Towards health equity, cohesion and resilience in inner North Macedonia

Findings from an assessment of barriers to health services
Abstract

This study, conducted in North Macedonia, explored the barriers to effective health service coverage and identified ways to enhance health equity and access to quality health services. With a focus on rural populations and people in small urban settlements, the study employed a mixed-methods approach, including surveys, key informant interviews, and focus group discussions. The findings revealed significant challenges, such as insufficient health workers, particularly in disadvantaged regions, inadequate availability of medicines and medical devices, and underprovision of modern medical technologies. Accessibility issues included geographic and transport barriers, affecting particularly the rural populace, the elderly, and those with chronic conditions. Financial barriers were also notable, with high out-of-pocket expenses and a lack of health insurance coverage among certain demographics. Trust in healthcare professionals was generally high, yet issues such as discrimination, lack of privacy, and gender norms affected health service access. The study proposes solutions like cross-system governance, reforming primary health care to address spatial and social inequalities, ensuring financial protection, developing a robust health workforce, and integrating health equity into the National Development Strategy. These approaches aim to close health service coverage gaps and enhance overall health outcomes.

Keywords:
HEALTH SERVICE COVERAGE
HEALTH EQUITY
NORTH MACEDONIA
RURAL HEALTH
FINANCIAL BARRIERS
PRIMARY HEALTH CARE
HEALTH WORKFORCE
PATIENT TRUST
HEALTH SYSTEM REFORM

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This assessment comprised an activity in the North Macedonia-WHO Biennial Collaborative Agreement (BCA) 2022–2023, which was overseen by the WHO Representative for North Macedonia (Anne Johansen through May 2023 and Fabio Scano to the time of writing in August 2023). This work corresponds to an activity in the BCA related to both the Health Equity and Primary Health Care objectives, benefiting from strategic engagement of the WHO European Office for Investment for Health and Development in Venice, Italy, and the WHO European Centre for Primary Health Care in Almaty, Kazakhstan, as well as other WHO regional departments and units, including at WHO headquarters.

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<table>
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<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tr>
<td>BCA</td>
<td>Biennial Collaborative Agreement</td>
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<td>CATI</td>
<td>Computer-Assisted Telephone Interviewing</td>
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<td>CSO</td>
<td>civil society organization</td>
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<td>CT</td>
<td>computerized tomography</td>
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<td>EMT</td>
<td>emergency medical team</td>
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<td>ESE</td>
<td>Association for Emancipation, Solidarity and Equality of Women</td>
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<td>EU</td>
<td>European Union</td>
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<td>EU-SILC</td>
<td>European Union Statistics on Income and Living Conditions</td>
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<td>GDP</td>
<td>gross domestic product</td>
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<td>GDPR</td>
<td>General Data Protection Regulation</td>
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<tr>
<td>GP</td>
<td>general practitioner</td>
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<td>HDI</td>
<td>Human Development Index</td>
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<td>HEAT</td>
<td>Health Equity Assessment Toolkit</td>
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<td>HERA</td>
<td>Association for Health Education and Research</td>
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<tr>
<td>HIF</td>
<td>Health Insurance Fund of the Republic of North Macedonia</td>
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<td>IPH</td>
<td>Institute of Public Health</td>
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<td>KII</td>
<td>key informant interview</td>
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<td>MKD</td>
<td>Macedonian denar</td>
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<td>MRI</td>
<td>magnetic resonance imaging</td>
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<td>NCDs</td>
<td>noncommunicable diseases</td>
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<td>NGO</td>
<td>nongovernmental organization</td>
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<td>OOP</td>
<td>out-of-pocket</td>
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<td>PET</td>
<td>positron emission tomography</td>
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<tr>
<td>PHC</td>
<td>primary health care</td>
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<td>SRH</td>
<td>sexual and reproductive health</td>
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<td>UHC</td>
<td>universal health coverage</td>
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<td>UN CESCR</td>
<td>United Nations Committee on Economic, Social and Cultural Rights</td>
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<td>UNICEF</td>
<td>United Nations Children's Fund</td>
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<td>United Nations Resident Coordinator Office</td>
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Strengthening the health system, working towards universal health coverage has been a national policy-making priority for the Republic of North Macedonia in recent years. A series of system-wide interventions and reforms have been initiated for better health and social protection, and higher quality of health care services. The Ministry of Health is working to strengthen stewardship and governance functions as a central strategy to ensure continual improvements in the performance of the (entire) health system – including more equitable access to health care, improved health outcomes and better financial protection – and as a means to implement the Sustainable Development Goals and universal health coverage. The Ministry is also leading the transformation of primary health care as a backbone of the health system, in line with the Declaration of Astana. The aim is to improve the effective health care coverage of the population and to improve health outcomes for everyone in the country, regardless of their situation.

To provide evidence to support the equity-oriented, progressive expansion in access to services, WHO – in collaboration with the Ministry of Health – conducted an in-depth mixed-methods assessment of barriers to health services in the second half of 2022 and early 2023. In partnership with the European Union delegation to North Macedonia, the emerging study findings were deliberated at a dedicated workshop in March 2023.

Inequities are not new. Even as improvements are being made in health and life expectancy, along with reductions in premature mortality, these gains have not been shared equally across the various sections of society in North Macedonia. Health inequities – driven by inequitable access to health services and wider social and environmental determinants of health – represent moral and ethical problems and can negatively influence social cohesion and well-being. Providing inequitable health services is untenable in a democratic society and carries with it an economic cost to society.

This report presents the diagnosis of barriers impeding equitable access to health services in North Macedonia, which are negatively influencing health outcomes. Addressing these is essential if the country is to advance with progressive universalism. Identifying the barriers to health services of people in vulnerable situations will serve as a basis to design health system interventions to close coverage gaps, enhance financial protection, improve the quality of services and build trust and cohesion, while also maximizing the potential of the health sector, in turn enabling wider development.

The study results will feed into the integration of health equity as a central pillar of health system performance monitoring, which is essential to ensure that improvements in health outcomes and in service delivery reach all people equitably. The results of this assessment can also be used by sectors other than health to address underlying determinants of health inequity and to advocate jointly for investments within the framework of the National Development Strategy, in order to close gaps in health and development.

Leaving no one behind is a national priority recognized in the National Health Strategy 2021–2030. The overarching aim is to ensure there are no gaps in access to health promotion, disease prevention and health care services between rich and poor people, those in urban and rural settings, whether older or younger and regardless of gender, essentially, to provide universal health coverage for all.

Dr Anne Johansen, Special Representative to North Macedonia and Head of Office a.i.
Dr Fatmir Mexhiti, Minister of Health
Executive summary

Strengthening the health system, working towards universal health coverage (UHC) has been a national policymaking priority for North Macedonia in recent years. The Ministry of Health is leading the transformation of primary care to become the backbone of the health system, in line with the Declaration of Astana. The aim is to improve effective health care coverage of the population and to improve health outcomes for everyone in the country, regardless of their situation.

To provide evidence to support the equity-oriented, progressive expansion in access to services, WHO – in collaboration with the Ministry of Health of North Macedonia – conducted an assessment of barriers to (and facilitating factors for) effective health service coverage in the second half of 2022 and early 2023. Following ethical clearance, a convergent parallel mixed-methods approach was used for the study, including a literature review, a nationally representative Computer-Assisted Telephone Interviewing (CATI) survey, key informant interviews (KIIIs) and focus group discussions. National stakeholders were convened at the beginning of the study process to provide inputs into the study plan and instruments, and again in March 2023 to deliberate the findings emerging from the study at a dedicated workshop.

The overarching aim of the study was to produce evidence on the supply- and demand-side barriers to and facilitating factors for effective health service coverage, thus contributing to strengthening the primary health care (PHC)-oriented health system and reducing health inequities, closing coverage gaps, and acting on social and environmental health determinants. The main framework guiding the study was the Tanahashi framework for effective coverage, which is used to explore factors contributing to or impeding the availability, accessibility, acceptability, and contact and effective coverage of health services.

The study objectives were to:

• explore the barriers to and facilitating factors for effective coverage with health services in North Macedonia, with an explicit – but not exclusive – focus on rural populations and people in small urban settlements and with particular attention to age, sex/gender, disability status, income and other social factors that can influence experiences of vulnerability and deprivation;

• highlight opportunities to improve health equity and equity in access to high-quality health services, by strengthening the PHC-oriented health system and through cross-sectoral action on key determinants of health.

The assessment resulted in the identification of barriers that were grouped according to 20 key areas, under availability, accessibility, acceptability, and contact and effective coverage.

Availability

Evidence emerged from the data of an insufficient number of health workers, in general across the country, but particularly in more disadvantaged regions. For the latest year for which data were available (2019), the number of doctors per 100 000 population was approaching — yet still below — the European Union (EU) average. The ratio of doctors and dentists in general medicine per 1000 insured individuals was slightly lower than the prescribed ratio in the relevant legislation, and the ratio of gynaecologists was significantly below the recommendation. Rural–urban and interregional disparities existed in the availability of health personnel at PHC level, as well as for specialist-consultative outpatient services and for hospital health services. The nationally representative survey indicated that a high majority (94.5%) of the respondents reported having a family doctor or general practitioner (GP) covered by the Health Insurance Fund (HIF), whereas only three quarters of respondents reported having a gynaecologist or dentist. Regarding perception of health workforce availability, the CATI survey data showed that only six out of 10 respondents reported sufficient numbers of GPs/family doctors and dentists in their communities, dropping to only three out of 10 reporting sufficient numbers of gynaecologists and paediatricians. Inequity (both interregional and rural–urban) in availability of health workers was a point consistently raised in the KIIIs carried out for the study. Contributing factors were cited as an outdated map and criteria for inclusion in the health network, and lack of a strategic approach to attracting, recruiting and retaining health workers in areas outside of Skopje.
Study sources revealed an insufficient number of medicines (due to the lack of an updated positive list), inadequate distribution/supply chains, tender processes resulting in severe shortages of certain drugs, and medications for some conditions being less available. Similarly, some medical products and devices were not adequately available. Data from the CATI survey showed that four out of 10 respondents (41.9%) reported using medications for a certain health condition prescribed by a health professional. Of this group, 26.2% of stated these medications were not easily available near where they lived. Focus group discussion participants with disabilities reported that medical aids (crutches, walking sticks, wheelchairs, hearing aids) they receive through the HIF were outdated, of lower quality and lesser durability, prompting them to pay out of pocket for modern medical devices and aids.

The study found an underprovision (below EU levels) of modern medical technologies for diagnostic purposes and uneven spatial distribution of certain equipment. Focus group participants and KIIIs reported serious barriers in terms of old and malfunctioning equipment, on one hand, and a lack of training and appropriately skilled medical staff to use the new equipment, on the other hand. Furthermore, these sources indicated that continuous maintenance of the equipment was not being provided. According to the National Health Strategy 2021–2030, certain equipment was also being underused, especially computerized tomography (CT) scanning equipment.

The study also covered availability of laboratory and emergency services. As a facilitating factor, the availability of laboratory services was found to have been increased by some GPs contracting with local laboratories. That said, KIIIs and focus group discussions reported that challenges persist due to the limited availability of a range of biochemical tests and lack of biochemical specialists in some areas (such as small urban settlements and rural areas), which hinders accreditation of laboratories for specific diagnostic analysis. In terms of emergency services, in 2021 there were 284 teams nationwide, falling short of the number prescribed in the legislation (by 24 teams). When considering only the ratio per population, geographical differences were found in the availability of the emergency medical teams (EMTs) in various health centres across the country, particularly impacting major cities, including the capital Skopje, along with Kumanovo and Tetovo.

That said, geographical terrain, distances between villages, population ageing, car ownership linked to socioeconomic status – among other factors – can also play a role in defining whether the prescribed number of EMTs (including ambulances) is enough for a given area. For instance, the KII and focus group participants indicated that the municipalities that include a large number of villages with a greater distance between them are not served in a timely manner by these services, leaving people with disabilities, those with chronic diseases and older individuals particularly at risk.

Accessibility

In terms of accessibility of health services, the study showed that geographic, time-related, and transport barriers and facilitators were among the reported factors influencing whether a person had access to health services in North Macedonia. Data from the CATI survey showed that, while high numbers of people felt that they were (very or somewhat) close to pharmacies and family doctors, fewer felt that they were close to laboratories, health centres, dentists, gynaecologists and specialists needed for their particular condition(s). There were important geographical inequities, with reported distance from all health service points being greater for respondents living in rural areas. For instance, according to the CATI survey: 70.3% of the respondents living in rural areas reported being distant from the nearest health centre, compared to 21.2% in urban areas, and 78.1% of the respondents living in rural areas report being distant from a specialist, compared to 39.8% in urban areas.

As expected, the situation was more complicated for respondents who did not have access to public transport or the public transport was not close to where they lived (30% of the total sample). Almost twice as many respondents who resided in rural areas compared to those residing in urban areas stated that they did not have easy access to public transport (43% and 23%, respectively). In the focus group discussions, the transport-related barriers were unpacked in more depth, with mention of rural inhabitants being forced to pay for taxis (or to forego care or walk) to get to health services and the conditions of the roads in winter blocking travel.

In addition to being higher among respondents who did not have access to public transport, perceived distance and travel time to get to services was more often a barrier for older people, poorer people, those with less education, people with disabilities and those with chronic conditions. Among people with chronic conditions, transportation time was reported to be the most frequent barrier to reaching a specialist (for 49.2% of the respondents with a chronic health condition). Approximately 70% of respondents with a chronic condition who did not have access to public transport reported transportation time as a barrier to reaching a specialist for their chronic condition. Regarding the physical accessibility of facilities for people with disabilities, the focus group and KII findings suggest that some of the doctors’ practices were inaccessible, and that people faced poor conditions in hospitals, including broken and unsafe elevators, non-functional wheelchairs, and so on.
The study provided important insights into financial barriers to health services and drivers of financial hardship and their impact upon service use. According to the Law on Health Insurance, mandatory health insurance is a precondition for the entitlement of health services at all levels with financial coverage from the HIF. The share of the population covered by health insurance through the HIF has fluctuated over time, falling from 96% in 2007 to 85% in 2012 and rising to 90% in 2020. This was also reflected in this study, with 96.0% of all CATI survey respondents reporting having health insurance from the HIF, while 3.3% reported not having health insurance. According to the CATI survey, people less likely to have health insurance from the HIF included in particular: farmers (12.5% without health insurance), unemployed people (7.1%), compared to 2.6% who reported being employed; citizens who have private health insurance (10.3%), compared to 2.7% of those without private health insurance; and ethnic Albanians (8.1%), compared to 1.9% of ethnic Macedonians.

The study revealed that, while many services are free-of-charge at point of use (in public services), there can be out-of-pocket (OOP) payments for certain medicines, diagnostic tests, and dentistry and gynaecological services, or requests for informal payments. For example, the desk review conducted highlighted that, despite PHC services supposedly being free of charge for patients, there are reports of women being charged by their registered gynaecologists in PHC settings. Focus group findings suggested that being charged for services is more common when visiting a gynaecologist or dentist covered by the HIF, which often creates confusion and concern due to uncertainty about examination costs. The CATI survey showed that one third of the respondents (32.9%) reported having serious problems accessing health care due to the cost of health services, while two out of 10 respondents reported having OOP expenses for diagnostic tests, non-covered health services or co-payments for covered services in the previous 12 months. The CATI survey also found that four out of 10 respondents (41.3%) reported informal payments as a serious barrier to accessing health care. The focus group discussions revealed that the perceived and real lack of timely and geographically accessible public services can also push people to consult private health care providers, with a greater risk of financial hardship.

Respondents with chronic conditions were almost twice as likely to indicate that the cost of medicines and health products was a serious problem when accessing health services, compared to respondents with no chronic health condition (63.4% compared to 35.9%, respectively).

The cost of medicines and health products is a serious problem for people living on the margins of poverty. The majority of the respondents (81.8%) who felt they "barely make ends meet" and use medications for their health condition reported having serious problems accessing health services due to the cost of medicines. In addition, older people, people living in rural areas and people with disabilities were also disproportionately more likely to indicate that the cost of medicines and health products was a serious problem when accessing health care.

The study found that indirect costs for transportation and accommodation, along with missed work, posed serious barriers to rural and disadvantaged populations. According to the CATI survey, four out of 10 respondents (40.5%) reported having a serious problem when accessing health care due to indirect costs. Of all respondents living in rural areas and small urban settlements, 49.8% and 43.7%, respectively, indicated that the indirect costs were serious barriers to accessing health care, compared to 26.7% of respondents living in Skopje.

Both the quantitative and qualitative methods in this study explored the issue of organizational barriers, looking at supply-side factors (such as waiting times, opening hours, administrative requirements and responsiveness to disability of health facility infrastructures), as well as demand-side factors (such as the opportunity costs linked to being able to take time off work or away from caretaking responsibilities in order to seek health care). The CATI survey found that waiting time for an appointment was reported by nearly six out of every 10 respondents (58%) as a serious problem when accessing health care, posing by far the most significant organizational barrier. Those who reported being affected were more likely to be older people, employed individuals, and people with chronic conditions.
More than one fifth of CATI survey respondents reported having serious problems accessing health services due to the opening hours of the health facility (22.6%) or having to take a day from work or away from livelihood responsibilities (21.2%). Focus group discussions with service users also showed that a challenge at PHC level was the opening hours of the health facilities, due to the absence of a second team working a second shift.

Around 10% of all CATI survey respondents reported having serious problems accessing health care due to the inability to be released from caretaking responsibilities. This was especially the case for housewives (17.3% of whom reported this) and people who took care of children/elderly/members of families with disabilities (25.6% of whom reported this). In addition, 8.7% of all respondents reported having serious problems accessing health care due to inadequate access to the facility. Among respondents with disabilities, the percentage went up to 28%, evidencing a significant need for disability-responsive health facility infrastructure.

Acceptability

In terms of a positive facilitating factor, all four data sources consulted for the study indicated a general preference for modern medicine and trust in health care workers, especially family doctors/GPs. Namely, nine out of 10 respondents (89.2%) in the CATI survey reported that health care workers were the most trusted when it comes to their health. The focus group participants reported using herbalists, healers, people who work with bioenergy, bone setters, and so on, as alternatives and in situations where modern medicine did not provide an effective solution to a health condition.

Data from the CATI survey showed that three out of 10 respondents believed that many or some men had problems accessing health care when sick because it was expected for men not to seek help. Having this perception was considerably more pronounced among ethnic Roma (63.3%) and ethnic Albanians (43.6%), compared to 23.0% of ethnic Macedonians. Similarly, this perception was more prevalent among people with no education (61.5%), compared to 23.2% of respondents with higher education. The subnational KIIs showed that older men from rural areas preferred to be checked by male doctors and that they might refuse consultations provided by younger female doctors.

One quarter of the CATI survey respondents believed that women could have problems getting permission from other family members to access treatment (4.7% of respondents indicated that many women have this problem, and 21.1% indicated that some women do). More women than men were likely to indicate that this was an issue. Again, important ethnic differences emerged: 53.3% of Roma women and 48.3% of Albanian women, compared with 23.2% of Macedonian women believed that women have problems getting permission from other family members to access treatment. Occupation-wise, 51% of housewives believed that women have such permission-related problems, compared to 20% of the women who were employed outside of the home. Rural respondents were much more likely than urban respondents to share this opinion. Focus group discussions as well as KIIs provided additional insights into the gender norms which inhibit access to health care among the Roma community, highlighting stigmatization associated with unmarried women or girls requiring gynaecological services, along with the importance of seeing female health care providers.

CATI study respondents were asked whether they had ever felt discriminated against by a health care worker based on their ethnicity, place of residence, religion, education level, health status, sex, age, occupation, and/or marital status. Around 6% of the respondents felt discriminated against based on their ethnicity, and less than 5% of the respondents felt discriminated against by a health care worker based on other grounds. That said, specific population subgroups were more likely to report experiencing discrimination compared to others. For example, 47% of Roma respondents reporting having felt discriminated against based on their ethnicity, 18.8% of farmers had felt discriminated against based on their occupation; and 15.4% of respondents with no education had felt discriminated against based on their education level. The focus group discussions and desk review found evidence of self-reported discrimination against Roma people. The desk review also illuminated findings linked to discrimination against other groups, such as people using drugs, sex workers, people living with HIV, and LGBTIQ+ people.

To explore perceptions of quality of health services (including patient centeredness), respondents in this study were asked whether they felt free to ask questions and/or share doubts with health providers. Seven out of 10 respondents (71%) reported that they always felt free to ask questions or share doubts, leaving almost three in 10 (29% of respondents) feeling that they could not (responding never or sometimes). Respondents who reported they “barely make ends meet” were more than twice as likely to respond they did not feel free to ask questions and/or share doubts with health providers compared to respondents who felt they “live very well” (37.1% compared to 15.4%, respectively). Ethnic Roma and people with disabilities were also more likely to report this.
According to the CATI survey, lack of privacy and confidentiality was reported to be an issue for accessing health care by 38.8% of respondents. This sentiment was reported more frequently among Roma and ethnic Albanians compared to ethnic Macedonians, and was also more likely among respondents living in rural areas and small urban settlements, compared to those living in Skopje. Focus group discussions provided insight into potential factors that contributed to feeling there was a lack of privacy and confidentiality, including the presence of unnecessary staff in doctors’ offices during examinations or interventions, as well as information about the health status of patients being disclosed outside of the health facility by medical staff. These concerns were more frequently disclosed in the last part of the focus group discussions involving only women.

Contact and effective coverage

The opposite of effective health service coverage is unmet need. Self-reported unmet need for medical care due to financial reasons decreased significantly from 2010, yet important inequities remained, including when differentiating by income quintile and education level. The overarching reasons for unmet need are often linked to the availability, accessibility and acceptability barriers described in previous sections, many of which reflect the socio-spatial distribution of power and opportunities in society. Additional and compounding factors (also influenced by social determinants of health) – contributing to people not making contact with the health system – were identified: low health literacy, lack of prioritization of health and fear of being given bad news relating to health.

Effective coverage is enabled through diagnostic accuracy, effective referrals (and back referrals), treatment adherence and provider compliance, among other factors. The CATI survey indicated that 10.4% of respondents reported being misdiagnosed by a health care worker, while 86% stated they had never been mis-diagnosed. The KIIs and focus group discussions revealed contributing factors, including lack of diagnostic accuracy (such as lack of or outdated diagnostic equipment), limited scope of practice of PHC doctors and/or high referral rate to specialists.

The CATI survey revealed that more than half of respondents had serious problems accessing health care due to lack of available specialist appointments (57.2%). Some groups of respondents were found to be more likely to report such a shortage of specialist appointments. Differences of 20 or more percentage points were seen between respondents aged over 55 years compared to those aged 18–34 years (63.3% and 42.8%, respectively); respondents with chronic conditions, compared to those without (71.2% and 50.1% respectively); and between respondents who reported “barely making ends meet” and those “living very well” (68.5% and 46.2%, respectively).

The KIIs and focus group discussions highlighted the lack of specialist appointments available on the information system Moj Termin as being a key problem, driven by lack of specialists, their centralization in Skopje and an unsuccessful notification system for identifying available appointments. Study participants reported that problems accessing timely services in public secondary or tertiary health care was leading to the outflow of patients to the private health care sector (for those who could afford it), as well as people using connections/networks or bribing doctors, reaching for alternative treatment methods or even completely terminating their treatment.

According to the focus group discussions and KIIs, a lack of control and clarity regarding dual practice arrangements further complicated the situation with the referral system and raised important questions about provider compliance with existing treatment protocols in the public sector. Study participants reported that patients were sometimes forced to make payments for health services in a private practice or a clinic to doctors who – alongside their job in public health centres – simultaneously had their own private practices.

The focus group discussions and KIIs indicated that lack of clarity on patient pathways (for both the doctors and the patients) had an impact on provider compliance and patient treatment adherence. People in vulnerable situations, owing to various factors – such as advanced age, disability and/or poverty and social exclusion – may need integrated social and health care support to be able to fully adhere to treatment requirements. A patient might resist going to a specialist due transport, financial and organizational barriers, as well as the aforementioned vulnerability issues. However, in addition, it was highlighted that some people expected health problems to be solved at the PHC level (when the patient visits their doctor covered by the HIF).

Emerging ways forward

Following the collection and analysis of data from all sources, a national stakeholders’ meeting was organized on 13–15 March 2023 in Strumica to review the results and further deliberate on actions to address the barriers. A synopsis of the emerging ways forward – which require further deliberation and are not exhaustive – is featured below, with further details provided in the main body of the report.
Emerging way forward 1: cross-system governance and alignment for leaving no one behind

This approach emphasizes operationalizing the National Health Strategy 2021–2030, with particular attention to health equity. It involves developing coherent equity-oriented, rights-based and gender-responsive health sector plans and monitoring frameworks, and improving health information systems to monitor health inequalities more effectively.

Emerging way forward 2: ensuring spatial and social equity by reforming PHC

Building on the PHC reform, this approach aims to address spatial and social inequalities in North Macedonia. Measures could include directing more resources to areas with higher social disadvantage and improving access to specialist care, especially in underserved areas, using digital health solutions.

Emerging way forward 3: ensuring financial protection

Reducing OOP expenses for health care, particularly for low-income populations, is a critical challenge. Potential measures include de-linking entitlement from payment, exempting low-income individuals from co-payments, and monitoring and addressing informal payments. Updating the positive list of medicines and ensuring appropriate reference pricing are essential steps to improve health equity.

Emerging way forward 4: enabling a sufficiently numbered, equitably distributed, high-performing health workforce

This approach highlights the need to: address geographic disparities in the health workforce; adjust medical training programmes to cater to human resources needs in PHC, including ensuring that the mix of health care providers at the PHC level is adequate to meet population needs; incentivize health professionals to stay in the country and in the public sector; and regulate the number and distribution of specialists.

Emerging way forward 5: improving health and health equity through the National Development Strategy

This approach advocates for policy coherence for health and well-being in the forthcoming National Development Strategy. It suggests taking a health-in-all-policies approach, promoting participatory governance, and focusing on social inclusion and territorial development.

This study contributes to understanding the supply- and demand-side barriers to effective health service coverage. Addressing barriers to health services is essential if the country is to advance with progressive universalism. This information on barriers to health services of people in situations of vulnerability serves as the foundation for designing interventions in the health system to close coverage gaps, enhance financial protection, improve quality of services and build trust and cohesion, while also maximizing the potential of the health sector, in turn enabling wider development.
1. Introduction and background

The life expectancy of the population in North Macedonia has improved over the past few decades; however, the country faces health challenges related to the high burden of noncommunicable diseases (NCDs) and health inequities related to place of residence, education, employment status, income level, gender and ethnicity (WHO, 2021a).

Unequal access to affordable, high-quality health care services is a key driver of health inequities in North Macedonia (WHO Regional Office for Europe, 2021a). People living in rural areas tend to be more exposed to ill-health because of adverse social and environmental determinants of health, as well as inequitable access to high-quality health services across the continuum of care (WHO, 2023a). In terms of inequities between men and women, recent WHO analysis has shown that men are using PHC services less than women, but they are referred to specialists and hospitalized more often than women (Winkelmann et al., 2021).

Inequities according to education level were much greater in North Macedonia compared to the EU. In North Macedonia, 4.50 times as many men and 4.72 times as many women with low (as opposed to high) educational attainment declared some form of unmet need for medical examination compared to 1.46 times as many men and 1.29 times as many women in the EU just before the onset of the coronavirus disease (COVID-19) pandemic (WHO, 2021a).

A negatively reinforcing cycle exists between financial hardship and OOP payments for health care, which account for over 42% of total health expenditure in North Macedonia (Dimkovski and Mosca, 2021). The catastrophic health spending is largely driven by OOP payments for outpatient medicines and is heavily concentrated among the poorest households (in the two lowest consumption quintiles) and households with at least one member aged over 60 years (Dimkovski and Mosca, 2021).

The COVID-19 pandemic provided a reality check on the capacity and tools of PHC providers to identify and reach people experiencing vulnerability with timely services (Atanasova and Tawilah, 2021). It highlighted the need to move away from disease-centric definitions of vulnerability towards holistic definitions that include social determinants of health. A national priority is to ensure there are no gaps in access to either prevention or health care services between rich and poor people, those living in urban and rural areas, whether older or younger and whatever their gender/sex, providing the means to ensure UHC for all.

The formulation of the National Development Plan in North Macedonia and the national efforts to strengthen health by positioning PHC as a backbone of the health system offer an opportunity for a renewed focus on tackling health inequities, including those experienced by rural populations, and taking into consideration gender, equity, and human rights. The aim is to integrate a levelling up approach, placing health equity central to PHC performance monitoring and to ensure that improvements in health outcomes and in service delivery reach all people equally.

This study will contribute to understanding the supply- and demand-side barriers to effective health services coverage, hence contributing to reducing health inequities, closing coverage gaps, acting on social and environmental determinants, and contributing to PHC-oriented health systems strengthening. It will enable a deeper understanding of why some sub-populations are being left behind. It also builds on previous work analysing the impact of the health sector on the national economy (Lionello, Dimkovski and Jagrič, 2020), by shedding light on entry points to strengthen the health sector that can in turn contribute to strengthening the national economy and generating employment.

The findings will support health authorities and national and international partners in prioritizing investments in health, health systems and health determinants as central to socioeconomic development and in integrating health into national development plans and socioeconomic frameworks, including specifying actions to reduce and monitor gender inequalities, health inequities and discrimination.
2. Methods

2.1. Study aim, objectives and research questions

The overarching aim of the study was to produce evidence on the supply- and demand-side barriers to effective health service coverage, including facilitating factors, thus contributing to strengthening PHC within the health system aiming to reduce health inequities and close coverage gaps, with a real impact on social and environmental health determinants.

The study objectives were:

- to explore the barriers to and facilitating factors for effective health service coverage in North Macedonia, with an explicit but not exclusive focus on rural populations and people in small urban settlements and with particular attention to age, sex/gender, disability status, income and other social factors that can influence experiences of vulnerability and deprivation; and
- to highlight opportunities to improve health equity and equity in access to high-quality health services by strengthening the PHC-oriented health system and through cross-sectoral action on key determinants of health.

The main research question underpinning the study was: “What barriers to (and facilitating factors for) effective coverage with health services are experienced by adults in North Macedonia – in particular those living in rural areas and small urban settlements – and by sub-populations in vulnerable situations?”

The study also addresses the sub-questions for each of the domains of the Tanahashi framework (Tanahashi, 1978) for effective coverage (explored in more depth in subsection 2.4 on theoretical underpinnings), as well as additional questions, related to cross-cutting issues.

- What are the particular barriers linked to social factors, such as low socioeconomic status, employment conditions and ethnicity?
- What are the particular barriers that older people can experience?
- How do gender roles, norms and relations and gender inequality act as – or interact with – barriers to health services?

2.2. Data sources, ethical clearance and study limitations

A convergent parallel mixed-methods approach was used for the study, including a literature review, a nationally representative telephone survey (CATI), KIIs and focus groups discussions, as depicted in Fig. 2.1. The methods were generally based on the draft WHO handbook for conducting assessments of barriers to effective coverage, with important adaptations and innovations made for the North Macedonian context. The assessment constituted a pilot informing the forthcoming global handbook.
Methodology

1. Literature review
Desk review of grey literature; review of scientific journal articles

2. KII
12 national KII
- Government, NGOs and civil society professional associations, academia, development partners
- 12 subnational KII
  (with 3 in each of the 4 subnational locations)

3. CATI telephone survey
Nationally representative, multi-stage stratified sample of 1139 respondents aged 18+ (Citizens of North Macedonia)
Margin of error ±3% on confidence interval level of 95%

4. Focus groups
12 focus groups in 4 subnational locations with adults from vulnerable/high-risk groups in rural areas and small urban settlements
Additional 1 focus group with participant with disability from 4 subnational locations

The instruments used for the KII, quantitative survey and focus groups can be found in Annexes 2–5 (Section 7). All data emerging from these sources were coded, using Nvivo, drawing on a detailed guide for coding – based on the Tanahashi framework – developed by WHO. The data coding and analysis used both inductive methods and deductive approaches. Triangulation, cross-analysis and thematic grouping of the findings were carried out for each main Tanahashi domain.

To unpack the issue of spatial (rural–urban) inequities in access to services, and how these may compound and interact with social inequities at household or individual levels (e.g., socioeconomic status), a rural lens was integrated into the search approach and instruments for the literature review, the KII and focus groups. The situation of rural areas and villages was considered, alongside that of small towns or urban settlements where the population may experience similar barriers to effective health service coverage as the rural population. Small urban settlements are defined in this study as those with fewer than 20 000 inhabitants but more than 3000.

For the study’s qualitative components and to reflect both spatial and social inequities, four subnational locations (regions) with high levels of deprivation were selected. The Human Development Index (HDI) (GDL, 2021) was used as a statistic composite index of life expectancy, education and per capita income indicators to select the most disadvantaged regions. This was complemented by analysis of which regions were lagging the furthest behind in terms of health service coverage indicators from the Institute of Public Health (IPH) (IPH, 2019, 2021) and the State Statistical Office (IPH, 2021), with the findings of the report by the Association for Health Education and Research (HERA) on reproductive health care in North Macedonia (HERA, 2020) also taken into account. Finally, the selection of regions considered the percentage of citizens aged over 65 years and the distribution of different ethnicities in the country. The selected regions were: East, Pelagonia, Polog and Southeast.

The nationally representative CATI survey allowed for a comparison of rural and urban settings. The definitions of rural and urban used in the study are explained in Box 2.1.
In North Macedonia, rural settlements (villages) are defined as monofunctional populated areas, in which one business activity is prevalent and the area has both agricultural features and function. Urban settlements are defined as residential areas with more than 3000 inhabitants, with a developed structure of various economic activities and with more than 51% of the employees working in the secondary and tertiary sectors. They act as a functional centre for the surrounding populated places.

**2.2.1. Desk/literature review**

In accordance with the overarching aim of the study, the objective of the literature review was to consider how relevant publications produced in the period 2012–2022 covered barriers and facilitating factors in access to health services in North Macedonia. The desk review included scientific journal articles, as well as grey literature, records from public institutions, surveys, working papers, evaluations, case studies and briefing papers that explore inequities in health service coverage and barriers and facilitating factors experienced by the adult population in North Macedonia.

The electronic search strategy was implemented via available databases such as PubMed, Embase and Google Scholar, as well as reviews of stakeholder websites in North Macedonia. In terms of the latter, the review incorporated records from: (i) public institutions, such as the IPH, the Health Insurance Fund of the Republic of North Macedonia (HIF), the Ministry of Health, and the Commission for Prevention and Protection against Discrimination; (ii) CSOs (including those working with marginalized population groups); (iii) targeted sources, such as international treaty bodies; (iv) international databases, such as the WHO Health for All database, Eurostat, WHO Global Health Observatory, and the World Bank datasets; and (v) legislation in North Macedonia, principally through the collection amassed on the Akademika.mk website (including regulations and descriptions of programmes and clinical pathways).

**2.2.2. KIIIs**

Sampling of key informants was designed to include a range of:

- relevant national stakeholders, such as representatives from the Ministry of Health, HIF, IPH, Ministry of Labour and Social Policy, international organizations, professional associations and CSOs; and
- health professionals from rural areas and small urban settlements (GPs/family doctors, nurses, and directors of health centres working in the four chosen regions (East, Pelagonia, Polog and Southeast).

The study included a total of 24 in-depth interviews: 12 with relevant national stakeholders and 12 with health professionals from rural areas and small urban settlements in the four selected subnational locations. Data collection was conducted between November 2022 and January 2023 via semi-structured interviews by a team of experienced qualitative researchers. All interviews were audio recorded, transcribed verbatim, and coded and triangulated as described.

**2.2.3. CATI survey**

During the period 19–28 November 2022, a nationally representative public opinion survey was conducted through a CATI survey with 1139 respondents (adult citizens of North Macedonia), with an estimated margin of error of +2.95 percentage points at the 95% level of confidence (confidence interval 95%). A multi-stage stratified sample was used in order to reflect the demographic characteristics of the population. The sample was distributed proportionally in urban and rural areas in all eight statistical regions of the country. The questionnaire was administered in Macedonian language, for ethnic Macedonians and members of non-majority communities, and in Albanian language for ethnic Albanians. For the purpose of analysing the data, the following statistical methods were used: chi-square, t-test and bivariate correlation (Spearman, Kendall’s tau).

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2.2.4. Focus groups

In December 2022, focus groups were organized in the above-mentioned four subnational locations to enable further exploration of the data gathered from the nationally representative survey. Each focus group was guided by an experienced moderator, who introduced topics and encouraged participation in lively and natural discussion. The focus groups were conducted in Macedonian and Albanian languages depending on the ethnicity of the participants. The moderator was assisted by another researcher, who took notes and noted non-verbal details during the group discussion.

Twelve focus groups were conducted in the four subnational locations (three in each region), with adults from vulnerable or high-risk groups in rural areas and small urban settlements. The participants in the focus groups were citizens of North Macedonia aged 18+ years living in one of these regions. All focus groups had an equal female-to-male ratio, and in each region, one focus group was dedicated to each of the following age groups: 18–34 years, 35–64 years, and people aged 65+ years. The group composition also strived to match the ethnicities of the populations living in the regions (e.g., Polog region had two groups of Albanians and one of Macedonians, whereas in the East region, there were two groups of Macedonians and one of Roma individuals).

Each focus group consisted of 8–10 participants. The following quotas were also applied when recruiting participants:

- at least 2 people in each region did not have health insurance;
- at least 25% of respondents completed secondary school education;
- no participant in the focus group had higher than the average monthly income (31 407 Macedonian denar (MKD)) (Government of North Macedonia, 2022), and 25% had no personal income.

One additional focus group comprised individuals with disabilities, with participants from all four selected regions.

Each focus group discussion lasted around 90 minutes. A guide was used to ensure a semi-structured discussions among participants. Each discussion was organized into two parts: in the first part, for a duration of 70 minutes, all participants discussed health barriers; and in the second part, for 20 minutes, the group discussion proceeded only with women participants talking about women’s health and gender-related issues impacting on access to health services.

2.2.5. Ethical clearance

The study received approval from the Ethics Committee for Human Research, from the Medical Faculty at the Ss. Cyril and Methodius University in Skopje, as well as the global WHO Research Ethics Review Committee.

2.2.6. Study limitations

The framework used for the study predominantly focuses on factors impeding or facilitating access to health services. This study has a stronger emphasis on analysis and reporting of barriers than on analysis and reporting of facilitating factors, given the importance of addressing barriers in order to advance UHC reforms in the country, with a progressive universalism approach.

The emerging ways forward from the study have a strong focus on what can be done to enable equitable access to health services, both through adjustments within the health sector and in conjunction with other sectors. This study has a lesser focus on the upstream causes of differential exposure to risk factors for ill-health, which is often driven by factors outside of the health sector, such as food and agriculture policy, environmental legislation, social protection floors, education policy, and so on. These other sectors leverage important interventions for better health (e.g., salt reduction, elimination of transfats from diet, anti-tobacco legislation, air pollution controls, poverty-reduction programmes, social protection and food security measures, sick leave and maternity leave, and so on). Further research – applying a health-in-all-policies lens (and as captured in Emerging way forward 5) – is needed to look in greater depth at these other policy domains, considering their impacts on health equity across the social gradient and with due attention to spatial differences (e.g., rural/urban settings, and between regions). For those barriers to services that fall within the mandate of the health sector, further causal analysis can be carried out as a follow-up step.

The CATI survey carried out through this study provides opinions expressed at a certain point in time. All sample surveys may be subject to multiple sources of error, including – but not limited to – sampling error, coverage
error and measurement error. Furthermore, the findings from the focus groups and KIIs should be considered as indicative of the participants’ viewpoints and they should not be accepted unconditionally as representative of the attitudes and the opinions of the whole population or all relevant stakeholders in North Macedonia. Finally, this study focused on barriers to health services experienced by adults in North Macedonia, and was not designed to specifically consider barriers to health services experienced by children (which would have required differentiated approaches); hence, readers are encouraged to refer to synergizing resources, such as the study by the Curio International Foundation published by the United Nations Children’s Fund (UNICEF) in 2019 (Curio International Foundation, 2019), for additional information on barriers to services experienced by children. Likewise, as the sampling framework focused on citizens of North Macedonia, other resources should be referred to and potential follow-up research carried out to better understand the situation of migrants and refugees in the country.

2.3. Consultation approach

An oversight committee comprising representatives from the Ministry of Health and the HIF was formed at the outset of the study, and this group has been involved in providing guidance and inputs throughout the study process. In addition, consultations with stakeholders were undertaken to develop the research protocol and review the findings, considering potential ways to address the barriers to health services that had been identified through the study. Specifically, two key meetings were convened.

- **Study inception consultation** (5 June 2022): the draft research questions and plan for the different data sources were shared with a group of 25 stakeholders from a range of national health authorities and educational entities, professional associations, CSOs, nongovernmental organizations (NGOs), United Nations agencies and others.

- **Stakeholder meeting entitled “Towards health equity, cohesion and resilience in ‘inner’ North Macedonia”** (Strumica, 13–15 March 2023): the emerging findings from the completed barriers assessment (using all planned methods) were shared and – through dynamic plenary exchanges and breakout groups, supplemented by expert input panels – stakeholders debated on potential means to overcome the barriers (see the Emerging ways forward section and Annex 1 for details).

2.4. Theoretical framework underpinning the assessment

**Effective service coverage** is defined as the proportion of people in need of services who receive services of *sufficient quality to obtain potential health gains* (WHO and World Bank, 2015; Tanahashi, 1978). This is distinct from service coverage, which is defined as the proportion of people in need of a service that receive it, regardless of quality (WHO and World Bank, 2015). In order for a person to benefit from service coverage, services must be available, accessible and acceptable (Tanahashi, 1978; UN CESCR (United Nations Committee on Economic, Social and Cultural Rights), 2000). In order for a person to enjoy effective coverage, quality-related dimensions such as diagnostic accuracy and provider compliance with standard protocols are required, along with treatment adherence. The Tanahashi framework for effective coverage depicts this (Fig. 2.2). It also includes a coverage curve that captures the portion of the target population who do not contact services and do not obtain effective coverage, due to barriers in each dimension – ultimately leading to the service delivery goal not being met. These coverage dimensions are not discrete.

**Availability coverage** defines the proportion of the population for whom services are available (Tanahashi, 1978). The availability domain considers the resources available for delivering an intervention and their sufficiency, for instance the number or density of health facilities and personnel, or the availability of necessary inputs (e.g., drugs, equipment) (Tanahashi, 1978).

**Accessibility coverage** reflects the proportion of the population for whom services are physically and financially accessible and for whom service organizational (including timeliness) and informational accessibility is assured (Tanahashi, 1978; UN CESCR, 2000; WHO, 2016).

**Acceptability coverage** defines the proportion of the population for whom the services are acceptable. It denotes that all health facilities, goods and services must respect medical ethics and be culturally appropriate; that is, respectful of the culture of individuals, minorities, people and communities, and sensitive to gender and life-cycle requirements, as well as being designed to respect confidentiality and improve the health status of those concerned (UN CESCR, 2000).
Contact coverage refers to the actual contact between the service provider and the user, when services are available, accessible and acceptable (Tanahashi, 1978). Lack of willingness and capacity to make contact represents forgone care. To treat a health condition for which only one contact with a provider is necessary (where there is no follow-up, referral or medication) and the service rendered during that contact was of high enough quality, contact and effective coverage can occur at the same time. However, for many health conditions, one contact alone with a single provider is not sufficient; the health pathway usually entails multiple steps.

Effective coverage with health services entails people who need health services obtaining them in a timely manner and at a level of quality necessary to have the desired effect and potential health gains (WHO and World Bank, 2015). Effective coverage also captures the notion of both initiation and continuation of service use (Donabedian, 1973).

Fig. 2.2. Tanahashi framework for effective coverage

3. Findings

The assessment resulted in the identification of barriers that were grouped according to the 20 key areas shown in Fig. 3.1, divided by the Tanahashi framework domains. In the subsections that follow, each of these areas is explained in greater detail, drawing from the literature review, quantitative CATI survey, and qualitative sources (KIs and focus group discussions). With regards to the quantitative data, it can be noted that – as core to the equity analysis – all data were disaggregated by gender/sex, age, ethnicity, place of residence (rural/urban), education, standard of living, and for people with and without chronic health conditions. In the reporting of findings, data are only discussed where a statistically significant difference was found.

Fig. 3.1. Overview of findings
3.1. Availability of health services

The key research sub-question explored in relation to availability of services was: “What gaps in service availability are experienced by adults in North Macedonia – in particular those living in rural areas and small urban settlements – and by sub-populations in vulnerable situations? Across the study’s data sources, the literature review, KII, focus groups and nationally representative CATI survey produced relatively congruent findings, with key availability-related barriers identified. These barriers included:

- below-average number and uneven distribution of health workers;
- insufficient medicines available (due to the lack of an updated positive list of medicines);
- poorly maintained and insufficient modern medical equipment;
- laboratory deficiencies; and
- limited access to emergency medical teams (EMTs).

The barriers are explored in more detail in the subsections that follow.

3.1.1. Availability of health workers

Evidence emerged from the data of an insufficient number of health workers, in general, but particularly in more disadvantaged regions of the country. As PHC in North Macedonia is provided by private health institutions, which have contracts with the HIF in three main sectors – general medicine, gynaecology and dentistry – the study explored issues related to the availability of these personnel in particular.

For the country as a whole, according to WHO Regional Office for Europe, the number of doctors per 100 000 population in 2019 was 312, approaching – yet still below – the EU average of 382 per 100 000 for that year. The number of nurses was 440 and the number of midwives was 48 per 100 000 in 2019 (Winkelmann et al., 2021). An unpublished report on the results of a baseline assessment and health labour market analysis shows that in North Macedonia female doctors comprise 60.3% of the total workforce, with the age distribution showing a reasonably even cohort spread (22–30%, with those aged over 55 years at 30%). That said, there are fewer younger doctors (18.3%) in the system (WHO Regional Office for Europe, 2022). According to Groenewegen et al. (Groenewegen, Bryar and Sanchez Martinez, 2019), 2017 nursing workforce data reveal the state-employed nursing workforce to be 93.6% female, with the age distribution revealing a similar pattern to the data for doctors; namely, fewer in the younger age groups than are required to substantively increase the rate per 10 000 population.

Regarding PHC providers delivering health care in private institutions under contracts with the HIF (referred to as maticni lekari), the standards prescribed are as follows: for general medicine, one team consists of one doctor and one nurse per 1000 population; for gynaecology, one team consists of one gynaecologist and one nurse per 3000 women; for dental care, one team consists of one dentist and one dentist’s nurse per 1000 population.

The number of doctors and dentists per 1000 insured people in general medicine is slightly lower than the ratio prescribed in the relevant legislation (HIF, 2022). Regarding the number of doctors in PHC (in general medicine – in private health institutions which have contracts with the HIF), slight differences were noted among different statistical regions of North Macedonia. The highest availability of doctors in 2021 was in the Northwest region (0.97 doctors per 1000 insured people), and the lowest availability was in Pelagonia (0.75 doctors per 1000 insured persons) (HIF, 2022).

Regional disparities were also noted regarding availability of dentists at PHC level (in private health facilities which have contracts with the HIF) (Table 3.1). The highest number of dentists per 1000 insured individuals in 2021 was found in the Southeast and Pelagonia regions, and the lowest availability was noted in the Skopje region (HIF, 2022). The highest ratio in these two regions could be the result of medical tourism, as citizens from Greece tend to visit these two border regions in order to obtain dental health services.

The worst situation was found in relation to availability of gynaecologists. Greater regional disparities were noted regarding gynaecologists at PHC level (in private, HIF-contracted health institutions), although none of the statistical regions is close to meeting the prescribed standard ratio of one gynaecologist per 3000 women in the health network (see the HIF annual reports from 2014 to 2021 (HIF, 2015; 2016; 2017; 2018; 2019; 2020; 2021; 2022)). In 2021 the number of gynaecologists per 1000 insured women in the Vardar, East and Southwest regions was twice as high as that in the Polog region, where the lowest ratio of gynaecologists was noted in 2021 (0.1 per 1000 insured women).

The desk review also illuminated important rural–urban inequities in the availability of doctors and other health personnel. Based on the latest census data from the State Statistical Office (State Statistical Office, 2022), almost four out of ten inhabitants of North Macedonia (38.4%) live in rural areas. The number of doctors and other health professionals in these areas is not proportionate. According to the IPH, in 2018 the total number of doctors was 1470, and 21% (or 308) of them worked in rural areas (IPH, 2019). Likewise, only 20% of other health personnel worked in rural areas. Further investigation of the number of doctors in rural areas is needed, taking into account the inconsistencies found in the information on rural medical teams provided in the annual reports of the HIF. Against a general backdrop of insufficient provision of sexual and reproductive health (SRH) services, there are important geographical differences in the availability of SRH services, as well as particular challenges faced by ethnic minorities in accessing services, including contraception (UNFPA (United Nations Population Fund) Executive Board, 2021).

Regarding the provision of secondary-level health services, the desk review also found geographical inequities in the provision of specialist-consultative outpatient services and health care services provided in hospitals (IPH, 2019). While absent in rural areas, some smaller urban areas were found to have limited availability of specialist-consultative services; that said, some of the larger city centres also face a similar situation, including Kumanovo, Tetovo and Strumica (IPH, 2019).

The nationally representative CATI survey carried out as part of this study indicated that a significant majority (94.5%) of the respondents reported having a family doctor or GP covered by the HIF, whereas 75.1% of the respondents reported having a dentist and 73.4% of women reporting having a gynaecologist covered by the HIF. There are no significant differences found by residence of the respondents (e.g., urban versus rural), as depicted in Fig. 3.2.
In addition to reporting on whether they had a GP, dentist or gynaecologist, study respondents were asked to state whether they felt that availability of these were sufficient in relation to need. Specifically, they were asked: “Are there sufficient numbers of the following health workers in your community (place of living) to cover the needs of people living in your community?” While this study did not look in depth at child health services (see subsection 2.2.6 Study limitations), to gauge perception of system preparedness to respond to child health issues, the health worker cadre of paediatricians was added.

The CATI survey data indicate that six out of 10 respondents reported sufficient numbers of family doctors/GPs and dentists in their community (place of living). The percentage is significantly smaller when it comes to paediatricians and gynaecologists, with three out of 10 respondents reporting their number as being sufficient where they live. Almost one fifth of respondents stated there were no gynaecologists and paediatricians in their community. In fact, the desk review highlighted specific interventions to address the absence of gynaecologists in some rural areas in particular (UNFPA North Macedonia, 2022).

Fig. 3.3 provides an overview of responses, disaggregated by residence. Apart from residence (urban versus rural), considerable disparities were observed between regions, with coverage being the lowest in the Vardar and Polog regions (for all health workers).
Supplementing the quantitative insights provided through the study survey and desk review, the KIIs and focus group discussions provided synergizing information. The territorial inequities (both intra-regional and rural–urban) in availability of health workers was a point consistently raised in the interviews, as exemplified by one respondent in their KII:

*I will repeat this once again, there is an inadequate territory distribution of health services. Many villages don’t have a registered doctor; these are only in the bigger ones. There are not GPs enough in the small towns, as well. [National KII]*

As a potential factor contributing to inequities in the availability of health workers, some key informants indicated that the existing health network is not based on research to identify real population needs according to the numbers of people living in urban and rural areas across different regions. All the health facilities that had an agreement with the HIF before 2012 entered the health network, regardless of the existing criteria, which inevitably led to an uneven distribution of health facilities throughout the country. Therefore, a revision of both the map and the criteria for inclusion in the health network is necessary, as explicitly stated in some KIIs.
The majority of the key informants indicated it was necessary to develop a strategy to attract young doctors to PHC in rural areas as soon as possible, especially since the age structure of the registered doctors covered by the HIF shows that almost one third of them are aged over 55 years.

Everyone wants to come to Skopje. There is available employment in health centres in other regions, but no one applies for those jobs. Even the children of the managers of the health centres who have a diploma in medicine don't want to. They want to work in Skopje. [Subnational KII]

There is lack of doctors covered by the HIF – the situation will collapse in 5 to 10 years... there is no policy for young doctors. [National KII]

Young doctors have to start from scratch. The Fund gives them MKD 40 000, which is unsustainable for all the fees they have. Another barrier is that the process of opening a practice is very long, from 8 to 10 months... they don't have income, and they have to operate. [National KII]

The issue of insufficient numbers of health care workers, especially gynaecologists and paediatricians, emerged strongly from the study's data sources.

The KIIs provided insight into some potential factors. For example, since 2005 the gynaecological and paediatric specialization training allocations funded by the Government have been reduced. Funds for a limited number of specializations are provided annually, primarily to meet the needs of clinics and hospitals. This is a consequence of the 2005 reform, after which registered doctors with a specialization in the field of family medicine would cover the basic gynaecological and paediatric services as well. The reform was only partially implemented, in particular in the field of gynaecology.

In the countries in western Europe a family medicine specialist can provide a basic gynaecological check-up. That was the plan for our country as well: a GP to take a smear (Pap test) and to provide a gynaecological check-up. But the reform wasn't implemented. [National KII]

A small number of specializations have been approved over the years. All of them are paid individually; not everyone can afford € 8000–10 000, or more. The equipment in gynaecological practice is also expensive (echography, etc.) ... Very few additional private practices were opened. [National KII]

### 3.1.2. Availability of medications and medical products

The network of pharmacies at PHC level consists of 1147 pharmacies, distributed around the country (Ministry of Health, 2022). In 2021 the HIF had contracts with 775 pharmacies, of which 72 were pharmaceutical outposts, seven were mobile pharmacies and two were rural pharmacies (HIF, 2022). This means that 67.5% of the total number of pharmacies were able to issue prescribed medicines with partial costs covered by the HIF (for the medicines on the positive list of PHC medicines). From the rest of the available pharmacies (32.5%), patients were able to buy medicines only if they paid full price.

Prior to October 2019, the HIF determined financial quotas for each pharmacy, which meant that after fulfilling the quota the pharmacy was not allowed to financially cover the costs of medicines from the HIF. In October 2019 these quotas were eliminated; thus, every pharmacy which has a contract with the HIF is allowed to issue the prescribed medicines on the positive list, with partial financial coverage by the HIF.

In 2021, in three regions (Skopje, Polog and Northeast) the number of pharmacies per 10 000 insured individuals was lower than the national average (HIF, 2022). In another three regions (Southwest, East and Vardar), it was similar to the national average, and in the remaining two regions (Southeast and Pelagonia) it was higher than the national average. This regional distribution is shown in Table 3.2.
Table 3.2. Regional distribution of pharmacies and number of pharmacies per 10 000 insured individuals, 2021

<table>
<thead>
<tr>
<th>Region</th>
<th>Total number</th>
<th>Per 10 000 insured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vardar</td>
<td>65</td>
<td>4.81</td>
</tr>
<tr>
<td>East</td>
<td>72</td>
<td>4.72</td>
</tr>
<tr>
<td>Southwest</td>
<td>78</td>
<td>4.35</td>
</tr>
<tr>
<td>Southeast</td>
<td>79</td>
<td>5.35</td>
</tr>
<tr>
<td>Pelagonia</td>
<td>112</td>
<td>5.39</td>
</tr>
<tr>
<td>Polog</td>
<td>92</td>
<td>3.55</td>
</tr>
<tr>
<td>Northeast</td>
<td>54</td>
<td>3.65</td>
</tr>
<tr>
<td>Skopje</td>
<td>223</td>
<td>3.54</td>
</tr>
<tr>
<td>Total</td>
<td>775</td>
<td>4.42</td>
</tr>
</tbody>
</table>


As emerged from the desk review and the KIIs, according to CSOs working with various groups of patients, the lack of any increase in the number of outpatient medicines covered by the HIF (through their placement on the positive list of medicines) in recent years was identified as a significant barrier to accessing medicines. Namely, since 2010 only two medicines were placed on the positive list of PHC medicines. This results in barriers to accessing new treatments for various diseases (Stronger Together, 2022) and is not compliant with article 11 of the Law on health protection,³ which guarantees the right to high-quality health services in line with modern advances in the field of medical science.

Data from the quantitative study show that four out of 10 respondents (41.9%) reported using medications for a certain health condition prescribed by a health professional. Of this group, 26.2% stated these medications were not easily available where they lived (Fig. 3.4). No statistically significant difference was noted in terms of finding the necessary medications available in urban and rural areas and in different regions of the country.

Fig. 3.4. Percentage of respondents indicating they were using medications for a certain health condition, and reporting whether or not they found the necessary medications easily available where they live

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Complementing the quantitative insights, the focus group findings and KIIs indicate that medications are not easily available for the following health conditions: rare diseases (e.g., cystic fibrosis), cancer, hepatitis C, HIV therapy, and medical abortion. The situation is further complicated, because for some diseases or health conditions, the procurement and application of medications are centralized; that is, carried out exclusively in the clinical hospitals in Skopje. In addition, owing to issues with the tender procedures, there is a serious shortage of certain medicines.

*My sister in Skopje has cancer (leukaemia) and has been waiting for medicines for six months. They are simply not available.* [Male, village of Tearce, Polog region]

The perception of focus group discussion participants with disabilities is that the medical aids (crutches, walking sticks, wheelchairs, hearing aids) they receive through the HIF are outdated, of lower quality and lesser durability. As a result, they felt forced to pay out of pocket for modern medical devices and aids.

*They provide crutches for use for 5 years. I use one crutch and it lasts for one month because of my 75kg. So I have to wait 5 years, not to leave my home, not to go anywhere? Thank God for friends and relatives of mine from abroad, who supply me...* [Female focus group participant with disability]

3.1.3. Availability of medical equipment

Although in the past 10 years certain investments have been made in terms of medical equipment purchasing, public health facilities in North Macedonia are not sufficiently equipped with modern medical technologies for diagnostic purposes (Ministry of Health, 2021).

The desk review identified that the only publicly available source regarding availability of medical equipment was a document produced for the National Health Strategy 2021–2030 (Ministry of Health, 2021). This was therefore the source used to establish availability of medical equipment for the years discussed here. In 2018, there were eight machines for magnetic resonance imaging (MRI) diagnostics – or 3.9 per million population – which is far below the EU average of 17.4 MRI scanners per million population (Ministry of Health, 2021). Of these eight MRI machines, five are located in Skopje, and one in each of the following regions: East, Pelagonia and Polog. This leaves four regions without facilities for MRI diagnostics, implying that patients in need of them must travel. In 2018, there were 18 machines for computerized tomography (CT) scanning diagnostics, or 8.7 per 100 000 population, which represents only 39% of the EU average. The number of CT scanning units in the country was also far below the EU average, as shown in Table 3.3.

### Table 3.3. Items of functioning diagnostic technologies per 100 000 population, 2018 or latest available year

<table>
<thead>
<tr>
<th>Diagnostic technology*</th>
<th>North Macedonia</th>
<th>EU average</th>
<th>Slovenia</th>
<th>Croatia</th>
<th>Serbia</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRI units</td>
<td>0.39</td>
<td>1.74</td>
<td>1.21</td>
<td>1.25</td>
<td>0.39</td>
</tr>
<tr>
<td>CT units</td>
<td>0.87</td>
<td>2.23</td>
<td>1.59</td>
<td>1.96</td>
<td>1.12</td>
</tr>
</tbody>
</table>

*MRI units, CT scanners

Sources: Ministry of Health (2021) and Eurostat (2023).

According to the National Health Strategy 2021–2030, there was also in 2018 one machine for positron emission tomography (PET) scanning in the newly formed University Institute of Positron Emission Tomography (Ministry of Health, 2021). There were also six machines for coronarography, of which two are in Skopje, one in each of the three clinical hospitals, and one in the general hospital in Strumica. In 2018 there were 26 equipped cabinets for mammography, which is four less than in 2017, due to equipment malfunctioning. Eleven of the mammography cabinets were in health centres, 10 in general hospitals, three in clinical hospitals and two at the university clinics in Skopje (Ministry of Health, 2021). In Skopje region there are seven cabinets for mammography; four in East region; three in Southwest; three in Southeast; three in Pelagonia; three in Vardar region; one in Northeast; and one in Polog (Ministry of Health, 2021).
Despite the fact that the equipment is unevenly distributed, underuse was also noted for certain equipment, especially the CT scanning units (Ministry of Health, 2021).

Supplementing the data from the desk review, the focus group participants and KIs reported significant barriers in terms of old and malfunctioning equipment, on one hand, and lack of training and appropriately skilled medical staff to use the new equipment, on the other hand. Furthermore, continuous maintenance of the equipment (servicing) is not provided, and once they break down, they are out of service for a long time.

That is the first thing that is bought, because that's where the tenders and the money are. We also receive donations. For example there are PET-covered incubators, where no children are born... irregular distribution of donated equipment, and durability is also in question... training is needed, and every minister who comes immediately buys, just to take a picture and say, "I bought a new MRI machine". [National KII]

It's not just equipment that's missing. It is necessary to maintain it, and to have staff who will be trained and know how to properly handle the device and read the results. Relatively speaking, the ministry procures mammograms, equips them, but somehow, they are not functional. [National KII]

Apart from modern medical equipment, both focus groups discussion participants and medical professionals reported concerns about patient safety, due to the lack of the basic means required to ensure hygiene standards, especially in general hospitals throughout the country.

In the hospital in Kočani, the cleaning ladies use some wheelchairs for carrying garbage and the other ones are broken. When I took my father, they explained that only one used for garbage was available. I cleaned it and my father used it, as he could not walk. [Female, Vinica, East region]

3.1.4. Laboratory system

Laboratory services are provided through referrals by GPs at PHC level (this type of referral is categorized as “LU-1 package”, which includes a limited package of biochemical tests of blood and urine samples). Laboratory services are also provided through referrals by specialists from secondary and tertiary health care, and to patients in hospitals. These include a broader package of biochemical tests. If there is a referral, part of the service is paid by the HIF and the patient pays a co-payment (according to HIF annual reports for 2013–2021 (HIF, 2014; 2015; 2016; 2017; 2018; 2019; 2020; 2021; 2022)).

The desk review did not find any data regarding the total number of biochemistry laboratories in North Macedonia, in either the public or the private sectors. The HIF provides data on the number of private laboratories that have contracts for biochemistry services through referrals by doctors at PHC level (the aforementioned LU-1 package). In the period 2013–2020, the number of laboratories that had contracts with the HIF remained almost the same, with a sudden increase in number in 2021 (111 private biochemistry laboratories had contracts with the HIF for LU-1 package services) (HIF, 2014; 2015; 2016; 2017; 2018; 2019; 2020; 2021; 2022).

The lack of laboratories in rural areas is partly addressed by GPs contracting with local laboratories, where a laboratory technician or nurse collects blood and urine samples from the GP office once or twice a week. However, for emergency needs this is not sufficient.

Only one day, on Tuesday samples are given for analysis, and on the other days patients will have to be sent to the nearest laboratory, if something is urgent: either in Bogdanci or Valandovo. We have to travel 20 or 30 kilometres. [Male, village of Pirava, Southeast region]

The main barrier in terms of availability of health services in biochemistry laboratories relates to the broader package of biochemical tests. As reported by the KIs and focus group discussions, there was a lack of medical reagents, tumour marker tests, hormonal and other specific diagnostic analyses. In small urban settlements, but also in some larger urban areas, there is a lack of clinical biochemistry specialists. Without these specialists, and to date, laboratories cannot be accredited because they do not meet the criteria for (being accredited for) making specific diagnostic analyses.

Here in Gevgelija, it very often happens that we don't have reagents, for example for thyroid, for prostate-specific antigen and for other tumour markers. [Female, Valandovo, Southeast region]

They do the tests in microbiology, but how? You give saliva, then one person takes the saliva sample and carries it, then it stands there for two hours, then another person deals with it... You come here to examine Candida, and you caught sepsis. [Male, Trizla, Pelagonia]
### 3.1.5. EMTs

The legislation prescribes that the minimum number of emergency medical services teams at national level should be 308,\(^4\) in 2021 – across the entire country – there were 284 EMTs (falling short of the prescribed number by 24 teams) (HIF, 2022). Emergency medical services are organized by health centres at PHC level. Taking into account only the ratio per population, geographical differences could be noted in the availability of the EMTs in different health centres across the country. The greatest lack of EMTs was found to be in major city centres, including the capital of Skopje, Kumanovo and Tetovo. Conversely, smaller urban areas were more likely to adhere to the legislative requirements,\(^4\) meeting the prescribed ratio of EMTs to population.

That said, geographical terrain, distances between villages, population ageing, car ownership linked to socioeconomic status, and other factors also play a role in defining whether the prescribed number of EMTs (including ambulances) is enough for a given area. For instance, the KII and focus group participants indicated that the municipalities that include a large number of villages with a greater distance between them were not served in a timely manner by this service, leaving people with disabilities, chronic diseases and older individuals particularly at risk.

> We are in great need of an ambulance because the municipality of Krivogastani covers many villages with old people, and everyone needs an ambulance. We can call, but even if they come, it’s from Prilep or from Krushevo, and it is far away. [Female, village of Krivogastani, Pelagonia]

> Even if he is not a dead man, he will die before they arrive. [Male, Vinica, East region]

### 3.2. Accessibility of health services

The key research sub-question explored in relation to accessibility of services was: “What accessibility-related barriers and facilitating factors are experienced by adults in North Macedonia – in particular those living in rural areas and small urban settlements – and by sub-populations in vulnerable situations?” Within this, specific attention was given to geographic, time-related and transport-related aspects, organizational and informational factors, as well as financial barriers and drivers of financial hardship.

All data sources produced relatively congruent findings, with key accessibility-related barriers identified. These included:

- distance, travel time and travel options, especially for vulnerable populations;
- direct costs for health services and medicines;
- informal payments;
- indirect costs due to transportation, accommodation, and missed work;
- uncertainty about costs and weak complaint mechanisms when charged incorrectly;
- waiting times;
- opening hours and ability (or not) to take sick leave.

These barriers are explored in more detail in the subsections that follow.

#### 3.2.1. Geographic, time-related and transport-related barriers

The Law on health protection\(^5\) guarantees the absence of geographical barriers in access to health care. However, the findings from this study indicate significant geographical and regional inequities in access to all three levels of health services in North Macedonia.

The nationally representative CATI survey identified that pharmacies and family doctors or GPs were reported as being the health service access points closest to the respondents. Pharmacies were reported as close (very or somewhat) by around 85% of the respondents and distant (very or somewhat) by around 15%. Family doctors/GPs are perceived as close (very or somewhat) by around 83% of the respondents and distant (very or somewhat) by around 17%. More than a third of the respondents (35%) reported being somewhat or very distant from the nearest laboratory; 40% distant from a health centre; and 29% distant from a dentist. Four out of 10 female respondents (39.5%) reported being very or somewhat distant from a gynaecologist.


As seen in Fig. 3.5, more than half of the respondents with chronic health conditions reported being distant from the specialist for their condition (54.9%), while nearly half of the respondents (48.7%) perceived the nearest hospital as distant from their place of living.

**Fig. 3.5. Percentage of respondents reporting their distance to health facilities**

Considerable geographical inequities have been observed, with the reported distance from all health service points being greater for respondents living in rural areas. Some key examples are listed here.

- 33.6% of the respondents living in rural areas reported being distant from their family doctor/GP, compared to 7.2% of the respondents living in urban areas.

- 35.9% of the respondents living in rural areas reported being distant from the nearest pharmacy, compared to 2.8% of the respondents living in urban areas.

- 57.0% of the respondents living in rural areas reported being distant from the dentist, compared to 12.1% of the respondents living in urban areas.

- 65.9% of the respondents living in rural areas reported being distant from the gynaecologist, compared to 23.9% of the respondents living in urban areas.

- 67.1% of the respondents living in rural areas reported being distant from the nearest laboratory, compared to 15.6% of the respondents living in urban areas.
• 70.3% of the respondents living in rural areas reported being distant from the nearest health centre, compared to 21.2% of the respondents living in urban areas.

• 77.6% of the respondents living in rural areas reported being distant from the nearest hospital, compared to 31.4% of the respondents living in urban areas.

• 78.1% of the respondents living in rural areas reported being distant from a specialist, compared to 39.8% of the respondents living in urban areas.

All the study’s data sources showed lack of public transport in most of the municipalities in the Republic of North Macedonia. Focus group participants as well as subnational KIs reported that, while intercity and suburban transport exists (that is, within and between larger cities and in their immediate vicinity), there are generally not enough bus lines and these do not run frequently enough. Furthermore, during the COVID-19 pandemic, many transportation companies that supplied regular intercity lines stopped operating those lines. Inhabitants of North Macedonia who live outside of large cities usually use their own transport, private vans (minibuses) or taxis, which means greater expense.

There is no public transport and that is the major problem here. There used to be regular bus lines to the rural areas, to the villages – I haven’t seen anything like that lately. People have to use their own cars or taxis, which is expensive. We are talking about the older population in general. [Subnational KII]

The nationally representative CATI survey shows that three out of 10 respondents reported public transport was not easy to access and was not available close to where they lived. Almost twice as many respondents who reside in rural areas compared to respondents residing in urban areas stated that they did not have easy access to public transport (43% and 23%, respectively). In terms of regional differences, respondents living in East region (69.4%) and respondents living in Southeast region (67.3%) more frequently reported having problems regarding the public transport. A quarter of the respondents (26%) do not own any kind of vehicle (car or van). Respondents rendered particularly vulnerable by transport barriers are those who do not own any kind of vehicle and have no easy access to public transport (11% of all survey respondents). Notable characteristics of these respondents include older people and individuals with a low education level and a low standard of living, those living in rural settlements, and those living with disability.

Around a quarter of the respondents reported that transportation time was (definitely or somewhat) a barrier to reaching a family doctor/GP (25.1%), while more than a fifth of the respondents indicated that transportation time was a barrier to reaching a pharmacy (21.6%). Fig. 3.6 expands on this.

**Fig. 3.6. Percentage of respondents reporting whether transportation time was a barrier to accessing health services**

<table>
<thead>
<tr>
<th>Service</th>
<th>Rural Not barrier</th>
<th>Rural Barrier</th>
<th>Urban Not barrier</th>
<th>Urban Barrier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialist for your chronic health condition</td>
<td>57%</td>
<td>43%</td>
<td>55%</td>
<td>45%</td>
</tr>
<tr>
<td>Laboratory</td>
<td>90%</td>
<td>10%</td>
<td>98%</td>
<td>2%</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>43%</td>
<td>57%</td>
<td>91%</td>
<td>9%</td>
</tr>
<tr>
<td>Health centre</td>
<td>35%</td>
<td>65%</td>
<td>76%</td>
<td>24%</td>
</tr>
<tr>
<td>Hospital</td>
<td>33%</td>
<td>67%</td>
<td>72%</td>
<td>28%</td>
</tr>
<tr>
<td>Dentist covered by HIF</td>
<td>41%</td>
<td>59%</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>Gynaecologist covered by HIF</td>
<td>41%</td>
<td>59%</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>Family doctor or GP</td>
<td>56%</td>
<td>44%</td>
<td>86%</td>
<td>14%</td>
</tr>
</tbody>
</table>

Note. Margin of error +3%.
There are important rural–urban differences. Of all respondents living in rural settlements, 16.6% indicated that
the transportation time was a barrier to reaching a family doctor or GP and 26.9% reported that transportation
overall was somewhat of a barrier. In comparison, among all respondents living in urban areas, these percentages
were 4.4% and 6.6%, respectively. Of all respondents living in rural settlements, one third (33.2%) indicated that
transportation time was a barrier to reaching a hospital and 41.1% stated it was a barrier to reaching a specialist.
In comparison, of all respondents living in urban areas, these percentages were 11.8% and 13.9%, respectively.

The challenges faced by rural populations also emerged from the focus group discussions.

*Our doctors covered by the HIF are in Tetovo. We have to go to Tetovo, which takes 40 minutes by car
and the same to come back. If we don't have a car, there is no other type of transport, it's MKD 1000 to
take a taxi.* [Female, Volkovija, Polog region]

Furthermore, in mountainous areas, poor infrastructure contributes to some villages being cut off due to snow drifts
in winter and preventing them from accessing health services.

*It happens... The road sometimes isn't cleared and we cannot go to the health centre.*
[Female, Krushevo, Pelagonia]

There are also significant differences linked to socioeconomic status and other factors. For instance, 15.4% who
felt they "make ends meet" found transportation time to be a barrier and 24.5% found transportation time to be
somewhat of a barrier, compared to 1.9% and 5.8%, respectively, of respondents who felt they "live very well".
Respondents with a disability were also found to be more likely to indicate that transportation time was a barrier to
reaching a family doctor or GP, compared to respondents with no disability (26.4% compared to 7.8%, respectively).
More than one third of all respondents (35.4%) found transportation time to be a barrier (definitely or somewhat)
to reaching a laboratory and 30.5% found it to be the case for reaching a dentist covered by the HIF. Four out of 10
reported experiencing transportation barriers to reaching a health centre. Transportation time was reported to be
the most frequent barrier to reaching a gynaecologist (for 37.2% of women), a hospital (for 42.7% of all respondents)
and a specialist (for 49.2% of respondents with a chronic health condition).

In general, the CATI survey, as well as the focus group findings show that transportation time was more frequently
reported as a barrier to reaching health care facilities by older respondents (aged 55+ years), respondents with low
education levels and low standard of living, respondents with disabilities, those with chronic health conditions, as
well as by farmers and housewives.

*After my operation, I had to go on foot from Trizla to the hospital to have the surgical dressing changed.
That's a big problem since I had to walk for 2–3 kilometres. It's too expensive to go by taxi and we don't
have public transport.* [Male, Trizla, Pelagonia]

As expected, the situation was more complicated for respondents who did not have access to public transport or
the public transport was not close to where they live (30% of the total sample). The lack of available and affordable
transport is a significant barrier to accessing health care services in the country. Namely, for almost half of the
respondents with no access to public transport (47.6%), transportation time was reported as a barrier to reaching
a GP; for 60%, transportation was a barrier to reaching a laboratory; for 61.9%, it was a barrier to reaching a
gynaecologist; and for two thirds of respondents it was a barrier to reaching a hospital. A total of 70.4% of the
respondents with a chronic condition, who did not have access to public transport, reported transportation time as
barrier to reaching the specialist for their condition.

Regarding the physical accessibility of facilities for people with disabilities, the focus group findings and KIIs suggest
that some of the doctors' practices were inaccessible to them, and that they can face bad conditions in hospitals,
including broken and unsafe elevators, non-functioning wheelchairs, and so on.

*The Accreditation Agency is responsible for the accreditation process and all conditions are determined
here in terms of access to wheelchairs, parking spaces, everything. However, it is very strange that
accreditation has become voluntary in our country. There was an announcement that accreditation
will be mandatory, but now it is very difficult since there are many practices opening in very physically
inaccessible places. For example, in apartments, in a central city area where there is no parking, no
accessible ramp for a wheelchair, not even for a child. And now to force them to get accredited – how?
How are they going to make an accessible ramp? They [would] have to change practice, and they bought
them.* [National KII]
3.2.2. Financial barriers and financial hardship

Financial barriers can be experienced by people who do not seek or receive any care for a given condition due to financial reasons, as well as those who receive a service but are unable to complete the treatment for financial reasons. Financial hardship can only be incurred by users who manage to pay out of pocket for the service/treatment they need. The sources used for this study identified people experiencing financial barriers, as well as health care service users incurring OOP payments, some of whom might have experienced financial hardship (although additional analysis would be needed to assess that). The study findings can contribute to reducing OOP health spending, which will impact both financial barriers and financial hardship.

The desk review evidence that, although total health care expenditure in North Macedonia has increased in absolute terms (measured as health expenditure per capita in US$ purchasing power parity), it fell consistently as a percentage of GDP from the late 1990s (Milevska Kostova et al., 2017). In 2018, public health expenditure reached the lowest level of 5.33% of GDP (Antikj, 2019), which is close to the minimal recommended level of at least 5% of GDP, while the most recent data show that public spending on health as a share of GDP was 4.3% (Winkelmann et al., 2022). Analysis of total public spending on health care in relation to GDP reveal that North Macedonia is among the countries with the lowest public spending on health care as a percentage of GDP. One of the reasons for this level of funds available in the health system is the contribution allocated for health insurance (Parnadjieva-Zmejkova and Dimkovski, 2018).

Health insurance

According to article 2 of the Law on health insurance, mandatory health insurance is established for all citizens of the Republic of North Macedonia for the purpose of providing health services and financial compensation based on the principles of comprehensiveness, solidarity, equality and effective use of funds. Moreover, health insurance is guaranteed for permanent residents, refugees, asylum seekers (Dimkovski and Mosca, 2021) and for people without a birth certificate. According to the Law on health insurance, mandatory health insurance is a precondition for the entitlement of health services at all levels, with financial coverage from the HIF. The entitlement to health insurance is based on payment of contributions; people need to pay contributions to the HIF in order to obtain the right to mandatory health insurance. Contributions vary by category and are defined in the Law on health insurance and the Law on contributions from mandatory social insurance. Family members are also covered through the insured member category, in the event that the spouse is not eligible for health insurance under other categories, and/or if children are aged under 18 years (or 26 years if they are enrolled in education) or have a disability.

The share of the population covered with health insurance through the HIF has fluctuated over time, falling from 96% in 2007 to 85% in 2012 and then rising to 90% in 2020 (Dimkovski and Mosca, 2021; HIF, 2021). Researchers argue that some of this fluctuation may reflect improvements in data management by the HIF (Dimkovski and Mosca, 2021).

According to Dimkovski and Mosca (2021), people most likely to be without insurance coverage under the HIF are:

- people without regular employment, individuals with consultancy contracts and self-employed people who have not paid contributions – these people benefit from coverage from the moment they start paying contributions into the HIF;
- employees whose wages have not been paid for more than two months, due to employer liquidity problems; and
- North Macedonian citizens living abroad.

This was also reflected in this study, with 96% of all respondents to the CATI survey reporting they had health insurance from the HIF, while 3.3% reported that they did not have health insurance (as seen in Fig. 3.7 and Fig. 3.8). According to the CATI survey, people who were less likely to have health insurance from the HIF in particular include:

- farmers (12.5% did not have health insurance);
- unemployed people (7.1%), compared to 2.6% who reported being employed;
- citizens who had private health insurance (10.3%), compared to 2.7% of those without private health insurance;
- ethnic Albanians (8.1%), compared to 1.9% of ethnic Macedonians and 3.3% of ethnic Roma.

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Of all respondents, 8.5% reported having private health insurance. People more likely to have private health insurance in particular included those who:

- have higher education (15% had private health insurance), compared to 5.2% with primary-level education;
- have a higher standard of living; that is, those reporting “living very well” (25%), compared to only 2.5% of those who felt that they “barely make ends meet”;
- live in Skopje (14.9%), compared to 5.1% who live in rural settlements;
- business owners (20%), compared to 7.1% of those that were unemployed and 2.8% of the retired respondents.

The Law on contributions from mandatory social insurance prescribes that unemployed citizens can be beneficiaries of health insurance free of charge, if – in the previous calendar year – they had a total net income lower than the minimum wage for that year. That said, people are exempt from this provision if the person – in the past two months – had an income higher than the minimum wage. The Association for Emancipation, Solidarity and Equality of Women (ESE) identifies this provision as a barrier to access to health insurance for people living on the margins of poverty (ESE, 2022).

This issue also came to light in the focus group discussions.

Since both of my parents were previously employed, they exceeded the limit which, according to the regulations, is MKD 185 000, and automatically now we as a family have to pay a contribution to the Fund of MKD 1500 each month. We, as children who have health insurance through our parents, up to the age of 26 since we are studying, do not have health insurance if our parents do not have health insurance. I can’t get involved because I’m a student. How can we find money to pay MKD 1500 each month? [Male, Trizla, Pelagonia]

### 3.2.3. Direct service costs

Data from this study indicate that direct costs for some health services continue to be a barrier to health services and a driver of financial hardship in North Macedonia, despite the progress that has been made in advancing financial protection. Box 3.1 provides some general background for greater understanding of the context in which these costs occur.
Box 3.1. Financial protection and co-payments in North Macedonia

There are a number of health services to which everyone is entitled, regardless of their insurance status. These include: emergency care; mandatory immunization of children, according to the Programme for mandatory immunization of the population; preventive medical check-ups of pupils from primary and secondary schools, according to the Programme for preventive medical check-ups of pupils and students; and visits from patronage (outreach) nurses for pregnant women and infants up to 12 months of age.

For people who are insured (which is the majority of the population), the range of services covered by the HIF has grown over the years, with the exception of outpatient medicines. Health services provided at the point of use in PHC settings by registered doctors in general medicine, gynaecology and paediatrics are supposed to be free of charge for insured individuals. With registered dentists at primary care level, only preventive dental check-ups are free of charge.

All other services covered by the HIF are subject to user charges in the form of co-payments, which are defined through legislation. The co-payment percentage varies up to 20% of the reference price (up to 50% for medical devices); on average, the co-payment is approximately 10% of the reference price. Fixed co-payments exist for some services, such as rehabilitation days and basic dental services.

The Government covers co-payments for certain categories of the population (e.g., pregnant women for all health services related to pregnancy) and for certain illnesses through the health programmes which are implemented by the Ministry of Health. The Government also covers the costs of co-payments for inpatient hospital treatment for pensioners with pensions lower than MKD 14,000 and for outpatient specialist-consultative services and inpatient hospital treatment for beneficiaries of social assistance and their family members.

The desk review conducted as part of the study highlighted that, despite services at PHC level supposedly being free of charge for patients, there are reports of women being charged by their registered primary care gynaecologists. The association ESE identified that at least 50% of Roma women reported they were charged by their gynaecologists at PHC level for services which should be free of charge to patients according to the provisions set out by the HIF (ESE, 2021). A 2014 study by the same association (Pavlovski et al., 2014) showed that 28% of women reported they were always charged by their gynaecologists for services which should be free of charge; 13.4% reported they were often charged; and 26.8% reported they were sometimes charged for these services. CSOs have reported that gynaecologists in PHC were even charging women for pregnancy-related health care services, despite the fact that women during pregnancy should be exempt from co-payments for any pregnancy-related services. A total of 83% of Roma women reported they had been charged by their primary care gynaecologist for pregnancy-related services (Shopova, 2020).

Similar issues emerged from the focus group discussions conducted for this study. Findings indicate that being charged for services was most common when visiting a gynaecologist or dentist covered by the HIF, which creates confusion and concern for patients due to the uncertainty about examination costs. Focus group discussion participants reported that they often did not receive a fiscal bill, but they did not feel enabled to ask for one, due to the small number of gynaecologists and the lack of an alternative which put them in a position of needing to accept the conditions imposed by the health care professionals covered by the HIF.

Sources: Dimkovski and Mosca (2021); programmes of the Government of North Macedonia for 2022 relating to participation (co-payment), early detection, hospital treatment, mandatory immunization and preventive care for young people (see List of relevant legislation for full details). 10,11,12,13,14

15 Roma women living in municipalities of Shuto Orizari, Delchevo, Vinica and Pehchevo.
16 Roma women living in municipalities of Kumanovo, Veles, Prilep, Kočani and Shtip.
Fig. 3.9. Percentage of respondents reporting whether cost of health services was a significant barrier to accessing health care

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>32.9%</td>
</tr>
<tr>
<td>No</td>
<td>66.1%</td>
</tr>
<tr>
<td>Does not know</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

Why don’t women go to gynaecologists? Because they know they have to pay and they don’t know how much they have to pay – there is no price list. The same thing happens when you go to the dentist – sometimes it’s MKD 500, sometimes it’s MKD 1000 or 1500. So they don’t know how much they’ll be charged – it depends on the doctor’s mood. [National KII]

We filed a complaint. I asked the Fund; I have a friend there. He told me: we all know, but there are few gynaecologists and we leave them to it. There is no result from filing a complaint, and we have to go to the same gynaecologist again. I paid MKD 1700 the last time I went to the gynaecologist. I paid for ecohography and Pap examination. [Female, Krushevo, Pelagonia]

Furthermore, focus group participants shared cases when patients paid their doctors covered by the HIF for services that should have been free of charge, such as giving an injection or measuring blood sugar level.

As shown in Fig. 3.9, the CATI survey conducted for this study showed that one third of the respondents (32.9%) reported having serious problems accessing health care due to the cost of health services, while two out of 10 respondents reported having OOP expenses for diagnostic tests or health services in the previous 12 months, paying co-payments for services in private clinics and/or laboratories. People with disabilities and people with chronic conditions more frequently reported having OOP expenses. For example, of all respondents with chronic conditions, 27% had OOP expenses for health care services, 31% paid co-payments for covered services, and 30.6% paid for diagnostic tests in the previous 12 months.

I had to have a surgery. I was told I had to wait for three months, but it was urgent. If I had waited, I might not be alive today, so I went to a private clinic. I had to take a bank loan to pay for the medical treatment. [Female, Krushevo, Pelagonia]

One of the main reasons why people go to private clinics for their medical treatment is because they have to wait too long, so they have to go from one doctor to another… If the specialist sends you to a laboratory, you have to wait for the laboratory, then you have to wait for the results. You go back with the results to the specialist and then you go to your doctor covered by the HIF. It’s impossible to do all of this in one day. [Male, village of Furka, Southeast region]
3.2.4. Direct costs of medicines and health products

The desk review revealed that the static number of outpatient medicines covered by the HIF (those on the positive list of medicines) over the years was identified as a significant barrier to accessing medicines (according to CSOs working with various groups of patients). In fact, since 2010, only two additional medicines have been placed on the positive list of PHC medicines. This situation results in barriers to accessing new treatments for various diseases (Stronger Together, 2022); this is not compliant with article 11 of the Law on health protection, which guarantees the right to high-quality health services aligned with modern advances in the field of medical science.

The lack of an updated positive list of medicines is a driver of financial hardship. The outpatient medicines share of OOP payments grew from 67% in 2006 to 80% in 2018 (Dimkovski and Mosca, 2021). Researchers identified that the main driver of catastrophic OOP spending was outpatient medicines, followed by outpatient care services (Dimkovski and Mosca, 2021). For those patients who cannot purchase the medicines they need, the lack of an updated positive list is a financial barrier, resulting in foregone care.

As seen in Fig. 3.10, the CATI survey found that nearly half of all respondents (45.1%) reported the cost of medicines and health products as being a serious problem when accessing health care.

![Fig. 3.10. Percentage of respondents reporting whether cost of medicines and health products was a significant barrier to accessing health care](image)

Evidence of this was also found among the qualitative methods used for the study, which illuminated that the lack of competencies allocated to GPs also compounded the problem, as this forced patients to seek specialist care for prescriptions. One key informant interviewee illustrated this:

*The highest expenses are related to therapy; this is the main problem. We know that 80% of the medication isn’t covered by the Fund. Additionally, there are several types of medication that are covered by the Fund, for hypertension, diabetes, obesity, and the biggest barrier is that they can’t be prescribed by the doctor covered by the HIF; [the patients] have to go to a specialist. Since some of them can’t go, they don’t have time, there are no doctor’s appointments, etc., some of them are forced to buy the medication at their own expense. [Subnational KII]*

Respondents with chronic health conditions were almost twice as likely to indicate that the cost of medicines and health products was a serious problem when accessing health services, compared to respondents with no chronic health condition (63.4% compared to 35.9%, respectively).

The cost of medicines and health products is a serious problem for people living on the margins of poverty. The majority of the respondents (81.8%) who felt they “barely make ends meet” and used medications for their health condition reported having serious problems accessing health services due to the cost of medicines.

Comparing age groups, 57.9% of all respondents aged over 55 years indicated the cost of medicine was a serious problem, compared to 42.4% of the population aged 35–55 years and 30.6% of the population aged under 35 years. This was also found to be the case for respondents living with disability, who more frequently had problems with the cost of medicines and health products compared to respondents with no disability (70.8% compared to 43.8%, respectively).

Of all respondents living in rural areas and small urban settlements, more than half indicated that the cost of medicines and health products was a serious problem when accessing health care. By comparison, of all respondents living in Skopje, one third shared the same concern.

The CATI survey data show that four out of 10 respondents (40.4%) had OOP expenses for medicines in the previous 12 months. OOP expenses are more frequent among respondents with chronic health conditions; namely, 67.5% of all the respondents with a chronic health condition had OOP expenses for medicines in the previous 12 months.

The medications I take for blood pressure and heart condition are not covered by the Fund; I can only buy them at my own expense. One therapy is MKD 6000. My pension is low, I don't have enough money.

[Male, village of Grbovci, East region]

### 3.2.5. Indirect costs and informal payments

The CATI survey for the study also explored the extent to which indirect costs for health services, including transport, food and lodging, posed barriers to obtaining health services. As seen in Fig. 3.11, the survey found that four out of 10 respondents (40.5%) reported having a serious problem when accessing health care due to the indirect costs.

Of all respondents living in rural areas and small urban settlements, 49.8% and 43.7%, respectively, indicated that indirect costs are significant barriers to accessing health care, compared to 26.7% of respondents living in Skopje. This finding was reinforced by the study’s qualitative sources:

It’s MKD 900 to go by taxi from my village, Pirava, to Gevgelija, in one direction, which means it’s MKD 1800 to go to Gevgelija and to come back. You can’t do everything if you go only once. I had to go several times.

[Female, village of Pirava, Southeast region]

The study also explored informal payments. While overlapping with the previous discussion on charges for services that should have been free of charge, they are treated distinctly here as being payments that are acknowledged by both parties as being outside of any formal co-payments or entitlements. The desk review identified that informal payments in North Macedonia was an issue among doctors and other health workers in both public and private facilities (Dimkovski and Mosca, 2021).
This also came through in the focus group discussions, where participants stated that access to high-quality health services depended on personal connections in many cases, while not excluding giving outright bribes to health workers for services that should be provided free of charge.

*My wife delivered our baby in the hospital. You have to pay €300–400 for a delivery. It’s usually like that – you have to pay in order to receive more attention.* [Male, village of Pirava, Southeast region]

*If you have someone you know, you’ll receive a certain service, but if you don’t know anyone, you won’t receive anything.* [Female, village of Prsovce, Polog]

### 3.2.6. Organizational barriers

Both the quantitative and qualitative methods in this study explored the issue of organizational barriers, looking at supply-side factors (such as waiting times, opening hours, administrative requirements and responsiveness to disability of health facility infrastructures), as well as demand-side factors (such as the opportunity costs linked to being able to take time off work or away from caretaking responsibilities in order to seek health services).

Identified through the desk review, Dimitrievska and Misoska (2000) explored predictors of patient satisfaction and found that the strongest predictors were experienced health care professionals, expected diagnosis, and modern equipment. Lazarevik and Kasapinov (2015) conducted research in three Balkan countries (North Macedonia, Bulgaria and Serbia) on the main predictors associated with low user satisfaction with health care services; these were waiting time for appointments, excessive administrative procedures and attitudes of the medical personnel towards the patients. The highest dissatisfaction was expressed regarding the waiting time to a doctor (Lazarevik and Kasapinov, 2015).

As shown in Fig. 3.13, the CATI survey found that waiting time for an appointment was reported by nearly six out of every 10 respondents (58%) as a serious problem when accessing health care, posing by far the most significant organizational barrier. Those who reported being affected were more likely to be older people, employed individuals and people with chronic conditions. A related finding emerged in response to an associated question on waiting lists for specialists, discussed in subsection 3.4 on effective coverage.

The study’s qualitative sources also revealed the extent to which waiting time was a significant barrier to health services. This was particularly clear in relation to the waiting time for a specialist examination, whereby, even though there is an appointment, the time of that appointment was rarely respected.

The CATI survey showed that four out of 10 respondents (41.3%) reported informal payments as a serious problem when accessing health care, as depicted in Fig. 3.12.

**Fig. 3.12. Percentage of respondents reporting whether informal payments were a significant barrier to accessing health care**

![Graph showing percentage of respondents reporting informal payments](image-url)
It’s easier when you go to your doctor covered by the HIF, but everything after that is a problem. You go to see a specialist with an appointment and you don’t know when you’ll go home. If you have an appointment at nine o’clock in the morning, you could have your check-up at three o’clock in the afternoon. They have breaks, people go in the office with friends, so you’ll wait until three o’clock in the afternoon, or maybe ‘til evening. [Male, village of Pirava, Southeast region]

Fig. 3.13. Percentage of respondents reporting whether organizational barriers were a serious problem when accessing health care

More than one fifth of CATI survey respondents reported having serious problems when accessing health services due to the opening hours of the health facility (22.6%) and having to take a day off work or away from livelihood responsibilities (21.2%). People who more frequently stated that taking a day off work is a serious problem when accessing health care were aged 35–54 years and worked in the private sector.

Focus group discussions with service users also showed that a challenge at PHC level was the opening hours of health facilities, due to the absence of a second team working a second shift. This quote from a KII with an individual who worked as a family doctor/GP exemplifies the supply-side perspective on this.

Yes, there is a problem, since I work alone and I work from 7 to 3, from Monday to Friday. I answer the phone during weekends as well, even after working hours, but I am not able to go and provide them a certain service every time they call. They have to go to the closest health centre. [Subnational KII]

Around 10% of all CATI survey respondents reported having serious problems accessing health care because of the inability to be released from household or caretaking responsibilities. This was especially the case for housewives (17.3% of whom reported this) and people who take care of children, elderly people or members of families with disabilities (25.6% of whom reported this). In addition, 8.7% of all respondents reported having serious problems when accessing health care due to inadequate access to health facilities. Among the respondents with disabilities, the percentage went up to 28%, evidencing a significant need for disability-responsive health facility infrastructures. Although the study probed the issues of lack of culturally and linguistically appropriate health information as well as communication modalities, they did not show up as important barriers in access to health services.
3.3. Acceptability of health services

The key research sub-question explored in relation to acceptability of services was: "What acceptability-related barriers and facilitating factors are experienced by adults in North Macedonia – in particular those living in rural areas and small urban settlements – and by sub-populations in vulnerable situations?" Acceptability-related issues include: cultural appropriateness of services, confidentiality, perceptions of quality, fear of stigma, experiences of discrimination, and forms of racism, sexism, classism, among others.

The literature review, KIIs, focus groups and nationally representative CATI survey produced relatively congruent findings, with a key facilitator being trust in health providers. Key acceptability-related barriers were identified, including:

- adverse gender norms for men and women;
- perceived discrimination by providers, based on ethnicity, occupation, education levels, socioeconomic status, rurality and other factors;
- stigma around the use of gynaecological services for pre-marital women of some ethnicities;
- limited voice of patients (ability to ask questions and/or share doubts); and
- perceived lack of confidentiality, in particular for people living in small urban settlements.

3.3.1. Trust in health providers

As a positive facilitating factor, all four data sources employed by the study indicate a general preference for modern medicine and trust in health care workers, especially in family doctors/GPs. Namely, nine out of 10 respondents to the CATI survey (89.2%) reported that health care workers were most trusted when it comes to their health. Pharmacists and family members/close friends were in the second and third places, respectively, followed by alternative healers. When considering all the relevant stratifiers, such as residence, age, education, sex and socioeconomic status, no important differences emerged.

The focus groups provided insight into the alternative or traditional treatment methods that were accepted by the participants: herbalists, healers, people who work with bioenergy, bone-setters, and so on. However, respondents reported using these services as an alternative and in situations where modern medicine did not provide an effective solution to a health condition.

There is one health condition, something that eats the intestines – it probably stimulates volvulus and a person can die from this condition. A child was hospitalized twice in Gevgelija, 10 days in hospital each time; they were told the child was healthy and they could take them home. They took the child home and the child was vomiting and vomiting, then they took them to an old lady in Stojakovo, she laid leaves, and the child finally healed… [Male, village of Furka, Southeast region]

3.3.2. Gender norms, roles and relations

To gauge people's perception of how gender norms, roles, relations and power balance/equality inhibit access to health services, study respondents were asked to provide their perceptions of the limited autonomy of some women in deciding to seek care, as well as gender norms that influence men to delay seeking treatment. Data from the nationally representative CATI survey showed that three out of 10 respondents believed that men (7.2% reported many men, and 22.4% reported some men) had problems accessing health care when sick because it was expected for men to not seek help. Having the perception that it is expected for men to not seek help was found to be considerably more pronounced among ethnic Roma (63.3%) and ethnic Albanians (43.6%), compared to 23% of ethnic Macedonians. Likewise, this perception was more prevalent among people with no education (61.5%), compared to 23.2% of respondents with higher education. No differences were found regarding the sex and age of the respondents.

In addition, subnational KIIs showed that older men from rural areas preferred to be examined by male doctors and that they may refuse consultations provided by younger female doctors. An example was given in one KII:

They stick to a certain doctor they trust and they ask for help from him. If it is a young female colleague that has just started to work, they think she doesn't know a thing, which may be incorrect in practice. [Subnational KII]
One quarter of the CATI survey respondents believed that women in North Macedonia can have problems in getting permission to seek health care treatment from other family members (4.7% respondents indicated that many women have this problem and 21.1% indicated that some women have this problem). More women than men believed many or some women have difficulties accessing health services because of problems obtaining permission (30.3% and 21.2%, respectively).

When considering the question of women’s autonomy in health decision-making, disaggregated by other relevant equity stratifiers, such as ethnicity, occupation and residence, important differences emerged. For instance, 53.3% of Roma women and 48.3% of Albanian women, compared with 23.2% of Macedonian women, believed women have problems getting permission to access health care from other family members. Occupation-wise, 51% of housewives believed that women have such permission-based access barriers, compared to 20% of women employed outside of the home. Furthermore, of all respondents living in rural settlements, 29.1% of (rural) men and 40.8% of (rural) women agreed that many or some women experience problems relating to getting permission from other family members to access treatment. In comparison, of all respondents living in urban areas, 16.4% of (urban) men and 24.2% of (urban) women shared this opinion.

Supplementing the quantitative findings provided through the survey, the focus group discussions and the KIIs delivered synergizing information, providing additional insights into the gender norms inhibiting access to health care among the Roma community. Focus groups discussion participants reported that, in the Roma community, any inferred suggestion – even if incorrectly reflecting reality – of a connection between a girl with premarital status and possible sexual activity can be stigmatizing. As a visit to a gynaecologist by a young girl can be perceived by others as associated with extramarital sexual activity, young unmarried Roma girls avoided visiting a gynaecologist, even when they needed to. They instead asked for advice from their GP/family doctor. In addition, Roma women preferred to be examined by a female gynaecologist. They often did not receive permission from their husbands to be examined by a male gynaecologist, even though they may be in serious need of gynaecological treatment.

Some young women can visit a doctor, but that has to be hidden. There is a certain belief here – she is a young woman who is not married, she mustn’t go to a gynaecologist. We have to be honourable. If the young woman has some female problems, the GP will give her medication. [Female, Vinica, East region]

There is a problem among Roma people when it comes to a male gynaecologist, since women resist this situation and sometimes, they may not have permission from their husbands to be medically checked by another man. We have a conflict here. [National KII]

### 3.3.3. Discrimination and stigmatization

Discriminative attitudes of health personnel can create systemic barriers to acceptability coverage (Tanahashi, 1978; WHO, 2017). For this reason, CATI study respondents were asked whether they have ever felt discriminated by a health worker based on their ethnicity, place of residence, religion, education level, health status, sex, age, occupation or marital status.

The CATI survey identified that around 6% of the respondents felt discriminated by a health worker based on their ethnicity. Less than 5% of the respondents had felt discriminated by a health care worker based on other characteristics, such as place of residence (4.2%), religion (4.0%), education level (3.8%), health status (3.6%) and age (3.4%). Less frequently, respondents reported being discriminated based on their occupation (1.8%), sex (1.2%) and marital status (1.1%). That said, when looking at the specific situation of different sub-populations (Fig. 3.14), it was found that some were more likely to report experiencing discrimination compared to others. In addition to important and stark differences by ethnicity, 15.4% of respondents with no education had felt discriminated based on their education level, while 18.8% of farmers had felt discriminated based on their occupation.

Fig. 3.14. Percentage of respondents with select characteristics reporting feeling discriminated against by a health care worker

- 47% of the ROMA respondents have felt discriminated by a health care worker, based on their ethnicity
- 15% of the respondents with NO EDUCATION have felt discriminated based on their education level
- 19% of the FARMERS have felt discriminated based on their occupation
When considering the ethnicity of the respondents, the data show that Roma respondents most frequently felt discriminated compared to other ethnic groups. Namely, 46.7% of the Roma respondents had felt discriminated by a health care worker based on their ethnicity. This aligns with the findings from the focus groups involving Roma people, whereby the majority of the participants noted that they had been discriminated due to their nationality, especially in secondary and tertiary health care settings.

Maybe there is no discrimination when we are talking about our GPs, since we have visited that doctor frequently, he knows us and that's it. But in the secondary health care system, especially the nurses – they always judge by one's appearance, darker skin, etc. The Roma community sometimes dresses inadequately – maybe this is due to absence of conditions, but this shows they are Roma – and the repulsion among health care staff, especially the nurses, is huge. [Male, Trizla, Pelagonia]

This synergizes with data available through the desk review from a 2014 study (Pavlovski et al., 2014), which indicates that Roma people did not receive equal treatment as compared to non-Roma patients. The study reports discrepancies regarding indicators for patient satisfaction among Roma and non-Roma respondents. For instance, 75.5% of non-Roma respondents were able to completely understand information provided by doctors and specialists, compared to 53.9% of Roma respondents, and 68.2% of non-Roma respondents were completely satisfied with the health services provided in hospital, compared to 33.3% of Roma respondents (Pavlovski et al., 2014).

The desk review also illuminated other sources addressing discrimination by health providers, suggesting that these sub-populations were also affected. Some examples are given here.

- People using drugs – according to Association HOPS (Cekovski, 2019) – frequently face discrimination and refusal of care by PHC physicians, despite ethical and regulatory obligations.
- Sex workers are often victims of intersectional discrimination due to their sex, social status, and profession. Additional reasons for their discrimination include ethnic background and/or sexual orientation and gender identity (Temelovska and Boshkova, 2019).
- People living with HIV – according to Association ESE (ESE, 2016) – have reported being refused health care services and have had their HIV status revealed in the presence of other people without their consent.
- Building on its previous analysis, Association ESE carried out a study in 2019 showing that that 76.6% of LGBTI people interviewed believed they did not receive equal treatment, while 16.6% indicated receiving somewhat equal treatment (Temelovska and Boshkova, 2019; Boshkova and Raiden, 2016).

In addition to reporting on discrimination, CATI study respondents were asked to provide perceptions on the conditions they believed were stigmatized in their community. Data from the survey show a majority of respondents (94.5%) stated that no conditions were stigmatized in their community (where they lived). For 1.3% of the respondents, sexually transmitted infections and visiting a gynaecologist were stigmatized in their community, while for 1.1% of respondents, mental disorders were stigmatized. Other conditions (AIDS, disabilities, rare diseases, and so on) were mentioned by less than 0.5% of the study participants.

### 3.3.4. Ability to ask questions and voice concerns

To explore perceptions of quality of health services (including patient centeredness), participants in the study were asked whether they felt free to ask questions and/or express doubts with health providers. Conceptually, this question is linked to both acceptability of services and to effective coverage. People may be deterred from accessing health services in the first place (foregoing care), because they feel that they will not be listened to and/or have had previously what they perceive to be disrespectful exchanges with health personnel. Linked to the description of effective coverage (see subsection 3.4), people can indeed access services and either complete or partially complete the treatment or service, while feeling that they are not listened to/their concerns are not respected. However, lack of patient voice and poor communication with providers can hinder treatment adherence. Seven out of 10 respondents (71%) reported that they always felt free to ask questions and/or discuss doubts with health providers, leaving almost three in 10 (29% of respondents) not feeling that they could (never or sometimes). Of all respondents living in rural areas, 7.5% indicated that they never felt free to ask questions or discuss doubts and 6.9% only sometimes felt free to do so. In comparison, of all respondents living in urban areas, these percentages were 6.9% and 25.9%, respectively.

When considering other relevant equity stratifiers for respondents who felt that they could not ask questions or express doubts, important differences emerged. Some examples are given here.

- Respondents who reported that they "barely make ends meet" were more than twice as likely to respond that they did not feel free to ask questions and/or share doubts with health providers, compared to respondents who felt they "live very well" (37.1% compared to 15.4%, respectively).
• Ethnic Roma (46.7%) were almost twice as likely not to feel free to ask questions and/or share doubts with health providers than ethnic Macedonians (24.1%).

• People with disabilities were almost twice as likely not to feel free to ask questions and/or share doubts with health providers than people with no disabilities (50.0% compared to 26.8%, respectively).

3.3.5. Confidentiality

The CATI survey respondents were asked, “Would you say that people in our country have a problem accessing health care when sick because of lack of privacy and confidentiality?” Lack of privacy and confidentiality is reported to be an issue for accessing health care by 38.8% of those surveyed (Fig. 3.15). Of all respondents, 11.2% believed this was a problem for many people, while 27.6% thought it was a problem for some people in the country. Almost half of the respondents did not agree that privacy and confidentiality was a problem when accessing health care, and 12.5% stated they did not know whether this was an issue.

Fig. 3.15. Percentage of respondents reporting whether people in the country had a problem accessing health care when sick because of lack of privacy and confidentiality

The 38.8% who agreed that lack of privacy and confidentiality was an issue more frequently included ethnic Albanians (45%) and ethnic Roma (57%), compared to 36.1% of ethnic Macedonians. When considering the sex and place of residence of the respondents, the data show that 45% of rural women and 50% of women living in small urban settlements believed that many or some people in the country had problems accessing health care when sick because of lack of privacy and confidentiality, compared to 22.7% of the women living in Skopje. These geographical differences also emerge among men; 26% of men living in Skopje, compared to 35% of men in rural areas and 49% of men in small urban settlements believed that many or some people in the country had problems accessing health care when sick because of lack of privacy and confidentiality.

Supplementing the quantitative insights provided by the study, the focus group discussions offered further insight into potential factors that contributed to participants feeling a lack of privacy and confidentiality. The remarks that emerged from the focus groups mostly related to the presence of unnecessary staff in doctors’ offices during examinations or interventions, as well as disclosure of information about the health status of patients by the medical staff outside of the health facility. Women felt especially vulnerable in this way.

I needed to have my stitches taken out from my wound. A surgeon came in, another specialist doctor, 2–3 nurses, the driver and the janitor. Was I supposed to take off my clothes?! They just stood there and were looking at me. I said to the nurse, “What’s this? I feel embarrassed”. When the surgeon heard me say this, he told the others to leave the office. There are certain rules about who is supposed to enter the office. I felt really bad and embarrassed at that moment. [Female, Vinica, East region]

Unfortunately, that’s how the Macedonians are. Even if a person is a doctor, he doesn’t keep the information about the patients to himself. They’ll sit to have a glass of Rakia, they will start talking about one woman or another, if the doctor is a gynaecologist … I have heard many things, from a gynaecologist in a tavern, and I said to myself, “They’d talk about my wife in the same way”. [Male, Vinica, East region]
3.4. Contact and effective coverage of health services

Across the study’s data sources, the key research sub-question explored in relation to contact coverage was “What do existing data sources indicate about the extent of forgone care (that is, people who do not contact services when they have an identified health need)?” For effective coverage, the sub-question was “Once services are contacted, what barriers are there to (and facilitating factors for) effective health service coverage for adults in North Macedonia? This final effective coverage domain of the Tanahashi framework addresses issues such as effective referrals and back referrals, treatment adherence, provider compliance, and diagnostic accuracy, among others (Tanahashi, 1978).

The literature review, KIIs, focus groups and the nationally representative CATI survey produced relatively congruent findings, with key barriers identified. These included:

- lack of patient presentation (for appointments), even if the services may be available, accessible, and acceptable;
- referral accessibility, including due to waiting times;
- misdiagnosis and provider compliance issues;
- lack of patient adherence, due to costs of medicines and health products, among other factors;
- people being pushed away from public services due to timely availability, and into using private providers for health care services, where they may be more likely to incur financial hardship.

3.4.1. Contact coverage

The desk review revealed evidence of progress on overarching coverage rates for multiple conditions, yet challenges remain in relation to unmet need and forgone care. For instance, in 2017 (the latest year for which data were available), North Macedonia ranked above the average for south-eastern European countries according to the UHC service coverage index, yet it was still below the EU average and the WHO European Region average for this index (Winkelmann et al., 2021). Self-reported unmet need for medical care for financial reasons decreased from 10.1% of the population in 2010 to 1.6% in 2019, yet important inequities remained, with unmet need among those in the lowest income quintile at 4.9% in that year, compared to 0.4% in the highest income group (Winkelmann et al., 2021). The United Nations Development Programme (UNDP) also reported a social gradient in respondents reporting an unsatisfied need for a doctor (Petreski, 2019).

Meanwhile, Eurostat data collected for North Macedonia demonstrate unmet need for medical examination that is above the EU average (WHO Regional Office for Europe, 2021a). A higher percentage of people in North Macedonia (4.9%) compared to in the EU (3.5%) expressed unmet need for medical examinations, and people with lower education levels were more likely to be amongst those left behind (WHO Regional Office for Europe, 2021a). In North Macedonia, men with the lowest level of education were 4.50 times more likely to report this unmet need than men with the highest level of education, and women with the lowest level of education were 4.72 times more likely to report this than their counterparts with the highest education level (WHO Regional Office for Europe, 2021a).

The overarching reasons for unmet need are often linked to availability, accessibility and acceptability barriers, and these have been unpacked in some detail in the previous sections. That said, this study’s KIIs and focus group discussions identified additional factors that contributed to people not visiting health facilities when needed. The most significant factors reported were fear of medical staff, fear of a possible diagnosis and facing “bad news”. In addition, study participants explained the role of denial and deflection of the problem or absence of (or insufficiencies in) self-care, which can contribute to forgoing care and/or delaying seeking treatment. The findings show that this was particularly present in rural areas and among the male population.

What I have experienced is to hear about my medical condition afterwards. If the doctor doesn’t say anything, the nurse will, she will tell her friend, the friend will tell her neighbour. It’s a small place and everybody knows everybody. [Female, Pirava, Southeast region]

I think people from urban areas are more aware about their health, or at least they are not stubborn when it comes to that. There are more stubborn people in rural areas, who think there is nothing wrong with them. It’s about mentality – that’s how they have been taught since they were kids. [Subnational KII]
There is always something, a certain doubt, especially among the male population; they think there is nothing wrong with them. I cannot say they don’t care about their health; they simply don’t want to face the reality that they have a serious health problem, which may be a reason for visiting a doctor too late. [Subnational KII]

In addition, low health literacy was cited in the KIIIs as contributing to not seeking health care when it was needed. They pointed to an obvious need to educate the population about the importance of preventive examinations, care for one’s own health and recognizing symptoms that require professional medical attention.

There is also a deficit of health education. In order for someone to know where to ask for help, he needs to be told. People need to be educated more. Sometimes we are not even in pain, we don’t feel anything. And, since the citizens are not educated enough, they don’t go regularly for check-ups, they can’t anticipate the disease in a timely manner in order to cure it faster. [Male, Trizla, Pelagonia]

The health care mentality and education is at a very low level, in our municipality and in the country in general. My opinion is that it should be activated in education, regardless of primary or secondary education, whether as additional or optional subjects. We used to have a subject called “physical and health education”… it is absolutely necessary. [Subnational KII]

3.4.2. Diagnostic capacity in relation to effective coverage

To explore perceptions on the diagnostic capacity of the health system, the study’s quantitative and qualitative instruments asked participants about misdiagnosis by providers. Drawing from across the data sources, evidence emerged of issues relating to a lack of diagnostic accuracy.

The CATI survey indicated that 10.4% of respondents reported being misdiagnosed by a health care worker, while 86% stated they had never been misdiagnosed and 3.7% did not know or refused to answer the question. No significant differences were found in the perceptions of the respondents when considering different socio-demographic stratifiers.

In addition, the KIIIs and focus group discussions provided insight into potential factors that contributed to a lack of diagnostic accuracy, such as lack of diagnostic equipment, old and/or not precise equipment, limited scope of practice of PHC doctors, and/or high referral rates to specialists.

We have a certain problem with the diagnostic procedures; there is no availability to schedule an appointment for echography, X-ray, mammography … There is no availability in [my town]. We had a problem for two months. As a doctor covered by the HIF, I couldn’t send the patient for additional imaging diagnostics, so I had to send the patient to a specialist doctor. Or to an internist or a surgeon. [Subnational KII]

People could die due to appendicitis in Vinica. They started treating the patient with a painkiller against a severe cold … until laboratory examination was done in Kočani. So they first treat you without examination, and after 2–3 days they send you to certain check-ups (blood tests). [Male, Vinica, East region]

Supplementing the above data, the desk review provided synergizing information. The WHO report on PHC in North Macedonia highlighted that PHC physicians were not able to prescribe certain medicines (for example, insulin or statins) or to order specific diagnostic tests (for example, endoscopies, MRI or CT scans) and needed to refer patients with chronic diseases and multiple morbidities to specialists (WHO Regional Office for Europe, 2019). The high referral rate to specialists in turn constitutes a burden for specialist care in health centres, and in secondary and tertiary care settings. Nearly two thirds of hospitalizations in 2017 were potentially avoidable hospital admissions for chronic conditions, including chronic obstructive pulmonary disease (28% of potentially avoidable hospitalizations), hypertension (19%) and angina (17%) (WHO Regional Office for Europe, 2019). This points to the need to extend the scope of practice in primary care for all health care providers, including nurses (WHO Regional Office for Europe, 2019; Atanasova and Tawilah, 2021).

3.4.3. Effective referral systems

Systems that permit effective referral and back referral are essential for equitable access to high-quality health services, across the continuum of care. Hence, this study explored the perception of respondents on barriers to accessing health care due to issues with referral systems. The CATI survey respondents were asked if they had serious problems in accessing health care due to lack of appointments available for specialists and long waiting lists for specialists.
As depicted in Fig. 3.16, the data show that more than half of the respondents reported serious problems in accessing health care due to lack of appointments available for specialists (57.2%) and long waiting lists (55.4%), building on the previous discussion on waiting times (see subsection 3.2.6 on organizational barriers). Disaggregation by place of residence shows no significant differences among respondents in rural compared to urban areas. With regard to regional differences, lack of appointments was more frequently reported by respondents in the East region (69.4%) and Pelagonia (68.7%).

Comparing age groups, 63.3% of all respondents aged over 55 years indicated that they had serious problems accessing health care due to lack of appointments for specialists, compared to 42.8% of the respondents aged 18–34 years. Those with chronic health conditions were also more likely to indicate they had serious problems accessing health care due to lack of appointments available for specialists, compared to respondents with no chronic condition (71.2% compared to 50.1%, respectively). The differences are most likely due to the more frequent need for specialist care and the greater experience within the health system that respondents with health conditions are likely to have in this regard.

In addition, respondents with lower socioeconomic status were more likely to report having problems with lack of appointments compared to people with higher socioeconomic status (68.5% compared to 46.2%, respectively).

Complementing the quantitative insights provided by the CATI survey, the KIIs and focus group discussions provided synergizing information. The lack of appointments available for specialists on the health information system Moj Termin was an issue consistently raised in all focus group discussions and KIIs (including both subnational and national KIIs). Not having enough specialists and their centralization in the capital city was cited as one of the reasons. In addition, some participants highlighted that, after the unsuccessful attempts to control the notification of available appointments by the specialists, there was currently no mechanism to control and regulate this process.

The health care centres don’t notify available appointments. The Ministry of Health has health controllers who have to check this activity and impose penalties. But this doesn’t function. I don’t know the reason; it’s strange and we can only guess the reason. Whether it’s about pushing people towards private health care or whether it is something else … [National KII]

Focus group discussion participants also reported anxious feelings of uncertainty while waiting for appointments at the doctor’s office, given the amount of time that had eclipsed between the original scheduling of the appointment and the current date, as well as frustration at having to get the prescription for the referral renewed due to too much time passing.

That can also happen – the doctor can sometimes be absent on the day of the appointment, which was scheduled two months ago. The referral is no longer valid, so you have to wait for an additional two months. And of course you are not informed by anyone. [Female, Vinica, East region]
The findings from the focus groups show that, due to perceptions of quality, many patients preferred a certain specialist in the field of expertise, who often tended to be located in Skopje. This adds to the complexities in scheduling an appointment.

Since we don't trust the specialists here, we sometimes ask to be sent to Skopje. [Male, village of Prsovce, Polog]

Everyone wants to be examined by [name of specialist]; they don't want to be examined by other doctors because people know they will receive the right treatment. And you have to wait one year to get an appointment. [Male, Trizla, Pelagonia]

Lack of appointments emerged as the most significant barrier to accessing health care services for the citizens of North Macedonia and the most common reason for terminating the treatment prematurely. As mentioned earlier, study participants reported that the impossibility of getting timely services from public secondary or tertiary health care providers leads to the outflow of patients to private health care (for those who can afford it), along with seeking connections or bribing doctors, reaching for alternative treatment methods or terminating treatment entirely.

A patient either goes to a private clinic or waits to die – there is no other choice. Only these two things. [Male, village of Furka, Southeast region]

I usually go for MRI in [name of provider] in Skopje. If I don't manage to get an appointment, I pull some strings. If I don't manage to pull some strings, I pay MKD 12 000 for MRI in a private health care facility. [Male, Krushevo, Pelagonia]

My father had a heart attack and the specialist here made an urgent appointment in Ohrid for coronarography for the end of March, and it was October. We collected money from relatives so that we could go to a private clinic so that he could undergo coronarography sooner. It turned out he needed three stents. He had the surgery in a private clinic and we paid for it. Thank God he didn't wait for it until March and we did everything much earlier. [Female, Krushevo, Pelagonia]

3.4.4. Provider compliance

Moj Termin – which provides a large collection of data from PHC doctors, health centres, hospitals, institutes, clinics and pharmacies – was cited as an important step towards (as well as a source that could be further exploited for) providing feedback to providers and quality improvement (Winkelmann et al., 2021; Atanasova and Tawilah, 2021). That said, evidence of lack of provider compliance also emerged. A 2019 WHO review of perinatal deaths found that providers of antenatal care lacked information on screening for several important maternal conditions and there were shortcomings in intrapartum and neonatal care (WHO Regional Office for Europe, 2021c). Reports by the ESE described bottlenecks in the provision of cervical and breast cancer screening (ESE, 2020; Pavlovski and Antikj, 2022a; 2022b). At PHC level, the heavy administrative burden also impacted negatively on the deployment of existing capacities, combined with weak quality frameworks and lack of feedback and benchmarking information (WHO Regional Office for Europe for the end of March, 2019).

According to the focus group discussions and KIIs, a lack of controls or clarity on dual practice arrangements further complicated the situation with the referral system and raised important questions on provider compliance with existing treatment protocols in the public sector. According to participants, in order to receive a service of a good quality, patients were sometimes forced to pay money for health services (in a private practice or a clinic) to the doctors who, alongside their job in the public health centres, simultaneously had their own private practice. This can be a driver of financial hardship.

There used to be equipment, for stress testing, cardio equipment ... I don't know how long they were in service and then they broke down. Whether it was on purpose or by accident – I don't know. Rumour has it our doctors deliberately say the equipment doesn’t function. When the patients go to visit a cardiologist, the doctor tells them to come to their private practice, that they have a better equipment there. [Subnational KII]

He checks the patients in the hospital, he prescribes them to wear glasses and sends them to his shop to buy them. If you buy the glasses from another place, i.e., the doctor doesn't have a record you bought them from his shop, you won’t receive the service next time you go for a check-up. This happened to me, that's why I am telling this. [Male, Trizla, Pelagonia]
6–7 years ago a roof tile fell on my leg and I immediately went to a hospital. The doctor checked my leg and told me it wasn’t enough, he told me I had to go to his private practice. [Male, Krushevo, Pelagonia]

3.4.5. Patient treatment adherence

Patient adherence is influenced by both supply- and demand-side factors. Supply-side issues such as poor patient–provider communication and unclear treatment instructions compound factors such as financial barriers to medicines or health products, making it more likely that a treatment regime will be discontinued. Focus group discussion participants reported examples of poor patient–specialist relationships that affected patient adherence.

The health care staff are terribly rude. They insult patients, they are nervous, they complain their salaries are low ... They tell us: “sit here and wait, that’s not a hard thing to do” ... Someone will complain he is ill – they tell them: “you’re not ill”. [Female, Vinica, East region]

The focus group discussions and KIIs revealed that lack of clarity (for both patient and doctor) on patient pathways impacted provider compliance and patient treatment adherence. A patient may resist going to a specialist due to the aforementioned transport, financial and organizational barriers, but there was also an expectation for some to solve the health problem at the level of PHC, that is, when they visit their doctor covered by the HIF.

He wants to be cured by the doctor covered by the HIF and [for them] to finish their obligation; he doesn’t want to go to hospital. [Male, village of Krivogashtani, East region]

Demand-side factors also exist, which impede treatment adherence. In some cases, there was an interruption in the treatment if the patient felt an improvement in their health condition, although the treatment was not completely finished.

“It will go away” is an important factor. Also, trust in institutions. This is followed by the financial situation. So, people often act like this, if the pain decreases, they interrupt the process and they think it’s over, they think they have recovered, although they haven’t recovered completely. [Male, Trizla, Pelagonia]

The desk review revealed other important demand-side factors that influence treatment adherence. People in vulnerable situations, due to factors such as advanced age, disability and/or poverty and social exclusion, among other factors, may need integrated social and health care support to be able to fully adhere to treatment requirements. A 2021 report by WHO on older people and access to health care highlighted the relevance of cross-sectoral and multidisciplinary collaboration for integrated services for older people (WHO Regional Office for Europe, 2021b). The need for improved integrated social services has also been highlighted by UNDP in the context of ensuring sustainable development (UNDP North Macedonia, 2020). In addition, UNICEF has highlighted the potential strengthened role of patronage nurses in providing integrated care, linking with gerontological centres and centres for social work, among other interdisciplinary entities spanning different sectors (UNICEF, 2022).
4. Emerging ways forward

Following the collection and analysis of data from all the selected sources, the next step in the barriers assessment process was to convene a national stakeholders’ meeting on 13–15 March 2023 in Strumica. Its purpose was to review the results and further deliberate on actions to address the barriers. Annex 1 in Section 7 contains a detailed report of considerations emerging from the workshop, and what follows in the subsections below is a high-level synthesis of some of the emerging ways forward, alongside additional reflections linked to the overall study outputs.

It should be noted that it was beyond the scope of this research project to conduct detailed analysis of each of the potential solutions (e.g., their operational requirements and current contextual constraints, costings, potential unintended negative consequences, and detailed implementation plan). It can also be noted that the emerging ways forward require further deliberation and are not exhaustive; they touch on key systems-strengthening issues required to build the foundations for greater equity-oriented progress towards UHC.

4.1. Emerging way forward 1: cross-system governance and alignment for leaving no one behind

A national longer term strategic framework exists in North Macedonia for the health sector, and many of its core foci – if operationalized with due attention to health equity – would serve to address barriers identified by this study. That said, the workshop in Strumica emphasized the need for shorter term biennial action plans to accompany the National Health Strategy 2021–2030. These would be developed by the Ministry of Health, incorporating in-depth consultation with the relevant stakeholder groups and giving due attention to vertical coordination across levels in the health sector (national, regional, local) and horizontal coordination between sub-sectors (e.g., Ministry of Health, E-health Directorate, HIF, School of Medicine, IPH, among others). These plans should also be intersectoral; that is, incorporating whole-of-government approaches to tackling NCDs, and should account for appropriate engagement with the private sector. This includes ensuring sensitivity to avoiding conflicts of interest and optimizing the private–public interface in a way that puts patients – including those who cannot afford OOP payments – at the centre.

Such biennial planning would also increase operational coherence between sector-wide strategic orientations and sub-sector strategies or plans (e.g., for medical education and digital health), as well as necessary adjustments in legislation and regulation, under the umbrella of a common monitoring and evaluation framework. A critical investment for tackling health inequities – across spatial areas (e.g. regions, rural/urban settings), but also across social groups – would be ensuring that health information systems can be strengthened for better monitoring of inequalities in health status, exposure to risk factors, and service coverage. In turn biennial action plans should include targets and indicators to reduce these inequalities.

**In the short term**

Key functions within the Ministry of Health should continue to be reinforced in terms of strategic oversight and planning; the health sector working group should be reconvened as a platform for coordination; and work should be commenced towards a biennial plan to operationalize – in an equity-oriented way – the National Health Strategy 2021–2030.

**In the long term**

Robust, coherent biennial health sector plans should be created, enabling well-coordinated actions (vertically and horizontally) for improving the health of all people in North Macedonia, backed by an equity-oriented monitoring and evaluation framework and up-to-date legal and regulatory environment aligned with the biennial health sector plans.
4.3. Emerging way forward 3: ensuring financial protection

As North Macedonia delivers on its commitments towards UHC in the National Health Strategy 2021–2030, further reducing the extent of OOP payments paid by the population – in particular by poorer sub-populations – remains a critical challenge. Described in the WHO Regional Office for Europe report on affordability of health care (Dimkovski and Mosca, 2021), key advancements have been made in the country since the early 2000s, with the incidence of catastrophic OOP payments falling, including among the poorest population quintiles, and the incidence of impoverishing health spending has almost halved.

That said, building on the introduction in 2009 of government contributions on behalf of people with low incomes, further measures can be taken. These include: de-linking entitlement from payment of contributions; exempting more low-income people from co-payments for medicines; improving the affordability of outpatient prescribed medicines; introducing an annual cap on co-payments for outpatient medicines; as well as monitoring and taking action on informal payments.
The cost of medicines and health products is a serious problem for socioeconomically disadvantaged people in North Macedonia; the CATI survey carried out through this study found that more than eight out of 10 respondents who felt they barely make ends meet and used medications for their health condition reported having serious problems accessing health care due to the cost of medicines. Addressing the cost of medicines is one of the most strategic entry points for lower OOP payments and greater health equity in North Macedonia. A key step towards this is updating the positive list of medicines, as well as ensuring appropriate reference pricing.

To fund measures to improve financial protection, there is an overarching need to increase public spending on health, while also looking for ways to continuously improve the use of existing funds and expand funding sources. At the Strumica workshop, participants described the potential to explore greater taxation of tobacco, alcohol and sugary processed foods, as a means of increasing funding available for the health sector. Likewise, continued efforts are required to enhance health sector governance to prevent corruption, curb informal payments and ensure optimization of public resources (including through appropriate regulation of dual practice).

**In the short term**

An expert group should be convened to oversee the updating of the positive list of medicines, paying due attention to avoiding conflicts of interest. The expert group should also oversee a feasibility study – including a detailed costing – for the updating of the list.

**In the long term**

An updated positive list of medicines should be maintained, with a technical process legislated to ensure it is updated biennially (irrespective of changes in government), and financial protection arrangements should be implemented, including introducing an annual cap on payment of medicines and/or exempting more low-income people from co-payments on medicine.

4.4. Emerging way forward 4: enabling a sufficiently numbered, equitably distributed, high-performing health workforce

The WHO Global strategy on human resources for health (WHO, 2016) underlines the importance of optimizing health worker motivation, satisfaction, retention, equitable distribution and performance, amongst other objectives, in order to provide people-centred, high-quality health services. Progress has been made in these areas in North Macedonia. For example, physicians working in rural areas receive additional remuneration, and the Ministry of Health is increasing investments in enhancing working conditions, through improved infrastructure and equipment (Buchan et al., 2013).

Moving forward, and as evidenced by this study and voiced by participants at the Strumica workshop, there is a need to:

- further redress inequitable geographic distribution of the health workforce;
- adjust medical training programmes to ensure production of sufficient numbers of the cadre of health professional required at PHC level;
- incentivize health professionals to stay working in the country and to stay in the public sector;
- introduce greater controls and regulation on the number of specialists, their geographical distribution, appointment scheduling, and dual practice modalities; and
- consider if the mix of cadre, support mechanisms and task distribution currently dominating at PHC level is sufficient for meeting demands linked to the burden of disease, health promotion and prevention activities, and an ageing population.

Particular attention is also required to tackle discrimination in the health sector, in light of the rates of perceived discrimination reported by certain profiles of respondents through the CATI survey. These activities would be part of a wider human resources for health strategy for North Macedonia, led by a designated unit within the Ministry of Health, linked to appropriate intra-sector and intersectoral coordination bodies, and informed by high-quality health workforce data and an optimally functioning health workforce information system.
In the short term

A designated Ministry of Health unit should be allocated to deal with oversight of human resources for health, with terms of reference for appropriate intra-sector and intersectoral coordination bodies drafted. A timeline should be set for developing a national human resources for health strategy, and a national policy dialogue convened – with exchanges of experiences with other south-eastern European and EU countries – and due attention paid to health workforce development, attraction, recruitment and retention in rural and remote areas.

In the long term

A human resources for health strategy for North Macedonia for 2023–2030 should be created, with biennial activity plans, backed by a strengthened (digitalized) register of health workers.

4.5. Emerging way forward 5: improving health and health equity through the National Development Strategy

In the development and implementation of the forthcoming National Development Strategy, there are opportunities for ensuring policy coherence for health and well-being, as well as for tackling inequalities across sectoral domains.

First, the creation of the National Development Strategy should be underpinned by a health-in-all-policies approach. In light of North Macedonia’s heavy NCD burden, this will include taking a whole-of-society and whole-of-government approach to NCDs, including in ways that address the upstream causes of differentials in exposure to risk factors and vulnerability to ill-health. Applying a health-in-all-policies approach will also mean bringing coherence across policy domains linked to key barriers to health services identified in this study. For instance, enhancing access to public transport helps bring people – particularly the poor – closer to health services; improving broadband coverage and legislation on data could help enhance access to telemedicine, for people living in rural and remote areas; and ensuring alignment and enforcement of anti-corruption measures in the health sector (including those in the forthcoming national strategy for prevention of corruption and conflict of interest) would result in fewer people having to pay bribes and less leakage of health sector resources.

Second, the forthcoming National Development Strategy is an opportunity to strengthen existing – and establish new – forms of participatory governance, in which inhabitants of North Macedonia can have a say in the policies influencing their lives. These platforms at national, regional and local levels can play key roles in bringing to light, monitoring and eliminating barriers to health services.

Third, the National Development Strategy is an opportunity to reinforce North Macedonia’s policy focus on social inclusion and healing social fractures, whether defined socially or spatially (or both). Important entry points would be reinforcing the country’s capacity to deliver a basic social protection floor to address health determinants, as well as introducing mechanisms – such as rural-proofing – to create more balanced development (where services and investments are more equitably distributed across the country).

In the short term

A national scoping report and workshop should be produced on what a whole-of-society/whole-of-government approach to NCDs could entail operationally in North Macedonia, along with a policy paper on options to institutionalize community engagement/social participation in health sector policy cycles.

In the long term

A dedicated objective should be incorporated into the National Development Strategy on a whole-of-government approach to NCDs, as well as a monitoring/accountability mechanism established for the biennial health sector plans and National Health Strategy 2021–2030 and the health component of the National Development Strategy.
5. References^1


^1All references were accessed 26 March 2024.


6. List of relevant legislation


Annex 1

Report from the stakeholder meeting “Towards health equity, cohesion and resilience in ‘inner’ North Macedonia”

13–15 March 2023, Strumica, North Macedonia

As part of the barriers assessment process described in the main body of this report, a meeting of stakeholders was convened on 13–15 March 2023 in Strumica. It was jointly organized by the Ministry of Health of the Republic of North Macedonia, WHO and the European Union (EU) Delegation in North Macedonia. The overarching aim of the meeting was to share the emerging findings from the assessment of barriers to health services in small urban settlements and rural and remote areas of North Macedonia, identifying means by which they could be overcome. The specific meeting objectives were to:

• share the findings of the assessment of barriers to health services in rural and remote areas and small urban settlements of North Macedonia;

• highlight potential entry points for overcoming those barriers through the primary health care (PHC) reform, the forthcoming Human Resources for Health Strategy, and advancements in health financing;

• explore how increased engagement of – and planning coherence with – regional and local authorities, other sectors and local health councils can contribute to overcoming barriers to health services in the country’s rural and remote areas and small urban settlements;

• explore ways in which the new National Development Strategy and the EU accession process offer opportunities for balanced territorial development planning, cohesion and resilience for health and well-being in North Macedonia’s small urban settlements and rural and remote areas.

Participants to the meeting included representatives from the co-organizers (Ministry of Health, EU Delegation, WHO) as well as Ministry of Labour and Social Policy, the Health Insurance Fund of the Republic of North Macedonia (HIF), the E-Health Directorate, the Institute of Public Health (IPH), the Strumica Health Centre, the Strumica General Hospital, the School of Medicine, the Family Medicine Centre, medical associations (Association of Private Doctors, Association of Family Medicine Doctors, Association of Midwives and Nurses), the nongovernmental organization (NGO) Association for Health Education and Research (HERA), the United Nations Population Fund (UNFPA), the United Nations Development Programme (UNDP), and the United Nations Resident Coordinator Office (UNRCO).

The subsections that follow give an overview of the main emerging entry points for addressing barriers to health services that were discussed by participants at the meeting, both in plenary sessions and in breakout groups. The entry points are organized according to the barrier domains of the Tanahashi framework for effective coverage (Tanahashi, 1978), and also reflect the structure of the main body of this report.

It should be noted that the contents of this report do not necessarily represent the guidance or the stated policy of WHO, but rather an interpretation of the collective views of the stakeholder workshop participants, drawing on presentations, notes from speeches and interventions, and breakout group feedback from participants.

Availability

The stakeholder workshop in Strumica resulted in ideas for improving various aspects of the availability of health services. The subsections that follow report on workshop deliberations and emerging suggestions in accordance with the main findings from the barriers assessment focusing specifically on availability. Underpinning the discussion on availability was the general perception that the system as a whole needed to reinforce primary care as the gateway to the health system, including expanding the scope of services available in local communities. Likewise, participants consistently noted that the system should aim to ensure availability of health services across the whole continuum of care (with a renewed emphasis on promotion and prevention, but also ensuring attention to neglected areas, such as palliative services). Enhanced governance for availability, whether through relevant state strategies, legislation, or HIF rules, was noted. Likewise, participants called for ensuring that availability-related decision-making was based on evidence and a thorough understanding of the geographies of need; they suggested implementing robust health maps, on which resource allocation would be based.
Number and distribution of health workforce

Across data sources, the barriers assessment revealed that, despite some progress, prescribed PHC standards for the health workforce were not being fully met across the country. Stakeholders attending the workshop in Strumica generally validated this finding, noting that Skopje had a disproportionate share of the health workforce, along with a situation whereby GPs were nearing retirement and, in certain cases (particularly rural areas), were not being replaced. In addition, gynaecologists and paediatricians were not available equitably. Lack of dedicated administrative staff to take the paperwork burden away from nurses at PHC level was also cited, as were staff shortages in key functions, such as laboratory technicians and even ambulance drivers. Participants also noted geographical inequities in the availability of specialists such as anaesthesiologists and radiologists.

A critical topic explored at the workshop was a disincentive for health workers to be stationed in less populated areas. The existing method by which GPs were paid for services via the HIF did not favour establishing a practice in areas with fewer inhabitants. As such, some participants suggested revising the HIF payments to better account for rurality (and also the gradient within the notion of rural; e.g., rural areas close to urban centres versus very remote areas with extensive distances); thus, better incentivizing health worker retention in rural areas. This would also entail an adjustment in the HIF rules for small settlements to have a GPs office/rural doctor available.

For attracting younger doctors into the workforce in general, to fill the gaps left by those retiring and in places where there was now no doctor at all – but there should be – workshop participants described the need to provide more support to new GPs in their start-up period. Otherwise, they reported that this phase can be quite costly, with offices having to pay salaries on their own while they build up their practice and get patients registered. Likewise, participants suggested that the Ministry of Finance could be engaged to help expedite and also ensure fair and equitable hiring practices for GPs, so that young GPs could be recruited more quickly and placed across the country. According to workshop participants, enhancing the focus in medical education on the role of GPs/family doctors and general practice, as well as enabling internships at PHC level, could also encourage the entry of new young professionals into the primary care workforce. Similarly, pathways for the attraction of young nurses to the workforce were also cited as being needed.

For the development, attraction, recruitment and retention of health workers in rural and remote areas, the recently updated WHO guidelines (WHO, 2021) on this were shared with workshop participants (see Box 7.1). During the session on health workforce, discussions took place around how to expand the competencies of GPs, enabling them to treat a wider range of conditions. This was raised repeatedly throughout the workshop, and was seen as critical for bringing access to services as close to the patient as possible and empowering health providers. In parallel, it is important to account for shortages of specialists. There was discussion on improving working conditions (by ensuring availability of vital well-maintained equipment, facilities and health products) and enhancing non-financial incentives for rural health workers, such as by providing housing and child education grants and by helping to find jobs for spouses. There was also discussion on ongoing career development opportunities, and emerging from this was the suggestion that the pathway for specialization in family medicine needed to acquire greater relevance professionally, so that there was some benefit financially or in terms of increased capacity to provide certain services.

Box A1.1. General WHO recommendations for health workforce development, attraction, recruitment and retention in rural and remote areas

The WHO global guidelines are divided into four core areas (education, regulation, incentives, and personal and professional support) and the specific recommendations under each of them are listed below. Some may apply to North Macedonia more than others.

**Education**

1. Use targeted admission policies to enrol students with a rural background in health worker education programmes.
2. Locate health worker education facilities closer to rural areas.
3. Expose students of a wide array of health worker disciplines to rural and remote communities and rural clinical practices.
4. Include rural health topics in health worker education.
5. Design and enable access to continuing education and professional development programmes that meet the needs of rural health workers to support their retention in rural areas.
6. Introduce and regulate enhanced scopes of practice for health workers in rural and remote areas.
7. Introduce different types of health workers for rural practice to meet the needs of communities based on people-centred service delivery models.
8. When compulsory service in rural and remote areas exists, WHO suggests that it must respect the rights of health workers and be accompanied with fair, transparent and equitable management, support and incentives.
9. Provide scholarships, bursaries or other education subsidies to health workers with agreements for return of service.

**Incentives**

10. Provide a package of fiscally sustainable financial and non-financial incentives for health workers practising in rural and remote areas.

**Personal and professional support**

11. Invest in rural infrastructure and services to ensure decent living conditions for health workers and their families.
12. Ensure a safe and secure working environment for health workers in rural and remote areas.
13. Provide decent work that respects the fundamental rights of health workers.
14. Identify and implement appropriate health workforce support networks for health workers in rural and remote areas.
15. Have in place a policy for career development and advancement programmes, and career pathways for health workers in rural and remote areas.
16. Support the development of networks, associations and journals for health workers in rural and remote areas.
17. Adopt social recognition measures at all levels for health workers in rural and remote areas.

*Source: Exact global recommendations extracted from WHO (2021).*

Considerable deliberation by workshop participants took place on the role of patronage nurses. Some participants highlighted the overarching number of this cadre of health worker as insufficient to meet demand. That said, others felt that their roles could be diversified to do more community outreach, particularly with patients with noncommunicable diseases (NCDs) and related health promotion and prevention activities, beyond their current tasks. For this, more attention to rectifying issues related to their resourcing was required. For instance, suggestions were made that the patronage nurses would require higher salaries, mobile phones, reliable and constant transportation methods, and equipment for certain tasks, such as administering insulin and hypertension testing, and so on.

Enhancing the patronage nurses’ role would also require an evolution in some of their linkages with other providers; for example, the information from the hypertension tests that these nurses carry out would need to be shared with other providers through an information platform equipped with a follow-up alert system and other mechanisms to identify when interventions were required. To facilitate outreach to remote and dispersed inhabitants, it was suggested that the requirements for checking into a health centre at the end of the day could be adjusted, so a nurse could also travel to see a patient and then proceed to going home, without extra travel (as the need to check-in at the end of the day, while serving as an accountability mechanism, also created a disincentive for going to distant locations).

Special measures need to be put in place to prevent overload amongst patronage nurses. Among the ideas that were suggested for this were to explore the possibility of having community health workers who support the nurses, constituting a new cadre nationally, as well as potentially linking more with social workers that come from other sectoral domains (enabling more integrated health and social care, which could be particularly relevant for ageing populations, people with disabilities, and additional populations experiencing social exclusion, such as children without legal identities).
Availability of medicines

Workshop participants validated the key finding from the barriers assessment that there is an insufficient number of medicines available that are covered through the HIF, due to factors including the lack of an updated positive list of medicines. Participants suggested that the positive list could be updated and revised on an annual basis, against clear criteria and using more simplified procedures. At the time of writing, the Government working group or mechanism that would drive these updates and any changes to the relevant law(s) is in the process of being defined.

Additional discussions on the availability of medicines amongst participants covered the paucity of pharmacies in some rural areas, and the problem that some medicines – such as chemotherapy – are only available in Skopje. Challenges in the tendering processes were also cited, in particular for cancer drugs and medications for rare diseases.

Equipment and infrastructure

Workshop participants concurred with the finding from the barriers assessment that there was insufficient availability of certain diagnostic equipment, and cited that – at times – when such equipment was available, there may not be enough health personnel skilled in using it (e.g., radiologists) to enable the equipment to be optimally used. The concentration in Skopje of certain diagnostic equipment and specialists for using it was also cited. The importance of strong, timely coordination with entities in Skopje providing such diagnostic capacity was emphasized, if the concentration of equipment there persists. Some participants stated that the coordination could be improved, and/or regional hubs empowered to provide better diagnostic capacity for their areas. These hubs would need to have both the necessary equipment and the workforce required for its proper use.

Lack of capacity to adequately maintain the equipment in place – a finding from the barriers assessment – was echoed in the workshop discussions. Participants suggested doing an inventory of all diagnostic equipment in place, to understand if it was enough, if it was being optimally used and properly maintained, and if there were enough people in place with the skills to use it. The findings from this inventory could guide future procurement and health personnel training, and improve the equitable availability of diagnostic equipment and services.

Participants also raised the issue of health facilities and infrastructure, and that in some cases it could be enhanced in order to better serve the population and improve the working conditions of the health workforce. This was particularly the case for rural health facilities or those in small urban settlements. Diverse participants suggested collaboration with local authorities as a method for improving health infrastructure. Also, to enable enhanced uptake of telemedicine, participants suggested collaboration across sectoral authorities for the use of public spaces (e.g., schools, libraries), with someone available to help patients log in and navigate the system.

Laboratory capacity

Workshop participants verified the barriers assessment findings related to the enabling/facilitating effect that occurs when GPs have access to basic laboratory capacities available, preventing the patients from having to go elsewhere for tests, and expediting diagnosis. This capacity could be within their offices (e.g., having an automated haematology analyser and knowing how to use it), or through contracting with local laboratories. Workshop participants from rural areas emphasized how important it was that there were local laboratories in nearby urban settlements, and that these should be appropriately accredited, equipped with the needed reagents and linked to local health centres. From the national policy perspective, the need for legislation to enable telemedicine diagnostics was raised.

Availability of emergency medical services

During the workshop, multiple suggestions emerged relating to the how to reinforce the emergency medical network. These included greater valorization of emergency medical services; having incentives for doctors to apply to be part of emergency medical teams (EMTs) and enabling career progression for them; using paramedics in ambulance services, as this would enhance capacity; ensuring proper funding, recruitment and training for ambulance drivers; and working with local authorities and businesses to purchase ambulances and ensure their adequate maintenance.
**Accessibility**

At the Strumica workshop, dynamic discussions took place on how to enhance the geographic, financial, organizational and informational accessibility of health services. The solutions proposed spanned the levers of PHC-oriented health system strengthening. While the details of the potential solutions are described in the subsequent sections, a key cross-cutting and underlying topic was linked to health financing, in particular the ways in which strategic purchasing can be used to enhance access. Discussion took place on modification of the payment methods, aiming to: introduce a better system for payment of service providers; overcome disincentives that were perceived by participants as hindering access; and enable better monitoring of service provision.

**Geographical accessibility**

Workshop participants concurred with the assessment finding that distance and travel time to access services was particularly a barrier for rural inhabitants and people in vulnerable situations, including older people, people without easy access to transport options (including public transport or car), people experiencing poverty, people with disabilities, and those with less education. As a means of redressing this, they highlighted both ways in which services could be brought closer to patients and ways in which patients could be brought to services.

For bringing services closer to patients, suggestions included:

- expanding GPs’ competencies (including in relation to the diagnosis and management of NCDs)
- and ensuring a strong PC network across the country, as well as optimal use of patronage nurses
- (see earlier subsection on Number and distribution of health workforce);
- introducing mobile teams to visit rural and remote areas and – for certain patients in particularly vulnerable situations – carry out home visits, as well as introducing mobile pharmacies;
- strengthening linkages between health and social workers for the creation of multisectoral teams
- to ensure patient-centred care at local levels, with strong local government involvement; and
- creating an enabling environment for the optimal use of telemedicine.

Workshop participants discussed many of the above options with a particular view towards an ageing population and a context in which much of the social cohesion and family networks that had once been an informal safety net, facilitating access, were impacted by migration. The above solutions were explored with attention to areas requiring enhanced system governance and connectivity; for example, the current existence of mobile rural doctors was noted, yet, to optimize their function, they would need enhanced connectivity with patients’ GPs. Likewise, workshop participants suggested that mobile teams would ideally be able to issue referrals in combination with telemedicine. They suggested that the necessary changes be made to empower patronage nurses to issue prescriptions for medications related to their functions.

As part of a comprehensive plan for scaling up the use of telemedicine, workshop participants underlined the need for a national strategy or plan on this. Such a plan would orient the future protocols to be created, define legislation to be put in place on data protection, and ensure linkages to electronic records and appointment scheduling platforms, such as Moj Termin. At the workshop, the Regional digital health action plan for the WHO European Region 2023–2030 (WHO Regional Committee for Europe, 2022) was presented and its orientations shared with participants. Box 7.2 describes some of the ways in which digital health can be advanced while ensuring equitable benefits for all.

**Box A1.2. Telemedicine expansion that ensures no one is left behind**

Telemedicine is being used to deliver health care across a wide range of specialties, for numerous conditions and through varied means. Apart from commonly used GP-to-GP and patient-to-GP consultations, there is a growing body of evidence that telemedicine can improve health outcomes across a range of areas, including mental health, diabetes, asthma, chronic obstructive pulmonary disease, cardiovascular disease, ophthalmology, pathology and dermatology.

Key tenets of scaling up digital health equitably include those listed here.

- **Addressing the digital divide**
  One of the main challenges in implementing telemedicine services is ensuring that patients have...
access to the necessary technology and infrastructure. Addressing the digital divide by providing patients with access to devices and internet connectivity can help to ensure that telemedicine services are accessible to all patients.

- **Ensuring digital literacy**
  Patients with low digital literacy may face barriers when accessing telemedicine services. Providing support — such as training and educational resources — can help to ensure that all patients can effectively use telemedicine services.

- **Enabling cultural sensitivity**
  Providing culturally competent and linguistically appropriate care is essential in reducing inequity in health care. Health care providers must be trained to understand and respect cultural differences and to provide care that is responsive to patients' cultural and linguistic needs.

- **Accessibility and usability**
  Issues related to cost, ease of scheduling, follow-up modalities, and integration with a continuum of care that matches patients' needs and preferences must be considered.

- **Multi-stakeholder engagement**
  Multiple sectors have a role in facilitating the provision of digital health, and collaboration by the health sector is required across infrastructure (for broadband and mobile solutions), local governments, social service providers, education and other sectors, as well as NGOs and civil society in order to reach more excluded sub-populations.

- **Governance**
  It is important that legislation covers use, patient provider protection and privacy, as well as ensuring proper reimbursement mechanisms/payment parity, standards/interoperability, and monitoring and evaluation, as well as linkages to health information systems and patient records systems.

**Source:** based on the virtual presentation of Ryan Dos Santos, Digital Health, WHO Regional Office for Europe, at the Strumica workshop, 13–15 March 2023.

For bringing patients closer to services, workshop participants made proposals for improving affordable public transport, particularly in spatially or socioeconomically disadvantaged areas where car ownership may be less prevalent. They also highlighted examples of services, whether run by local authorities or the third sector, where patients were transported to their appointments and other essential activities for their health and well-being (e.g., going to a pharmacy, going grocery shopping, or accessing social activities/interaction). Particular consideration was made for the situation of people with disabilities, and that physical access must also be better built into the planning of all health infrastructure. In addition, for people living in very remote areas, the need was emphasized to improve roads and their maintenance across seasonal conditions.

**Financial accessibility**

While workshop participants acknowledged that many essential public health services were free of charge at point of use, financial accessibility could still be an issue for certain services, including diagnostic tests, dentistry and gynaecological services. According to the HIF, dentistry and gynaecological services are free of charge, yet workshop participants reported that some providers charge patients without issuing a receipt and the HIF cannot prove that patients' rights have been violated. Potential solutions suggested by participants included: introducing reference pricing for gynaecological and dentistry services; increasing awareness among patients of their rights and entitlements; revisiting legislation to consider if a patient contribution should be required at all for certain services (following a cost–benefit analysis); and expanding the services that could be provided by a family doctor (e.g., Pap smear testing) at no cost to the patient.

In addition, workshop participants concurred that limitations in the timely access to public services also re-oriented patients to private providers where they would pay out of pocket (whereas if the service had been more readily available in the public system, they would not have had to pay out of pocket). According to participants, this could be a cause of financial hardship, contributing to people selling assets and suffering catastrophic and impoverishing
health expenditures, or even forgoing care or abandoning treatment plans entirely (e.g., if the public services were perceived as unavailable and the private services were seen as financially prohibitive). Discussions took place at the workshop on modalities for ensuring that public services were available at the scale required, and that patients in situations of particular vulnerability (e.g., due to a time-sensitive diagnosis) were not to be pushed into situations of financial hardship. The idea of putting a cap on the total amount that private providers could charge for certain services also arose, requiring further reflection in the area of regulation.

Touching on findings of the assessment, workshop participants also made suggestions to adequately regulate dual practice modalities, so that a provider in a public service is obligated to ensure that there is 100% optimal use of the public facilities, before they suggest to a patient that they see them separately at a private (paying) practice. Related discussions regarding transparency and accountability, linked to requests for providers for informal payments, also emerged at the workshop. The need to strengthen complaint mechanisms, ensure that patients are aware of their rights and obligations (e.g., which services do/do not require payment), reinforce appropriate managerial and supervision structures, and ensure adequate salaries for public sector employees were among the various responses to this problem that workshop participants deliberated.

Potentially one of the most considerable threats to financial accessibility – reiterated across the workshop and reflecting findings from the barriers assessment and previous WHO studies – was the cost of some medicines. Especially for people with chronic conditions or other needs (e.g., contraception) who may also be less affluent, these costs are a major factor impeding financial accessibility to sustained quality treatment and contributing to financial hardship. Workshop participants and speakers made suggestions including the following: expand the number of medicines on the positive list of medicines (as per the earlier subsection on Availability of medicines); introduce annual caps on payments for medicines, for everyone; and introduce exemptions on payments for medicines for people in socioeconomically vulnerable situations and/or with other factors that put them at particular risk of financial hardship. The plausibility of some of these suggestions was discussed, albeit briefly, as was the need to further analyse the feasibility of such measures and to identify any potential unintended consequences. It was also discussed which suggestions would be most appropriate in the country’s longer-term path towards universal health coverage (UHC). Box 7.3 describes in greater detail potential entry points for reducing financial barriers to services and alleviating financial hardship as a result of service use.

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**Box A1.3. Policy options for reducing financial barriers to health services**

Policy options include:

- delinking entitlement from payment of contributions for the whole population, so that access to health care no longer depends on health insurance status;
- simplifying the complex design of user charges and strengthening protection by using low fixed co-payments rather than percentage co-payments, as well as extending both exemptions for low-income people and the annual cap to all co-payments;
- improving the affordability of outpatient prescribed medicines through regular updating of the positive list of medicines, assuring the public of the quality of generic alternatives and enhancing the capacity of the Ministry of Health and the HIF to select and purchase medicines;
- addressing informal payments, starting with better monitoring of their role and magnitude;
- introducing an annual cap for co-payments on outpatient medicines, and
- increasing public investment in the health system through sustained rises in the priority given to health during the process of allocating government spending.

**Source:** based on the presentation of Vladimir Dimkovski at the Strumica workshop, 13–15 March 2023, and drawing from Dimkovski and Mosca (2021).
Organizational and informational accessibility

Workshop participants agreed that waiting times were a general deterrent to service usage in the public sector and, as stated previously, contributed to people opting to use private sector providers. Potential solutions to address waiting times included, once again, enhancing the services that could be provided by GPs, increasing the availability and equitable distribution of certain key cadre of health workers (e.g., gynaecologists), and improving the transparency of decision-making regarding priority of appointments according to need. Discussions took place on social capital, connections and the ability to influence providers to move appointment slots forward, alongside methods by which these informal power dynamics could be countered so as to better ensure equitable access to health services.

Challenges in accessing services due to organizational aspects were raised by workshop participants as relevant for people working in some professions more than others. Those doing manual labour jobs, including farming, or in caretaking roles faced particular challenges. Suggestions were made to instigate (paid) leave for professions such as farmers who may not have it, to bridge caretakers with social workers so that they are able to be absent from caretaking duties to attend medical appointments, and generally for all people to bring services closer to the community, including in workplaces, community centres, schools and other locations that may be easier for people to reach on a day-to-day basis.

In terms of accessibility of information, the importance of multilingual, culturally appropriate information materials and support in navigating the health system was underlined by workshop participants. Materials should account for varying levels of literacy and use other social media to reach groups, as required, while also using community leaders to share messaging. The role of patronage nurses was discussed – alongside (potentially) community health workers or a volunteer cadre – in terms of their potential to enhance accessibility of targeted and culturally relevant information.

Acceptability

At the Strumica workshop, participants made various suggestions linked to improving the acceptability of health services, across the levels of the system. Items deliberated on included tackling discrimination (both real and perceived), addressing gender norms impeding effective coverage, responding to concerns on quality of services, and enabling patients to have a voice and be proactively engaged in decision-making across the continuum of care.

Perceived discrimination by providers

The workshop participants were informed of the findings from the Computer-Assisted Telephone Interviewing (CATI) survey regarding respondents who perceived that they experienced discrimination by a health worker on one or more grounds. As highlighted in Section 3 of the main body of the report, one in two Roma respondents have felt discriminated against based on their ethnicity; one in five farmers felt discriminated against based on their occupation; and just over one in six individuals with lower education felt discriminated against based on their education level. While considering these data and the specific situation of people with disabilities – and in the context of a patient pathway exercise whereby discrimination was one of the barriers that the hypothetical patient experienced – workshop participants had some ideas for tackling discrimination by health providers. They suggested:

- using community health workers – together with civil society organizations (CSOs) and NGOs – recruited from local communities, as is already the case in some locations with Roma populations;
- recruiting and training patronage nurses, GPs, and other health workers from different ethnic groups and religions;
- ensuring that all health workers receive education enabling culturally appropriate care, and have an understanding of different groups’ cultures, religions, traditions and health beliefs;
- engaging community and religious leaders in dialogue on tackling discrimination to help promote health care-seeking and healthy lifestyles, and to overcome stigma, fear and negative perceptions about health providers;
- training health care workers, health administrators and related technicians (including those who design health facilities and equipment) to work with people with disabilities.

Adverse gender norms

Adverse gender norms, roles and relations were described as impeding effective coverage with health services for both men and women, across the life-course. Norms on women's autonomy in decision-making, caretaking roles, exposure to gender-based violence, and ability to travel unaccompanied were all issues discussed by workshop
participants, in line with some of the findings of the barriers assessment. Norms on “toughness” and the denial of early symptoms by men – resulting in later stage presentation of symptoms and/or acute health crises – were also deliberated. Workshop participants discussed the roles of health workers, as well as NGOs and CSOs, community leaders, schools and other relevant sectors, in addressing these gender norms. In working with patients and families, patronage nurses and GPs were noted as having a particularly important role to play, and hence should be provided training on gender norms, roles and relations, as well as how to integrate a focus on these into their work.

Some workshop participants also noted the importance of addressing structural discrimination based on gender, suggesting important economic and labour market empowerment interventions for women, which would benefit both their health and their engagement in society more widely. In addition, they highlighted the need to further prioritize the equitable delivery of high-quality services for women’s health, learning from existing effective piloted interventions in this area (e.g., a pilot on the provision of Pap smears and other women’s health tests administered by GPs) and scaling them up.

Dissatisfaction with services and limited voice

Building on the findings from the barriers assessment, workshop participants discussed opportunities to better address some patients’ dissatisfaction with services and upholding the tenets of quality. According to WHO’s Handbook for national quality policy and strategy (WHO, 2018), quality of care is “the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with evidence-based professional knowledge”. Its seven tenets (or dimensions) comprise: equity, safety, effectiveness, people-centredness, efficiency, timeliness and integration.

Participants in the workshop highlighted the potential for more quality-related indicators to be included in the ongoing monitoring approach for health services. In addition, some suggested an enhanced use of patient exit surveys to monitor satisfaction and perceptions on the extent to which services meet the tenets of care quality. To ensure patient centredness in terms of confidentiality of health conditions, it was suggested that further training be issued on this with health personnel, and that data protection mechanisms be reviewed and strengthened as necessary. As discussed in the subsection 7.1.4 on effective coverage, yet cited here as they relate to quality, participants also emphasized the need to reinforce and monitor the existing standard operating procedures for services at different levels.

During a dedicated breakout group session, workshop participants explored methods by which community engagement and social participation platforms or mechanisms could be enhanced. These suggestions aimed to address assessment findings that some health system users felt they had little voice in decision-making regarding their health, and that their questions and concerns or doubts were not adequately considered by providers. The suggestions also explored ways in which to enhance co-creation of health in communities, in particular health promotion and prevention activities, or in terms of supporting people living with chronic conditions. Box 7.4 features some of the emerging suggestions.

Box A1.4. Breakout group suggestions for enhanced social participation

- Local health councils – operating in collaboration with the regional Centres for Public Health and the Centres for Social Affairs of the Ministry of Labour and Social Policy – could be stewards for local health action, and their operations would be guided by terms of reference, clearly defined modes of work, and a workplan with tasks and deliverables.

- Local community health workers/health mediators, in addition to potentially supporting the patronage nurse function and building bridges between providers and the local community, would have a role in facilitating community engagement opportunities. Organizations like the Red Cross or other NGOs, along with as retired doctors and nurses, could also be active in this regard.

- A national health forum could be convened for social participation approaches, national policies, changes in legislation or other amendments, in order to hear the public’s voice. The first one could be convened in 2023.
Community and religious leaders could be involved in the design of community engagement platforms that match local circumstances and contexts, and enable equitable participation (also for sub-populations that may be particularly socially excluded).

A programme could be developed and related funds dedicated to community engagement and local action initiatives around health promotion and prevention, with dynamic exchanges and experience sharing across the country’s municipalities (in particular outside of Skopje).

Workplaces, schools, fairs and markets could be used for community outreach and engagement on health matters, in particular around healthy lifestyles, nutrition, physical activity, mental health and other topics. Such activities can be enabled through a dynamic partnership between the Ministry of Health, Ministry of Education and Science, Ministry of Agriculture, Forestry and Water Economy, Ministry of Labour and Social Policy, and local government.

Source: presentations from breakout groups reporting back at the Strumica workshop, 13–15 March 2023.

Contact coverage and effective coverage

A potential user’s contact coverage and effective coverage with health services is facilitated when services are available, accessible and acceptable. Participants in the Strumica workshop underlined the importance of overcoming the barriers in those domains as a means to ensure both contact and effective coverage, and in fact many of their suggestions and ideas for the latter (effective coverage) built on previously discussed entry points for overcoming barriers in the former (contact coverage). Additional suggestions related to measures including (but not limited to): sustained monitoring of barriers to health services and health inequalities; greater control and regulation of specialized services to ensure equitable coverage; strengthening social protection and labour policies to address social determinants impeding treatment adherence; using adjustments in human resources for health policy to enhance effective coverage; reinforcing/expanding national efforts for quality control; conducting further research on the public–provider interface from an equity lens; and ensuring a systems-wide approach in reforms. These suggestions are described in greater detail below.

Measuring unmet need and health inequalities

The opposite of contact is foregone care or unmet need. Some participants mentioned the importance of ongoing quantitative monitoring to better understand the extent of unmet need for health services, suggesting that such an approach would support the PHC reform and other health system strengthening efforts towards achieving UHC. Two types of monitoring were discussed: (i) expanded capacity for monitoring of health inequalities; and (ii) enhanced efforts to capture data on barriers to health services on an ongoing/sustained basis. These are briefly described here.

- In terms of sustained monitoring of barriers, currently, aside from the CATI survey deployed as part of the barriers assessment, the European Union Statistics on Income and Living Conditions (EU-SILC) is the body that collects data for North Macedonia. It includes a specific indicator analysing unmet need, defined as instances in which people need health care but do not receive it due to access barriers. The EU-SILC indicator (Eurostat, 2023) measures the share of the population aged 16 years and over reporting unmet need for medical care due to one of the following reasons: "financial reasons", "waiting list", and "too far to travel" (all three categories are cumulated). The EU-SILC data could be further disaggregated, to show differences between sub-populations in North Macedonia. In addition, building on the CATI survey described in this report, additional barriers-related indicators could also be captured (possibly through their integration into ongoing national surveys).

- In terms of expanding capacity for monitoring of health inequalities, this method can be used as a means to see which sub-populations are being left behind with regard to key services. It can also capture data on differentials in exposure to risk factors, vulnerability, health outcomes and financial protection. Data for North Macedonia are available in the WHO Health Inequality Data Repository, drawing from national surveys and using different stratifiers (WHO, 2023a). In addition, there are supporting handbooks that can be drawn from (as described by Hosseinpoor et al. (2023), the Health Equity Assessment Toolkit (HEAT) can be used on additional national survey datasets). Such tools, along with courses on health inequality monitoring (and much more) are available via the OpenWHO online learning platform (WHO, 2023b).
Treatment adherence

With regard to effective coverage, workshop participants deliberated issues such as treatment adherence, provider compliance and diagnostic accuracy. Treatment adherence was deterred by the ability of patients to follow through with referrals or afford medicines and medical devices/assistive technologies, among other factors. Treatment adherence was influenced by a general shortage of certain specialists, impacting the entire population. That said, there is also a social gradient in who is disproportionately impacted by these shortages. Participants in Strumica discussed the social gradient in the CATI survey finding that showed a significant percentage of respondents reporting they had serious problems in accessing health care due to lack of appointments available for specialists (68% of those who felt they barely make ends meet reporting serious problems, alongside 46% of those who indicated that they live very well). Participants suggested that this could be due to higher levels of social capital-related capacity to navigate the system, including “having connections”. The potential to obtain more timely services by paying bribes was also highlighted. As solutions, some participants called for greater controls and regulation by the Government (through the HIF) on the number of specialists, their geographical distribution, their appointment scheduling and examinations conducted.

Additional factors impacting treatment adherence included prioritization by patients of activities that generate livelihood (income) or resource expenditure linked to or meeting basic needs (food, housing, etc). Workshop participants reiterated suggestions from earlier discussions on the financial accessibility of services and medicines. They also underlined the need for labour market adjustments that would enable sick leave, as well as social protection during treatment completion for low-income individuals who may be either self-employed (e.g., farmers) or employed in the informal economy.

Participants suggested that health workforce adjustments could facilitate treatment adherence in three ways.

1. The existence and appropriate time allocation of health workers should be ensured, who can assist in the care pathway to increase treatment adherence – whether auxiliary nurses or community health workers. In the case of auxiliary nurses, participants indicated that to free up more time, they may need to do less administrative work (with those tasks potentially being assigned to secretarial staff, and funds being found to pay the salaries of the latter).

2. By expanding the scope of work that they undertake, GPs could fill some of the service needs that were currently dependent on referrals, making the completion of the patient pathway easier for the patient. Appropriate training, quality control (including protocols) and authorization processes would need to be put in place to enable this.

3. As effective referrals to specialists are hindered by not having enough specialists of the needed types in the public sector (nor equitably distributed across the country), workshop participants suggested that measures were needed to attract and/or retain them in the public sector and to extend their geographical concentration beyond Skopje. The regulation of dual practice could also help ensure that public sector provision of specialist appointments functions optimally.

As an additional point, workshop participants suggested that treatment adherence could be improved through better patient–provider communication (enabled by allocating more time per patient in consultations), along with education on the importance of adherence and follow-up with regular medical checks, and streamlining of administrative requirements for scheduling and patient presentation across the levels of care.

Provider compliance and diagnostic accuracy

Participants in the Strumica workshop debated how to address the issue of misdiagnosis, as the CATI survey had illuminated that one in 10 respondents reported perceiving being misdiagnosed by a health care worker. Within a wider discussion on provider compliance, workshop participants suggested that various factors, including the following list, would create an enhanced environment for ensuring quality of care:

- improved access to the necessary up-to-date diagnostic equipment and laboratory services;
- review, application and enforcement of existing standard operating procedures for both diagnosis and treatment, including any adaptations to those procedures to account for differing service delivery contexts (e.g., based on whether the service is provided in Skopje at a hospital or in a GP office in a rural/remote area with limited access to specialist care);
- to the extent possible, multifunctional teamwork, whereby interdisciplinary expertise is available and shared;
- mechanisms to address conciliatory opinions; and
- expansion of quality indicators as part of the ongoing monitoring of health service delivery.
The WHO Handbook for national quality policy and strategy (WHO, 2018) addresses many of the quality issues discussed at the workshop. It outlines case examples, process suggestions, and supporting tools for developing a national policy and strategy on quality of health care, and can be used by governments and policy-makers (at the national, state and provincial levels) who are considering implementing a comprehensive strategy to improve quality.

In general, the suggestions made by participants regarding the availability of diagnostic services were also salient for ensuring effective coverage. These included ensuring that basic laboratory services could be delivered in GP offices or health centres and/or in coordination with local laboratories, with the latter being appropriately accredited and staffed. The suggestions also included optimizing telemedicine capacity for diagnostics, in particular in locations where patients experienced geographic barriers and/or for patients with mobility challenges.

**Public–private provider interface**

As mentioned, workshop participants described how limitations in availability and timely access to public services also re-orient patients towards private providers, where they are at greater risk of incurring financial hardship. Financial hardship can impede treatment adherence, causing people to interrupt or abandon treatment entirely (or even resulting in partial treatment, for example when a patient takes half of their daily recommended medication, to make it last longer). The idea of having reference prices for services offered by private providers was suggested by workshop participants, whereby private hospitals that currently set their prices without any oversight from the Ministry of Health or the HIF would be more strictly controlled through reference pricing, in order to reduce the contribution of uncontrolled prices to catastrophic and impoverishing health expenditures. More research is required to understand the dynamics of the public–private provider interface, including in terms of the push factors that drive patients away from the public into the private sector, and in relation to providers operating in more than one practice across both sectors (dual practice).

**A system-wide approach, with greater investment in health promotion and prevention**

During the workshop, participants were assembled in breakout groups and carried out exercises using a hypothetical patient pathway. Their task was to identify potential solutions to address both the inequitable exposure to risk factors and vulnerability experienced by the hypothetical patient, while also identifying means to overcome the barriers that the patient faced to effective coverage across the continuum of care.

The responses from participants to this exercise emphasized the importance of a system-wide approach to reducing health inequities and their causes, by which reforms were all done synergistically across human resources for health policy, health financing, the primary care service delivery network, health information systems, essential medicines (e.g., the positive list of medicines) and governance (including by engaging other sectors and local communities). The exercise also highlighted the relevance of the four strategic and 10 operational levers in PHC-oriented health systems strengthening (WHO and UNICEF, 2020).

To enable a system-wide approach, some participants described the need to reconsider the health budget allocation formula, in particular as it relates to disadvantaged areas. Such weights can enable more resources to be directed where there is greater need, due to factors such as a greater number of older people, worse health indicators, higher levels of deprivation and unavoidable costs linked to remoteness/economies of scale (Taratek-Gintowt, 2020).

Workshop participants also consistently underlined the importance, from both burden-of-disease and cost-saving perspectives, of paying greater attention to or shifting to systems of health promotion and prevention. The participants called for various interventions, including:

- cross-government approaches to addressing the risk factors for NCDs;
- population-wide and targeted measures across the life-course (e.g., children/students, working-age population, older people);
- leveraging tools such as taxation and regulation (e.g., ensuring standards, implementing bans); and
- addressing social factors contributing to alcohol and substance abuse (such as lack of employment opportunities, financial hardship, poverty and hopelessness) through enhanced social protection and labour policies.

In North Macedonia, hypertension is the top risk factor (as a share of all deaths) (Winkelmann et al., 2021). Lifestyle changes can help prevent and lower high blood pressure, with one of the changes being reducing the levels of salt in a person’s diet. WHO supports a comprehensive approach to sodium reduction that includes adopting mandatory policies and WHO’s four best-buy interventions, as described in Box 7.5.
Box A1.5. Best-buy interventions for salt reduction

Comprehensive and mandatory policies that include all four best buys include:

• reformulating foods to contain less salt, and setting targets for the amount of sodium in foods and meals;
• establishing public food procurement policies to limit salt- or sodium-rich foods in public institutions, such as hospitals, schools, workplaces and nursing homes;
• front-of-package labelling that helps consumers select products lower in sodium;
• behaviour-change communication and mass-media campaigns to reduce salt/sodium consumption.

Source: WHO (2023c).

Key informant interview (KII) guide

<table>
<thead>
<tr>
<th>Part 1</th>
<th>Introduction and solicitation of informed consent</th>
</tr>
</thead>
</table>
| Introductory topics | • Welcome, orientation to the research, ice-breaking, discussion about confidentiality and consent.  
• Please tell me about your position, roles in your organization, especially in relation to services relating to noncommunicable diseases (NCDs). |

<table>
<thead>
<tr>
<th>Part 2</th>
<th>Availability</th>
</tr>
</thead>
</table>
| To what extent are health services available in your country/your community? | • Consider low numbers of health facilities (primary health care (PHC) stations, health centres, general hospitals, gynaecologists, dentists, etc.): if you don’t have the exact number, please state your opinion on the overall distribution across the country and the existing gaps in the regions.  
• Think about any lack of health workers with the competences and skills (certain doctor profiles, such as gynaecologists and paediatricians working in PHC practices retiring over the next couple of years, lack of interest in certain specializations, etc.).  
• Is there a scarcity or poor quality of essential health products (e.g. medicines, cold-chain supplies)?  
• What about links with the network of laboratory services?  
• Consider medical equipment.  
• Is there a shortage of or poorly functioning basic amenities in facilities, such as electricity, water and sanitation? |

<table>
<thead>
<tr>
<th>Accessibility</th>
<th>Can you please elaborate on the geographical barriers to accessibility experienced by the population in your community?</th>
</tr>
</thead>
</table>
| Consider: | • distance and travel time to health facilities  
• transportation modalities (public and private transport)  
• terrain  
• seasonal issues impacting transportation. |
| From your experience, tell me what financial barriers the population in your community faces to accessing health services. | Consider:  
• out-of-pocket costs of services  
• out-of-pocket costs of essential medicines or prescribed health products  
• indirect costs (e.g., travel and accommodation, childcare, missed work). |
| Reflect on how limited monetary resources constitute a barrier for an average person, as well as the most vulnerable person in your community. Who helps people who can’t afford the services? | From your perspective, what are the main informational or organizational barriers? Think about the types of barriers listed below.  
• Opening hours  
• Information accessibility, including for people who are illiterate or speak other languages  
• Administrative requirements  
• Bureaucracy  
• Staff workload  
• Waiting times |
### Acceptability

What are the main issues that negatively affect acceptability of health services in your country/your local community?

Consider:
- sex of service providers;
- issues of confidentiality and fear of stigmatization/discrimination;
- staff attitudes;
- respect for cultural norms (e.g., religious traditions, preferences of the population for traditional medicine approaches);
- patients' attitudes toward health care, including people's trust and faith in health services and understanding of their own health needs;
- age, specifically age groups that are most at risk of age-related barriers;
- and
- gender sensitivity, gender norms, roles and relations, and employment (e.g., the need to take time off work).

### Contact and effective coverage

What do you believe is the extent of forgone care (that is, people who do not contact services when they have an identified health need)? What are the reasons behind this, besides those you have already mentioned?

<<<NOTE for interviewer: if most of the answers covered primary care, probe for secondary and tertiary services.>>>

Please describe barriers to effective coverage – this means when the patient can receive the full intended treatment for a condition.

Specifically address:
- treatment adherence (including problematic providers, interface with clients (e.g. time limitations), poor coordination of care, weak referral systems, and problems with continuity of care);
- provider compliance and technical competence (lack of staff training/support/absenteeism, lack of standardized protocols, referral systems, coordination among the various actors, continuity of care, timely care, safety, and compliance with standards and guidelines);
- diagnostic accuracy (e.g. access to testing, etc.).

<<<NOTE for interviewer: if most of the answers covered primary care, probe for secondary and tertiary services.>>>

### Barriers in the four subnational locations

<<<NOTE: only for national KIIs>>> Returning to our discussion in general of all types of barriers, do the barriers that you described previously match those that the people living in the rural areas/small urban settlements experience in the [East/Southeast/Polog/Pelagonia] region? Do you think that there are any additional barriers to health services in these locations that are important to highlight?

- East
- Southeast
- Polog
- Pelagonia

### Tracer conditions

Considering NCDs such as hypertension and diabetes, are there any additional barriers beside the ones listed above, either for the country as a whole or the subnational locations?

### Part 3 Who is most at risk of being left behind?

Who is least likely to receive health services in North Macedonia, due to barriers to primary, secondary and/or tertiary services?

- People living in rural areas
- People living in small urban settlements
- Women
- Older people
- Very poor/socially deprived citizens
- Ethnic minorities
- People with low education levels
- People with disabilities (including sensory and/or physical)

### Part 4 Priorities

#### Data gaps

We have spoken about a lot of types of barriers to health services experienced by different vulnerable groups in your country. Do you think that the information sources that we have on these barriers are sufficient? If not, how could they be improved?

#### Current measures to overcome the barriers

What current measures/policies are in place to address the barriers for vulnerable groups? How do you assess if these policies are effective? Please give examples to show how these polices were effective in addressing inequalities.
**CATI questionnaire**

**Begin sampling procedure here**

1. Introduce yourself
   “Good morning/afternoon/evening. My name is ________________; I am working for TIM Institute. We are conducting a national public opinion survey and we want to interview one person from your household. We will select this person randomly. Answers to the survey will be strictly confidential, according to international research standards.”

**Explanations for the interviewer**

2. The person who is randomly selected is the designated respondent for that household.
   Attempt to complete the interview with the designated respondent.

3. If the designated respondent is at home and refuses to be interviewed, or another family member blocks the interview, politely finish the conversation and move on to the next appropriate telephone number, according to the instructions.

4. If the designated respondent is not at home, attempt to schedule an interview for later that day or at another time in the fieldwork period. Record the date and time of the appointment.

Phone number______________________________

**DEMOGRAPHY**

D1. Sex [DO NOT READ]
   1. Male
   2. Female

D2. Age____

D3. Education
   <<<ONE ANSWER ONLY>>>>
   1. No education
   2. Primary
3. Secondary
4. Higher/University, MBA, PhD

D4. Employment status
<<<<ONE ANSWER ONLY>>>>
1. Employed in the public sector
2. Employed in the private sector
3. Business owner
4. Freelance
5. Farmer
6. Housewife
7. Retired
8. Student/pupil
9. Unemployed, redundant, insolvency worker
10. Other (write down) __________________________[DO NOT READ]

D5. Ethnicity
<<<<ONE ANSWER ONLY>>>>
1. Macedonian
2. Albanian
3. Turkish
4. Roma
5. Serbian
6. Vlach
7. Other

D6. Average family household income per month
<<<<ONE ANSWER ONLY>>>>
1. Less than 12 000 MKD
2. 12 001–24 000 MKD
3. 24 001–36 000 MKD
4. 36 001–48 000 MKD
5. 48 001–60 000 MKD
6. 660 001–75 000 MKD
7. 75 001+ MKD

98. Refuse to answer [DO NOT READ]
99. Do not know [DO NOT READ]

D6a. How would you rate the standard of living of your household?
<<<<ONE ANSWER ONLY>>>>
1. We live very well
2. We live normally
3. We live hard
4. We barely make ends meet

98. Refuse to answer [DO NOT READ]
99. Do not know [DO NOT READ]

D7. Marital status
<<<<ONE ANSWER ONLY>>>>
1. Married
2. Single
3. Divorced, separated
4. Widower, widow
5. Living with a partner
D7a. Who lives in your household besides yourself?
<<<<ONE ANSWER IN EACH ROW>>>

<table>
<thead>
<tr>
<th>D7a_1.</th>
<th>I live alone</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>D7a_2.</td>
<td>I live with children aged up to 3 years</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>D7a_3.</td>
<td>I live with children aged from 4 to 10 years</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>D7a_4.</td>
<td>I live with children aged from 11 to 14 years</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>D7a_5.</td>
<td>I live with children aged from 15 to 18 years</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>D7a_6.</td>
<td>I live with my partner</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

D7b. Do you care for any children/elderly/family members with a disability?
<<<<ONE ANSWER ONLY>>>

1. Yes
2. No

D8. Do you have any chronic health condition/illness diagnosed by a health professional?
<<<<ONE ANSWER ONLY>>>

1. Yes
2. No

IF YES:

D9. Do you have any of the listed chronic health conditions/illnesses diagnosed by a health professional?
<<<<MULTIPLE ANSWERS>>>

D9_1. Diabetes
D9_2. High blood pressure
D9_3. Asthma
D9_4. Chronic obstructive pulmonary disorder (COPD)
D9_5. Hypothyroidism
D9_6. Cancer
D9_7. Chronic kidney disease
D9_95. Other: ______________________________

D10. Do you have any kind of sensory or physical disability?
<<<<ONE ANSWER ONLY>>>

1. Yes
2. No

Q1. How would you rate your overall health condition, using the scale where 1=unsatisfactory and 5=excellent?
<<<<ONE ANSWER ONLY>>>

<table>
<thead>
<tr>
<th></th>
<th>Poor</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Excellent</th>
<th>Refuse to answer</th>
<th>Do not Know</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>98</td>
<td>99</td>
<td></td>
</tr>
</tbody>
</table>
Q2. Do you have any limitations in your daily activities due to health problems?
<<<ONE ANSWER ONLY>>>  
1. Yes  
2. No  
98. Refuse to answer [DO NOT READ]  
99. Do not know [DO NOT READ]  

Q3. Do you personally have any of the following?
<<<ONLY ONE ANSWER IN EACH ROW>>>  

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Do not know [DO NOT READ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q3_1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family doctor or GP covered by the Health Insurance Fund (HIF)</td>
<td>1</td>
<td>2</td>
<td>99</td>
</tr>
<tr>
<td>Q3_2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gynaecologist covered by the HIF &lt;&lt;&lt;for women&gt;&gt;&gt;</td>
<td>1</td>
<td>2</td>
<td>99</td>
</tr>
<tr>
<td>Q3_3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dentist covered by the HIF</td>
<td>1</td>
<td>2</td>
<td>99</td>
</tr>
</tbody>
</table>

AVAILABILITY  

Q4. Are you a citizen of Republic of North Macedonia?
<<<ONE ANSWER ONLY>>>  
1. Yes  
2. No  
98. Refuse to answer [DO NOT READ]  

Q5. Do you have health insurance from the HIF?
<<<ONE ANSWER ONLY>>>  
1. Yes  
2. No  
98. Refuse to answer [DO NOT READ]  
99. Do not know [DO NOT READ]  

Q6. Do you have private health insurance?
<<<ONE ANSWER ONLY>>>  
1. Yes  
2. No  
98. Refuse to answer [DO NOT READ]  
99. Do not know [DO NOT READ]  

Q7. Are there sufficient numbers of the following health workers in your community (where you live) to cover the needs of people living in your community?
<<<ONLY ONE ANSWER IN EACH ROW>>>  

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>Yes, but the number is insufficient</th>
<th>Not at all</th>
<th>Do not know [DO NOT READ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q10_1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family doctors or GPs</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>99</td>
</tr>
<tr>
<td>Q10_2.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gynaecologists</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>99</td>
</tr>
<tr>
<td>Q10_3.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dentists</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>99</td>
</tr>
<tr>
<td>Q10_4.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paediatricians</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>99</td>
</tr>
</tbody>
</table>
Q8. Do you use any medications for a certain health condition prescribed by a health professional?  
<<<ONE ANSWER ONLY>>>  
1. Yes  
2. No  
98. Refuse to answer [DO NOT READ]  
99. Do not know [DO NOT READ]  

IF YES:  

Q9. Do you find the necessary medications easily available where you live (municipality/village) covered by the HIF?  
<<<ONE ANSWER ONLY>>>  
1. Yes  
2. No  
98. Refuse to answer [DO NOT READ]  
99. Do not know [DO NOT READ]  

ACCESSIBILITY  

Q10. How distant are you to the following ... ?  
<<<ONLY ONE ANSWER IN EACH ROW>>>  

<table>
<thead>
<tr>
<th>Q10_1.</th>
<th>Family doctor or GP</th>
<th>Very close</th>
<th>Somewhat close</th>
<th>Somewhat distant</th>
<th>Very distant</th>
<th>Not available at all</th>
<th>Do not know</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>99</td>
</tr>
<tr>
<td>Q10_2.</td>
<td>Gynaecologist covered by the HIF</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>99</td>
</tr>
<tr>
<td>Q10_3.</td>
<td>Dentist covered by the HIF</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>99</td>
</tr>
</tbody>
</table>

Q11. Is public transport easy to access and close to where you live?  
<<<ONE ANSWER ONLY>>>  
1. Yes  
2. No  
98. Refuse to answer [DO NOT READ]  
99. Do not know [DO NOT READ]  

Q12. Would you say that the transportation time is a barrier to reach a ... ?  
<<<ONLY ONE ANSWER IN EACH ROW>>>  

<table>
<thead>
<tr>
<th>Q12_1.</th>
<th>Family doctor or GP</th>
<th>Yes</th>
<th>Somewhat</th>
<th>Not at all</th>
<th>Do not know</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>99</td>
</tr>
<tr>
<td>Q12_2.</td>
<td>Gynaecologist covered by the HIF</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>99</td>
</tr>
<tr>
<td>Q12_3.</td>
<td>Dentist covered by the HIF</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>99</td>
</tr>
<tr>
<td>Q12_4.</td>
<td>Hospital</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>99</td>
</tr>
<tr>
<td>Q12_5.</td>
<td>Health centre/health care home</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>99</td>
</tr>
<tr>
<td>Q12_6.</td>
<td>Pharmacy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>99</td>
</tr>
<tr>
<td>Q12_7.</td>
<td>Laboratory</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>99</td>
</tr>
<tr>
<td>Q12_8.</td>
<td>Specialist for your chronic health condition</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>99</td>
</tr>
</tbody>
</table>
Q13. Does your household own any kind of vehicle (car, van)?

<<ONE ANSWER ONLY>>>

1. Yes
2. No

98. Refuse to answer [DO NOT READ]
99. Do not know [DO NOT READ]

Q14. Would you say that any of the following is a serious problem for you when accessing health care?

<<ONLY ONE ANSWER IN EACH ROW>>>

<table>
<thead>
<tr>
<th>Q14_1.</th>
<th>Yes</th>
<th>No</th>
<th>Do not know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost (or price) of health services</td>
<td>1</td>
<td>2</td>
<td>99</td>
</tr>
<tr>
<td>Cost (or price) of medicines and health products</td>
<td>1</td>
<td>2</td>
<td>99</td>
</tr>
<tr>
<td>Indirect costs for health services, including transport, food and lodging</td>
<td>1</td>
<td>2</td>
<td>99</td>
</tr>
<tr>
<td>Informal payments (bribes, cash or gifts to health care workers)</td>
<td>1</td>
<td>2</td>
<td>99</td>
</tr>
<tr>
<td>Opening hours of the health facility</td>
<td>1</td>
<td>2</td>
<td>99</td>
</tr>
<tr>
<td>Waiting time for an appointment</td>
<td>1</td>
<td>2</td>
<td>99</td>
</tr>
<tr>
<td>Having to take a day off work/away from livelihood responsibilities</td>
<td>1</td>
<td>2</td>
<td>99</td>
</tr>
<tr>
<td>Inability to be released from carer responsibilities (e.g., childcare/elderly care)</td>
<td>1</td>
<td>2</td>
<td>99</td>
</tr>
<tr>
<td>Inadequate access to the facility (e.g. no ramp, no supports for blind people, etc.)</td>
<td>1</td>
<td>2</td>
<td>99</td>
</tr>
</tbody>
</table>

Q15. In the last 12 months, have you had any out-of-pocket expenses regarding:

<<ONLY ONE ANSWER IN EACH ROW>>>

<table>
<thead>
<tr>
<th>Q15_1.</th>
<th>Yes</th>
<th>No</th>
<th>If yes, why?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health care services</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Co-payments for covered services</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Medicines</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Medical products</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Diagnostic tests</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

ACCEPTABILITY

Q16. Who do you trust the most concerning your overall health?

<<MULTIPLE ANSWERS>>>

Q16_1. Health care workers
Q16_2. Family members/close friends
Q16_3. Social media
Q16_4. Pharmacists
Q16_5. Alternative healers (herbalists, bioenergy healers)
Q16_6. Other____________________
Q17. Have you ever felt discriminated against by a health care worker based on your ... ?

<table>
<thead>
<tr>
<th>Q17_1.</th>
<th>Age</th>
<th>Yes</th>
<th>No</th>
<th>Do not know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q17_2.</td>
<td>Gender</td>
<td>1</td>
<td>2</td>
<td>99</td>
</tr>
<tr>
<td>Q17_3.</td>
<td>Ethnicity</td>
<td>1</td>
<td>2</td>
<td>99</td>
</tr>
<tr>
<td>Q17_4.</td>
<td>Marital status</td>
<td>1</td>
<td>2</td>
<td>99</td>
</tr>
<tr>
<td>Q17_5.</td>
<td>Religion</td>
<td>1</td>
<td>2</td>
<td>99</td>
</tr>
<tr>
<td>Q17_6.</td>
<td>Health status</td>
<td>1</td>
<td>2</td>
<td>99</td>
</tr>
<tr>
<td>Q17_7.</td>
<td>Education level</td>
<td>1</td>
<td>2</td>
<td>99</td>
</tr>
<tr>
<td>Q17_8.</td>
<td>Occupation</td>
<td>1</td>
<td>2</td>
<td>99</td>
</tr>
<tr>
<td>Q17_9.</td>
<td>Place of residence</td>
<td>1</td>
<td>2</td>
<td>99</td>
</tr>
<tr>
<td>Q17_7.</td>
<td>Other &lt;&lt;&lt;write down&gt;&gt;&gt;</td>
<td>1</td>
<td>2</td>
<td>99</td>
</tr>
</tbody>
</table>

Q18. Are certain conditions stigmatized in your community (where you live)?

1. IF YES, which ones?

<<<Write down>>> ________________________________

2. No

98. Refuse to answer [DO NOT READ]
99. Do not know [DO NOT READ]

Q19. Would you say that people in your country have a problem accessing health care when sick because ... ? <<<ONE ANSWER ONLY>>>

<table>
<thead>
<tr>
<th>Q19_1.</th>
<th>Getting permission to go for treatment from other family members can be difficult for women</th>
<th>Yes, many</th>
<th>Yes, some</th>
<th>No</th>
<th>Do not know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q19_2.</td>
<td>It is expected from men not to seek help</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>99</td>
</tr>
<tr>
<td>Q19_3.</td>
<td>There is a lack of privacy and confidentiality</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>99</td>
</tr>
</tbody>
</table>

Q20. Do you feel free to ask questions or/share doubts with health providers? <<<ONE ANSWER ONLY>>>

1. Yes, always
2. Sometimes
3. Never

98. Refuse to answer [DO NOT READ]
99. Do not know [DO NOT READ]

EFFECTIVE COVERAGE

Q21. How satisfied are you with the public health care services available to you in your community? <<<ONE ANSWER ONLY>>>

1. Completely satisfied
2. Somewhat satisfied
3. Somewhat not satisfied
4. Completely dissatisfied
Q21a. What are you least satisfied with?

<<<Write down>>> ________________________________

Q22. Have you ever been misdiagnosed by a health care worker?

<<<ONE ANSWER ONLY>>>  
1. Yes  
2. No  

Q23. Have you ever had serious problems in accessing health care due to ... ?

<<<ONE ANSWER ONLY>>>  

<table>
<thead>
<tr>
<th>Q23_1.</th>
<th>Lack of appointments available for specialists</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q23_2.</td>
<td>Long waiting lists</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Q24. What is the single most important barrier you are facing in access to health services for the chronic condition you mentioned earlier (Q D7)?

<<<Write down>>> ________________________________

97. I have no chronic condition

MANAGEMENT SECTIONS

<<<QUESTIONS FOR THE INTERVIEWERS; NOT TO BE READ TO THE RESPONDENTS>>>  

M1. _______

M2. Place of living:
   1. Urban  
   2. Rural

M3. Municipality: ___

M4. Region:
   1. Vardar region  
   2. East region   
   3. Southwest region
   4. Southeast region  
   5. Pelagonia region  
   6. Polog region   
   7. Northeast region  
   8. Skopje region

M5. Interviewer code: ___
**Focus group discussion guide**

### PART 1: ALL PARTICIPANTS
**Duration of discussion: 70 minutes**

Hello, my name is_______. We will be talking today about the barriers you and the people in your community are facing regarding effective use of health services. We want to hear your honest opinions; there are no right or wrong answers. We are recording the discussion to help us remember what was said, but the conversation is completely confidential. It will not appear anywhere in public and nobody’s name will be quoted. One speaker at a time – please try to keep your answers on topic. We have many questions, so I may interrupt you to move on, just so we get to all the questions – don’t be insulted.

The discussion will last 90 minutes in total. It is organized in two parts: in the first part, for a duration of 70 minutes, we will discuss the health barriers together; in the second part, for a duration of 20 minutes, we will continue the group discussion only with women participants about women’s health and health services for women.

Please be comfortable – we hope you will find the session interesting and useful.

<table>
<thead>
<tr>
<th>Which health services are available where you live (in your municipality/village)?</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Are these services widely known about by people where you live (municipality/village)?</td>
</tr>
<tr>
<td>◦ Are there any health services that are lacking? If yes, which ones are lacking?</td>
</tr>
<tr>
<td>• Do health services have enough staff, medications and equipment?</td>
</tr>
<tr>
<td>• Do you think there are some groups who are not able to use these services easily?</td>
</tr>
<tr>
<td>◦ Please explain.</td>
</tr>
<tr>
<td>• Are there other health services available in this area, such as private clinics or services provided by NGOs – like mobile clinics or health promotion activities?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Do people in your community encounter any problems getting to health services, e.g., problems with distance / travel or transportation time / location?</th>
</tr>
</thead>
<tbody>
<tr>
<td>• How much time does it take you to get to your PHC providers, such as family doctors, dentists and gynaecologists?</td>
</tr>
<tr>
<td>• How much time do you need to get to your nearest pharmacy?</td>
</tr>
<tr>
<td>• What about hospitals or other health specialists?</td>
</tr>
<tr>
<td>◦ Please explain.</td>
</tr>
<tr>
<td>• Is public transport available / easy to access / close to where you live, and do you take it to get to your health providers?</td>
</tr>
<tr>
<td>• Do you think that owning a car is important to be able to access health services?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Do people in your municipality/village (where you live) encounter financial barriers in accessing services?</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Based on your personal experience and experiences of people you know, do you think having health insurance is important to be able to access high-quality health services?</td>
</tr>
<tr>
<td>◦ Please explain.</td>
</tr>
<tr>
<td>• What costs do you have to access health services?</td>
</tr>
<tr>
<td>◦ Out-of-pocket costs of services ... If YES, for which services?</td>
</tr>
<tr>
<td>◦ Co-payments for covered services ... If YES, for which services? o Costs for medicines</td>
</tr>
<tr>
<td>◦ &lt;&lt;&lt;If YES, why are they paying out of pocket for outpatient medicines?&gt;&gt;&gt;</td>
</tr>
<tr>
<td>◦ Medical products o Diagnostic tests o Travel costs, etc.</td>
</tr>
<tr>
<td>• Do you think that, in general, people are able to pay for health services (including medicines, medical products and diagnostic tests) when they need them?</td>
</tr>
<tr>
<td>• Can you share an example of someone who is facing barriers to accessing health services because they cannot afford to pay?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Do people in your community experience any problems with how the health services are organized?</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Opening hours</td>
</tr>
<tr>
<td>• Waiting times</td>
</tr>
<tr>
<td>• Administrative requirements (having to come back for prescriptions every month)</td>
</tr>
<tr>
<td>• Suitability of facilities for people with a disability (e.g. ramp for access) or people with hearing or visual problems</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Do you usually call your GP to schedule an appointment?</th>
</tr>
</thead>
<tbody>
<tr>
<td>• If YES, do you find this useful, or does it create an additional burden?</td>
</tr>
<tr>
<td>• If NO, do you want to have this option?</td>
</tr>
</tbody>
</table>

| If someone can’t get government health services when they need them, what do they do instead?  |
Are the health workers respectful?

Do they protect peoples’ privacy?
• If YES, how?

Are there other issues of confidentiality (e.g., confidentiality in the waiting room, gender sensitivity, cultural and language sensitivity, etc.)?
• Are there (enough) health workers of the same sex or ethnicity? For example, regarding the sex of staff, if a woman wants to see a female doctor for a gynaecological problem, or a man wants to see a male doctor to speak about men’s health issues, is this feasible?
• If the doctor does not speak your language (e.g., Albanian), is there a possibility to be examined by someone who speaks your language?
• Do the health workers discriminate against people in general, or any particular groups of people, or your peers?
• Are certain conditions stigmatized?

Do you and/or your peers ever prefer other health services (e.g., private clinics or traditional healers), or services provided by NGOs – like mobile clinics and health promotions over government-provided health services?
• If YES, why?

Are there any other reasons why you or the people in your community might not attend government-provided health services when you need health care?
- Please explain and provide examples

Do you think sometimes people might not recognize when they need health care?

Do you think people have – or know people who have – false beliefs about health services?

Do you think that people in your community are satisfied with the health services and are able to follow the treatment regimen (e.g. type and dose of medication, follow-up appointments and referrals)? Please explain and provide examples.
• Sometimes people start treatment for a health problem, but don’t finish.
  ◦ In your community, does this happen and why?
• Sometimes people are referred to hospitals or specialists in other parts of the country.
  ◦ What kind of challenges can be encountered when having to seek these services?
  ◦ What factors can help make it easier for people from your community to have access to these services?
• Do you believe that the government health care services provide people with timely health care and follow-up for chronic conditions (for example, diabetes and hypertension), across all aspects of treatment and on an ongoing basis?
  ◦ Have you ever heard of people in your community being mis-diagnosed?
  ◦ If yes why?

<<One important task during the discussion of these questions is to understand which reported barriers seem to be common, and which groups of people are most affected. Thus, when a participant has described a new barrier, the facilitator can follow up by asking the whole group for clarification.>>

Is this a common problem for people? Please explain. Consider the following points.
• Does it happen to most people, or only about half, or only a small number?
• Please explain if this affects some groups in the population more than others.
• Please explain if it is different for girls and boys, women and men.
• Please explain if it is different for younger and older people.

Thank you very much for participating in this discussion.
Do any of you have any questions for us before we end this first part of the discussion?

For Part 2, we would like to ask some specific questions about women’s health and so we are going to separate the group. This is a normal part of the assessment, as described at the start.

Thank you all again!
### Women's Health

- What is your role regarding the health of your family and household?
- Do you feel that you can make decisions about your own health?
- Do women have access to gynaecologists and midwives where you live (municipality/village)?
- How far and how often do pregnant women need to travel for their regular check-ups?
  - What about screening for cervical cancer and breast cancer?
- Do women in your community face particular exposure to risk factors that can make them more vulnerable to certain kinds of health problems than men?
- Are there any barriers that women in your community face in accessing health services (e.g., needing permission from their husband/another male family member, or having to be accompanied by a male)?
  - Please explain.
- Are there any financial barriers that women in your community face in using health services (e.g., needing money or permission from their husband to pay for health services/medicines/products/tests)?
  - Please explain.
- Are there any organizational or other barriers that women in your community face in reaching health care services (e.g., covering for childcare while away seeking health care)?
  - Please explain.
- In your community, what factors can impede a woman from adhering to (completing) prescribed treatment?
  - What are these factors different for women than for men?

### Consent form for key informant interviews (KIIIs) and focus group discussions

#### What is this project about, and do I have to take part?

This study aims to identify the supply- and demand-side barriers to effective health service coverage, hence contributing to reducing health inequities, closing coverage gaps, action on social and environmental determinants, and primary health care (PHC)-oriented health service strengthening. The information collected through this focus group discussion is important to support the future implementation of specific programmatic interventions and policies for health services.

#### What are the benefits and risks of taking part?

You may benefit from taking part in the focus group discussion/KII by having the opportunity to share concerns and experiences, as well as to ask questions that will influence the policy considerations formulated as a result of this research. There are no foreseeable risks for you from taking part in the discussion, other than time (60–90 minutes) and potential discomfort. Should you feel uncomfortable and want to leave the study you are free to do so without any consequences.

#### What will you ask and what will happen to the information I give you?

During the focus group discussion/KII, the moderator will ask questions about what you know and what you have heard about. It is not an exam – it is just for the research team to become familiar with your experiences and opinions. You are free to not answer a question if you choose. There are no wrong answers, and you do not have to share anything you don’t want to. Everything said in the focus group discussion will remain confidential and will not be shared outside of the research team.

The focus group discussion/KII will be recorded (audio only) and notes will be taken, for research purposes only. No personal information that can identify you will be recorded, and no such information will be included in the report. Some of these questions are considered sensitive, such as questions relating to your opinion of government policies. However, it will not be possible to identify you individually from your answers: no personal information will be used in the discussion, and answers will be made anonymous before being shared for analysis. Only then will the results of the discussion be shared, and only with relevant researchers and government agencies. This study has received approval from the WHO Research Ethics Review Committee and also from the Ethics Committee for Human Research of the Medical Faculty at the “Ss. Cyril and Methodius” University in Skopje, North Macedonia.
Further information

1. Your answers will be treated in accordance with the provisions of the Personal Data Protection Act (AZLP, 2023), European regulations (as of February 2020 (Vlajković, 2023)), and General Data Protection Regulation (GDPR) (EU) requirements (Horizon Europe, 2023).

2. Your participation in the study is voluntary and can be terminated at any time and without giving reasons.

3. Please note that you can stop participating in the focus group discussion at any time. This will not entail any penalty, and it will not affect the services (health care services or others) that you receive.

4. Your participation in the research does not expose you to any significant risk.

How we collect and use your answers

Once the recording is transcribed, the recording will be deleted. The anonymized transcript will be protected by being stored on a password-protected computer so that only individuals on the research team will have access to it. The anonymous transcript will be stored on a separate hard drive for no more than five years and may be used for research and teaching in the future.

Concerns

If you are concerned about this study, or how your answers are being used, or if you would like to contact us about your rights, we would be happy to provide the relevant contact information. Please contact the TIM Institute, who is responsible for the research project: office@timinstitut.eu.mk.

Consent

I would like to ask for your consent to some specific points. Please indicate if you understand/agree to the following points.

• Your participation is completely voluntary.
• You give your consent for your answers to be audio recorded.
• All your answers will be used for scientific research to improve actions taken in response to pandemics and relating to the introduction of a vaccine.
• Your answers will be stored securely; however, no personal information will be stored, and your answers will be completely anonymous.
• Your answers gathered in this study will be shared anonymously with relevant researchers and government agencies.
• Even if you participate in the research, you can withdraw your answers from the study later if you choose to.
• You agree to the inclusion of your answers in the analysis in accordance with the information provided here.
• You are aware that the analysis, and possibly some of your answers, will be published (in anonymous form) to promote transparency in science.

Do you agree with this?

If you would like more information about the inclusion of your answers in the analysis and publication, I am happy to provide you with this information.

Name of participant_________________________
Signature of participant______________________ Date ________________________________

Statement by the researcher taking consent

I have accurately read out the information sheet to the potential participant, and to the best of my ability made sure that the participant understands the consent form.

Name of researcher_________________________
Signature of researcher ______________________ Date ________________________________

A copy of this has been provided to the participant.
Consent form for the Computer-Assisted Telephone Interviewing (CATI) survey

Good morning/afternoon/evening. My name is: ________________ [name of interviewer]. I am working for a research company called the TIM Institute. We are conducting a telephone survey relating to barriers to and enablers of effective coverage with health services in North Macedonia, in collaboration with the Ministry of Health of North Macedonia and supported by WHO.

We would like to interview one person from your household who is 18 years of age or older. We randomly select participants. The survey will take approximately 15 minutes to complete. Answers to the survey will be strictly confidential, according to international research standards.

<<<EXPLANATIONS FOR THE INTERVIEWER>>>

• Only randomly selected individuals may be interviewed in that household, and no one else.
• If the designated respondent is at home and refuses to be interviewed or another family member blocks the interview, politely finish the conversation and move on to the next appropriate telephone number, according to the instructions.
• If the designated respondent is not at home, attempt to schedule an interview for later that day or for another time in the fieldwork period. Record the date and time of the appointment.

<<<ADDITIONAL EXPLANATIONS FOR RESPONDENTS>>>

Thank you for taking part in this study. By taking part, you are agreeing that you have heard and understood the information about the study below. Please ensure you have heard and understood this information before continuing.

Consent

You understand that:

• participation is completely voluntary;
• all answers will be used for scientific research to improve barriers to and enablers of effective coverage with health services in North Macedonia;
• data will be stored securely; however, no personal data will be stored, and answers will be completely anonymous;
• the data gathered in this study will be shared with relevant researchers and government agencies;
• because the data will be anonymous, it will not be possible to withdraw all answers after they have been submitted.

Please note that you can stop the survey at any time. This will not entail any penalty, and it will not affect the services (health care services or others) that you receive.

Please answer that you are agree that you are at least 18 years old, that you have heard the information about the study, and that you voluntarily agree to take part in it.

[*] I agree to participate in this study.

The TIM Institute complies with all national laws and regulations in place regarding privacy and confidentiality, specifically the Personal Data Protection Act (AZLP, 2023), European regulations (as of February 2020 (Vlajković, 2023)) and General Data Protection Regulation (GDPR) (EU) requirements (Horizon Europe, 2023).
References


The WHO Regional Office for Europe

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

Member States

Albania
Andorra
Armenia
Austria
Azerbaijan
Belarus
Belgium
Bosnia and Herzegovina
Bulgaria
Croatia
Cyprus
Czechia
Denmark
Estonia
Finland
France
Georgia
Germany
Greece
Hungary
Iceland
Ireland
Israel
Italy
Kazakhstan
Kyrgyzstan
Latvia
Lithuania
Luxembourg
Malta
Monaco
Montenegro
Netherlands (Kingdom of the)
North Macedonia
Norway
Poland
Portugal
Republic of Moldova
Romania
Russian Federation
San Marino
Serbia
Slovakia
Slovenia
Spain
Sweden
Switzerland
Tajikistan
Türkiye
Turkmenistan
Ukraine
United Kingdom
Uzbekistan