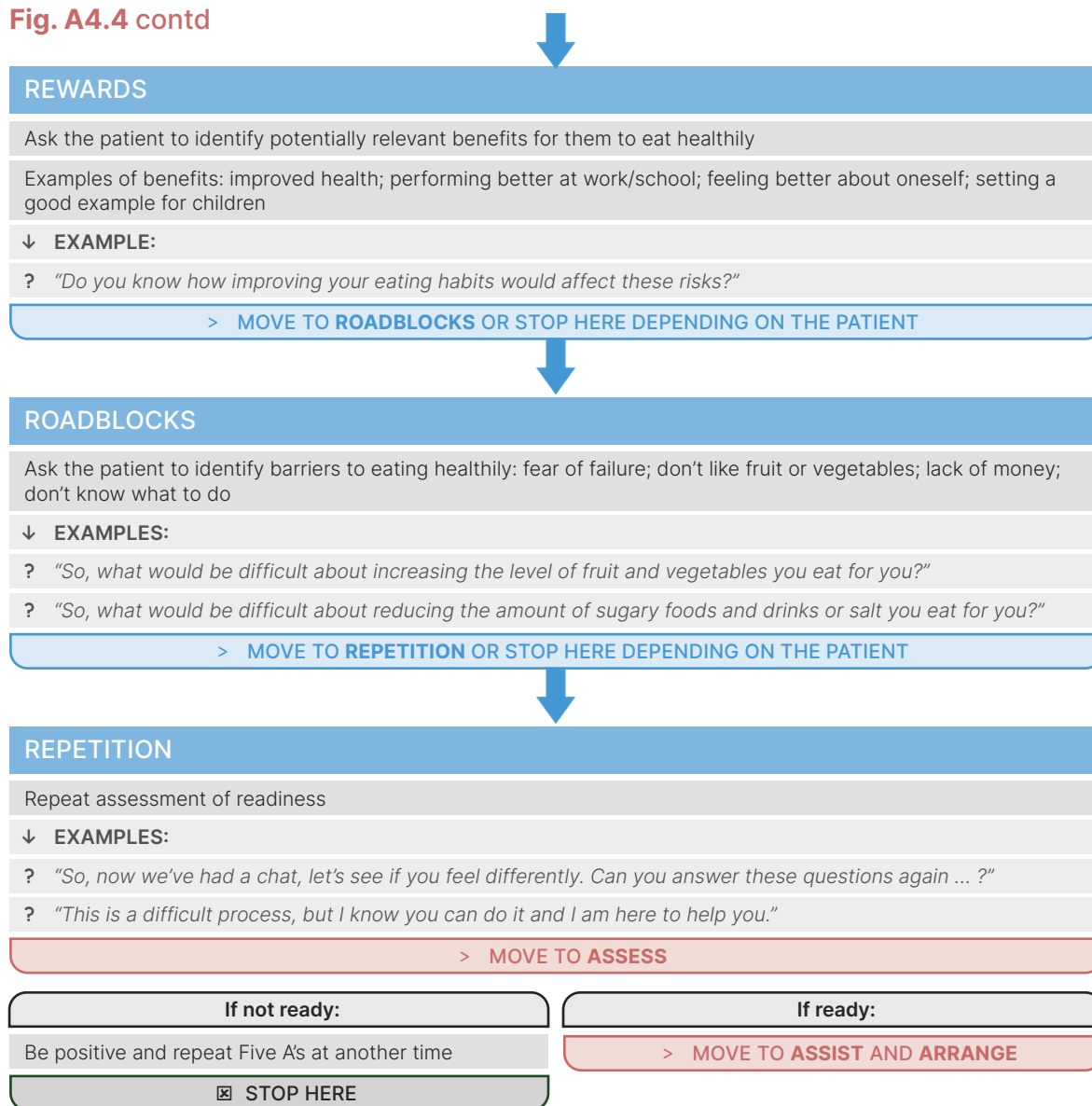
↓ **EXAMPLE:**

? *"What do you know about the risks of unhealthy eating habits to your health? What particularly worries you?"*

> MOVE TO REWARDS OR STOP HERE DEPENDING ON THE PATIENT



Fig. A4.4 contd



STAR: situation, task, action, result (method).

Source: WHO (23,24), National Centre for Smoking Cessation and Training (25), Public Health Scotland (26), Aveyard et al. (27), Sherson et al. (28), Health Education England (29).

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Annex 5. Limiting sedentary time and being more physically active



Measuring physical activity

Many tools can be used in primary care to measure a the patient's levels of sedentary time and physical activity, including the Global Physical Activity Questionnaire (GPAQ) (Table A5.1), which is recommended by WHO.

Table A5.1. Global Physical Activity Questionnaire

<p>Next, I am going to ask you about the time you spend doing different types of physical activity in a typical week. Please answer these questions even if you do not consider yourself to be a physically active person.</p> <p>Think first about the time you spend doing work. Think of work as the things that you have to do, such as paid or unpaid work, study/training, household chores, harvesting food/crops, fishing or hunting for food and seeking employment [insert other examples if needed]. In answering the following questions, vigorous-intensity activities are activities that require hard physical effort and cause large increases in breathing or heart rate, and moderate-intensity activities are activities that require moderate physical effort and cause small increases in breathing or heart rate.</p>		
ACTIVITY AT WORK	RESPONSE	SCORE
1. Does your work involve vigorous-intensity activity that causes large increases in breathing or heart rate like <i>[carrying or lifting heavy loads, digging or construction work]</i> for at least 10 minutes continuously?	Yes No <i>If No, go to Q4</i>	
2. In a typical week, on how many days do you do vigorous-intensity activities as part of your work?	Number of days	
3. How much time do you spend doing vigorous-intensity activities at work on a typical day?	In hours and minutes	
4. Does your work involve moderate-intensity activity that causes small increases in breathing or heart rate, such as brisk walking <i>[or carrying light loads]</i> for at least 10 minutes continuously?	Yes No <i>If No, go to Q7</i>	
5. In a typical week, on how many days do you do moderate-intensity activities as part of your work?	Number of days	
6. How much time do you spend doing moderate-intensity activities at work on a typical day?	In hours and minutes	
TRAVEL TO AND FROM PLACES	RESPONSE	SCORE
<p>The next questions exclude the physical activities at work that you have already mentioned. Now I would like to ask you about the usual way you travel to and from places. For example, to work, for shopping, to market, to a place of worship [insert other examples if needed].</p>		
7. Do you walk or use a bicycle (pedal cycle) for at least 10 minutes continuously to get to and from places?	Yes No <i>If No, go to Q10</i>	
8. In a typical week, on how many days do you walk or bicycle for at least 10 minutes continuously to get to and from places?	Number of days	
9. How much time do you spend walking or bicycling for travel on a typical day?	In hours and minutes	
RECREATIONAL ACTIVITIES	RESPONSE	SCORE
<p>The next questions exclude the work and transport activities that you have already mentioned. Now I would like to ask you about sports, fitness and recreational activities (leisure).</p>		

Table A5.1 contd

10. Do you do any vigorous-intensity sports, fitness or recreational (leisure) activities that cause large increases in breathing or heart rate like [running or football] for at least 10 minutes continuously?	Yes No <i>If No, go to Q13</i>
11. In a typical week, on how many days do you do vigorous-intensity sports, fitness or recreational (leisure) activities?	Number of days
12. How much time do you spend doing vigorous-intensity sports, fitness or recreational activities on a typical day?	In hours and minutes
13. Do you do any moderate-intensity sports, fitness or recreational (leisure) activities that cause a small increase in breathing or heart rate, such as brisk walking, [cycling, swimming, volleyball] for at least 10 minutes continuously?	Yes No <i>If No, go to Q16</i>
14. In a typical week, on how many days do you do moderate-intensity sports, fitness or recreational (leisure) activities?	Number of days
15. How much time do you spend doing moderate-intensity sports, fitness or recreational (leisure) activities on a typical day?	In hours and minutes
SEDENTARY BEHAVIOUR	RESPONSE SCORE
The following question is about sitting or reclining at work, at home, getting to and from places or with friends, including time spent [sitting at a desk, sitting with friends, travelling in car, bus, train, reading, playing cards or watching television], but do not include time spent sleeping.	
16. How much time do you usually spend sitting or reclining on a typical day?	In hours and minutes

Based on the reported time of physical activity and time spent sedentary in a typical week, assess if the patient meets recommendations on physical activity.

In time-constraint settings, very short assessments can consist of:

- **one single question to assess physical activity:** *“In the past week, on how many days have you done a total of 30 minutes or more of physical activity, which was enough to raise your breathing rate? This may include sport, exercise, and brisk walking or cycling for recreation or to get to and from places, but should not include housework or physical activity that may be part of your job” (1,2); and*
- **one single question to assess sedentary behaviour** (last question from GPAQ): *“How much time do you usually spend sitting or reclining on a typical day (at work, at home, getting to and from places, or with friends, including time spent sitting at a desk, sitting with friends, travelling in a car, bus or train, reading, playing cards or watching television, but do not include time spent sleeping)?”*

Helping people to be more physically active

Everyone should be advised to be active, particularly those who spend much time being sedentary (3). The goals should be:

- for all adults (including older adults, adults and older adults with chronic conditions, adults living with disability, and pregnant and postpartum women) **to reduce sedentary behaviours**, such as sitting, by replacing sedentary behaviours with physical activity of any intensity;
- for all adults (including older adults, adults and older adults with chronic conditions, and adults living with disability) to undertake **at least 150–300 minutes** of moderate-intensity aerobic physical activity per week, or **at least 75–150 minutes** of vigorous-intensity aerobic physical activity, or an equivalent combination;
- for all adults (including older adults, adults and older adults with chronic conditions, and adults living with disability) to undertake **muscle-strengthening activities** at moderate or greater intensity that involve all major muscle groups on **two or more days a week**, as these provide additional health benefits;
- for adults aged 65 years or more, adults and older adults with chronic conditions, and adults living with disability, as part of their weekly physical activity, to undertake varied multicomponent physical activity that emphasizes **functional balance and strength training** at moderate or greater intensity (such as dancing or tai chi) on **three or more days a week**, to enhance functional capacity and prevent falls; and
- for pregnant and postpartum women to undertake **at least 150 minutes** of moderate-intensity aerobic physical activity per week and incorporate a variety of **aerobic and muscle-strengthening activities** (adding gentle stretching may also provide benefits); women who before pregnancy habitually engaged in vigorous-intensity aerobic activity or who were physically active can **continue** these activities during pregnancy and the postpartum period.

On a 10-point scale (from 0 to 10) relative to an individual's personal capacity, **moderate-intensity** physical activity is usually a 5 or 6 and **vigorous-intensity** physical activity is usually a 7 or 8 (3). A simple definition of moderate-intensity physical activity is that the person can talk but not sing during the activity. During vigorous-intensity physical activity, the person cannot say more than a few words without pausing for a breath (4).

Muscle-strengthening activity is physical activity and exercise that increase skeletal muscle strength, power, endurance and mass. It includes strength training, resistance training and muscular strength and endurance exercises.

The flow diagram and more detailed guidance for helping people to limit their sedentary behaviour and be more physically active are presented in Fig. A5.1 and Fig. A5.2.

Fig. A5.1. Flow diagram for helping people to be more physically active and reducing the time being sedentary

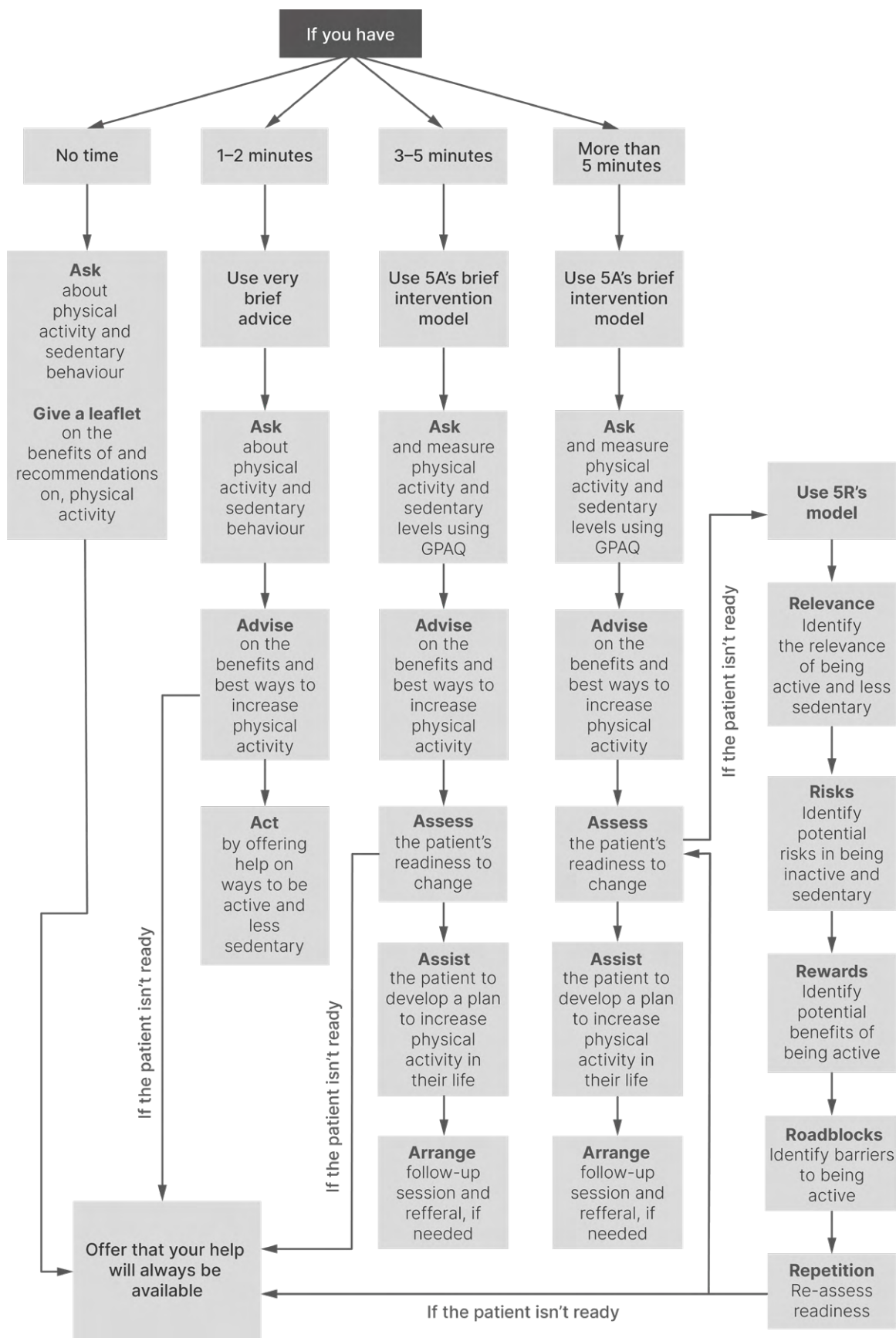


Fig. A5.2. Guidance for helping people to be more physically active (should be adapted to local context)

NO TIME

Ask about their sedentary time and levels of physical activity, note in the patient's file, and provide a leaflet/resource with information on limiting sedentary time and increasing physical activity, recommendations and benefits of being more physically active, and on the steps that can be taken to maintain increased levels of physical activity, including links to web-based, computer-based and mobile applications to support patients in physical activity choices. Follow-up next time the patient consults

1-2 MINUTES

ASK about sedentary time and physical activity levels

Ask the patient's permission to talk about their physical activity and sedentary behaviour

Use one single questions on physical activity and sedentary behaviour as described above

↓ EXAMPLES:

? "Have you got a few minutes to talk about your physical activity habits and sedentary behaviour?"

? "Would you agree you spend more time active or sedentary?"

> MOVE TO ADVISE

ADVISE on the benefits and best ways for limiting sedentary time and increasing physical activity

↓ EXAMPLES:

? "Increasing the level of physical activity is an important thing you can do for your health. Help is available and many of my patients have found this useful. Would you like some help with it?"

? "You are more likely to remain physically active if you find an activity that you enjoy and that can fit into your everyday life. What do you like?"

? "Walking is an easy way to get started. This should be at a brisk pace, enough to make you feel warmer and breath more deeply but without any discomfort. Do you want to give it a try?"

If the patient meets the recommended physical activity levels:

Congratulate them and encourage them to continue these efforts and to strive for reaching the maximum minutes per week of physical activity if only meeting the minimum

☑ STOP HERE

If the patient does NOT meet the recommended physical activity levels:

Bring up the conversation on the importance of increasing the level of physical activity and limiting sedentary time

If the patient is willing to accept help:

> MOVE TO ACT

If the patient declines to accept help:

Offer that your advice and help will always be available if they change their mind in the future

Make a note in their medical records that advice has been offered and declined and try again at the next visit

☑ STOP HERE

Fig. A5.2 contd



ACT by offering help

Congratulate them on their decision to be more active and act on their response to advice by facilitating referral to a local centre or alternative support (such as another health-service provider or specialist, online services or self-help materials)

When referring the patient to a specialist, ask your team to help them to arrange an appointment or arrange it for them

Make sure to follow-up at the next session on any progress and provide more time for the conversation if possible

↓ **EXAMPLES:**

? *"Here is some information on low-cost group physical activity classes at a centre near your home, would you like to take a look?"*

? *"There is one website that can provide further information on how to increase the level of physical activity. Would you like to try?"*

☒ **STOP HERE**

3-5 MINUTES

ASK and measure physical activity and sedentary levels

Ask the patient's permission to talk about their physical activity and sedentary behaviour

Using GPAQ, ask the patient how sedentary and physically active they are and document as described above

↓ **EXAMPLE:**

? *"Have you got a few minutes to talk about your physical activity habits and sedentary behaviour?"*

> **MOVE TO ADVISE**



ADVISE on the benefits and best ways for limiting sedentary time and increasing physical activity

↓ **EXAMPLES:**

? *"What do you not like about having lots of time when you are not physically active?"*

? *"What do you not like about having lots of sedentary time?"*

? *"Some of my patients have found that physical activity such as walking has helped them to feel better. Do you think it may be helpful for you as well?"*

? *"It's surprising how even small amounts of walking or other exercise can help you to feel better. How do you feel about your current level of physical activity?"*

If the patient meets the recommended physical activity levels:

Congratulate them and encourage them to continue these efforts and to strive for reaching the maximum minutes per week of physical activity if only meeting the minimum

☒ **STOP HERE**

If the patient does NOT meet the recommended physical activity levels:

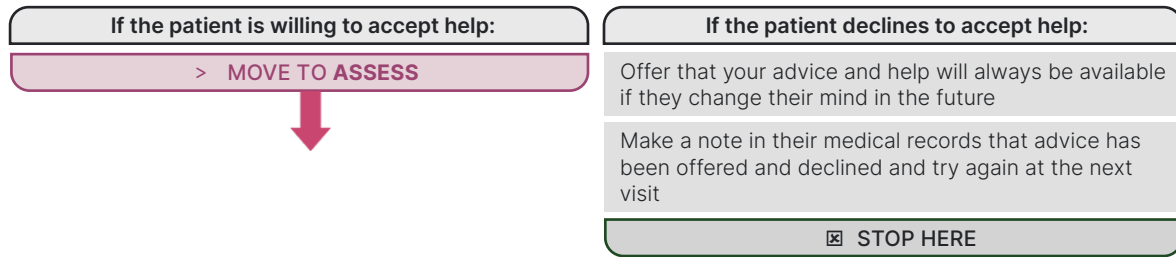
Bring up the conversation on the importance of increasing the level of physical activity and limiting sedentary time

Advice should be simple, clear, strong and personalized

Don't build too personal a connection with the patient's conditions to avoid resistance

Stay positive!

Fig. A5.2 contd



ASSESS the patient's readiness to change

Assess with two questions

Q1 "Would you like to be more physically active?"

Q2 "Do you think you will be able to increase your activity level?"

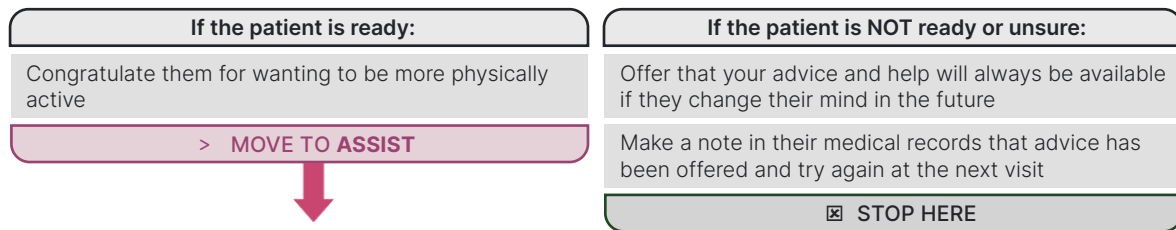
Q1	YES	NOT SURE	NO
Q2	YES	NOT SURE	NO

Any answer in the shaded area indicates that the person is not yet ready to change. In this case, effort needs to be made to increase motivation for change

Answers in the white area suggest that you and the patient can move on to the next step

↓ **EXAMPLE:**

? "If it is a bad time to talk about it today, we always can come back to it later."



SSIST with helping to develop a plan to increase physical activity in their life

- Share practical ways to start and basic information on physical activity
 - Use the STAR method to develop a behaviour-change plan
 - Help identify areas in daily life where they could start to increase their activity levels
 - Help to identify activities they would enjoy doing and who they can talk to about their plan (such as family or colleagues at work)
 - Provide social support such as involving family and friends
 - Provide supplementary materials and other referral resources or support services if applicable
 - The support given needs to be described **positively** but realistically
- ↓ **EXAMPLES:**
- ? "Can you think of ways to increase your level of physical activity, for example, the number of steps you take daily?"
 - ? "Can you think of types of physical activity you would prefer?"
 - ? "What may get you on your way to being more physically active?"
 - ? "What would improve your confidence to be more physically active?"



Fig. A5.2 contd



ARRANGE a follow-up session and/or referral

- If referring the patient to a specialist, ask your team to help them to arrange an appointment or arrange it for them
- Use practical methods such as telephone, personal visit and email to do the follow-up
- Following-up with the patient is recommended to be done through teamwork if possible
- Follow-up on any challenges faced by the patient, but also any successes
- If the patient is becoming more active, congratulate them on their success if they are following the advice provided
- If the patient is experiencing challenges, remind them of the benefits and variety of ways to be active, discuss ways to address challenges and encourage recommitment, and link with additional support and resources if available
- Schedule the next follow-up

↓ EXAMPLES:

- ? *"Would you find follow-up helpful to continue your efforts at increasing your level of physical activity?"*
- ? *"Would you like to follow-up on being more physically active?"*
- ? *"When would you like to come back and talk about your efforts to become more physically active?"*
- ? *"There is an excellent specialist on the challenge of increasing physical activity levels. Would you like to see him/her?"*

☒ STOP HERE

MORE THAN 5 MINUTES

ASK and measure physical activity and sedentary levels

- Ask the patient's permission to talk about their physical activity and sedentary behaviour
- Using GPAQ, ask the patient how sedentary and physically active they are and document as described above

> MOVE TO ADVISE



ADVISE on the benefits and best ways of limiting sedentary time and increasing physical activity

If the patient meets the recommended physical activity levels:

Congratulate them and encourage them to continue these efforts and to strive for reaching the maximum minutes per week of physical activity if only meeting the minimum

☒ STOP HERE

If the patient does NOT meet the recommended physical activity levels:

Bring up the conversation on the importance of increasing the level of physical activity and limiting sedentary time

Advice should be simple, clear, strong and personalized

Don't build too personal a connection with the patient's conditions to avoid resistance

Stay positive

If the patient is willing to accept help:

> MOVE TO ASSESS



If the patient declines to accept help:

Offer that your advice and help will always be available if they change their mind in the future

Make a note in their medical records that advice has been offered and declined and try again at the next visit

☒ STOP HERE

Fig. A5.2 contd

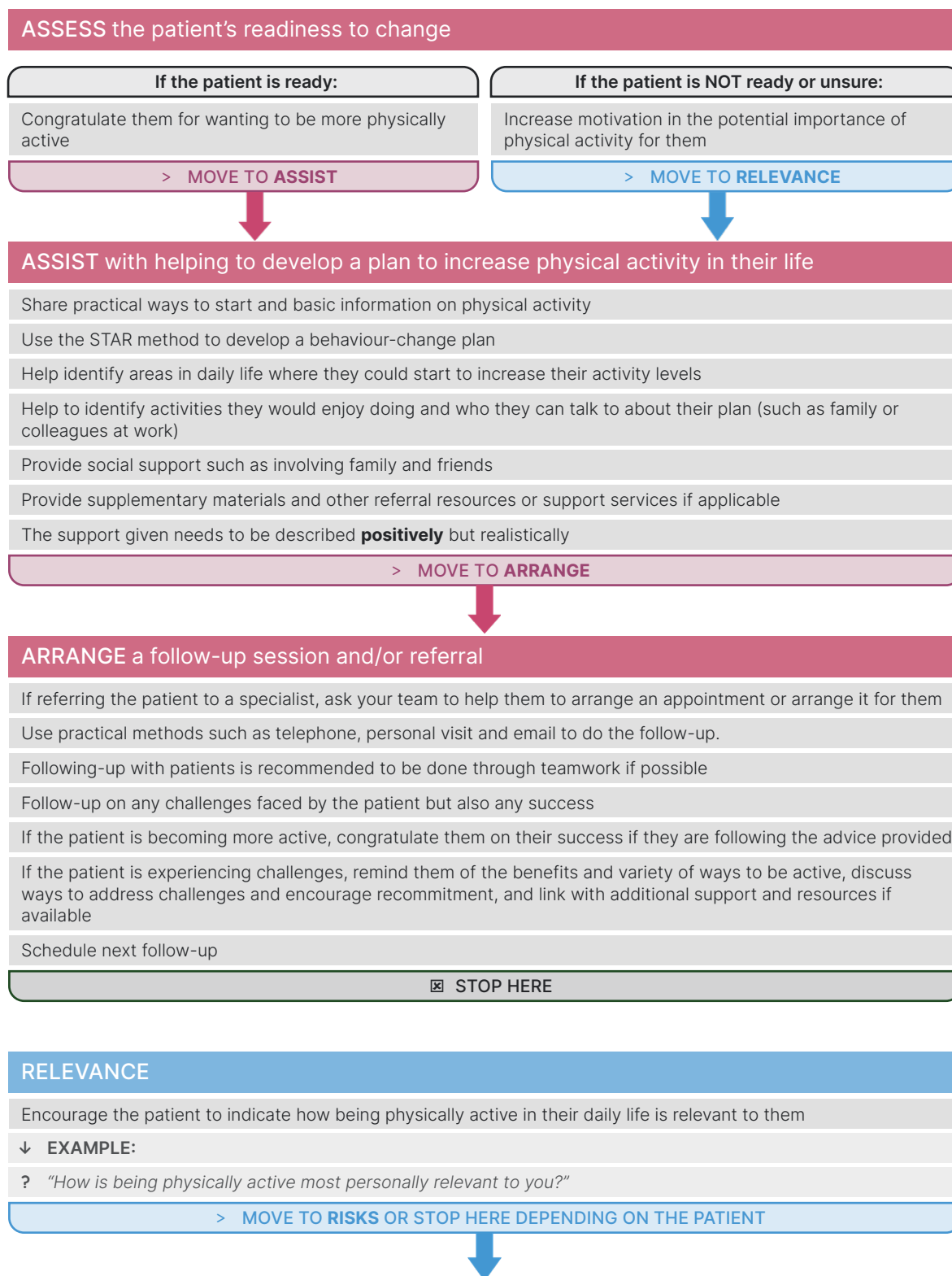
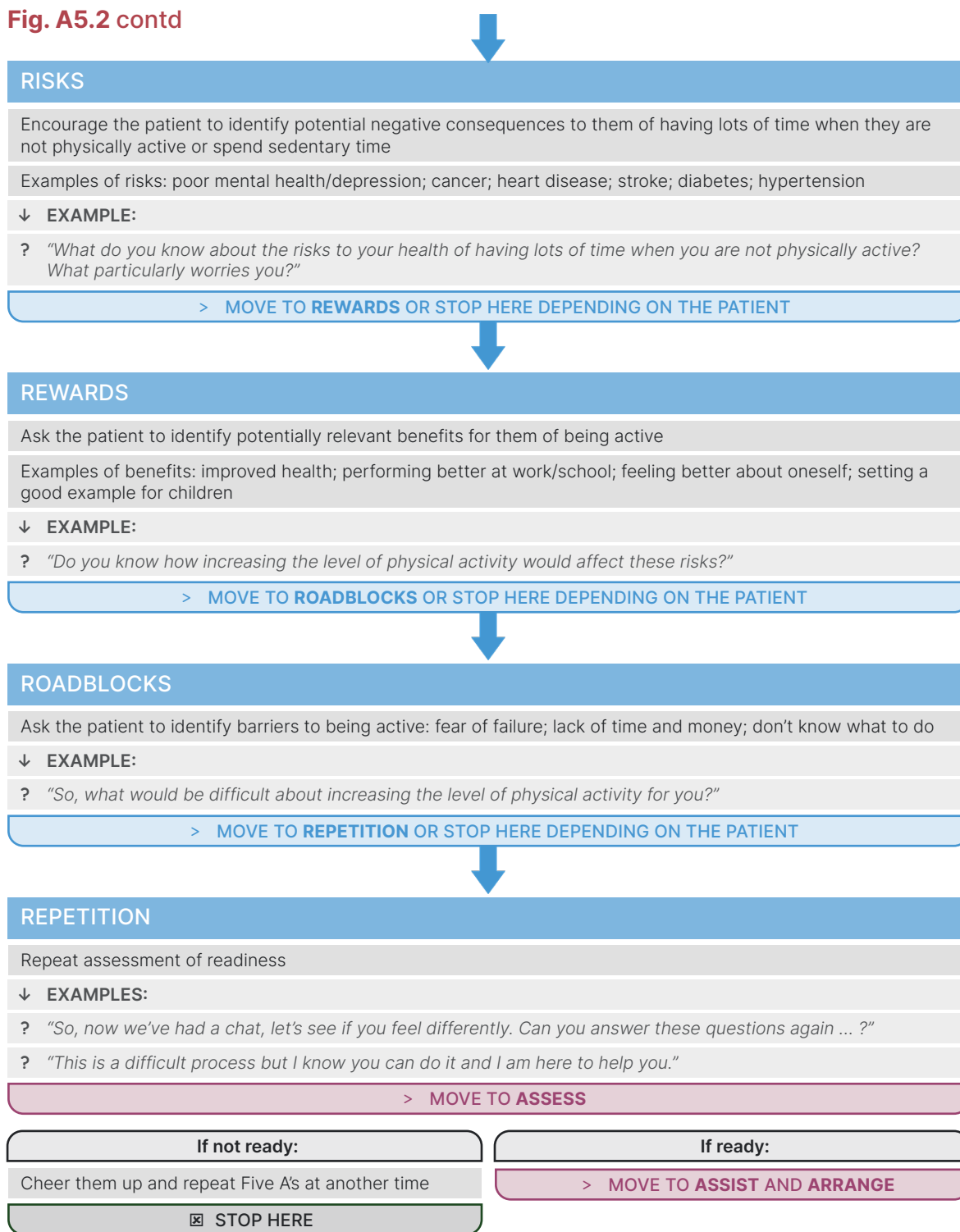


Fig. A5.2 contd



STAR: situation, task, action, result (method).

Source: WHO (5,6), National Centre for Smoking Cessation and Training (7), Public Health Scotland (8), Aveyard et al. (9), Sherson et al. (10), Health Education England (11).

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PART 3. SUPPLEMENTARY MATERIALS



Supplement 1. Behavioural and cultural insights considerations on the use of brief interventions

Behavioural and cultural insights (BCI) refer to investigating and understanding the individual and contextual factors that affect health-related behaviours and using these insights to develop, test, implement and evaluate health-related policies, services and communications (1). Brief interventions in primary care require the uptake of a behaviour by both the health-service provider (in implementing brief interventions in their practice) and the patient (in agreeing to engage with the provider, accept help and support and adopt positive health behaviours/reduce risk behaviours).

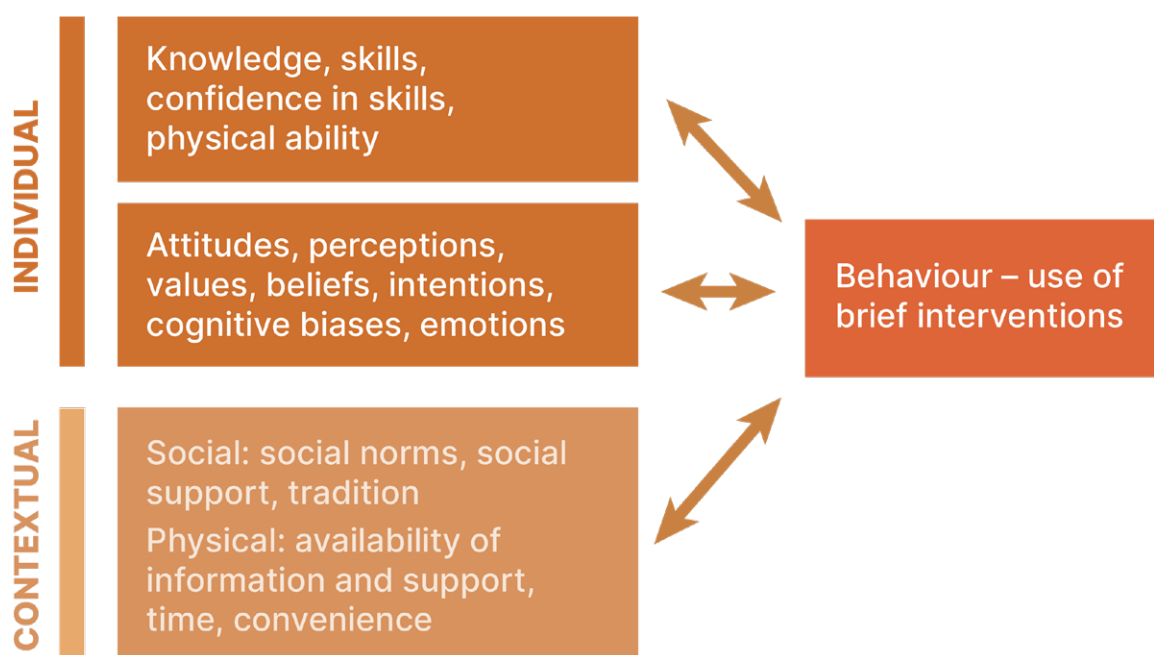
The barriers faced by health-service providers vary across settings. Health authorities or managers of health facilities who are trying to effectively address the most influential barriers can benefit from BCI in two ways: in diagnosing the barriers to uptake of brief interventions in their setting; and in designing and implementing evidence-informed solutions to address them.

Diagnosing barriers to uptake of brief interventions by health-service providers

BCI incorporates a broad range of factors that can influence the uptake of brief interventions by health-service providers, including psychological, cultural, social, historical, health literacy-related and structural factors (such as those covered in Chapter 2). Key elements of BCI include reviewing data and evidence and conducting research to gain new and relevant insights into the barriers and drivers experienced by health-service providers in their local settings through, for example, surveys, focus groups, interviews, observations and consultations (2).

Such research can draw on the capability, opportunity, motivation and behaviour (COM-B) model (3) (Fig. S1.1), which is widely used to map barriers to health-related behaviours and which WHO has adapted for health behaviours (4). The model posits that for a health-related behaviour to occur, all three sets of factors – capability, opportunity and motivation – need to be in place.

Fig. S1.1. Modified COM-B model



Source: Habersaat & Jackson (4). Reproduced with permission from Springer Nature Switzerland AG under the terms of the Creative Commons Attribution 4.0 International License (<https://creativecommons.org/licenses/by/4.0/>).

Table S1.1 describes some potential barriers related to the uptake of brief interventions by health-service providers alongside some potential solutions that are described in more detail below. The barriers are informed by research reviewed in this manual and surveys and interviews conducted by WHO among health-service providers.

Table S1.1. Barriers and solutions to low uptake of brief interventions by health-service providers

COM-B FACTOR	POTENTIAL BARRIERS	POTENTIAL SOLUTIONS
Capability	<ul style="list-style-type: none"> ▶ Lack of knowledge of brief interventions ▶ Lack of confidence in own skills, including interpersonal and counselling skills ▶ Lack of perceived effectiveness of brief interventions 	<ul style="list-style-type: none"> ▶ Training (see Chapter 4) that combines passive forms of training (such as written guidance) with active engagement of health-service providers for better effect
Motivation	<ul style="list-style-type: none"> ▶ Patient perceived as unwilling or unable to act on advice ▶ Perceived lack of time ▶ Stress, fatigue, complacency ▶ Lack of (financial) incentives ▶ Concern over making suggestions when the professional does not follow the guidance themselves 	<ul style="list-style-type: none"> ▶ Data on patient expectations, satisfaction and uptake ▶ Goal-setting and commitments ▶ Financial and other incentives (defined in collaboration with professionals to avoid backfire effects)

Table S1.1 contd

COM-B FACTOR	POTENTIAL BARRIERS	POTENTIAL SOLUTIONS
Opportunity – physical	<ul style="list-style-type: none"> ▶ Lack of clear referral pathways for patients ▶ Lack of tools for instructing and supporting providers and patients ▶ Lack of systems to support the uptake of brief interventions 	<ul style="list-style-type: none"> ▶ Increased resources ▶ Structural support (see Chapter 2)
Opportunity – social	<ul style="list-style-type: none"> ▶ Not seen as priority for the health-service organization ▶ Lack of support from management ▶ Lack of engagement of professionals in how brief interventions are implemented ▶ Social norms (whether peers use brief interventions) 	<ul style="list-style-type: none"> ▶ Monitoring and feedback ▶ Cocreation of solutions, systems and information and active engagement of professionals

Designing solutions to improve uptake of brief interventions by health-service providers

Solutions related to training (capability) are described in more detail in Chapter 4. Those related to availability of referral options and other structural factors are discussed in Chapter 2. The two remaining categories (motivation and social opportunity) are discussed here, with some potential solutions provided as inspiration for further refinement and contextual adaptation. In the context of uptake of brief interventions, it is also crucial to listen to and engage with health-service providers as active partners in developing solutions.

The application of brief interventions should be incorporated in all clinical guidelines, with adjustments for specific health/medical areas.

Possible solutions to overcome barriers related to motivation

DATA ON PATIENT EXPECTATIONS, SATISFACTION AND UPTAKE

Health-service providers may view patients as lacking the desire and ability to change their behaviour. A review of primary care-based physical activity interventions, for example, found that providers in seven of the eight included studies expressed the view that patients were neither interested in, nor willing to follow, physical activity advice (5). Other studies, however, show that patients expect their health-service provider to initiate a discussion about health behaviour even if the patient does not ask about it (6). Data from a recent unpublished WHO survey of the use of brief interventions by health-service providers collected in 2020 and 2021 mainly in the Russian Federation showed that 83% of health-service providers who conducted brief interventions reported positive patient response, with only 5% sharing the experience of receiving negative feedback from patients. The survey also noted, however, that providers tended to deliver brief interventions when they

judged the patient was ready to receive the advice. Data on patient expectations, uptake and satisfaction can be collected and harnessed to demonstrate the positive response from patients that can encourage uptake by health-service providers.

GOAL-SETTING, PLANNING AND REMINDERS

Even when health-service providers are motivated to conduct brief interventions, they often indicate lack of time as a major barrier. Lack of time may indeed be a genuine barrier in some situations, but it is possible to conduct a brief intervention in as little as 1–2 minutes (for very brief interventions). There is also evidence that the active listening that is characteristic of brief interventions saves time. Brief interventions can replace the time wasted in noneffective communication (7).

In some situations, part of the solution may be to support health-service providers to develop the skills to conduct brief interventions within short consultation times. This can be encouraged through the use of tools such as goal-setting and planning (health-service providers planning when and where they will use brief intervention during the coming week, for example) and timely reminders (such as digital prompts at the start of a consultation). So-called if-then plans can be particularly effective, as they allow providers to plan how to overcome obstacles (8). Goal-setting and planning tools and reminders help close the intention-action gap, which leads to motivated individuals not completing a behaviour even if they feel it is important (9,10).

INCENTIVES

Some health-service providers feel that delivering brief interventions is part of their professional role. They may gain personal professional satisfaction from catalysing health-behaviour change in patients and witnessing the positive effects on health outcomes. Others may need additional motivation, which can come in the form of financial or nonfinancial rewards, such as recognition for health-service providers who deliver brief interventions (11,12).

Health-service providers should be involved in codesigning and choosing the rewards they would find most motivating. Codesign also helps to ensure that the incentives do not backfire if, for example, the beneficiaries find the incentive is too small and therefore consider it to be disrespectful of their efforts and skills. To reward the delivery of brief interventions requires monitoring of their use by health-service providers in a way that does not rely on self-reporting but which gathers evidence from other sources, such as patient exit interviews.

Possible solutions to overcome barriers related to social opportunity

MONITORING AND FEEDBACK

Audit and feedback interventions on health-service delivery and patient outcomes can be effective in improving professional practice (13), but their effectiveness depends on how health-service providers' behaviours are measured and tracked and how the feedback is provided. In some contexts, providing comparative feedback (on providers' performance compared to that of their peers) has been effective (14).

Monitoring and feedback can increase the uptake of brief interventions through several mechanisms: it signals that the brief interventions are seen as important by the health-service organization; it may make health-service providers more aware of the frequency with which they conduct brief interventions; and it can prompt wider discussions within the health-service organization on how best to implement brief interventions.

COCREATION OF SOLUTIONS, SYSTEMS AND INFORMATION, AND ACTIVE ENGAGEMENT OF PROFESSIONALS

Health-service providers are not just a target group for information. Their involvement in cocreating solutions, systems and information to improve the use of brief interventions is essential. Research shows that engaging health workers as active partners and ensuring they feel heard and respected is key to influencing behaviours and practices. A lack of engagement may render more passive interventions – such as written guidance and information – ineffective (15).

Active engagement can also involve using mid-level managers as champions and facilitators to encourage use of brief interventions. They are likely to work more closely with staff than the senior management in the health-service organization and have the potential to bridge information gaps, champion ideas and support positive change (16,17).

BCI can help managers to diagnose the barriers to uptake by health-service providers and enable them to propose and support systematically planned solutions that can be further tailored and adapted in collaboration with health-service providers.

Diagnosing barriers and solutions to brief intervention uptake by patients

Patient uptake of accepting help and adopting healthier behaviours is an important part of implementing brief interventions. As with health-service providers, the barriers faced by patients in primary care vary across settings.

Table S1.2 describes some examples of potential barriers related to the uptake of brief interventions by patients alongside some potential solutions that are described in more detail below. As above, the barriers are informed by research reviewed in this manual, brief intervention guidelines and surveys and interviews conducted by WHO among health-service providers.

Table S1.2. Barriers and solutions to low uptake of brief interventions by patients

COM-B FACTOR	POTENTIAL BARRIERS	POTENTIAL SOLUTIONS
Capability	<ul style="list-style-type: none"> ▶ Lack of awareness of individual risk ▶ Lack of knowledge regarding health-behaviour recommendations ▶ Lack of knowledge of how to make and sustain change ▶ Limitations in physical ability that limit eating and/or physical activity options ▶ Lack of self-efficacy ▶ Forgetfulness ▶ Procrastination ▶ Behavioural addiction 	<ul style="list-style-type: none"> ▶ Use of personal measurement tools to identify risk, including sharing feedback with the person ▶ Cocreation of a specific and attainable plan of action ▶ Provision of information about recommended behaviours adjusted to health literacy needs ▶ Tailored recommendations to address the patient's self-identified barriers ▶ Delivery of reminders or prompts
Motivation	<ul style="list-style-type: none"> ▶ Lack of readiness ▶ Lack of perceived net benefits of the intervention ▶ Perceived difficulty of making a sustained change ▶ Unwillingness to discuss health behaviours due to fear of judgement ▶ Previous unsuccessful attempts at changing health behaviour 	<ul style="list-style-type: none"> ▶ Adopting a salutogenic approach – building on health behaviour as an asset ▶ Use of gain-framed messaging to increase motivation and sense of empowerment ▶ Emphasis on immediate as well as long-term benefits ▶ Increased perceived ease of uptake with specific and attainable goals ▶ Use of contextual risk-management tools to highlight relevance of the intervention ▶ Framing of the intervention as a nonjudgemental offer of assistance ▶ Cocreation of commitment contracts
Opportunity – physical	<ul style="list-style-type: none"> ▶ Lack of availability of resources for behaviour change within the patient's environment ▶ Lack of resources (financial, cognitive, temporal) to make sustained change 	<ul style="list-style-type: none"> ▶ Identification of physical barriers and provision of tailored advice to address them ▶ Discussion of priorities regarding personal resources
Opportunity – social	<ul style="list-style-type: none"> ▶ Reinforcement of risk-inducing behaviour through norms embedded within the patient's social network, family, community and/or culture 	<ul style="list-style-type: none"> ▶ Connection with social networks, including community-based groups and activities, for positive reinforcement and accountability ▶ Engagement with religious and cultural opinion leaders

Designing solutions to improve uptake of brief interventions by patients

BCI may offer valuable tools for considering how the delivery of a brief intervention might impact patients' receptiveness. Capability, motivation and physical and social opportunity factors are discussed here through some potential solutions to noncommunicable disease behavioural risk factors – tobacco use, alcohol consumption, physical inactivity and unhealthy eating – and the physiological

risk factor, increased body mass index (BMI). In the context of uptake of brief interventions, it is also crucial to actively listen to and engage with patients as active partners in developing solutions.

Possible solutions to overcome barriers related to capability

MEASUREMENT TOOLS TO IDENTIFY INDIVIDUAL RISK

The mismatch between awareness and understanding of individual risk and the population baseline is often significant. This mismatch can affect receptiveness to brief interventions. In relation to patients' beliefs surrounding their own and peers' drinking behaviour, for example, it may be the case that patients are unaware of the health implications of alcohol consumption. Taking an example from unhealthy eating, some patients may be unaware of specific recommendations on salt consumption and/or underestimate their personal intake (18). They may be generally aware that excess salt intake is bad for health but may not be cognisant of the specific health consequences. Risk management may therefore offer a valuable tool for highlighting individual risk and adapting health communication to health literacy needs. Cultural liaisons/mediators may be recruited to help bridge cultural gaps, particularly among immigrant/migrant groups (19).

ATTAINABLE PLAN OF ACTION

Creating a specific and attainable plan of action can increase the perceived ease of uptake of a target behaviour through overcoming patients' lack of self-efficacy – their belief in their capabilities to organize and execute the courses of action required to manage prospective situations (20). Specific, measurable, achievable, realistic and time-related (SMART) goals (21) provide an example of criteria developed to guide the setting of achievable, more realistic goals and objectives for better results.

Rogers et al. (22) suggest that the creation of implementation intention plans, in which an anticipated cue is linked to a desired action, may facilitate goal commitment by creating mental associations that are automatically enacted. This may involve linking a desired behaviour to a set stimulus, such as a situation or event. A study comparing change in BMI through a weekly weight-loss programme over 15 months revealed that forming implementation intention plans promoted weight loss. Participants who had detailed actionable plans reduced their BMI substantially more than those who did not (23).

Lack of self-efficacy may represent a barrier to uptake of physical activity (24). An attainable plan of action may include the recommendation of a metric goal for activity (such as time-based or step-based goals) or a specific behaviour within the patient's routine (walking home from work instead of taking the bus, for instance) (25), linking a set event (the end of the working day) to the desired activity.

Patients may perceive themselves as lacking the necessary self-efficacy to quit smoking (26). It may therefore be valuable to create certainty about the support

available to them, identify barriers with the patient and create steps to address them, such as recruiting family members to similarly adopt positive health behaviours.

TAILORING RECOMMENDATIONS

Tailored advice may help patients to address self-identified barriers. In an evaluation of an obesity intervention, for example, researchers found that recommendations to reduce the frequency of unhealthy food consumption by substituting alternatives, rather than completely eradicating unhealthy foods, may have increased the perceived ease of making nutritional changes (27).

If a patient is motivated to reduce their salt intake but is unsure of how to do so, a brief intervention could provide concrete steps for salt reduction and highlight common sources of salt (18), particularly in foods that do not taste particularly salty (such as bread, cheese and processed meats) (28,29). Working with the patient to identify items such as these in their own eating behaviours, finding suitable lower-salt substitutes and providing information on interpreting salt content listed on food labels (facilitating visualization of metric quantities in everyday contexts) would be a concrete way of tailoring recommendations. As an example, visualizing the WHO-recommended limit of 5 g of salt per day as “a little less than one teaspoon” might help a patient to remember the guideline when adding salt to their food (30).

Training health-service providers to implement a patient-centred approach can be helpful in preventive care. Building on patients’ knowledge is more effective than general information. Tailoring discussion on symptoms and lifestyle risks to the patient’s context is effective (31). Patient-centred care requires different approaches depending on the clinical situation. For example, motivational interviewing and shared decision-making are well placed for situations where medical evidence supports specific behaviour changes, with the most appropriate action depending on the patient’s preferences (32). Reviews of literature involving patient-centred approaches have shown that patient-centred interactions promote adherence and result in improved health outcomes (33).

Possible solutions to overcome barriers related to motivation

GAIN-FRAMED MESSAGING TO INCREASE MOTIVATION

It is important to consider how best to facilitate the patient’s openness to making changes in the present. Research suggests that a positive framing of the intervention as a nonjudgemental offer of assistance may be influential (34). Gain-framed messaging, which emphasizes the benefits of adopting a behaviour, may be more effective in encouraging individuals to adopt low-risk health behaviours than loss-framed messaging, which emphasizes the costs of not adopting the behaviour, by creating positive impressions of the behaviours (35–37).

IMMEDIATE VERSUS LONG-TERM BENEFITS

Some patients may discount the value of long-term benefits or postpone behaviour change because they do not feel the issue is urgent, particularly in cases in which

they are not currently experiencing adverse impacts of the behaviour (26,38). An emphasis on the short-term benefits of behaviour change therefore may be more effective in influencing patient motivation.

In brief interventions delivered in primary care for smoking cessation, for example, patient attitudes and perceptions may represent an important influence on intervention success. Patients who smoke may be generally aware of the health risks of tobacco use, and many intend to stop in the future. They may, however, be reluctant to consider stopping in the present and can respond negatively to smoking-cessation advice (26,34). In addition, individuals may perceive quitting as being difficult and mentally taxing and perhaps have experienced struggles with attempts to quit in the past. This can particularly affect those who are not currently diagnosed with a smoking-related illness (26). Emphasizing the immediate benefits of quitting (such as impacts on the ability to take part in sports, significant cost savings, increased social acceptability, improved perceived fitness and positive self-image for moving forward) may increase patients' motivation to consider initiating a cessation attempt.

Regarding nutrition, emphasis on the short-term benefits of eating habits, such as decreased bloating with salt reduction, may be valuable, as patients may discount the value of future benefits (38).

In the case of physical activity, health-service providers can consider how to tailor recommendations to increase patients' enjoyment of activity (39). A provider may, for example, work with a patient to identify sports they may enjoy and tailor an activity plan around them while ensuring the plan is free of perceived barriers (such as time constraints and negative self-image). A further method of increasing the perceived short-term benefits of a behaviour is to combine a particular health behaviour with an activity that patients enjoy, a method termed temptation bundling (40). For example, a health-service provider could recommend that a patient only allow themselves to listen to an audiobook they enjoy while taking part in physical activity, thereby increasing the perceived short-term benefit of the activity.

CONTEXTUAL RISK-MANAGEMENT TOOLS TO HIGHLIGHT THE RELEVANCE OF THE INTERVENTION

Risk-management tools that identify unhealthy behaviours provide opportunities for providers to make the advice feel timelier and more salient to the patient, as the tools identify and address risk factors in their personal behaviours. Conducting risk-management activities may therefore positively affect patient motivation if the results are shared with the patient in a supportive atmosphere.

Risk-management tools may be more effective when they are context-informed. Alcohol-consumption behaviours and beliefs surrounding them may be influenced by sociocultural norms, so brief interventions should reflect the cultural context in which the intervention takes place (41). Recent pilot studies on alcohol reduction in the Russian Federation, for example, found that existing tools identified fewer than 1% of patients as at-risk, prompting the development of a country-specific tool (42). Risk measurement may also be impacted by the phrasing of questions (for example, subjectivity may occur in estimating the size of a "drink" for assessing the volume

of alcohol intake), by the perceived attitude of the health-service provider toward alcohol consumption (which may influence the patient to be dishonest about their intake), and by the relationship between the patient and provider (42,43).

Possible solutions to overcome barriers related to physical opportunity

LACK OF AVAILABLE RESOURCES

A tailored brief intervention approach reflects factors within the patient's environment, such as physical and social opportunities. A patient may lack the physical opportunity to take part in physical activity because they do not have access to suitable outdoor or gym space. In this case, a tailored approach would consider how to work around the lack of physical opportunity: for example, a patient lacking suitable outdoor space may consider how to take part in physical activity in their own home or have a walking plan (that is easy to execute, is implemented at convenient times, is free of charge, can be done either alone or with a partner as preferred, and can be accompanied by auditory stimuli (music or audiobook, for instance)).

Time is considered a physical resource. In a cohort survey of patients with chronic heart failure, patients reported lack of time as one of the greatest barriers to increasing their physical activity (44). Lack of energy in their free/leisure time (such as evening hours after work) may also be a significant barrier (45). In this case, it might be valuable to identify specific times and behaviours in which physical activity can be incorporated into the patient's routine, including social support and encouragement from significant others.

Possible solutions to overcome barriers related to social opportunity

COMMUNITY-BASED GROUPS FOR POSITIVE ACCOUNTABILITY

Social networks play a significant role in reinforcing behaviour. Recommending social and community-based forms of physical activity, such as a free exercise class or group event, might increase people's social opportunity for uptake of physical activity and enhance their motivation to sustain the behaviour (as they are held accountable for their participation by fellow group members) (46). Initiating a health-promoting workplace also creates supportive opportunities in the short and long terms.

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Supplement 2. Examples of work being done on brief interventions in the WHO European Region

The examples below reflect the efforts countries of the WHO European Region are making to implement and scale-up brief intervention programmes and tackle noncommunicable diseases (NCDs). It should be noted, however, that the selection of examples was based neither on scientific evidence nor on evaluation by the WHO Regional Office for Europe. The presented approaches therefore should not be seen as being recommended by WHO for use in other countries of the Region and beyond. They nevertheless provide examples of how countries are taking action across a wide range of aspects to promote brief interventions in primary care.

Training on brief interventions for NCD prevention in the Russian Federation

Brief interventions are an essential component of training for all primary care physicians in the Russian Federation. Each primary care clinic has a special preventive department that is responsible for providing screening, brief interventions and motivational counselling.

Specific dimensions of training on brief interventions include:

- online education for all medical staff of preventive departments in primary care clinics; and
- online simulators for communicating with patients in brief interventions.

Providing online education for all medical staff of preventive departments in primary care clinics

The National Medical Research Centre for Therapy and Preventive Medicine (NMRCTPM) is a leading methodological and scientific institution for internal medicine in the Russian Federation. The centre provides a broad range of postgraduate educational activities, including in-residence programmes. Its NCD prevention programme for physicians working in primary care consists of 25 hours of lectures and 40 hours of self-study. The programme has 13 themes, with brief interventions presented as a standalone topic but also as part of educational activity on risk factors such as tobacco use and unhealthy eating and in the organizational process of prevention in primary care.

The federal-level Methodological Centre for Multifactorial Prevention (MCMP) was created within the NMRCTPM to provide methodological support and implement innovative prevention technologies, including effective brief interventions for

patients with risk factors. Priority activities of the MCMP include improving existing and creating new technologies for medical prevention of major NCDs and their risk factors at individual and population levels.

The MCMP training room is located in the NMRCTPM and has thematic zoning reflecting the main behavioural risk factors (unhealthy eating, alcohol consumption, smoking and physical inactivity). The training room showcases various devices (including implements that patients can wear) designed to measure health parameters (such as blood pressure, body weight and physical activity levels) and is equipped with demonstration screens.

Developing online simulators for communication with patients in brief interventions

The MCMP has an interactive facility with dialogue simulators for developing professionals' communication skills to improve the effectiveness of brief interventions. The dialogue simulators are educational tools for training preventive-medicine specialists on conducting in-depth motivational counselling of patients with risk factors as part of the second stage of clinical examination.

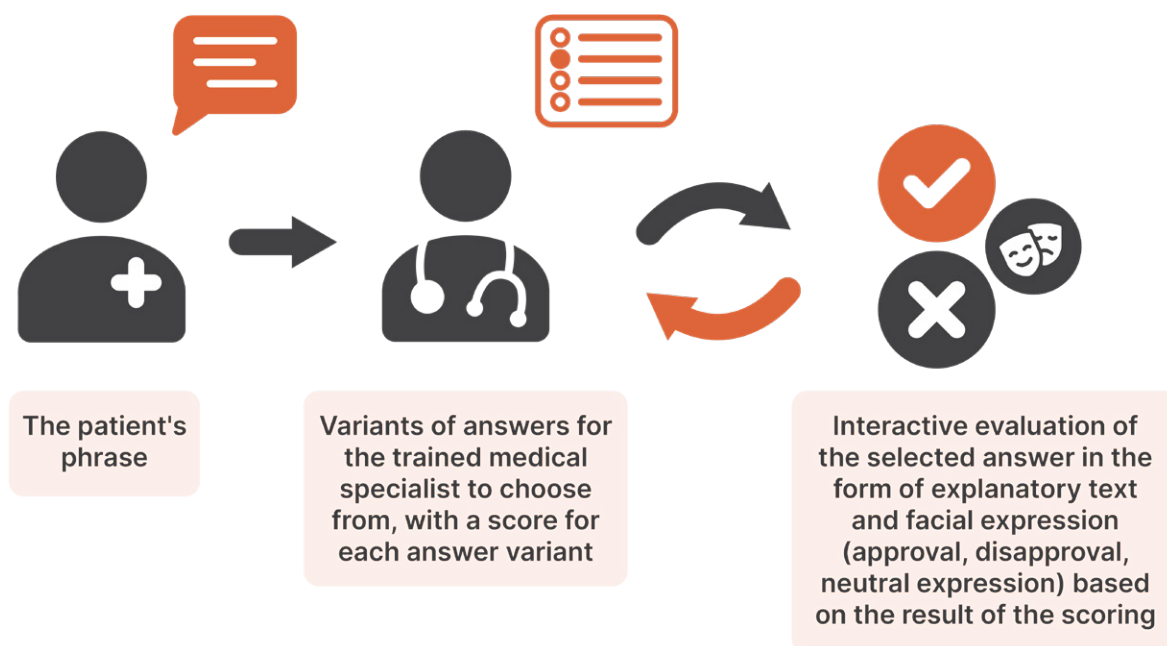
Simulators can be used for training doctors and nursing staff of medical-prevention departments whose functional duties include providing brief interventions on risk factors.

Currently, two interactive simulators have been developed and are being used to train doctors on how to provide counselling on reducing or quitting alcohol consumption and managing weight for those living with overweight or obesity.

Each simulator begins with a description of a model situation of dialogue and counselling: for example, "My physician asked me to attend the medical-prevention office after speaking with me during my medical examination".

The simulator includes a series of thematic dialogue scenes (17 scenes in total in each simulator). The structure of each scene of the simulator is as shown in Fig. S2.1.

Fig. S2.1. Simulator thematic dialogue scenes' structure



The specialist receives +10 points for each correctly chosen answer and -5 points for an incorrect one. A neutral answer is not evaluated. In passing through the training scenes of the simulator, the medical specialist sees the cumulative score in the upper left corner of the screen. The task is considered complete if the medical specialist scores 145 points out of 160.

Future plans

Future plans include enlarging educational activities in NCD prevention and including allied health professionals, nurses and others. Courses will also be focused on specific settings (such as hospitals). Dialogue online simulators for developing communication skills will include all risk factors such as unhealthy eating, alcohol consumption, smoking and low physical activity.

SumaSalut: integrating health promotion in primary care in Spain

Background

In Spain, the promotion of lifestyle interventions through primary care began with a programme of preventive and health promotion activities in 1998. Later, a white paper on reaching consensus on preventive activities in adulthood in primary care was developed and, more recently, an approach to comprehensive lifestyle advice in primary care was implemented. Several examples of integrated health promotion in primary care have recently been evaluated, with good results (1,2).

Through the Public Health Agency of Catalonia, the autonomous community of Catalonia, Spain has 20 years' experience in implementing health promotion and prevention activities in primary care, resulting in increased rates of brief intervention. Three programmes – the physical activity, sport and health plan (3) and “Primària sense fum” [“Smoke-free primary care”] (4), led by the Subdirecció General of Health Promotion, and “Beveu menys” [“Drink less”] (5–7), led by the Subdirecció General on Addictions, HIV, Sexually Transmitted Infections and Viral Hepatitis – address the main risk factors for disease and mortality.

The programmes also share implementation strategies. At professional level, they include a train-the-trainers strategy (peer-to-peer) that means continuing education and online training and promotion can be taken forward at each primary care centre through a local champion. At population level, the programmes include several awareness-raising activities, such as recognizing themed world days and promoting community and individual empowerment. At organizational level, they are embedded in the Catalan health system: screening tools are included in the electronic medical record, performance is incentivized by objectives and results are regularly monitored (3). In 2021, for example, 3764 primary care professionals were trained, 28.6% of 109 000 previously inactive adults with cardiovascular risk factors increased their physical activity, 4.4% of 700 000 smokers stopped and 32.7% of 16 000 risky drinkers reduced their consumption.

In 2017, however, the programmes experienced a ceiling effect, with greater investment failing to result in increased adoption and improving rates. The main reasons identified at the time were primary care being overburdened, competing interests, and the high turnover of professionals due to older champions retiring and younger professionals lacking interest. For all these reasons, the Public Health Agency of Catalonia decided to try a more cost-effective approach by integrating the three programmes. Later, the impact of the COVID-19 pandemic response on health promotion and prevention activities in primary care provided more reasons to pursue integration and a good opportunity to explore the use of digital tools in primary care implementation.

SumaSalut programme

SumaSalut [Adding health] (8) was launched as a new umbrella/brand in which the three health promotion programmes could be integrated. Officially launched in 2020, SumaSalut has allowed sharing of common structures and best practices to integrate health promotion on smoking, alcohol consumption and physical inactivity in primary care. Efforts have been made to improve and homogenize implementation, coordination and communication with primary care professionals, improve and increase access to the training offered, promote community activities, and facilitate implementation strategies and citizen access through digital health-care tools.

Implementation

The following steps have been taken to achieve these goals:

- a unique brand, SumaSalut, and a unique image, slogan and motto of the three annual national world days were created;

- a unique channel for dissemination to primary care (web SumaSalut) was established;
- the training platform, dissemination, calendar and training-of-trainers maintenance strategy were unified;
- management circuits were united;
- a technical commission was formed, comprising representatives from public health at central and regional levels, family doctors' and nurses' associations and two champions from each programme (a general practitioner and nurse) to make decisions on, for example, organization, communication, training and the annual conference;
- the SumaSalut process and results were evaluated; and
- individual programme champions were transitioned to a health-promotion commission of 2–3 professionals who coordinate health promotion and community health tasks in each primary care centre.

SumaSalut is working to offer integrated, designed materials and to develop a minimum package of disease prevention and health promotion activities for each age group, integrating all necessary screening tools (short versions), depending on age and gender.

It is also developing a digital self-screening system on physical inactivity, tobacco and alcohol use and unhealthy eating to enable citizens to participate in their health. The system includes periodic reminders and associated advice that will be connected to the electronic health record. This strategy takes advantage of the fact that the autonomous community of Catalonia, Spain began implementing an ambitious health system digitalization strategy in 2018. The launch of the longitudinal electronic health record means all relevant citizen information will be recorded and shared throughout the health-care system using this technical repository and that any self-initiated tools can be connected to the electronic record, saving time for both citizens and professionals (9,10).

Present challenges and opportunities

SumaSalut is a new path that will drive health promotion among primary care professionals, but some challenges remain.

Digital tools for health have arrived, and implementation of large-scale digital health programmes has numerous potential benefits. A recent study in the autonomous community of Catalonia, Spain (11), for example, revealed that telemedicine saved around €15 per visit compared with face-to-face visits, with the patient benefiting most (85% of the savings) through reduced waiting and travel times. Digital health programmes nevertheless can increase the health-promotion gap for the most vulnerable people, who often are those who need advice most urgently, because of issues around accessing and using digital tools. It is important to acknowledge the difficulties some population groups face in this area and put in place strategies to address the barriers.

More evidence is needed on the effectiveness and feasibility of giving essential advice to patients in a relatively short time frame. Certain algorithms with brief intervention options have to be developed.

Another important aspect is the need to regularly monitor and evaluate implementation of SumaSalut. Clear indicators will have to be identified to provide evidence that SumaSalut is meeting its goals and help guide decisions on improvements.

SumaSalut can offer an answer to some of the problems that primary care and health systems currently face, such as understaffing, underfinancing and staff tiredness after a long pandemic. SumaSalut represents an opportunity to increase prevention and health promotion activities, thereby tackling NCDs. It offers cost-effective strategies that help reduce disparities in health by improving health literacy and empowering citizens.

Making Every Contact Count in the United Kingdom

Making Every Contact Count (MECC) is an approach to behaviour change that uses the millions of day-to-day interactions that organizations and individuals have with other people to support them in making positive changes to their physical and mental health and well-being (12,13).

The MECC approach

MECC enables the opportunistic delivery of consistent and concise information to promote health and enables individuals to engage in conversations about their health at scale across organizations and populations. The fundamental idea underpinning the MECC approach is simple. It recognizes that staff across health, local authority and voluntary sectors have thousands of contacts every day with individuals and are ideally placed to promote health:

- for organizations, MECC means providing their staff with the leadership, environment, training and information they need to deliver the MECC approach;
- for staff, MECC means having the competence and confidence to deliver healthy messages, encourage people to change their behaviour and direct them to local services that can support them; and
- for individuals, MECC means seeking support and taking action to improve their own health by eating well, maintaining a healthy weight, drinking less alcohol, exercising regularly, not smoking and looking after their well-being and mental health.

The MECC approach enables health and care workers to engage people in conversations about improving their health. Since expert knowledge is not required, MECC can be implemented by staff in all roles and is therefore accessible to millions of service users who may not otherwise engage in health-related interventions.

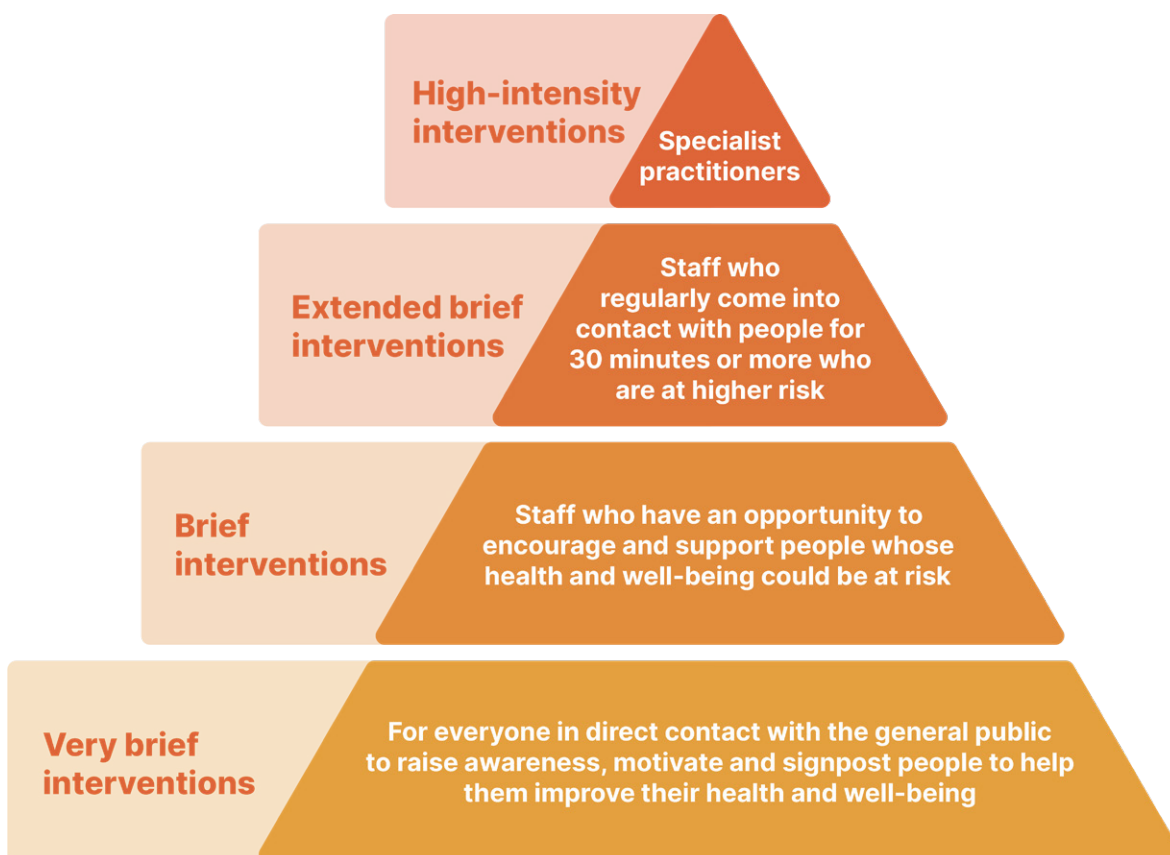
MECC uses brief and very brief interventions, delivered whenever the opportunity arises in routine appointments and contacts. Very brief interventions take from 30 seconds to a couple of minutes. The person is encouraged to think about change and offered help, such as a referral or further information. A brief intervention involves a conversation with negotiation and encouragement and may lead to referral for other interventions or more intensive support.

The theoretical underpinnings of MECC draw on the COM-B (capability, opportunity, motivation and behaviour) model of behaviour change. The COM-B model seeks to consider all factors that shape behaviour, such as individual lifestyle factors, social and community influences, and wider socioeconomic, cultural and environmental conditions. Healthy conversation skills (HCS) is the main approach. HCS is delivered through providers:

- asking open discovery questions (how and what questions);
- listening instead of making suggestions or giving advice;
- reflecting on practice; and
- setting goals using SMARTER (specific, measurable, action-oriented, realistic, timed, evaluated and reviewed) planning.

The MECC approach is summarized in Fig. S2.2, with MECC activity highlighted in the brief interventions and very brief interventions layers at the base of the pyramid.

Fig. S2.2. MECC approach



Source: Health Education England et al. (14). Contains public sector information licenced under the [Open Government Licence v3.0](#).

MECC is based on a need to increase the support available to help people to manage and improve their own health and well-being. It emphasizes the importance of ensuring that behavioural interventions are available for patients, service users and staff to support them to understand the impacts of smoking, alcohol, weight, eating behaviours and activity levels on their health and to make behaviour changes to address them. MECC is not about:

- adding another task to already busy working days;
- trying to make health-service staff specialists or experts in certain lifestyle areas;
- trying to turn health-service staff into counsellors or expecting them to provide ongoing support to particular individuals; or
- encouraging health-service staff to tell somebody what to do and how to live their life.

Benefits of MECC

The organizational benefits of MECC include enabling organizations to meet their responsibilities in relation to local population health and well-being and the workforce by, for example, improving staff awareness of health and well-being issues, enhancing staff skills, confidence and motivation, and potentially bringing improvements to staff health and well-being.

Community and local health economy benefits of MECC include:

- improving access to health advice to reduce risk factors within local populations;
- realizing cost savings for organizations and the local health economy; and
- providing a lever to support communities to collaborate.

Staff benefits of MECC include giving staff the competence and confidence to deliver healthy messages, encourage people to change their behaviour and signpost to local services that can support them to change.

Population-level benefits of MECC include:

- maximizing benefits from existing resources for improving population health;
- tackling health inequalities and the impact of the wider determinants of health through supporting individual behaviour change; and
- addressing equity of access by engaging those who would not otherwise engage in a healthy conversation or consider accessing specialized local support services, such as those for weight management.

Benefits of MECC to individuals include enabling people to seek support and take action to eat well, maintain a healthy weight, drink less alcohol, be more physically active, not smoke and look after their well-being and mental health.

Facilitators and barriers

While the extent of delivery and uptake of MECC is not documented, systematic reviews have identified barriers that need to be overcome for more effective delivery. A systematic review across 27 articles found (15):

- the most common barriers associated with delivery of MECC for health-care providers were lack of time, lack of training, lack of evidence of effectiveness, the perception of it being someone else's responsibility and lack of confidence;
- the most frequent barrier associated with patients was lack of motivation to change;
- at organizational level, the most frequent barriers were lack of resources, the organization of care (such as the priority given to routine tasks and lack of continuity of care) and a culture that focuses on treatment rather than prevention;
- the most common facilitators for health-care providers were MECC-associated activities being seen as part of their role and improved rapport/relationships with patients; and
- at organizational level, the most frequent facilitators were availability of resources, staff availability and management support.

No facilitators were identified for patient-level factors.

A scoping review across 22 articles found (16):

- training in HCS had a positive impact on both staff competence and confidence in supporting behaviour change with service users;
- time and resource constraints were key barriers to implementing HCS in relation to the environmental context, whereas having access to resources and finding opportunities to have healthy conversations were facilitators: for example, restructuring the physical or social environment to include signposting resources and providing prompts and cues to remind staff to schedule healthy conversations into appointments were facilitators; and
- health-care providers felt it was difficult not to revert to the norm of their traditional advice-giving role, and some felt that HCS was perceived as extra work.

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The WHO Regional Office for Europe

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