Handbook for conducting assessments of barriers to effective coverage with health services in support of equity-oriented reforms towards universal health coverage
Handbook for conducting assessments of barriers to effective coverage with health services in support of equity-oriented reforms towards universal health coverage
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<td>DHS</td>
<td>Demographic and Health Surveys</td>
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<tr>
<td>EHIS</td>
<td>European health interview survey</td>
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<tr>
<td>EU-SILC</td>
<td>European Union statistics on income and living conditions</td>
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<td>HAUS</td>
<td>health access and utilization surveys</td>
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<td>HEAT</td>
<td>Health Equity Assessment Toolkit</td>
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<td>HeRAMS</td>
<td>Health Resources and Services Availability Monitoring System</td>
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<td>HESPER</td>
<td>Humanitarian Emergency Settings Perceived Needs Scale</td>
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<td>HHFA</td>
<td>Harmonized Health Facility Assessment</td>
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<td>IASC</td>
<td>Inter-Agency Standing Committee</td>
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<td>IHL</td>
<td>international humanitarian law</td>
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<td>iRHIS</td>
<td>UNHCR's integrated Refugee Health Information System</td>
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<tr>
<td>LGBTIQ+</td>
<td>lesbian, gay, bisexual, transgender, intersex or queer</td>
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<td>MeSH</td>
<td>Medical Subject Headings</td>
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<td>MICS</td>
<td>Multiple Indicator Cluster Surveys</td>
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<td>MIRA</td>
<td>Multi-sector Initial Rapid Assessment</td>
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<tr>
<td>MSNA</td>
<td>Multi-Sector Needs Assessment</td>
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<tr>
<td>OCHA</td>
<td>United Nations Office for the Coordination of Humanitarian Affairs</td>
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<tr>
<td>PRISMA</td>
<td>Preferred Reporting Items for Systematic reviews and Meta-Analysis</td>
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<td>SSA</td>
<td>Surveillance System for Attacks on Health Care</td>
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<td>UHC</td>
<td>universal health coverage</td>
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<td>UNHCR</td>
<td>United Nations Office of the High Commissioner for Refugees</td>
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Introduction, background and overview

At the time of writing, the world is not on track to make significant progress towards Sustainable Development Goal (SDG) target 3.8 on universal health coverage (UHC) by 2030. According to the most recent data available, 4.5 billion people were not fully covered by essential health services in their countries in 2021 (WHO & World Bank, 2023). Likewise, in 2019, the total population experiencing catastrophic spending, or impoverishing spending at the relative poverty line, or both, was estimated to be 2 billion people (WHO & World Bank, 2023). The full impacts of COVID-19 and parallel crises on both service coverage and financial protection are yet to be fully understood. What is clear is that improvements to health services coverage have stagnated since 2015, and the proportion of the population that face catastrophic levels of out-of-pocket health spending has increased (WHO & World Bank, 2023). In parallel, the Global humanitarian overview 2024 estimates that nearly 300 million people around the world will be in need in 2024 due to humanitarian crises (OCHA, 2024), with serious implications for health and undermining global progress towards UHC.

It is against this background that health policy-makers, planners, programme managers, practitioners, researchers, patient associations and partners must consider the tools to overcome the stagnation and troubling trends in progress towards UHC. One thing is clear: primary health care (PHC)-oriented health systems strengthening will be the backbone of a resilient recovery and way forward. A PHC approach champions health equity and puts the concept of “progressive universalism” centre stage. Progressive universalism entails that in reforms towards UHC, populations in situations of disadvantage benefit at least as much or – ideally – to a greater extent than those in more privileged positions (Gwatkin & Ergo, 2011). Progressive universalism is not possible without an understanding of barriers to effective coverage with health services. This relates to both supply- and demand-side barriers that impede equitable access to quality health services across the continuum (Plamondon et al., 2019).

The Thirteenth General Programme of Work 2019–2023 (extended to 2025) of the World Health Organization (WHO) commits the WHO Secretariat to “work with countries to identify these barriers to access health services and provide evidence-based solutions to support progressive expansion in access [...]” (WHO, 2019a). This is echoed in WHO’s Fourteenth General Programme of Work, 2025-2028 (GPW 14), with its explicit and strong commitment to equity (WHO, 2024). It is also centred in the 2023 United Nations General Assembly-endorsed Political Declaration of the High-level Meeting on Universal Health Coverage (UNGA, 2023), and World Health Assembly resolution WHA74.16 on Social determinants of health (World Health Assembly, 2021). For operationalization of PHC-oriented health systems strengthening, including in humanitarian context situations, identifying barriers to health services has a pivotal role as highlighted in the PHC measurement framework (WHO & UNICEF, 2022 and 2020).
Aim and objectives

This handbook for conducting assessments of barriers to effective coverage with health services supports national health authorities to identify supply- and demand-side barriers to health services, hence contributing to the reduction of health inequities and closing of coverage gaps. In this handbook, the term “barriers assessments” will be used to describe research undertaken for this aim.

The handbook has four objectives.

1. To orient national authorities and partners on key concepts, definitions, frameworks and principles relevant to barriers assessments.
2. To build the capacity of national authorities and partners to design a research plan and apply diverse methods (e.g. informant interviews, literature reviews, quantitative analysis and focus groups) in barriers assessments.
3. To provide guidance for reporting on barrier assessment findings in a clear and actionable manner and convening key stakeholders to deliberate next steps.
4. To adapt the methods for humanitarian contexts, accounting for the need for differentiated approaches.

This handbook is part of a wider set of WHO tools for supporting equity-oriented, rights-based and gender-responsive planning and programming by the health sector (WHO, 2017a). It also supports and complements the equity focus of other WHO and partner guidance on PHC, integrated people-centred health services, health financing, social determinants of health, and human resources for health, among other areas.

Target audience

The primary target audience is technical staff in national and subnational authorities with a remit to plan, manage, monitor and evaluate health services. These professionals are well positioned to align barriers assessments with planning cycles, programme evaluations and situation analyses for reforms, among other core tasks.

This handbook also targets stakeholders in:
- research institutes
- universities
- multilateral system organizations/entities working at country level
- nongovernmental and civil society organizations
- patients’ associations.

Methods used to develop the handbook

WHO’s engagement in specific barriers assessments, conducted as part of the Organization’s ongoing technical assistance to national health authorities or through coordination with partners, is the primary source for the methods in this handbook. Such assessments – using the full methods described in this handbook, or aspects of them – were conducted in countries, territories and areas including Ethiopia; Greece; Guatemala; Guyana; Nigeria; North Macedonia; Republic of Moldova; occupied Palestinian territory, including east Jerusalem (hereinafter referred to as occupied Palestinian territory); Peru; Viet Nam and United Republic of Tanzania between 2011 and 2023 (for example, see: WHO Regional Office for Europe, 2024, 2015b and 2012; WHO Regional Office for Africa, 2019a, 2019b and 2021). Assessments drawing on these methods by the WHO Attacks on Health Care Initiative (WHO, 2020) are continuing to provide insights on applications in humanitarian contexts.
In addition, orientations for this handbook came from previous WHO publications containing guidance on conducting barriers assessments for adolescents or specific diseases (WHO, 2017b and 2019b). Synergizing work by different parts of WHO on unmet need, forgone care, and access and barriers has fed into this work and/or complements it as part of a comprehensive approach to understanding barriers (for example, see: PAHO, 2023; Rosenberg et al. 2023; WHO Regional Office for Europe, 2023; Houghton et al., 2022; WHO, 2022; Bascolo, Houghton & Del Riego, 2020). Previous country applications of the WHO Innov8 approach to reviewing national health programmes to leave no one behind (2016a), including its step dedicated to barriers, have also informed this handbook.

WHO’s barriers assessment work globally has been informed by a scoping review of existing methods to assess barriers on the pathway to effective health coverage, with a focus on low- and middle-income countries. Commissioned by WHO to Johns Hopkins University in 2018 and accompanied by a global expert meeting in Geneva, the search aimed to identify the range of methods used to assess barriers according to the types of barriers. A total of 3274 articles were included in the final database for analysis.¹ The review showed that a wide range of approaches have been deployed. Nearly half of the articles used quantitative research methods alone, about one third employed qualitative research methods, and 14% used mixed methods research. Most studies examined demand-side barriers, while only one quarter of articles (26%) exclusively examined supply-side barriers. The review identified that articles were largely written by academics, with limited participation of government, implementers or community groups.

The above-mentioned review illuminated the lack of a standardized approach to assessing barriers to health services. This raises fundamental questions on the lens/framework and methods. The barrier assessment methods in this handbook are fruit of a critical reflection on methods deployed thus far. It is hoped that the handbook will spark further collective reflection in years to come on the most promising practices. As such, this handbook is a “living document” and will be updated over time.

**Scope and limitations**

The handbook focuses on barriers experienced by potential users and non-users of health services, and gathers information on these from different sources (both quantitative and qualitative). Health services in this context mean those across the continuum of health promotion, disease prevention, diagnosis, treatment, disease management, rehabilitation and palliative care services, at the different levels of the health system and according to people’s needs throughout their whole life. This definition draws from WHO’s work on integrated people-centred health services (WHO, 2016b). The handbook facilitates the capturing of evidence on the interface between the population and the services. It provides a snapshot of a piece of a wider puzzle, limiting its scope to the barriers and facilitating factors as they manifest in that interface.

The evidence that this handbook will help to produce is influenced by the framework that underpins it. The handbook draws extensively from the Tanahashi framework (Tanahashi, 1978), which continues to be a mainstay framework for analysis of barriers on the pathway to effective coverage. The Tanahashi framework provides a common language to systematically categorize the different types of barriers on the pathway to effective coverage with health services. This provides a platform for further inquiry about how barriers work and are related to each other.

This handbook helps to identify problems, thus laying the groundwork for potential solutions; but it stops short of outlining the formulation, testing and scaling up of solutions to address barriers. That comprises additional steps not covered in the handbook, such as: in-depth barrier-specific causal and political economy analysis; reviews of evidence on specific interventions and promising practices, and their contextual adaptations; and then costing, testing and scaling up of potential solutions.

**Structure of the handbook**

The handbook comprises eight modules, outlined below. These modules can be used collectively for a parallel convergent mixed methods assessment, or singularly. Each module includes a subsection on adaptation for humanitarian contexts.

**Module 1. Understanding fundamental concepts and exploring the Tanahashi framework.** This module describes key concepts, definitions and the main framework applied throughout the handbook. It presents an "evidence synthesis framework" that will be drawn from in all subsequent modules.

**Module 2. Preparing for the assessment.** This module outlines key steps preceding the assessment. It contains decision-making supports to help users in scoping the research (this, in turn, influences how the user will draw from the rest of the handbook). The module also covers formation of an assessment team, identification and contracting of the institute to conduct the research, writing a research plan, convening an inception meeting, and obtaining ethical review committee clearance for the assessment.

**Module 3. Key informant interviews.** This module describes the selection of national and subnational key informants and provides a sample interview protocol, including a generic script and debriefing form. It also provides orientations for data analysis and shows how the findings can feed into the subsequent modules.

**Module 4. Literature review.** This module outlines how to conduct a targeted literature review on barriers to effective coverage with health services, drawing from a wide range of resources. It provides orientations on potential search terms and approaches. It underlines key issues in analysis.

**Module 5. Quantitative data analysis.** This module provides guidance on identification, organization and analysis of indicators from existing data sources to synthesize existing or generate new information about barriers to health services. It also provides a case-study of primary data collection.

**Module 6. Subnational focus groups.** This module gives orientations for focus group discussions with subpopulations most likely to be experiencing significant barriers and, as appropriate, in-depth individual interviews with select participants from each focus group.

**Module 7. Cross-analysing findings and completing the assessment report.** While analysis of findings has been incorporated into all previous modules, this module explains how to synthesize the findings across data sources. It explores data triangulation, summarizing findings, describing differences and outliers, and producing a consolidated report.

**Module 8. Workshopping the findings.** This module supports convening national stakeholders to deliberate the findings and explore potential next steps. It emphasizes ensuring feedback loops with participants in the assessment, as well as dissemination of findings.

Fig. 1 is a visual depiction of modules 1–8. It provides an overview of the anticipated outputs that can be derived from using all modules in this handbook.
Introduction and overview: adaptations for humanitarian contexts

Humanitarian emergencies introduce new – and exacerbate existing – barriers to health services, with dire impacts on health. Assessment of barriers in humanitarian settings requires differentiated approaches. At the end of each module in this handbook, a dedicated section is provided to support barriers assessments in humanitarian crises/emergency settings. These sections are intended for application in all standard types of humanitarian emergencies, including conflicts and disasters due to natural hazards (i.e. “natural disasters”); however, they do not include considerations for settings with only an outbreak/epidemic and no other type of emergency occurring at the same time.

The target audience for these sections will depend on the specific emergency, but may include: technical staff in national governments and subnational authorities who plan, manage, monitor and evaluate health services for emergency-affected populations; humanitarian health partners in the Health Cluster; nongovernmental and civil society organizations; research institutes; academia; and others in the multilateral system contributing to the emergency response.

The emergency-focused sections are intended to supplement the content in the handbook and assume that users are familiar with it. These sections provide guidance for assessments performed in contexts where the standard assessment methods are not feasible (e.g. due to data unavailability, access restrictions, etc.); however, data sources, indicators and guidance provided in the handbook for stable low- and middle-income country contexts should be used to the extent possible, particularly in protracted emergency contexts where there is likely to be more robust literature and data available.
It is important to comprehend the relevance and utility of the barriers assessment findings throughout various elements of the humanitarian programme cycle. In emergency response preparedness, these findings help to anticipate potential barriers and assess the readiness for action, aiding in matching response actions to potential crises. The humanitarian needs overview utilizes findings to identify and prioritize the main barriers to health services and highlight information gaps, offering recommendations for potential indicators in ongoing assessments. For strategic response planning, the findings inform the targeting of primary barriers in specific subpopulations and guide response options in humanitarian plans. During implementation and monitoring, the assessments guide monitoring methods, track key indicators and monitor changes in barriers, aiding in evaluating intervention effectiveness. In resource mobilization, the findings assist in funding allocation by identifying specific barriers and their magnitude. Lastly, operational peer review and evaluation uses the findings to understand intervention reach and outcomes, assess new or ongoing barriers to health services, and identify factors causing these barriers beyond the control of humanitarian health partners.

Fig. 2 provides a framework for understanding the utility of barriers assessment at various stages of response planning and implementation.

**Fig. 2. Humanitarian programme cycle**

References for Introduction, background and overview


There are certain concepts, definitions and frameworks that orient a barriers assessment using this handbook. In Module 1, handbook users are invited to review a non-exhaustive selection of these before proceeding to the preparatory stages of an assessment.

**Module objectives**

This module supports users to:

- understand concepts and definitions relevant to a barriers assessment using this handbook;
- become familiar with the Tanahashi framework for effective coverage with health services, as well as PROGRESS-Plus for applying an equity lens;
- become familiar with the handbook’s “evidence synthesis framework”, which is drawn from in all subsequent modules.

**Relevant concepts and definitions**

This section provides a description of the core concepts and definitions (in alphabetical order) as they relate to barriers assessments.

- Access
- Barriers and facilitating factors
- Effective coverage
- Forgone care
- Gender analysis
- Health equity
- Human rights-based approach
- Intersectionality
- Mixed methods
- Participation
- Primary health care (PHC)
- Progressive universalism
- Quality
- Social determinants of health
- Unmet need
- Universal health coverage (UHC)
See the subsection on humanitarian contexts at the end of this module for additional concepts and/or added information, if applicable to the assessment site.

**Access**

Understanding barriers to health services requires reflection on “access”. This handbook applies the definition of access adopted by the Pan-American Health Organization (2014): “Access is the capacity to use comprehensive, appropriate, timely, quality health services when they are needed”. Linked to access is the wider concept of “accessibility”, which refers to the functional relationship between the population and health services. Accessibility – in its broad sense – reflects the differential existence of supply and demand obstacles, impediments, difficulties and facilitating factors as they manifest, compound and intersect at the interface between the population and health services (Levesque, Harris, & Russell, 2013; Bashshur, Shannon & Metzner, 1971). While the broad concept of accessibility underpins a barriers assessment, it can be clearly differentiated from this handbook’s more specific usage of “accessibility coverage” as one specific domain of the Tanahashi framework for effective coverage (see next section).

**Barriers and facilitating factors**

Barriers are factors that hinder the target population’s effective coverage with a health service (WHO, 2019a). They can manifest prior to the first point of contact (preventing any use at all) or at different stages during the course of coverage required to obtain the desired treatment aim across the continuum. Facilitating factors are those that enable the target population’s effective coverage with a health service.

**Effective coverage**

Effective coverage is defined as the proportion of people in need of services who receive services of sufficient quality to obtain potential health gains (WHO & World Bank, 2017; 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 & World Bank, 2017).

**Forgone care**

A barrier assessment produces evidence on reasons for forgone care. Forgoing services is when someone who realizes that she/he needs health services is unable to access that care (including services, medications or other health products, etc.) due to a range of barriers. This can occur prior to establishing initial contact with health services for a given condition or at any point along the patient pathway and continuum of care. Forgone care is different than unmet need as the latter can also occur without someone realizing that they need services. Barrier assessments must always be conducted with both users and non-users of the services, to account for forgone care as well as unmet need. Non-users are defined as people who have a health need, whether or not they are cognizant of it, and do not access services for any reason, thus resulting in unmet need. As described in Rosenberg et al. (2023), OECD (2020) and other sources, forgone care is typically reflected in surveys with questions that ask respondents to recall a recent episode when they needed a medical examination or treatment for a health problem (without specifying a disease or condition) but did not receive it, accompanied by questions on the reasons for not receiving care.
**Gender analysis**

Barrier assessments can provide data for gender analysis. Although “sex” – a biological construct based on anatomy, physiology, genetics, and hormones – is often thought to have the same meaning as gender, these terms are different. Gender analysis entails an examination of gender-related differences across the life course in risk and exposure, health-seeking behaviour, access and use of services, experiences in health care settings, treatment options and impact of ill-health (Futures Group, 2014; WHO, 2011). Gender analysis also looks at the interaction between biological and sociocultural factors, and access to and control over resources in relation to health. It also identifies appropriate responses to different needs. Gender analysis may include sex disaggregated data but should go beyond disaggregation alone to explore gender norms, roles and relations.

**Health equity**

Health equity is the absence of avoidable, unfair or remediable differences in health among groups of people, whether those groups are defined socially, economically, demographically or geographically, or by other means of stratification (WHO, 2016a; Whitehead, 1992). Health inequalities – observable differences between subgroups within a population – can be measured and monitored, and serve as an indirect means of evaluating health inequity (WHO, 2013). The “PROGRESS-Plus” acronym is commonly used to summarize dimensions of inequality that can be used (as a means of disaggregation) in health inequality monitoring (see Box 1). These are useful for barriers assessments. Building on health inequality monitoring, barriers assessments enable a deeper understanding of why some subpopulations are being left behind.

**Box 1. PROGRESS-Plus dimensions of inequality**

**PROGRESS** refers to:
- Place of residence: rural, peri-urban, urban
- Race or ethnicity
- Occupation
- Gender and sex
- Religion
- Education
- Socioeconomic status
- Social capital or resources.

**Plus** refers to:
- personal characteristics which may be grounds for discrimination or that require adaptations for physical differences (e.g. age, disability);
- features of relationships (e.g. smoking parents, lacking local registration which impedes access to services, having migrant status in a local lacking inclusion measures);
- time-dependent relationships (e.g. leaving the hospital, respite care, other instances where a person may be temporarily at a disadvantage).

**Human rights-based approach**

The identification and removal of barriers to health services is centrefold in a human rights-based approach to health. The goal of human rights-based approach to health is that all health policies, strategies, plans and programmes be designed to progressively improve all people's enjoyment of the right to health and other health-related human rights. The right to health, as documented in General comment no. 14 of the Committee on Economic, Social and Cultural Rights, encompasses the tenets of availability, accessibility, acceptability and quality (CESCR, 2000). The guiding principles of a human rights-based approach include, but are not limited to, non-discrimination, equality, participation and accountability (CESCR, 2000). While this handbook supports a human rights-based approach, additional work by the Global Fund on human rights-related barriers to HIV/AIDS, tuberculosis and malaria services offers an important additional resource for barriers assessments on these health topics (Global Fund, 2022). The Global Fund's approach looks in-depth at the role of issues such as stigma and discrimination, gender-based violence and discrimination, punitive laws and policies, abusive law enforcement practices, disrespectful treatment in health services, and inadequate services for people in prison (Global Fund, 2022). The forthcoming WHO publication *Health equity for persons with disabilities – a guide for action toolkit* (WHO, in press) also supports ministries of health to implement a human rights-based approach by ensuring that health policies, strategies, plans and programmes are disability-inclusive and by progressively recognizing that persons with disabilities have the right to enjoy the highest attainable standard of health.

**Intersectionality**

The concept of intersectionality is useful when considering how barriers intersect and compound and drive inequities. Intersectionality is an approach to understanding and responding to the multiple social (including health system-related) factors that intersect in dynamic ways to privilege or disadvantage different people, depending on their characteristics and contexts (WHO, 2019b; Kapilashrami & Hankivsky, 2018).

**Mixed methods**

The barriers assessment methods in this handbook use mixed methods approaches. According to Tashakkori & Creswell (2007), mixed methods is research in which the investigator collects and analyses data, integrates the findings, and draws inferences using both qualitative and quantitative approaches or methods in a single study or a programme of inquiry. Using mixed methods in a barriers assessment can lead to deeper, more nuanced and layered information than using either quantitative or qualitative methods alone. The different sources, when brought together through data triangulation, capture information on the extent of the phenomenon/barrier, its causes, its interactions with other barriers, and its implications for/impact on effective coverage.
**Primary health care (PHC)**

PHC, as described in the Declaration of Alma-Ata (WHO Regional Office for Europe, 1978) and the Declaration of Astana (WHO & UNICEF, 2018), is an approach that strengthens health systems and maximizes the level and distribution of health and well-being. PHC is key to accelerating progress towards UHC and other health-related SDGs. PHC does this by: (a) putting primary care and essential public health functions together at the core of integrated health services; (b) leveraging multisectoral policy and action; and (c) empowering people and communities as co-creators of their health (WHO & UNICEF, 2020). Reforms to strengthen a PHC orientation must endeavour to prioritize equity- and people-centred decisions to radically reorient systems to ensure progressive universalism (WHO & UNICEF, 2020; WHO, 2016b and 2014; Jamison, 2013). The *Operational framework for primary health care: transforming vision into action* proposes four strategic and 14 operational levers, and related actions and interventions for each, for strengthening PHC-oriented systems (WHO & UNICEF, 2020). Barrier assessments are an important component of PHC-oriented research for systems strengthening. The *Primary health care measurement framework and indicators* is also a resource for supporting transformations (WHO & UNICEF, 2022). It offers a framework rooted in a results-based theory of change to monitor the capacity, performance and impact of PHC. In doing so, it also explicitly calls for collecting data on barriers to health services.

**Progressive universalism**

Progressive universalism means that in reforms towards UHC, subpopulations experiencing disadvantage benefit at least as much as, but ideally more than, subpopulations in situations of advantage (Jamison, 2013; Gwatkin & Ergo, 2011). By understanding the barriers experienced by subpopulations in situations of disadvantage, reforms towards UHC will be better able to reach these groups.

**Quality**

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 (WHO, 2020). As highlighted by Stevens et al. (2023), barriers assessments can identify factors that influence suboptimal quality of care, and feed evidence into national quality policy and strategies. Key quality dimensions include equity, safety, effectiveness, people-centredness, efficiency, timeliness and integration.

**Social determinants of health**

Social determinants of health are the conditions in which people are born, grow, live, work and age. Social determinants operate at structural/upstream and intermediate levels, influencing an individual’s or subpopulation’s capability to obtain effective coverage with health services, and health more broadly (WHO, 2017a; Commission on Social Determinants of Health, 2008). Multiple World Health Assembly resolutions, including resolution WHA74.16 in 2021 (World Health Assembly, 2021), call for action by Member States on social determinants of health to reduce health inequities. WHO’s forthcoming World report on the social determinants of health equity will compile the latest evidence on these topics and an agenda for action (WHO, 2024a). Commercial determinants of health are the private sector activities that affect people's health, either directly or indirectly and positively or negatively (WHO, 2023), and often arise in assessments when using this handbook. Environmental determinants of health, such as inadequate water, sanitation and hygiene and/or the impacts of climate change, may also emerge in a barriers assessment.
Social participation

WHO defines social participation as empowering people, communities and civil society through inclusive participation in decision-making processes that affect health across the policy cycle and at all levels of the system (WHO, 2021 and 2024b). Social participation is important to consider in a barriers assessment. In keeping with the notion of “nothing for us without us”, meaningful participation means that there must be genuine opportunities for engagement in all phases of the programming cycle, including monitoring and evaluation (WHO, 2021 and 2016a; CESCR, 2000). Slattery, Saeri & Bragge (2020) suggest that working with communities to co-design research such as barriers assessments may benefit researchers, practitioners, research processes and research outcomes, while also ensuring accountability.

Universal health coverage (UHC)

As per the United Nations General Assembly-endorsed Political Declaration of the High-Level Meeting on Universal Health Coverage, UHC implies that all people have access, without discrimination, to nationally determined sets of the needed promotive, preventive, curative, rehabilitative and palliative essential health services and essential, safe, affordable, effective and quality medicines and vaccines, diagnostics and health technologies, including assistive technologies, while ensuring that the use of these services does not expose the users to financial hardship, with a special emphasis on the poor, vulnerable and marginalized segments of the population (UNGA, 2023).

Unmet need

Acknowledging the debate underway about its definition, unmet need can be defined as the presence of health care needs for which people do not or cannot receive quality health care (Rosenberg et al., 2023). The Academy of Medical Sciences (2017) describes this in relation to a spectrum of needs, both recognized and not, which can be explored by using the methods in this handbook:

Unmet need for healthcare can be seen as covering a spectrum of healthcare needs that are not optimally met. At one end there is “unexpressed demand” (people who have healthcare needs but who are not aware of them, or who choose not to seek healthcare). At the other end there is “expressed demand that is sub-optimally met”. This can include people ineligible for treatment, or who have poorer quality treatment than would optimally be the case. For some individuals, their unmet need may be a combination of the two.
Tanahashi framework for effective coverage

The Tanahashi framework for effective coverage, shown in Fig. 3, is at the centre of the barriers assessment methods described in this handbook. The following paragraphs describe the domains of the Tanahashi framework that can be analysed through barriers assessments. These descriptions draw on the original Tanahashi work, as well as a range of other sources.

Fig. 3. Tanahashi framework for effective coverage

**SERVICE DELIVERY GOAL**

- Effective coverage
  (Population who receive effective coverage)

- Contact coverage
  (Population who use service)

- Acceptability coverage
  (Population who are willing to use service)

- Accessibility coverage
  (Population who can use service)

- Availability coverage
  (Population for whom service is available)

**TARGET POPULATION**

Source: Tanahashi (1978); WHO (2016a); WHO (2019a).

**Availability coverage** is the proportion of the population for whom the 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. medicines, equipment) (Tanahashi, 1978). Availability coverage measures the capacity of a health system in relation to the size of the target population or ideally for the population in need (Penchansky & Thomas, 1981), including in relation to the differing health needs of women and men across the life course. Availability is one of the elements of the right to health and means functioning public health and health care facilities, goods and services must be available in sufficient quantity (CESCR, 2000).
Accessibility coverage is 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 (CESCR, 2000; WHO, 2016a; Tanahashi, 1978).

- **Physical accessibility**: Distance from a health service provider is a strong accessibility factor, captured by elements such as the distribution of facilities, travel time or distance from home to facility, availability of transportation, and road conditions (Wong, 2020; Penchansky & Thomas, 1981). Travel time may be more relevant than distance, given even comparatively shorter distances can take considerably more time to travel if the terrain is difficult, road quality is poor, river/sea transportation is infrequent, and motorized vehicle or boat use is not feasible. The value of time (the opportunity cost of time) also varies and consequently its impact as an access barrier will also vary. Gender norms, roles and relations (such as a woman needing to seek permission to go out or be accompanied by a male member of the household) can compound and interact with physical accessibility barriers. Persons with disabilities face added challenges in finding appropriate transportation and assistance to reach facilities, or the facilities themselves may not be accessible (e.g. due to stairs or lack of space for wheelchair users (WHO, 2022).

- **Financial accessibility or drivers of financial hardship**: This captures the relationship between the cost of the service and the ability of the user to pay for it, including through her/his relevant financial protection arrangements/benefits (Penchansky & Thomas, 1981). Barriers assessments capture information on a range of financial barriers that contribute to delayed, forgone or poor-quality care, as well as drivers of catastrophic or impoverishing health expenditures. This handbook limits its exploration of financial barriers to those experienced at the individual and household levels, and not their upstream drivers. The Tanahashi framework by itself is not designed to unpack barriers to financial instruments. That said, assessments can produce information relevant to health financing reforms, as described through the example in Box 2.

- **Organizational and informational accessibility** (also called "accommodation"): This refers to the relationship between providers’ organizational arrangements to accept patients (e.g. provider opening times, systems to schedule appointments and timeliness of the appointments, administrative requirements for receiving care, and information sources about services) and the ability of the population to accommodate or adapt to these (Penchansky & Thomas, 1981). Often for disadvantaged subpopulations, accommodation capacity is obstructed; for instance, it can be more challenging to get an employer’s permission to go to a medical appointment if you are employed in the informal economy, or it can be impossible to fill out paperwork on your own if you are illiterate. Gender norms, for instance about the education of women, can exacerbate informational barriers due to higher illiteracy rates among women. Health information is still rarely produced in accessible formats (e.g. sign language, easy read format, audio messages and Braille) or disseminated through appropriate networks to reach persons with disabilities (WHO, 2022). Also addressed in this domain is the population's perception of the appropriateness of organizational arrangements.
Acceptability coverage is the proportion of the population for whom the services are acceptable. It denotes that all health facilities, goods and services must be respectful of medical ethics and be culturally appropriate, i.e. respectful of the culture of individuals, minorities, peoples and communities, sensitive to gender and life-cycle requirements, as well as being designed to respect confidentiality and improve the health status of those concerned (CESCR, 2000). Acceptability coverage is influenced by perceptions, expectations and personal beliefs about health services and is often influenced by past experiences with health providers. Discriminative attitudes of health personnel (in relation to gender, disability, ethnicity, migrant status, or on other grounds) and perceptions of low-quality services (including safety concerns) can create systemic barriers to acceptability coverage (WHO, 2017b; Tanahashi, 1978). The lack of gender-responsive, disability-inclusive and culturally appropriate services can lead to acceptability-related barriers. The lack of a same-gender provider, insufficient attention to privacy and confidentiality, and inadequate interfaces with traditional medicine systems, for example, can pose barriers.

Contact coverage refers to the actual contact between the service provider and a person when services are available, accessible and acceptable (Tanahashi, 1978). A lack of willingness and capacity to make contact is forgone care. Fig. 3 depicts a coverage curve and a dotted line that captures the portion of the target population who do not contact services, due to barriers in each prior domain. For treating a health condition for which only one contact with a provider is necessary (and there is no follow-up, referral or medication) and the service rendered during that contact was of quality, then contact coverage and effective coverage can occur at the same time. However, for many health conditions, only one contact with a provider is insufficient; the health pathway entails multiple steps.
Effective coverage depends on the availability, accessibility, acceptability and contact domains first being achieved. It captures the notion of both “initiation” and “continuation” of service use (Donabedian, 1973). Effective coverage is a concept that necessitates asking the following question: Beyond a patient just making initial contact with a provider, do the supply and demand factors permit her/him to successfully navigate the full health pathway required for the health condition? Effective coverage also implies “appropriateness” and quality-related requirements such as timeliness, diagnostic accuracy, strategic choice of treatment for the health condition, provider compliance (including through training and adequate support of health workers) and treatment adherence (WHO, 2010, 2016a and 2016c; Tugwell et al., 2006; Penchansky & Thomas, 1981; Tanahashi, 1978). It encompasses aspects such as continuity of care over time, smooth referral and back referral, empowerment for self-care, shared decision-making as part of health co-production strategies, and people-centred service provision that accounts for comorbidities and coordinating across types of services (e.g. health and social services). Gender interacts with other barriers in this domain; for instance, under-recognition of differential symptoms/clinical representation between women and men for some conditions and under-representation of women, including pregnant women, in clinical trials can contribute to incorrect diagnoses and inadequate treatment (Maas & Appelman, 2010).

The coverage domains described above are not unconnected, as found by WHO-led barriers assessments and in those deployed by others (for example, see: Bailie, 2015; Levesque, 2013). There are considerable interlinkages between the domains. Likewise, the experience of barriers is not linear. For example, even a patient who has contacted services may still experience availability-related barriers (e.g. lack of key medicines or laboratory services) or accessibility barriers (e.g. exorbitant out-of-pocket costs for specialized care). Data analysis using the Tanahashi framework must take this into account.

The evidence synthesis framework

This handbook applies an advanced framework-informed parallel convergent mixed methods approach. As will be seen in the coming modules, all instruments are informed by the Tanahashi framework. Table 1 (below) comprises the “evidence synthesis framework”, which is a core component of the barriers assessment that will be drawn on and updated by handbook users throughout the process. The evidence synthesis framework supports a common approach to coding the data (featuring example shorthand codes in bold between square brackets) through preliminary deductive analysis. This can be supplemented through inductive analysis and incorporation of additional relevant barriers not covered by those featured in Table 1. The first column features the Tanahashi domains and the second column features the potential types of barriers, followed by a column for each data source. In keeping with mixed method approaches, this table acts as a “joint display” and can be used in data triangulation for exploring key themes across the data sources (as described later in the handbook). Table 1 is by no means exhaustive, and it is the responsibility of the research team to expand it as appropriate for each country context, through a process of adaptation. Across the subsequent modules, handbook users will enter data into Table 1. In Module 7, the table is used in the process of triangulating data.
Table 1. Evidence synthesis framework

<table>
<thead>
<tr>
<th>Tanahashi coverage domain</th>
<th>Types of barriers that can be experienced across the continuum of health services, with the respective shorthand code for data processing</th>
<th>Key informant interviews</th>
<th>Literature review</th>
<th>Quantitative analysis</th>
<th>Focus groups</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Availability</strong></td>
<td>● Insufficient number or density of health facilities [code: facility]</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>● No outreach mechanisms/ community-based service points [code: outreach]</td>
<td></td>
<td>○</td>
<td>○</td>
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</tr>
<tr>
<td></td>
<td>● Insufficient supply and appropriate stock of health workers with the competencies (including through access to ongoing training) and skill-mix to match the health needs of the population [code: HW mix and competencies];</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>● Lack of equitable distribution of health workers taking into account the demographic composition, rural–urban mix and underserved areas or populations [code: HW distribution]</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>● Inadequate supply of medicines to meet population needs [code: medications availability]</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>● Scarcity or poor quality of, or insufficient maintenance of, necessary equipment (e.g. equipment for examinations, wheelchairs for patients, etc.) or equipment not appropriate for differing biological (age, sex) needs and local reality [code: equipment]</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>● Weak laboratory system or inadequate cold chain [code: lab cold chain]</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>● Services not available in any location perceived as close enough to be realistically reachable for the given health condition of concern (e.g. cancer services only available in capital city or abroad, gender-based violence and mental health services only available in capital) [code: no service]</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
<td></td>
<td>● Inadequate ambulance services and/or transport methods/vehicles for mobile health units/home care visits [code: no med vehicle]</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>● Shortage or poorly functioning basic amenities such as electrification, improved water and sanitation, and waste management in health facilities [code: amenities]</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>● Lack of adequate computer equipment, internet connectivity and phone services (including for outreach services, telemedicine) for either provider or patient [code: ITC equipment]</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>This includes the unavailability of same-gender and/or culturally competent and linguistically appropriate providers where needed – which is classified as both an availability- and acceptability-related barrier.</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td><strong>Accessibility</strong></td>
<td>● Long distance and time for travelling to health service point [code: travel time]</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>● Lack of appropriate mode of transport [code: travel method]</td>
<td></td>
<td>○</td>
<td>○</td>
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</tr>
<tr>
<td></td>
<td>● Unsafe terrain or weather conditions, impassable roads due to quality, road blockages due to conflict/insecurity, unsafe location of service point [code: unsafe conditions]</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>● Limited accessibility of facilities for persons with disabilities [code: disabilities]</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td><strong>Geographic and physical</strong></td>
<td>● Direct: official out-of-pocket expenditures for services (e.g. co-payment for services, laboratory tests, exams) [code: direct service costs]</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>● Direct: official out-of-pocket expenditures for medicines and health products (e.g. assistive devices) [code: direct medprod costs]</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>● Indirect: transport and accommodation costs linked to using services [code: indirect transport costs]</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>● Indirect: opportunity costs (e.g. lost work, cost of child/older person care during absence, paying someone to do one’s job during absence, such as managing livestock/farm) [code: indirect opportunity costs]</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>● Informal payments (cash or in-kind) [code: informal payments]</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>● Public health service capacity and provider incentive structure influencing patients use of private services [code: private public interface]</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td><strong>Financial</strong></td>
<td>● Opening times are not in synergy with when people are available to access services [code: opening times]</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>● Inadequate systems to schedule appointments and long waiting times/lack of timeliness [code: scheduling]</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>● Exclusionary administrative requirements for care (e.g. registration in local area) [code: registration]</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>● Lack of access to culturally and linguistically appropriate health information that considers local populations’ world views and cultural practices [code: culturally relevant info]</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>● Delivery of health information not considering the most appropriate communication modalities in light of illiteracy rates, limited access to technology and internet connectivity, preferred use of TV or radio over written materials, etc. [code: communication modality]</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>● Lack of awareness by potential service users of rights and obligations [code: rights awareness]</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td></td>
<td>● Challenges of working in the informal economy (e.g. no paid sick leave to go to an appointment) [code: informal economy]</td>
<td></td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

See Acceptability for: barriers related to power dynamics and inequalities (e.g. resulting in lack of autonomy to make decisions about one’s own health) and fear of/previous experiences of discrimination based on gender, ethnicity, Indigeneity and other grounds that make people not want to access services.
**Tanahashi coverage domain**

Types of barriers that can be experienced across the continuum of health services, with the respective shorthand code for data processing

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Shorthand Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Lack of alignment with cultural beliefs and preferences (e.g. preference for traditional medicine, differing views of health and illness) and coordination/integration with Indigenous/traditional medicine systems</td>
<td>culturally acceptable services</td>
</tr>
<tr>
<td>● Gender norms, roles, power and relations that inhibit access (e.g. limited autonomy of some women in deciding when to seek care, patient only being allowed to or wanting to see a same-gender provider, or gender norms on masculinity that delay treatment-seeking)</td>
<td>gender norms</td>
</tr>
<tr>
<td>● Limited provision of age-appropriate services (e.g. adolescent-friendly services not being provided)</td>
<td>age-relevant</td>
</tr>
<tr>
<td>● Lack of services and health products that account for biological differences by sex (e.g. cardiovascular disease services that do not account for specific differences in manifestation of symptoms of a heart attack between sexes)</td>
<td>biological differences</td>
</tr>
<tr>
<td>● Negative perceptions of service quality (including the quality dimensions of equity, safety, effectiveness, people-centredness, efficiency, timeliness and integration)</td>
<td>quality perceptions</td>
</tr>
<tr>
<td>● Low levels of trust in the health system (linked to perceptions of transparency and accountability, fear of criminalization or other social and legal repercussions, and experience with corruption)</td>
<td>trust</td>
</tr>
<tr>
<td>● Discriminatory attitudes by providers (e.g. based on sex, gender, ethnicity, marital status, religion, caste, disability, health status or sexual orientation of the person seeking care)</td>
<td>discrimination</td>
</tr>
<tr>
<td>● Perceived/actual extent to which confidentiality is protected</td>
<td>confidentiality</td>
</tr>
<tr>
<td>● Low attractiveness of health services compared to alternative/competing options for using one's time and resources (e.g. health promotion services are available and accessible, but less attractive compared to other activities)</td>
<td>prioritization</td>
</tr>
</tbody>
</table>

**Acceptability**

Contact coverage refers to the actual contact between the service provider and the user when services are available, accessible and acceptable

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Shorthand Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Lack of diagnostic accuracy (influenced by lack of diagnostic equipment and other factors such as gender unequal/blind protocols)</td>
<td>diagnostic capacity</td>
</tr>
<tr>
<td>● Insufficient provider compliance (e.g. related to low levels of training, lack of supportive system requirements such as protocols and guidelines, and deficient overall quality control mechanisms)</td>
<td>provider compliance</td>
</tr>
<tr>
<td>● Lack of timeliness (e.g. in an emergency, triage, assessment and intervention processes must be of sufficient speed such that time-sensitive health conditions are recognized and treated as soon as possible)</td>
<td>timeliness</td>
</tr>
<tr>
<td>● Weak referral and back-referral systems</td>
<td>referrals</td>
</tr>
<tr>
<td>● Inadequate treatment adherence (e.g. due to unclear instructions, poor patient–provider relationship, mismatch between treatment prescribed and patient compliance ability, adverse social conditions and gender roles/relations)</td>
<td>patient adherence</td>
</tr>
<tr>
<td>● Stigmatization caused by service usage that disrupts treatment adherence and/or otherwise negatively impacts patients’ health</td>
<td>stigmatization</td>
</tr>
<tr>
<td>● Limited effectiveness of the interventions due to inappropriate service delivery for the differing biological, circumstantial (e.g. physical environment) and cultural reality of the patient</td>
<td>appropriateness</td>
</tr>
<tr>
<td>● Health care-associated infection occurring in a patient during the process of care in a hospital or other health care facility which was not present or incubating at the time of admission</td>
<td>infection</td>
</tr>
<tr>
<td>● Link to financial protection dimension of UHC: catastrophic/impoverishing expenditures or detrimental sale of assets incurred during the process of care that force the patient to stop treatment before it is completed (looping back to financial accessibility) and/or cause financial hardship</td>
<td>financial hardship</td>
</tr>
</tbody>
</table>

**Completion checklist for Module 1**

By the end of this module, the users of this handbook should:

- ✓ be able to explain the key concepts relevant to a barriers assessment, and know the definitions of key terms used in later modules;
- ✓ be familiar with the Tanahashi framework for effective coverage and its domains, as well as PROGRESS-Plus, as both of these are referred to across the handbook;
- ✓ have reviewed the evidence synthesis framework (Table 1), which is drawn from for all subsequent modules.
Concepts for humanitarian contexts

Attacks on health care
Attacks on health care, a specific concern in humanitarian contexts, are defined as “any act of verbal or physical violence or obstruction or threat of violence that interferes with the availability, access and delivery of curative and/or preventive health services during emergencies” (WHO, 2019c). Attacks on health care are strictly prohibited under international humanitarian law (IHL) (ICRC, 2014). IHL explicitly prohibits attacks on medical units, medical establishments, and medical transports.

Human rights-based approach to health in humanitarian contexts
In the context of armed conflict, IHL imposes obligations on the parties in the conflict to ensure adequate conditions of life for the civilian population with regard to matters of health, food, relief assistance, work, employment and education. The right to health must be protected in all contexts, including in humanitarian ones. The right to health is jeopardized by attacks on medical personnel, facilities and transport, and also when access to the underlying determinants of health (such as safe drinking water, adequate sanitation, housing and food) is restricted.

Humanitarian emergencies
In this handbook, humanitarian emergencies include natural and human-made disasters as well as complex emergencies, which are defined as “disrupted livelihoods and threats to life produced by warfare, civil disturbance and large-scale movements of people, in which any emergency response has to be conducted in a difficult political and security environment” (WHO, 2002). They typically have Inter-Agency Standing Committee (IASC) coordination processes and humanitarian planning cycles for the response activated.

PROGRESS-Plus and increased vulnerabilities in humanitarian contexts
Inequalities between subpopulations in humanitarian contexts can be compared by levels of the “PROGRESS-Plus” dimensions of inequality, as described previously in this module (Box 1). That said, there are important additional dimensions relevant to humanitarian contexts.

- Place of residence:
  - camp versus non-camp/urban residence;
  - humanitarian accessibility and security levels.

- Socioeconomic status:
  - vulnerability classification (in contexts where a vulnerability assessment has been done).

- “Plus”:
  - political affiliation;
  - being displaced/refugee/migrant or member of the host community.

Security
Security-related barriers such as active fighting between armed groups, war, contamination with landmines and explosive devices, and presence of criminal groups can create obstacles to effective coverage with health services (ACAPS, 2022; Tønnessen-Krokan & Bringedal Houge, 2022). Presence of military forces in proximity to service delivery points, curfews and other restrictions also constitute barriers to health services.
**Additions to the evidence synthesis framework (Table 1) for humanitarian contexts**

**Availability:** Complete or partial destruction of health facilities; crowd-out due to emergency conditions, such as high numbers of injured persons or a disease outbreak; loss of health workforce due to deaths, injuries and psychosocial distress following attacks; service gaps or intermittent delivery of services due to emergency-related disruptions; and, breakdown of legal and governance structures, which may complicate efforts to ensure health service availability and protection of health workers, service users and facilities.

**Accessibility:** The following contextual factors exacerbate all accessibility-related barriers, often overlapping with the factors defined as “attacks on health care”:

- attacks on health workers, health care service points or vehicles, and medicines/medical equipment supply chains;
- destruction of information and communication systems, electricity, roads, and water and sanitation systems used by health facilities;
- deliberate exclusion, violence against and marginalization of specific subpopulations in humanitarian contexts, creating adverse conditions for health and for accessing services;
- in natural disasters, disproportionate impact of the disaster in certain areas and on populations already experiencing vulnerabilities, deepening health needs and obstructing health care-seeking opportunities.

**Physical accessibility barriers:** Besieged and blockaded areas that are isolated from any assistance and from where people are not able to leave; checkpoints and blocked or destroyed roadways; curfews; inoperative public transport systems due to conflict; and damage to or destruction of ambulances attacked during a conflict or affected in a natural disaster.

**Financial accessibility barriers:** Higher indirect costs due to travel conditions and risk of exploitation of vulnerability by people offering transport and accommodation; lower capacity to spend any monies out-of-pocket due to heightened economic vulnerability and weakened livelihood generation opportunities; fewer services being offered due to provider scale-back of services during an emergency situation; ineligibility for accessing safety nets (e.g. health insurance); and different prices for non-nationals and/or displaced persons not registered in a local area.

**Organizational and informational barriers:** Militarized service delivery points; information channels about service provision absent or disrupted due to emergency situation; administrative barriers to accessing services for displaced persons or non-nationals; and opening hours of services not aligning with curfews and/or travel time required to return home before curfew commences.

**Acceptability:** Fear of attacks on or unsafe health service points; loss of neutrality of health care services or fear of coercion of the health workforce into disclosing personal information of relevance to warring sides; real or perceived discrimination by health providers against displaced persons or of persons who have characteristics pertinent to the conflict underway (e.g. political affiliations, ethnic or religious backgrounds); erosion of trust in health care institutions, especially if services are not seen as neutral; and the psychosocial impact of conflict, including trauma, stress and grief, influencing health-seeking behaviour.

**Contact coverage and effective coverage:** Disruption of diagnostic capacity, referral systems and ability of providers to follow standard operating procedures/protocols due to emergency conditions; weakened capacity of patients to adhere to treatment due to emergency conditions; and dysfunctional health record systems impeding provider’s capacity to provide appropriate continuity of care.
References for Module 1


Bashshur RL, Shannon GW, Metzner CA (1971). Some ecological differentials in the use of medical services. Health Serv Res. 6(1):61–75. PMC1067311.


The relevance, quality of findings and timely execution of the barriers assessment will be significantly determined by the thoroughness of the preparations. This module suggests key actions to undertake during the preparatory phase.

Module objectives

This module supports users to:

- assemble an oversight committee and select the research team;
- define the aims, objectives, scope and research questions of the assessment;
- design the draft research plan and convene an initial stakeholder meeting for inputs to the plan;
- submit the research plan for ethical review.

Assembling an oversight committee

To commence preparations, an oversight committee must be formed. This team has the important role of ensuring the timeliness, quality and usefulness of the assessment. While they do not conduct the assessment itself, they will commission and oversee it. The team’s composition will reflect contextual factors. That said, the team could comprise:

- a representative from the national health authority who has responsibility for the health system performance areas or the health programmatic area that the assessment will address;
- a representative from the government with extensive experience in running mixed methods assessments in the health domain and who would be the main expert to ensure methodological rigour (she/he would oversee the work of the “lead researcher” commissioned to run the study);
an expert in equity, gender and human rights and health, either from the government or from a United Nations agency, nongovernmental organization partner, and/or academic institute that may be supporting the barriers assessment.

The oversight committee’s terms of reference will typically include:

● strategic design of the assessment;
● aligning the assessment with national policy and programming cycles;
● management of the execution of the assessment, including through:
  - defining the aims, objectives, scope and research questions of the assessment;
  - contracting the lead researcher;
  - creating the research plan, together with the lead researcher, and ensuring submission for ethical clearance;
  - sending letters requesting informant interviews and liaising with other parts of the government to get access to datasets;
  - identifying subnational locations based on specific criteria and liaising with subnational governments to ensure that the lead researcher and her/his team can advance in setting up the qualitative work;
● consulting and convening relevant stakeholders (e.g. to contribute to the design, to consider findings);
● ensuring the publication of findings in the public domain and activating follow-up on the findings;
● managing feedback loops to subnational levels.

Oversight committees often begin with a working session to review the key concepts (see Module 1) and to commence work on the study design.

Defining the aims, objectives, scope and research questions of the assessment

Specifying the aims and main research question of the study

The oversight committee has the preliminary task of identifying the aims, objectives, scope and research questions of the study. In defining the problem to be tackled, the team can first reflect on the ultimate objectives of UHC (see definition in Module 1) and which subpopulations are not benefiting from reforms underway towards these objectives. Information on these can be gleaned from ongoing health inequality monitoring, as well as other sources. The team can define the problem in relation to the ultimate UHC-related outcomes – such as health outcomes, financial protection and equity in finance, and responsiveness – and inequities between different subpopulations in relation to these. The below examples are for a hypothetical assessment focusing on rural areas, in a hypothetical country.

**Example study aim:** In the light of higher overall premature morbidity and mortality and higher impoverishing expenditures among rural populations in X country, the assessment will identify barriers to effective coverage with quality health services and drivers of financial hardship in rural communities.

Considering the above aim, the main research question could be:

**Example main research question:** What are the main barriers to effective coverage with health services and the drivers of financial hardship experienced by rural populations in X country?
Importantly, a secondary aim of the study is to include the interpretation of these barriers as entry-points for taking action for PHC-oriented health systems strengthening (as enabled through Module 8).

**Key scoping issue: building on existing work and considering resource constraints**

Defining the study objectives and scope requires considering the intended outputs/deliverables of the study, as well as contextual factors such as building on existing work, alignment with national policy and programming cycles (see next subsection) and resources available. When thinking through the objectives and scope, the considerations outlined below can be useful.

- Have other assessments had a similar aim, and if so, which methods did they use and when were they produced?
- What could be the value added of this assessment, in terms of literature review, quantitative analysis and/or qualitative analysis?
  - **Probe:** Did previous studies focus on both supply- and demand-side barriers in relation to availability, accessibility, acceptability, contact coverage and effective coverage (as per Table 1)?
  - **Probe:** Were previous studies local or national?
  - **Probe:** Were previous studies covering the desired tracer conditions?
- Assuming there is a value added, how can this study ensure that it builds on existing relevant work? For instance:
  - **Probe:** If only one method (e.g. quantitative) was used in a previously conducted study, how could the assessment incorporate findings from that while advancing the other (literature review and qualitative) components?
- How do resource considerations (i.e. time and budget) influence the scope of the study?
  - **Probe:** If only a few weeks are available to consolidate evidence on barriers to health services, should only the literature review (as a rapid desk review) be done?
  - **Probe:** If limited funds are available, which components of research need to be scaled back without sacrificing quality, or dropped entirely as they cannot be done without sacrificing quality?

The answers to these questions will determine how the subsequent modules in this handbook are used.

**Key scoping issue: aligning the assessment with policy and programming cycles**

In order to facilitate that the assessment findings are acted upon, it is highly beneficial if the assessment is designed in line with the national policy and programming processes and cycle. The study can feed into situation analyses, reviews and evaluations of policies, plans or programmes, or wider health systems performance assessments. Box 3 describes how this was done in Nigeria and the United Republic of Tanzania.
Key scoping issue: using tracer conditions and interventions

An assessment can approach service coverage in different ways. The whole assessment may focus on services for one health condition. Alternatively, the assessment may look at service coverage more broadly, for instance, to feed into a reform of PHC. Likewise, it may focus on how specific subpopulations (e.g. Indigenous populations, internal labour migrants) are accessing services.

For the broader service coverage assessments, the oversight committee may want to select a set of tracer conditions. Using tracers of different kinds can provide useful insights to system performance (Bouchard & Jean, 2017; Siewert, 2017). The use of tracer conditions is frequent in measurement of UHC. The UHC service coverage index explores average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, noncommunicable diseases, and service capacity and access, among the general and the most disadvantaged populations (WHO, 2020f).

For deciding on which tracer conditions to use in the barriers assessment, consideration can be given to:

- the causes of the highest burden of disease and premature mortality for women and men in the area studied (as these could be different between sexes, it is important to consider both);
- health conditions affecting specific demographic subpopulations in the area studied (e.g. the ageing population);
- multiple health conditions that require a mix of system requirements (to test different attributes of system performance).

These issues are described in more detail in Module 5, as some preliminary reviews of quantitative data will be required for the creation of the research plan. In keeping with the goal of UHC, all barrier assessments should also include at least one subquestion related to financial barriers to effective coverage with health services and drivers of financial hardship.

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**Box 3. Assessment of barriers to accessing health services for adolescents in Nigeria and the United Republic of Tanzania**

**Nigeria:** In 2017, the Federal Government decided to revise and update its *National policy on the health and development of adolescents and young people in Nigeria*. The government commissioned a national situation analysis to inform the update, and a barrier assessment was conducted to complement this. Findings fed into development of the new adolescent health policy and related strategic plan.

**United Republic of Tanzania:** An adolescent health services barriers assessment was conducted in 2018 to inform the review of the National adolescent reproductive health strategy (2011–2015) and the mid-term review of the *National road map strategic plan to improve reproductive, maternal, new born, child and adolescent health in Tanzania (2016-2020): One Plan II*.

Sources: WHO Regional Office for Africa (2019a, 2019b).
**Key scoping issue: selection of study locations**

Selection of the subnational study locations is typically informed by data reviews and other considerations, including those listed below (drawn from sources, including Pratt & Hyder, 2016).

- Consider the areas of the country that have the worse indicators for health status, health service coverage, unmet need, coverage with financial protection arrangements and/or drivers of financial hardship, as relevant to the aim of the assessment.

- Consider areas of the country that have the lowest human development index ranking and the highest levels of multidimensional poverty, social deprivation and gender inequality – all factors that will influence effective coverage (see Module 6).

- Have a mix of rural and urban locations, avoiding the pitfall of selecting study locations based on ease of geographic accessibility (ensuring that this does not happen will require adequate budgeting for travel and sufficient time allocation).

- Have a mix of ethnically/culturally diverse parts of the country.

- If parts of the country are experiencing a humanitarian crisis, consider integration of an adapted research approach for these areas (see the dedicated handbook subsections on conducting a barriers assessment in a humanitarian context), giving due attention to security and safety issues.²

- Have appropriate spread across subnational political boundaries (across regions, states, provinces, etc.) avoiding concentration of research in one region only, unless that is in line with the aim and main research question for the study.

**Example research question and subquestions**

As the scoping proceeds, the oversight committee can build the research subquestions. These outline key domains for evidence collection, analysis and reporting. Subquestions for research using this handbook speak to the evidence synthesis framework for barriers assessments, highlighted in the previous module. Box 4 features the main question and subquestions used in a barriers assessment done in North Macedonia in 2023, which constituted a pilot of this handbook (WHO Regional Office for Europe, 2024).

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² If for any reason the research team decides to exclude that location from the study (e.g. due to inaccessibility or safety concerns), this exclusion can be noted under limitations in the final report.
Box 4. North Macedonia study questions, as per approved research protocol

The main research question of the study was:

What are barriers and facilitating factors to effective coverage with health services experienced by adults in North Macedonia, in particular those living in rural areas and small settlements, and by subpopulations in situations of vulnerability?

The study also had subquestions for each of the domains of the Tanahashi framework for effective coverage. These included (always in relation to the study population) adults in North Macedonia, particularly those living in rural areas and small settlements and subpopulations in situations of vulnerability, as follows.

- What are the gaps in service availability?
- What are the geographic, time-related and transport-related barriers and facilitating factors to effective coverage with health services?
- What are the financial barriers and facilitating factors, as well as drivers of financial hardship?
- What are the organizational and informational barriers and facilitating factors?
- Which barriers and facilitating factors are acceptability-related (e.g. cultural appropriateness of services, confidentiality, perceptions of quality, fear of stigma, experiences of discrimination, forms of racism, sexism, classism, etc.)?
- What do existing data sources report on the extent of forgone care (i.e. persons who do not contact services when they have an identified health need)?
- Once services are contacted, what are the barriers and facilitating factors for effective coverage (in relation to access to effective referrals and back referrals, treatment adherence, provider compliance and diagnostic accuracy, etc.)?

The study also had three additional questions related to cross-cutting themes, and these served to guide analysis.

- 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?

Using participatory methods, the study also facilitated interpretation the data on barriers and identification of entry-points for taking action to strengthen the PHC approach, thus feeding into the PHC reform underway in the country.

Source: WHO Regional Office for Europe (2024).
Example objectives

The objectives for the study should take the main research question and subquestions and scoping considerations into account, as shown in the example below.

Objective 1: To review existing literature (2010–current period) on barriers to effective coverage with health services (including financial barriers) among [the study population], identified through scientific search databases and grey literature, both in general and for the following specific areas of analysis.

Specific areas of analysis (to be confirmed during scoping):
- nationally, including in the three most disadvantaged districts;
- two tracer conditions, as illustrative examples;
- financial barriers and drivers of financial hardship;
- gender norms, roles and relations;
- specific subpopulations (e.g. persons experiencing poverty, rural populations, older persons, ethnic minorities, migrant labourers, etc.);
- data gaps;
- priorities for rural health system strengthening.

Objective 2: To analyse existing quantitative datasets from national household surveys, facility assessments and patient exit interviews (2010–current period) to understand barriers to effective coverage with health services experienced by [the study population].

Objective 3: To conduct national and subnational qualitative research through key informant interviews and focus groups to get a more in-depth understanding of barriers to effective coverage with health services (and drivers of financial hardship) experienced by [the study population].

Objective 4: To cross-analyse all data sources, using data triangulation methods as appropriate, and produce a report of findings to feed evidence into the health systems assessment and next national health plan.

Selecting a lead researcher and research team

Once the oversight committee has a clear view of the aims, objectives and scope of the study, the next task is usually to identify the research team that is the operating arm of the oversight committee. In some cases, this could be part of the government itself (for instance, from a planning or monitoring and evaluation unit in the health ministry). In other cases, it will be in a university, research institute or other development partner. Please see Annex 1 for a sample “terms of reference” for the research team, including required skills and competencies. Due attention can be given to hiring research teams that include women, minority group and Indigenous representatives.
Designing the draft research plan

**Mixed methods**

This handbook proposes the use of an advanced mixed methods research design. Mixed methods draw from both quantitative and qualitative sources to understand a phenomena, with the purpose of producing deeper and more nuanced information (Creswell & Plano-Clark, 2017). The results are often of higher quality, as the sources also serve to cross-check and validate the robustness of findings. In the case of barriers and facilitating factors to effective coverage with health services, mixed methods enable an understanding of the extent of the barriers, as well as how and why they impact some people more than others, how they compound and intersect, and their impact (on expressed unmet need, on perceptions of service-seeking experiences and on health).

This handbook proposes a framework-informed convergent parallel mixed methods approach that has a participatory component. This entails:

- participatory approaches to defining the research plan and instruments (see guidance for the inception meeting);
- collecting qualitative and quantitative data in parallel, using instruments informed by the Tanahashi framework for effective coverage;
- separate analysis of each source applying both deductive and inductive methods;
- merging and re-analysis, synthesis and interpretation using data triangulation approaches, followed by reporting;
- participatory approaches to finalizing the interpretation and reporting, and mapping out implications arising from the research.

Each module in this handbook will guide users through the data collection and initial analysis steps. Module 7 will then guide users through the triangulation approach, where all the sources are brought together to construct a single narrative for reporting (grounded in the Tanahashi framework, but with additions that may have emerged from the data).

Research teams who have more time available may want to apply an explanatory or exploratory mixed methods design, rather than a convergent parallel design. This would enable analysis of results from one method to inform the data collected using another method. That said, as almost all pilots of barrier assessment methods by WHO since 2010 have responded to government requests to have the data in shorter time frames (linked to policy opportunities), the parallel convergent (rather than explanatory sequential or exploratory sequential) mixed methods approach is used in this handbook.

If the research team has more time and wishes to apply an explanatory sequential design, in which the quantitative data are first collected and analysed and the results inform the qualitative data collection, this can be done even if primary quantitative data are not collected. Results from a quantitative analysis even of secondary data can inform the design of qualitative tools and an approach to further "explain" quantitative findings. While this handbook does not provide orientations for this, interested research teams are encouraged to view the work of Creswell & Creswell, including the 2022 guide: *Research design: qualitative, quantitative and mixed methods approaches, 6th edition*. 
Gathering the content for a research plan

The research plan sets out who is going to do what, how and when. The plan will be necessary to get ethical clearance, engage stakeholders and manage execution of the assessment. The plan can be informed by the contents of this handbook, explaining how these methods will be used in the national context to meet the study aims and objectives. The research plan will require some advance exploration of the literature and quantitative data, as described earlier, for deciding on exact methods and scope so as to not duplicate existing work, tracer conditions, subnational locations, specific subpopulations, etc. The research team is encouraged to review all modules in the process of making the research plan. Box 5 provides resources to draw from for making the research plan.

Box 5. Resources to aid in drafting a research plan

The research plan should be written following the format required by the ethical review body to which it will be submitted. That said, a research plan typically includes the sections listed below.

- Members of oversight committee and lead researcher
- Title of proposal and Purpose
- Introduction/Background
- Study aim and objectives, questions and subquestions
- Methodology
  - Rationale and approach for the mixed methods study
  - Study sites: subnational site selection
  - Tracer conditions
  - Literature review
  - Analysis of existing quantitative data (*and collection of new data, if appropriate*)
  - Qualitative data collection and analysis
    - Training of qualitative research team
    - National and subnational key informant interviews
    - Subnational focus groups and in-depth interviews
  - Participatory approaches (e.g. inception meeting and final stakeholder meeting)
  - Data triangulation, synthesis and interpretation
  - Reporting
  - Feedback loops and dissemination
- Assessment limitations or problems anticipated
- Any potential unintended consequences of the study
- Collaborators (including contractual partners for subnational work)
- Timeline
- Budget

The following guidance provides tips for drafting the plan:

Creating a timeline

If a research team wishes to apply all modules for an advanced convergent parallel mixed methods assessment, this could potentially be done within an 8–12-month period, conditions permitting. Ethical review timeframes depend on contextual factors, so this may prolong the timeline. If less than 8 months are available from the time of first conceptualizing the project to producing the final report, it is suggested that not all the methods and modules highlighted in this handbook be applied. Only select modules should be applied. If more time is available (i.e. more than a year), the modules could be advanced in a sequential manner, as mentioned above in the discussion on mixed methods. Fig. 4 shows the process and timeline for the barriers assessment in North Macedonia done as a pilot of this handbook.

Fig. 4. Diagram and timeline for the WHO assessment of barriers to effective coverage with health services in North Macedonia

**Inception meeting**

**Participants**

An assessment inception meeting aims to get feedback on and build shared ownership of the research plan. Participants include the oversight committee, the lead researcher and team, and key stakeholders from within health and other sectors, as well as international development partners (as appropriate). Consideration needs to be given to mapping the different stakeholders most relevant to the assessment’s aim and objectives. Stakeholder analysis methods can be useful for this (Box 6). Attendees in an inception meeting may include, but are not limited to:

- a representative from the health ministry’s national health information system management team and the national institute of statistics. She/he can advise on relevant data sources and facilitate access to data disaggregated by social and economic factors at subnational level;
● a representative from the health ministry’s planning, monitoring and evaluation team;

● a representative from the part of the government working on financial protection for health, such as the national health insurance institute;

● a representative from the national authority managing PHC improvement reforms;

● other relevant government representatives, such as national programme managers for the selected tracer conditions, or subnational health authority staff from the locations selected for qualitative research;

● representatives from nongovernmental and civil society organizations, those who represent or work directly with the subpopulations addressed by the assessment (e.g. organizations working for people experiencing poverty, organizations of persons with disabilities, women’s associations, ethnic minority associations, etc.);

● representatives from other government sectors (e.g. social protection, employment, education, women’s affairs, rural development, migration, Indigenous affairs) and national professional associations relevant to the aim of the assessment;

● other representatives from universities, research institutes, or donor/partner agencies who have expertise in equity analysis, gender analysis and human rights-based approaches, and whose inputs could enrich the research plan.

Box 6. Using stakeholder mapping techniques

Stakeholder mapping involves identifying who are the primary and secondary stakeholders, analysing their interests, and establishing what their potential role and contribution could be. Stakeholder mapping can facilitate buy-in to the assessment from the beginning. “A stakeholder is a person who has something to gain or lose through the outcomes of a planning process or project … It is often beneficial for research projects to identify and analyse the needs and concerns of different stakeholders, particularly when these projects aim to influence policy” (ODI, 2009). An assessment of the political economy is an important cross-cutting dimension of a stakeholder analysis. This refers to analysis of institutional and governance arrangements, the underlying interests, incentives, rents/rent distribution, historical legacies, prior experiences with reforms, social trends, and how all of these factors can effect or impede change (Poole, 2011).

Key resources include:


Sample agenda for the inception meeting

Table 2 is a sample agenda for the stakeholder inception meeting. This is for a half-day meeting, which could be done virtually, in-person or in hybrid format, depending on context.

Table 2. Sample agenda for the inception meeting

<table>
<thead>
<tr>
<th>Suggested time</th>
<th>Session</th>
<th>Purpose and key points to cover/consider</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 minutes</td>
<td>1. Welcome and introductory session</td>
<td>This session gives an overview and allows people to introduce themselves, which is particularly important if the stakeholders have not worked together before.</td>
</tr>
<tr>
<td></td>
<td>- Greeting by the oversight committee</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Round of introductions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Objectives of the meeting and rationale for the barriers assessment being planned</td>
<td></td>
</tr>
<tr>
<td>1 hour</td>
<td>2. Sensitization and key concepts session</td>
<td>This session aims to sensitize all stakeholders to the key concepts, terminology and operational framework used in the assessment.</td>
</tr>
<tr>
<td></td>
<td>- Presentation on health inequities (in relation to the topic of focus of the barriers assessment) and the existing state of knowledge with regards to the causes within and beyond the health sector</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Presentation on the Tanahashi framework for effective coverage, and linkages to concepts including health equity, gender equality and human rights</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Discussion of linkages to PHC-oriented health systems strengthening</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Questions and answers in plenary</td>
<td></td>
</tr>
<tr>
<td>1–1.5 hour(s)</td>
<td>3. Advancing the barriers assessment</td>
<td>This session serves to get inputs to the study protocol. Having a scribe will be important for documenting all suggestions.</td>
</tr>
<tr>
<td></td>
<td>- Presentation of the draft study protocol for the barriers assessment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Discussion in plenary to get stakeholder inputs on:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- aims and objectives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- research questions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- methods</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- timeline</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- focus group quotas and locations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- suggestions for grey literature</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- suggestions of data for secondary analysis</td>
<td></td>
</tr>
<tr>
<td>15 minutes</td>
<td>4. Closing and next steps</td>
<td></td>
</tr>
</tbody>
</table>
Ensuring ethical clearance

All research involving human beings (see Box 7) should be reviewed by an ethics committee to ensure that appropriate ethical standards are being upheld (WHO, 2020e). Research ethics govern the standards of conduct for scientific researchers. Adherence to ethical principles is necessary to protect the dignity, rights and welfare of research participants. These requirements are underpinned by an international framework and related normative documents, conventions and regulations, such as the World Medical Association’s 1964 Declaration of Helsinki and the Council for International Organizations of Medical Sciences (CIOMS) ethical guidelines (CIOMS, 2016). Without an ethical review, assessment findings may not be considered valid or accepted by stakeholders and/or it may not be possible to publish findings from the assessment.

Box 7. Research involving human beings

WHO’s ethical standards and procedures for research with human beings (WHO, 2020e) defines research with human subjects as “any social science, biomedical, behavioural, or epidemiological activity that entails systematic collection or analysis of data with the intent to generate new knowledge, in which human beings:

- are exposed to manipulation, intervention, observation, or other interaction with investigators either directly or through alteration of their environment; or
- become individually identifiable through investigator’s collection, preparation, or use of biological material or medical or other records”.

Source: WHO (2020e).

When research is with subpopulations who are disadvantaged or stigmatized (as will be the focus of many barriers assessments), attention to specific processes to protect participants and their data is even more important (Amon et al., 2012). Guidelines 15–17 of the CIOMS international ethical guidance provide specific advice on the inclusion of participants who may be vulnerable and the process(es) for safeguarding their rights and welfare (CIOMS, 2016). Some of the key ethical issues to consider when producing the research plan and ethical clearance request for a barriers assessment are described below.

- Ensuring that all owners of the data/findings agree to their use for the purpose of reviewing effective coverage. For example, the quantitative step entails the use of existing data. In some situations, such as those with Indigenous communities, the data may be jointly owned by the government and Indigenous communities. This is likely to require a different and additional approval.

- Ensuring compliance with cultural, community and administrative systems for engaging districts and communities/villages. For example, this will usually involve meeting with the relevant district authorities and following relevant administrative systems.

- Prior to all informant interviews and focus group discussions, the purpose of the data collection, the process to be followed and how the data will be used must be explained to all potential participants. Field teams should consider using both written and oral materials for providing this explanation. (CIOMS Guideline 9 provides specific advice on developing information materials for informed consent.)
● All key informants and focus group participants should participate on a voluntary basis. This needs to be re-stated prior to the interview or focus group. Also, the voluntary nature of participation should be stressed, including the freedom to refuse to answer any question and/or withdraw consent to participation at any time during the process. (See CIOMS Guideline 15 for inclusion of potentially vulnerable individuals and groups in the conduct of research.)

● Documentation of informed consent (see CIOMS Guideline 9) must be obtained from all interviewees and participants prior to interviews or focus groups. Informed consent may be obtained by the participant signing a consent form or expressing consent orally. Generally, the participant should sign a consent form, and any exception must be justified by the researcher and approved by the ethics committee. Where oral consent is obtained, researchers must provide documentation of consent, i.e. either certification by the person obtaining consent or by the witness when consent is obtained. For development of informed consent forms, see the WHO Research Ethics Review Committee information on: What is an informed consent form? [link] and Templates for informed consent forms [link].

● In order to protect participants from stigmatization and/or adverse consequences as a result of engagement in the process, all data should be de-identified. That is, no identifiable individual-level data should be shown, and all information should be treated confidentially and securely stored (physically and electronically). This is discussed in more detail in the next module.

Ensuring feedback loops will be a requirement of ethics permissions and should be incorporated into the scoping of the review. This entails feedback of findings to participants in the qualitative research component, in particular to focus group participants, key informants and/or local communities. Most partners and academic institutions will have processes for ensuring feedback loops.

If the study is taking place in the context of a health emergency such as a disease outbreak, it is important that WHO’s Guidance for managing ethical issues in infectious disease outbreaks is applied (see: WHO, 2016). For example, a barriers assessment on adolescent health in Ethiopia in 2020 (done using the methods described in this handbook), applied WHO’s ethical guidance and IMPACT’s SOPs for data collection during COVID-19 (WHO Regional Office for Africa, 2021; IMPACT, 2020). Preventive measures included highlighting the risks of infection in consent statements, having all focus group discussions outdoors, ensuring use of face masks and hand sanitizer by all study participants and researchers, and ensuring physical distancing of at least 2 m between participants.

Completion checklist for Module 2

By the end of this module, the users of this handbook should:

✓ have created an oversight committee and commissioned a research institute to advance the assessment;

✓ have crafted research questions and produced a research plan, including consent forms, and submitted it for ethical clearance;

✓ have conducted an inception meeting with stakeholders, to feed into the research plan.
Preparing for the assessment in a humanitarian context

Researcher expertise

The lead researcher and/or at least one team member for the assessment should have knowledge and/or experience in dealing with sensitive ethical considerations during data collection and analysis in humanitarian contexts.

Assessment plan

Fig. 5 presents a decision tree outlining the barriers assessment process to guide selection of appropriate module components and assessment methods and steps, considering available information, time and resources, as well as safety and access to key informants and affected populations. In most humanitarian contexts, it will not be possible to apply all components of the barriers assessment described in this handbook, so teams will need to select or adapt modules. These decisions will be context-specific, and limitations resulting from compromised or incomplete methods must be explicitly included in all dissemination materials. Of any assessment, a key outcome is considering data gaps and future primary data collection needs for ongoing monitoring and evaluation in the humanitarian response. As such, if a full assessment cannot be done at present, suggestions can be made for longer-term evidence gathering on barriers to effective coverage with health services.

In humanitarian contexts, taking into consideration existing assessments (such as the Multi-Sector Needs Assessment (MSNA)) is essential. That said, many, if not all, data sources that should feed into the assessment will not be in place in most acute emergencies or in the immediate aftermath of an emergency. In these cases, it is beneficial to try to incorporate indicators and questions of interest from the barriers assessment into data collection, monitoring and/or surveillance systems as they are established for the broader humanitarian response. With regard to tracer conditions, sexual and gender-based violence and mental health can be particularly prevalent in humanitarian contexts.

In addition to the information on “Selection of study locations” provided in this module, numerous factors must be considered during the assessment planning phase in a humanitarian context, such as:

- priority areas with the greatest need and/or density of vulnerable/underserved/affected populations,
- communities in hard-to-reach areas, including possible access limitations due to damaged/ blocked roadways or restrictions;
- safety of data collection teams and participants;
- logistics (availability of time, funding and resources, etc.).

Alternative methods should be considered for assessing remote, insecure or logistically hard-to-reach areas, and the benefit of their inclusion in the assessment should be weighed against the required costs when planning study locations.
**Secondary document and data review**

- **Sufficient secondary data information?**
  - Yes → Rapid scoping review of existing documents and data sources
  - No → Primary data collection

- **Access to affected areas?**
  - Yes → Remote key informant interviews/focus group discussions
  - No → Workshop with stakeholders

- **Time, expertise and resources available?**
  - Yes → Key informant(s) known and accessible?
  - No → Limited time

- **Key informant(s) known and accessible?**
  - Yes → Prioritize and address barriers in health response plan
  - No → Limited resources

- **Safety guaranteed?**
  - Yes → Identify knowledge gaps, primary data collection needs, and implications for ongoing monitoring and evaluation of humanitarian response
  - No → ERC approval

**Sampling level and alternative methods**
- Geographic level
- Purposive sampling
- Site-based sampling
- Affected group level

**Data collection techniques (dependent upon assessment question and gaps in available data)**
- Key informant interview
- Focus group discussion
- Key informant interview
- Community focus group discussion
- Household survey
- Health facility assessment/record review

**ERC: ethics review committee.**

* Primary quantitative data collection reserved for contexts with minimal/no secondary data, but with safe access, time and resources available.

**Source:** adapted from IASC (2015).

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**Inception meeting**

In humanitarian contexts, it may be appropriate to engage a wider range of stakeholders in the inception meeting (see Box 8 for an example). These stakeholders may include implementing and donor organizations, nongovernmental organizations, United Nations agencies, human rights groups, health workers (including those who may have worked in the health system before the crisis) and affected communities. In most settings, this can be organized under the Health Cluster or its equivalent. It is relevant to draw from the field of political economy analysis, and consider potential biases and agendas, when considering the stakeholders to engage (UNDP, 2017; Witter & Hunter, 2017).
**Ethical review**

Ethical review might be expedited, or the assessment considered exempt in some cases where the assessment does not include all modules (e.g. rather, only includes the stakeholder meeting, literature review and secondary analysis of existing datasets). Where ethical review considers the assessment as human subjects research, the considerations and ethical issues outlined earlier in this module should be incorporated, with consideration of the consent script clarifying explicitly that assessment participation is not tied to current or future receipt of assistance. Personal identifying information should be collected only when necessary and should be destroyed immediately after interviews and pseudonymization and anonymization should be used, considering magnified risks to participant confidentiality and privacy in humanitarian contexts.

**Box 8. Stakeholder engagement in assessments by the WHO Attacks on Health Care Initiative**

The WHO Attacks on Health Care Initiative is advancing assessments that draw on aspects of the methods in this handbook. They are underpinned by the Tanahashi framework as well as other frameworks, and focus on the relationship between attacks on health care and barriers for accessing health care in fragile, conflict-affected and vulnerable contexts. An initial research framework outlining the global objectives of the assessments was developed by the Attacks on Health Care Initiative, Global Health Cluster, Humanitarian Policy and Guidance unit, and other experts. This framework was then presented in countries with a high burden of attacks on health care. Stakeholder meetings with the national health clusters were set up to refine the country-level assessment objectives, to ensure appropriation of the assessment results by national actors, and to identify partners for implementation of the assessments. Subsequently, full research protocols were developed at national level and submitted for ethics review. Trainings on the assessment frameworks and methodology were conducted among implementing partners by the Attacks on Health Care Initiative, and dissemination plans were developed in collaboration with Health Cluster partners. Mixed methods assessments are currently advancing. Information generated through these assessments will be operationalized both at the global level and at national and subnational level, through tailored advocacy strategies and operational guidance documents.
References for Module 2


This module proposes ways to advance the key informant interviews at national and subnational levels. Serving to collect data relevant to the research questions, the general purpose of interviews is to obtain information on what key stakeholders perceive to be barriers to effective coverage with health services.

**Module objectives**

This module supports users to:

- select interviewees based on analysis of national and subnational stakeholders relevant to the research questions;
- adapt the interview guide and conduct interviews with the key informants;
- code, analyse and summarize data from the interviews, and input key findings to the evidence synthesis framework (Table 1, Module 1).

**Selection of key informants**

In the approach described in this handbook, key informant interviews serve to capture “supply-side” or “provider” perspectives of the barriers to services that exist, both in general and for subpopulations in situations of disadvantage. In this way, they differ from the focus group discussions (Module 6) which capture “demand-side” perspectives, i.e. the experiences and insights of people who themselves are service users or non-users.

Key informant interviews are typically done with people in their professional capacity, whether they represent authorities or other organizations/entities. It is important to choose the method for the selection of key informants that is most relevant to the aim of the study. The research team may consider one of the following methods, or a mix of these (Creswell & Creswell, 2022; Curry, 2015a; FHI, 2005).

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Using human rights terminology, in this handbook the key informant interviews are proposed for “duty bearers”, whereas the focus group discussions are done with “rights holders”.

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3 Using human rights terminology, in this handbook the key informant interviews are proposed for “duty bearers”, whereas the focus group discussions are done with “rights holders”.
• **Purposive sampling:** Informants are selected based on specific criteria, often linked to the research aims, objectives and questions. The total number of informants is often influenced by the concept, albeit debated, of a “saturation point” being met, and the time and human resources available to do the interviews. The saturation point will depend on the research questions and can be influenced by decisions to look for divergent, common or outlier perspectives (Sebele-Mpofu, 2020; Saunders et al., 2018; Curry, 2015a; Guest, Bunce & Johnson, 2006).

• **Quota sampling:** This method usually requires that the assessment oversight team decides before fieldwork commences on how many respondents to enrol and their specific characteristics. Characteristics can relate to stakeholder group (government, nongovernmental and civil society organizations, professional associations, academia, other sectors, development partners) and geographical areas/subnational levels. So, for example, the team might decide to conduct at least 10 interviews with key stakeholders in each subnational study location. Often, studies use a blend of purposive and quota sampling.

• **Snowball sampling:** A form of purposive sampling, “snowball sampling” entails identifying cases of interest from sampling people who know people with generally similar characteristics who, in turn, know additional people. This method can be particularly important for accessing informants at local levels outside of official government channels. It may be used in identifying traditional community and religious leaders.

Fig. 6 can aid in the initial decision-making on who to approach for the informant interviews.

**Fig. 6. Considerations for selecting key informants**

List all organizations relevant to the aim of the study

<table>
<thead>
<tr>
<th>National levels (examples)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of health</td>
</tr>
<tr>
<td>Primary health care</td>
</tr>
<tr>
<td>Financing</td>
</tr>
<tr>
<td>Health information systems</td>
</tr>
<tr>
<td>Tracer areas</td>
</tr>
<tr>
<td>National health insurance entity</td>
</tr>
<tr>
<td>National public health institute</td>
</tr>
<tr>
<td>Other health authorities</td>
</tr>
<tr>
<td>Research institutes</td>
</tr>
<tr>
<td>Academia</td>
</tr>
<tr>
<td>Nongovernmental/civil society organizations</td>
</tr>
<tr>
<td>Professional associations</td>
</tr>
<tr>
<td>Development partners</td>
</tr>
<tr>
<td>Other sectors (e.g. women’s affairs, social protection, rural development, migration)</td>
</tr>
<tr>
<td>Human rights bodies</td>
</tr>
<tr>
<td>Independent experts (e.g. gender, ethnicity, disability)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subnational levels (examples)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local health authority</td>
</tr>
<tr>
<td>Local nongovernmental/civil society organizations</td>
</tr>
<tr>
<td>Providers in health clinics and pharmacies</td>
</tr>
<tr>
<td>Community health workers</td>
</tr>
<tr>
<td>Community and religious leaders and representatives</td>
</tr>
<tr>
<td>Social workers engaged with marginalized subpopulations</td>
</tr>
</tbody>
</table>

Prioritize organizations and specific informants: Prioritize stakeholders likely to have more information and/or unique perspectives on barriers to health services in relation to study’s conceptual framework

Consider resources: With the time and resources available, how many of these interviews can be done at both national and subnational levels?

Cross-check: Does the list include a mix of respondents who know about supply-side (health system bottlenecks/deficiencies) AND demand-side (e.g. gender norms influencing treatment seeking) barriers? Make sure it covers both.

Cross-check: Will cuts to the list jeopardize quality and, if so, how can this be mitigated?

Source: the authors.

Once identified, the potential interviewees must be recruited using culturally appropriate strategies, using an information sheet and consent form (see below), with ample lead-time.
Conducting the interviews

Preparing for the interview

Preparations for the interview can incorporate the elements listed below.

- **Information sheet and consent form.** Consistent with ethics requirements, the research team needs to prepare an information sheet and informed consent document.

- **Location.** Deciding on the best place to conduct the interview, so the location choice lends itself to confidentiality, puts the interviewee at ease, inhibits any interruption, and is safe for the interviewer and the interviewee.

- **Adapting the guide.** With due attention to the main research question and subquestions, adapt the interview guide based on an understanding of context, the respondent’s professional role, and cultural and social power dynamics, among other factors.

- **Number and identity of interviewers.** If recording can be done, one interviewer alone is sufficient. If it cannot, two team members should go, with one concentrating on taking detailed notes and the other concentrating on conducting the interview. It is also worth considering whether the identity of the interviewer may be a factor that negatively impacts on the research. This may require adjustments to whom does the interviews, or the inclusion of persons to accompany the interviewee at her/his request.

- **Familiarity of interviewers with the concepts.** The research team should ensure that all interviewers are very familiar with the core questions and the probes required to solicit information. This may mean conducting a dedicated training for them, covering the concepts in Module 1 and the interview guide, as required by some ethical review boards.

- **Interpretation.** Interpreters may be required. Ideally, professional interpreters familiar with the technical terms of the study should be used. If these are not available, community members fluent in both languages can be used (provided they maintain neutrality and confidentiality).

Confidentiality and informed consent

Informant interviews can expose contentious barriers (such as discrimination by or absenteeism of health workers, to name a few). As such, it is essential to maintain confidentiality and protect the identity of the interviewee. Not doing so could result in harm, including retaliation to the interviewee. All of the research team must be trained in ensuring the confidentiality of respondents, covering aspects including (University of Nevada, 2020; WHO, 2020e):

- confidentiality in recruitment approaches and in the selection of interview location;
- informed consent processes (see WHO (2020) for more information);
- replacing personal information with research identification codes (ID codes) in any notes, transcripts or recordings from the research;
- destruction of recordings once transcripts are done, particularly if voice identification is a risk;
- safe storage of research materials, and separate locked storage of key codes;
- ensuring that all reporting of findings does not disclose any personal identification information (in some cases, this may also mean not including the name of the institution);
- not sharing information on the identity of respondents in any forum where findings are shared.
Interview guide

This section provides the skeleton of an example interview guide (estimated completion time is 90 minutes). Box 9 gives a sample script, which is divided into four sections.

- Part 1. Introduction and solicitation of informed consent
- Part 2. Barriers to health services and financial protection
- Part 3. Who is most at risk of being left behind on the path to UHC?
- Part 4. Priorities for health planning and programming

Box 9. Sample interview guide for a key informant interview

Part 1. Introduction and solicitation of informed consent

[It is assumed that the interviewee has already been given the full information sheet when recruited for the study. Hence, this is a reiteration of some of the content on that sheet.]

1a. Purpose. This interview is about barriers to effective coverage with health services, with a particular focus on those barriers experienced by populations in situations of disadvantage.

1b. Confidentiality. Everything that you tell us in this interview will be treated confidentially. We will take measures to ensure that your personal identity is not disclosed. These include coding of the data, safe data storage, and removal of all personal information from transcripts. In case you have any worries about your institution or organization being associated with the study (in particular, if this could potentially disclose your personal identity), we can also find ways to not identify your institution and just refer to categories of stakeholder groups consulted.

1c. Informed consent. Your participation in this interview is entirely voluntary. We anticipate that this interview will last 90 minutes. At any time during the interview or afterwards, you can decide to withdraw from the study. There will be no repercussions. At this point, we would like to ask:

- If you have questions on the purpose of the study?
- If you have questions or comments on how your identity will be kept confidential?
- If you wish to give consent to engage in the study [entailing signing of consent form; see Module 1 for approaches to getting consent if the respondent is illiterate].

1d. Recording. [Assuming consent is granted ... ] When setting up this interview, we asked if you would be okay with us recording it, and we just want to make sure that this is still the case? This will help us to capture your key points. Be assured that the recording will be kept confidential. Do you agree to this? [If the respondent does not agree, then only notetaking must be done.]

Part 2. Barriers to health services and financial protection

2a. The most prominent barriers to health service coverage. What do you think are the main barriers to effective coverage to health services, in general? Feel free to also mention facilitating factors to accessing services that some populations may have, and others do not have.

The interviewer can have prepared context-appropriate probes to be used, as needed, based on the framework domains: availability, accessibility, acceptability, contact coverage and effective coverage.

Note: The country-specific adaptation of the barrier types in the evidence synthesis framework (Table 1, Module 1) can be used to help to elaborate on the probes under each domain.
Example probes:

**Availability**
Probe about availability of health personnel, basic equipment and infrastructure, amenities such as electrification and improved water sources and sanitation, essential medicines, health products, etc.

**Accessibility**
Geographic – Probe about distance and travel time to health facilities, transportation modalities, terrain, seasonal issues impacting transportation, etc.

Financial – Probe about out-of-pocket costs of services, costs of essential medicines or prescribed health products, indirect costs (e.g. travel and accommodation, childcare, missed work), etc.

Informational or organizational – Probe about opening hours, information accessibility (including for persons who are illiterate or speak other languages), administrative requirements, etc.

**Acceptability**
Probe about perceptions of the quality of services provided; issues of confidentiality and fear of stigmatization; gender norms, roles and relations; preferences of the population for traditional medicine approaches, competencies of providers (such as communication, cultural sensitivity, empathy and respect for ethics, etc).

**Contact coverage**
Probe about other reasons why people may not contact services despite them being available, accessible and acceptable. Probe also about differences in unmet need or forgone care across subpopulations and across the types of services provided, and the reasons behind these.

**Effective coverage**
Probe about issues that could prevent people from obtaining the full services at a level of quality required to meet the treatment aim. This can include issues of diagnostic accuracy, treatment adherence, provider compliance, effective referral systems, etc.

2b. **Financial accessibility barriers and drivers of financial hardship.** Let us delve deeper into financial barriers to services and drivers of financial hardship. What do you think are the main reasons why some subpopulations either experience catastrophic and impoverishing health expenditures, or they forego using health services because of the cost?

2c. **Tracer conditions.** Note: include this question only for relevant interviewees who would have the required knowledge of the programming for these tracer conditions. Now I am going to ask you specifically about services for certain conditions [X and Y]. As you know, these are important causes of morbidity and mortality in our country. I would like you to expand on barriers that you think are the most pertinent to accessing these services, i.e. the reasons behind unmet need for these services.

- Tracer condition 1
- Tracer condition 2
Part 3. Who is most at risk of being left behind on the path to UHC?

3a. Gender. How does gender influence a person's experience of barriers to health services and financial protection?

Probes:
- How do gender norms, roles and relations manifest as barriers to effective coverage with health services?
- How do gender-related barriers intersect with other kinds of barriers?
- What are the key gender issues related to financial protection?

3b. Age. How does a person's age influence their experience of barriers to health services and financial protection?

Probes:
- Which age groups are most at risk of age-related barriers blocking them from benefitting from services, and why?
- How do age-related barriers intersect with other kinds of barriers?

3c. Subpopulations most at risk of being left behind. Which subpopulations are most at risk of experiencing barriers to health services and drivers of financial hardship? Why? [Probe by running through the domains of PROGRESS-Plus and other nationally relevant characteristics (see Module 1, Box 1).]

Part 4. Priorities for health planning and programming

4a. Data gaps. We have spoken about a lot of types of barriers to health services. Do you think that the information sources that we have adequately capture information on barriers? If not, how could they be improved?

4b. Priority intervention areas. How do you think that health planning and programming could better address the barriers to effective coverage with health services and maximize the facilitating factors to ensure health equity for all? What would be your top recommended actions?

4c. Participatory platforms. Regarding the subpopulations considered most at risk of being left behind that you mentioned previously, can you indicate whether you feel there are sufficient opportunities for them to engage in decision-making that is affecting their health? If not, what can be done?

Thank you very much for your time. This concludes the interview. We will ensure that you receive the findings of the assessment.
Analysing and reporting data

Once the interview has been completed, the following steps can be considered:

- completing the debriefing form and ensuring safe data management;
- arranging transcription;
- coding the data and identifying categories and themes;
- data reduction in preparation for triangulation.

Completing the debriefing form and ensuring safe data management and transcription

As soon as possible after the interview, the researcher(s) should complete a debriefing form. An example template is given below. Meanwhile, the raw data (such as the recordings) should be safely stored until they can be transcribed.

Sample debriefing form for key informant interviews

<table>
<thead>
<tr>
<th>Date:</th>
<th>Participate code:</th>
<th>Consent given (Y/N) and format:</th>
</tr>
</thead>
</table>

| Interviewer: | Notetaker: | Associated recording file names and total time per tape: [To add later] |

Section 1: Data management

Data storage checklist:

- Completed and cross-checked debriefing form (done within 24 hours after interview)
- Recordings featuring coding only, with back-up in a second locked location
- Correspondence on file, coded and with all identity-relevant information removed
- Coded consent form or oral recording of consent on file
- Key with codes saved confidentially in separate location

Section 2: Barriers to health services and financial protection experienced

[Based on the notes from the interview, what were some of the key barriers for each framework domain? This list does not need to be exhaustive at this stage, as the transcripts will illuminate issues in detail.]

<table>
<thead>
<tr>
<th>Framework domain</th>
<th>Examples mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability</td>
<td></td>
</tr>
<tr>
<td>Accessibility</td>
<td></td>
</tr>
<tr>
<td>Acceptability</td>
<td></td>
</tr>
<tr>
<td>Contact coverage</td>
<td></td>
</tr>
<tr>
<td>Effective coverage</td>
<td></td>
</tr>
<tr>
<td>Other [e.g. upstream exposure to risk factors; beyond scope of current service provision]</td>
<td></td>
</tr>
</tbody>
</table>

[Please also include further details linked to financial accessibility and drivers of financial hardship.]
Section 3: Who is most at risk of being left behind on the path to UHC?

[Insert here a summary of the key points.]

Section 4. Priorities for health planning and programming

[Insert here a summary of the key points.]

Section 5. Relevant quotes

[It is particularly important to complete this section if the informant did not agree to a recording. In which case, the notetaker will have written up key brief quotes during the interview. She/he can cross-check these at the end of the session with the informant, to ensure that critical ideas are captured.

If the informant did agree to being recorded, which is ideal, then the interviewer can include in this section specific notes about quotes that she/he felt would be important to later pull out of the transcript.]

To ensure accountability and rigour in processing data, all efforts should be made to transcribe the recordings from the interviews. Transcription software can make the process more efficient. Transcripts should be cross-checked by the interviewer herself/himself to ensure that technical language is adequately transcribed (Moser & Korstjens, 2018). When translation is required, it is suggested that a transcript is first produced in the original language, which then provides the basis of the translated version.

**Analysis, interpretation, summation and preparations for reporting**

Once the transcripts are completed and reviewed by the interviewer, the research team members doing the analysis should commence the process of coding. The key informant interview transcripts are one of multiple data sources across the entire study for which data triangulation will be important (see Module 7). Hence, the coding and code structure developed for these transcripts will feed into the final codes used across all sources. The evidence synthesis framework for the study (see Table 1, Module 1) can help to guide the coding process in a deductive way, but further codes can be added through an inductive process, as per constant comparative methods (Curry, 2015b; Berg, 2001). This entails applying an integrated approach of drawing from both the "start list method" and "grounded theory" (Curry, 2015b; Hardy & Bryman, 2004). As different parts of the research team will be advancing other parts of the study in tandem (e.g. the literature review, quantitative analysis), it is useful to share the code structure, with its emerging categories and themes, across the team to encourage the creation of a common approach. This will later support data triangulation. It is suggested that multiple people on the research team review a set of transcripts, the draft codes and the code structure.

When analysing the key informant interview data, several techniques can be employed to ensure a thorough and nuanced understanding. These include content analysis, thematic analysis, grounded theory and narrative analysis. Through methods such as thematic analysis and grounded theory, researchers can identify recurring patterns and unique insights, providing a nuanced, detailed understanding of the factors that hinder effective coverage. This approach not only highlights the diverse range of barriers but also captures the experiences and perceptions of informants, who will have key roles in the "supply-side" of services, i.e. in terms of planning, inputting to, oversight of and/or delivery of health services. When combined with perspectives from the "demand-side" (i.e. the focus group discussions with people who themselves are experiencing these barriers at the interface with services), the qualitative data offers valuable insights for strengthening and/or developing equity-oriented policies, programmes and interventions.
Where feasible (in the light of its costs, heavier use of broadband, etc.), analysis can be supported by qualitative data analysis software, which aids in organizing, coding and identifying patterns in large volumes of textual data. Qualitative data analysis software can help to enhance the efficiency and depth of analysis. Software programmes support a range of qualitative methodologies, from thematic and content analysis to grounded theory. Their ability to handle complex datasets and assist in rigorous analysis can be useful for a mixed methods barriers assessment, in particular as the research team moves forward to data triangulation across multiple sources (as described in Module 7).

Data reduction can be done in the format of written summaries that speak to the code structure, categories and themes. Quotes can be assembled per category that match the common view or that exemplify outlier or unique views. Key themes should be added to the key informant interviews column in the evidence synthesis framework (Table 1, Module 1), which will later be drawn from for data triangulation (Module 7) together with the linked summaries, quotes and other raw data as needed. When drafting summaries, patterns can be described through phrasing such as that featured in Box 10. Clusters of such generic statements can then be followed by a relevant quote from the interviews (for examples, see: Chuma et al., 2010; Duff et al., 2010).

**Box 10. Describing key patterns in qualitative research**

Numbers (of key informants/focus group participants) should be provided where they are available. However, if numbers are not available, relative estimates can be used such as:

- “all” (100%)
- “the vast majority” (approximately 90% or more)
- “a large majority” (approximately 70% or more)
- “most” (more than 50%, especially over 60%)
- “about half” (approximately 40–60%)
- “a minority” (less than 50%, especially under 40%)
- “many” (a large number)
- “several” (more than two, but not many)
- “few” (a small number).


The frequency of themes can also be charted, which can feed into data triangulation, cross-analysis and reporting (Module 7) as well as into prioritization exercises (Module 8). An example graphic depicting the frequency of themes from key informant interviews is featured in Fig. 7, from an assessment of barriers to maternal and child health services experienced by women living in the hinterlands and rural coastal areas of Guyana (Houghton & Bascolo, 2022). The red boxes highlight that key informants reported geographic accessibility and acceptability-related issues more frequently than any other dimension.
Fig. 7. Frequency of barriers reported by key informants in an assessment of barriers to maternal and child health services in Guyana

Note: in this figure, "Accommodation" refers to organizational accessibility.

Source: Houghton & Bascolo (2022). The same data are shown in a different format in PAHO (2023).

In preparing for reporting (Module 7), the full methods applied for the key informant interviews, as well as any limitations, should also be documented.
Completion checklist for Module 3

By the end of this module, the users of this handbook should:

✓ have selected and recruited key national and subnational key informants;
✓ have adapted the example interview guide for the national context, adding probes based on the evidence synthesis framework (Table 1, Module 1) and PROGRESS-Plus (Box 1, Module 1), as relevant;
✓ have conducted the interviews;
✓ have transcribed, coded, analysed and summarized data from the interviews, and incorporated key findings into the evidence synthesis framework, with linked summary files ready for consideration in the data triangulation, cross-analysis and reporting stage (Module 7).

Conducting key informant interviews in humanitarian contexts

Selection of key informants

The selection of key informants will depend upon the available pool and the nature of the emergency. However, to the extent possible, informants would comprise individuals from a range of organizations, roles and expertise, with consideration of the inherent biases of each (see subsequent section). Suggested categories of key informants include:

- representatives from local and national health authorities/bodies/agencies;
- staff in key positions in international and national relief organizations, United Nations agencies and donor organizations, including human rights groups and those with a mandate to uphold international humanitarian law;
- country health cluster coordinators and partners, or health working group chair(s)/members;
- doctors, nurses, pharmacists, community health workers and other relevant health and care workers providing services to the affected population (in displacement contexts with integrated systems, this should include those providing services to both host and displaced communities);
- key community leaders of affected communities (again, in displacement contexts, representing both host and displaced communities).
Potential adaptations for the guide and/or interview modality

Teams may wish to truncate the interview guide for use in assessments being performed in the early stages of an emergency to rapidly obtain an understanding of the central barriers encountered by the affected population, or when a re-assessment is being performed. In protracted crises where situations are more stable, and more time may be available, full-length interviews can be considered.

The example interview guide provided in this module can be adapted to probe on barriers and subpopulations more relevant to humanitarian emergencies (reflecting on the humanitarian context adaptations to the evidence synthesis framework, Table 1, Module 1). Adaptations to the guide could cover accessibility-related barriers such as checkpoints/blocked roadways, limitations on permitted travel times, exclusionary administrative requirements for care (e.g. registration in local area/with the United Nations Office of the High Commissioner for Refugees (UNHCR), citizenship, travel permits), and context-specific discrimination by providers, and so on. Likewise, they may reflect acceptability-related barriers such as low trust in health workers or health service organizations due to deliberate exclusion, discrimination or marginalization, or presence of military/armed forces in or close to health structures.

It is of utmost importance that the interview location or modality (in-person or online) is safe, and if there is any risk to safety, the interviews should not be conducted. Key informant interviews can take place in person or remotely through platforms such as Skype, Zoom or WhatsApp, provided that all of the appropriate confidentiality and data protection measures can be assured and back-up measures are in place if technical/connectivity issues occur.

Considering and navigating bias

Biased responses from key informants in a humanitarian context can be driven by a multitude of factors. Biases can influence findings in many ways, from suppressing important information/perspectives to exaggerating or fabricating barriers. Key informants may also withhold information or provide misleading responses out of fear for their safety or of potential repercussions. Clearly explaining confidentiality measures and the anonymity of their participation in consent statements before each interview, and reminding respondents of these measures during the interview, can reduce some of this bias. Key informants from humanitarian organizations and governments alike may have biases towards the programmes they support and/or their programmatic approaches.

In contexts with besieged or otherwise inaccessible populations, it is possible that identified key informants may not have first-hand/direct experience in the context and can provide only second-hand information about the barriers in those areas. Their responses can still be informative, but care should be taken to distinguish information reflecting someone’s direct experience from information reported second-hand.

Group interviews are one strategy for mitigating some of these biases by facilitating perspectives from multiple informants as well as group consensus. Each group’s composition should be strategically planned to avoid mixing too diverse a group of informants in terms of their roles, technical focus, and/or organization type. Groups should also be planned such that informants can comfortably discuss barriers and relevant issues; this may be hindered if there are power dynamics and/or fear of retaliation for sharing information that another informant may interpret as an assault on the ability of her/his organization to do their job, and/or perceived or real risks associated with sharing specific information on barriers that may also put people at risk.
Box 11 provides an example approach to key informant interviews in a humanitarian context, drawing from an assessment of barriers to accessing services for noncommunicable diseases affecting rural and semi-rural communities during 2021–2022 in Area C of the West Bank and the Access-Restricted Area of the Gaza Strip. The assessment used mixed methods (key informant interviews, literature review and analysis of existing datasets).

**Box 11. Example of using key informant interviews as part of a barriers assessment in a humanitarian context**

Key informant interviews were conducted in the occupied Palestinian territory, between March and April 2021, using a purposive sampling technique to ensure a representative mix of participants. A total of 66 participants from different localities, professional backgrounds, genders, sectors and service delivery levels were interviewed. The interview protocol was informed by the study objectives, literature review, quantitative analysis and consultative meetings conducted during the inception phase. Questions were framed around the Tanahashi domains and the PROGRESS-Plus parameters to identify barriers and explore vulnerabilities experienced across different subpopulations. Four versions of key informant interview guides were produced for PHC providers, secondary care providers, policy-makers and community leaders. Interviews (timed at 80 minutes) were conducted in a non-threatening environment, either face-to-face or virtually (with COVID-19 precautions taken during face-to-face interviews). The research team provided a two-day training session for the five qualitative researchers responsible for collecting data, followed by piloting and refining the tools.

Source: Bouquet et al. (2022).
References for Module 3


This module outlines the steps to undertake a rapid and targeted literature review for the barriers assessment.

**Module objectives**

This module supports users to:

- develop a literature review research plan that focuses on barriers in the context/site of the assessment (linking back to Module 2);
- develop a search strategy relevant to the assessment topic including identifying key concepts, search terms and literature sources;
- conduct a literature search using rapid methods and iterative approaches;
- code, analyse and summarize data from the literature review, and input key findings to the evidence synthesis framework (Table 1, Module 1).
Featuring a literature review in the research plan

Literature reviews vary widely in terms of content, methodologies and timeframes (Ganann, Ciliska & Thomas, 2010). For the purpose of this module, the general steps for a scoping review are described. A systematic approach is required when developing the plan for a scoping review (Levac, Colquhoun & O’Brien, 2020; Kable, 2012; Arksey & O’Malley, 2005). Scoping review plans should be specific, providing guidance for the research team and sufficient detail to support reproducibility. Teams may consider consulting a librarian or informationist when formulating the approach for the literature review.

The literature review plan (to include in the wider research plan for the barriers assessment described in Module 2) should include the components listed below (Tricco, 2018).

- **Rationale and objectives**: The team can consider the overall aims and objectives already outlined in the research plan (Module 2) to clearly understand what the specific and focused questions for the literature review are; how the literature review relates to the overall objective of the barrier assessment; what gaps in knowledge the literature review aims to fill; and how the research team can stratify data to appropriately identify relevant subgroups in the target population.

- **Methodology**: The search strategy should begin by identifying the “core concepts” for the search, based on the research questions covered in Module 2 and in Table 1, Module 1, and taking into account Box 12 and the example in Table 3 in the present module. The methodology component should also include the planned process for conducting the literature review and analysis.

- **Analysis**: The literature review plan should identify whether the team will collect both quantitative and qualitative data from the literature review. It should delineate planned procedures for analysing different types of data extracted through the review. Analysis approaches should link back to the research objective and the Tanahashi framework.

Selecting literature for the review

**Developing a search strategy**

Each step for developing the search strategy is outlined below.

- Teams can review their research objective and questions to identify the core concepts which will guide the development of search terms (see Box 12 and the evidence synthesis framework in Table 1, Module 1). Concepts can include “barriers to effective coverage”, “health conditions of interest”, “health interventions of interest”, “geographic scope” and “subpopulation”.

- The next step is to develop an initial set of search terms for each concept. For example, using the core concept “geographic scope”, if the research focuses on rural populations in three regions, the corresponding search terms for this concept could include: [rural], region 1 [name], region 2 [name], region 3 [name] and country [name].

- Researchers can now identify restrictions to reduce the amount of literature identified through the search. These can include date ranges (e.g. 2010–present), language or type of study design. Each restriction must be relevant to the research question.
The research team can use logic grids or concept maps to highlight the core concepts by identifying each element of the PICO mnemonic – Population, Intervention, Comparator and Outcome – relevant to the review question (Aromataris & Riiitano, 2014). For example, the research team can begin with an initial scoping review using the terms generated through the logic grid (see Table 3 for a hypothetical example of a study focusing on rural populations). Research teams can also use the literature itself to find synonyms for key terms to ensure that important studies are not overlooked. Teams can identify other commonly used terms to expand the search by reviewing a few studies from the initial search (Aromataris & Riiitano, 2014). This process helps to prepare an initial list of sources and guides. Most search platforms are sensitive to the exact terms used, so teams can use as many relevant terms as possible to broaden the scope of the review. Word trunks can be used to capture various elaborations of a given word.

**Box 12. Defining core concepts for the literature review**

In addition to using existing frameworks for barriers, the research team may also utilize Medical Subject Headings (MeSH) terms and vocabulary equivalents to develop and define core concepts for the literature review. For example, core concepts for a literature review on barriers to health services can depend on the barrier domains of interest and may include:

- general terms such as: access, barriers, health services, equity, etc.;
- additional key concepts such as availability, accessibility, geography, affordability, acceptability, contact coverage, effective coverage and/or social consequences, depending on the barrier domains of interest;
- other core concepts such as geographic imbalance in the supply of health and care workers, rigid definitions of scopes of practice that create suboptimal use of skills of health and care workers, staff absenteeism, opening hours, appointment systems, information on health care services, service location, etc. (see Table 1, Module 1, for specific examples).

While assessments using this handbook focus on barriers at the interface between the population and the services, review teams may also want to add specific search terms capturing evidence at more structural/upstream levels. These could include search terms linked to policies, laws, and regulations that create and/or are meant to alleviate barriers.
Table 3. Example showing how key concepts and search terms can be derived from an objective

<table>
<thead>
<tr>
<th>Objective</th>
<th>PICO elements</th>
<th>Key concepts or initial search terms</th>
<th>Revised search terms with synonyms for key terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>To review existing literature (2010–current period) on barriers and facilitators to effective coverage with health services among rural populations, identified through scientific search databases and grey literature, in general and with specific analysis for two tracer conditions [include names of tracer conditions here]</td>
<td>Population: rural and rural populations in situations of poverty</td>
<td>“effective coverage”</td>
<td>Effective coverage: barriers, facilitators, effective coverage, health services, health outcomes, access, utilization</td>
</tr>
<tr>
<td></td>
<td>Intervention: effective coverage of health services</td>
<td>“financial hardship”</td>
<td>[see more detailed examples in Table 1, Module 1].</td>
</tr>
<tr>
<td></td>
<td>Comparator: none identified</td>
<td>“financial protection”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Outcome: barriers and facilitators to effective coverage of health services</td>
<td>“rural poor”</td>
<td>Financial barriers and drivers of financial hardship: financial obstacles, financial disincentives, costs, indirect costs, payment, bribe, out-of-pocket expenditure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“rural population”</td>
<td></td>
</tr>
</tbody>
</table>

**Data sources**

The research team can review relevant literature from published health and social science journal articles, technical reports, evaluations, case-studies, presentations at technical meetings, working papers and briefings, media reports, policy statements, issue papers, conference papers, seminars, recommendations from relevant human rights bodies, and other relevant sources. Teams can start by preparing a list of likely relevant sources of information and document why those sources were selected, acknowledging limitations that may be imposed by time and resources. The orientations given below may be useful when identifying sources.

- **Academic databases:** PubMed, MEDLINE, Embase, WHO Library databases (iris and Global Index Medicus), Scopus, Cochrane Library, Anthropology Plus and the Universal Human Rights Index are all possible academic databases that can be searched for published literature. In contexts with limited access to journals, the research team may also use resources such as the Hinari Access to Research for Health Programme, which offers free or very low cost online access to major journals in the health care field. Using a combination of databases (e.g. both MEDLINE and Embase) may yield the greatest number of relevant resources (Topfer, 1999). Researchers can also access literature published in academic databases in non-English languages through online libraries.
- **National and subnational data:** These sources may be available on websites of the national government, national research institutions and local nongovernmental organizations, as well as multilateral or bilateral agencies including the United Nations, international nongovernmental organizations, or other global or cross-national data sources (WHO, 2019). It is suggested to also include the United Nations Human Rights Council’s universal periodic reviews for countries, as these often contain evidence on barriers to health services (United Nations, 2024).

- **Stakeholder recommendations:** Teams should continue to consult with key stakeholders throughout this process including, but not limited to, the oversight team, community leaders and members, national and subnational government, nongovernmental organizations, academic experts, and others specializing in different areas that are relevant to the assessment. Consultations may extend beyond the health sector to include other sectors that influence health outcomes and health inequities (WHO, 2019). McManus et al. (1998) found that approximately 24% of relevant studies may be missed in a scoping review by not contacting experts.

- **General internet searches:** Utilize general internet search engines to identify additional published literature, grey literature and other sources that might be overlooked by other methods (WHO, 2019). Start by searching the websites of nongovernmental organizations, international agencies, government units and other key stakeholders (see stakeholder mapping, Box 6, Module 2). These can be effective sources to identify reference lists of policy briefs and other technical notes.

- **Media:** Media sources can help the research team capture perspectives and measures from different types of stakeholders. However, researchers should be cautious to ensure that sources are reliable and relevant. Thorough documentation and triangulation of data can be used to analyse the convergence of interests from different stakeholders (Sugimoto, 2017). For rapid reviews, media may best be used to direct the research team to new sources of information (e.g. the news media cites a recent nongovernmental organization report that the team should include in their potential list of documents).

Many sources can generate thousands of “hits,” so teams should review abstracts and systematic reviews for relevance. Begin by identifying seminal works and key sources recommended by stakeholders and the initial literature scoping to conduct a close reading of a few of them. Make comments as you go through these and extract additional items from bibliographies to expand the scope of the search (Hart, 2018).

**Revising the strategy**

Once the initial search has been conducted the strategy may need to be revised. Teams should consider a revision if the amount of data is overwhelming, the search yields few or no relevant documents, or the search does not yield seminal documents. All initial search results should be shared with the assessment oversight committee. The committee can help troubleshoot any challenges that might emerge from (a) the existing strategy or (b) the research question. Should a revision be needed, teams should record this in their documentation. Search terms may need to be tested many times to ensure they effectively identify relevant literature and do not overlook important research. The final scoping is conducted with the revised list of key terms and analysed by the research team to uncover themes and trends.
Conducting the review

After conducting the search, teams will review the final set of identified literature to understand the design, methods used, outcomes and future recommendations. This process will provide a clear understanding of what has already been done, how it was done, and what needs to be done next (Hart, 2018). A Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram is one tool that can be used to depict the flow of information throughout different phases of the review (Moher, 2009). It creates a visual map of the number of records identified through the search, the records included and excluded during the initial reviews, and highlights reasons for exclusion. The PRISMA-ScR (PRISMA extension for Scoping Reviews) is a modified version designed to support scoping reviews specifically (Tricco, 2018).

Fig. 8 shows an example PRISMA-ScR flow diagram for the literature review component of an assessment of barriers to health services in the rural interior or hinterlands of Guyana and in Indigenous communities in Peru (Houghton et al., 2022).

Fig. 8. Example PRISMA-ScR flow diagram for reporting a literature review on barriers to health services in the rural interior or hinterlands of Guyana and in Indigenous communities in Peru

Source: Houghton et al. (2022).
**Inclusion and exclusion criteria**

To establish inclusion and exclusion criteria, teams can work backwards from the key concepts identified for the search strategy. Inclusion and exclusion criteria can be developed based on a spectrum of factors including the desired health outcomes, tracer diseases and interventions, target population, time interval, geographic location of study and even the type of study design used. Box 13 gives an example of inclusion and exclusion criteria for a literature review, mapped to the assessment objective.

**Box 13. Example inclusion and exclusion criteria for a literature review, mapped to the assessment objective**

**Objective:** To review existing literature (2010–current period) on barriers to effective coverage with health services (including financial barriers) among the rural poor, identified through scientific search databases and grey literature, in general and with specific analysis for two tracer conditions.

**Inclusion criteria**
- Article mentions key aspect of effective coverage of health services (e.g. availability)
- Article focuses on tracer conditions
- Article focuses on rural populations, ideally with cross-cutting attention to intersecting factors (income poverty, non-income poverty, sex, occupation, education level, etc.)

**Exclusion criteria**
- Article focuses on populations outside of the geographic scope (i.e. region, country, state, etc.)
- No mention of coverage
- Only discusses urban poor (no mention of rural versus urban).

Teams should note when any article is excluded and for what reason(s). If an article is excluded for multiple reasons (e.g. does not address the tracer condition, is not part of the geographic area of interest, and is published in an excluded language), all reasons should be documented. When conducting the title and abstract reviews, it is advisable to first have two independent researchers read the articles and make decisions about inclusion and exclusion. Next, have a third reviewer cross-examine and solve any inconsistencies in the decisions. However, in resource and time-constrained contexts, this may not be feasible. In such cases, one reviewer can conduct the review and any uncertainties can be resolved through discussion and consensus with the rest of the research team or oversight committee.

The process for screening articles is usually completed in two distinct steps: title and abstract screening, followed by full-text screening of the remaining articles (as described in the below sections). There are online tools available to facilitate these processes for researchers. Many research teams also use tools designed in Excel to organize their documents and conduct both screening and extraction.
**Data charting**

Using a data charting approach, researchers can extract information about the author, year of publication, study location, tracer condition(s) addressed, tracer intervention(s) and other relevant characteristics. Many of these components can be further assessed using specific quantitative and qualitative approaches. A sample charting form with extraction fields is provided in Box 14.

**Box 14. Example charting form to facilitate data extraction for a literature review**

1. Name of author(s)
2. Publication year
3. Country/region of interest
4. Aims/purpose of study
5. Target/study population
6. Study design and methodology
7. Outcomes measured
8. Key findings relevant to barriers and facilitating factors


The team can develop its own charting forms (see: Peters, 2015). The focus, scope and goal of the review will guide the development of the extraction form. If multiple researchers are working on the literature review, an explanatory document may be necessary, containing definitions and examples on how to use the form (Cook & West, 2012). The team can pilot test the extraction process using the charting form; to do this, the team would select an article or a small set of articles to conduct an initial extraction, followed by group discussion and consensus to clarify and resolve discrepancies (Cook & West, 2012).
Data analysis

Once the data charting has been done, the research team may consider how the data analysis will be presented, including the use of statistical models, ways to capture heterogeneity across studies, and the validity of the literature review (Cook & West, 2012). It can be useful for the research team to review the evidence synthesis framework (Table 1, Module 1) and Module 7 covering data triangulation and reporting at this stage.

Literature reviews can yield different types of quantitative data that may be useful for the research team. Descriptive numerical summaries provide an overview of the nature and extent of studies identified in the review. Teams can utilize tables and charts to report on study characteristics, such as number of studies that address the tracer conditions and/or tracer interventions, number of studies focusing on certain populations of interest (e.g. urban versus rural). Essentially these are summary statistics. A sample table (Table 4) is provided below. An additional example is found in Rahman et al. (2022), with summary statistics looking at barriers influencing unmet need for health care among the older population by selected variables. The team may also divide results based on dimensions of inequality such as age, sex, education, etc., and by area, to identify how different groups experience barriers. Using existing variables such as those in the evidence synthesis framework (Table 1, Module 1) can be beneficial when disaggregating data (WHO, 2019).

Table 4. Example of descriptive numerical summaries

<table>
<thead>
<tr>
<th>Scale of study</th>
<th>Number (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td></td>
</tr>
<tr>
<td>Municipality/city</td>
<td></td>
</tr>
<tr>
<td>District/county/parish/ward</td>
<td></td>
</tr>
<tr>
<td>State/province</td>
<td></td>
</tr>
<tr>
<td>Village/community</td>
<td></td>
</tr>
<tr>
<td><strong>Target population</strong></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td></td>
</tr>
<tr>
<td>Other …</td>
<td></td>
</tr>
<tr>
<td><strong>Study design</strong></td>
<td></td>
</tr>
<tr>
<td>Quantitative only</td>
<td></td>
</tr>
<tr>
<td>Qualitative only</td>
<td></td>
</tr>
<tr>
<td>Mixed methods</td>
<td></td>
</tr>
<tr>
<td>Multiple methods</td>
<td></td>
</tr>
<tr>
<td><strong>Barrier domains covered</strong></td>
<td></td>
</tr>
<tr>
<td>Availability</td>
<td></td>
</tr>
<tr>
<td>Accessibility</td>
<td></td>
</tr>
<tr>
<td>Acceptability</td>
<td></td>
</tr>
<tr>
<td>Contact coverage</td>
<td></td>
</tr>
<tr>
<td>Effective coverage</td>
<td></td>
</tr>
<tr>
<td>Social consequences following service usage</td>
<td></td>
</tr>
</tbody>
</table>

Note: what is included in this table will depend on the research objective and guiding frameworks.
In terms of using qualitative approaches to analyse the literature review findings, directed content analysis relies on theory to establish codes. The teams can use the codes featured in Table 1, Module 1, and those used in the key informant interviews (Module 2), while adding new ones (as needed) through an inductive approach. The team may synthesize data systematically by ensuring that reported themes cut across articles and that unique themes are identified accordingly.

Preparations for data triangulation and reporting

At this stage, the research team can aggregate data across the different studies to interpret the findings and feed key findings into the evidence synthesis framework (Table 1, Module 1), which will later serve as the basis for the data triangulation exercises done through Module 7. Additional rows can be added to the evidence synthesis framework for those barriers not covered previously, which are introduced through inductive analysis. Linked additional materials (such as the set of summary tables) may also be finalized, as these will be drawn from for the final report as well.

In addition, the methods used for the literature review should be documented to eventually feed into the final report, covering:

- specific objectives of the literature review;
- inclusion and exclusion criteria;
- search strategy;
- methods and tools used to extract results (the PRISMA-ScR should be included in this component);
- limitations.

Completion checklist for Module 4

By the end of this module, the users of this handbook should:

- have developed a literature review plan, as part of the wider research plan for the assessment, and a search strategy;
- have conducted a literature search using rapid methods and iterative approaches;
- have analysed and summarized the data from the literature review and incorporated key findings into the evidence synthesis framework (Table 1, Module 1), with linked summary files ready for consideration in the data triangulation, cross-analysis and reporting stage (Module 7).
Carrying out a rapid scoping review in a humanitarian context

In humanitarian emergencies, the scoping review will have greater reliance on grey literature, such as reports from nongovernmental organizations and United Nations agencies, unpublished surveys and so on. In protracted emergencies, more extensive literature may be available, including peer-reviewed journals. To reflect the greater reliance on grey literature in many humanitarian settings, several humanitarian-specific types of documents can be included, such as:

- **humanitarian needs overviews** which facilitate coordination across actors, and humanitarian response plans, which flag identified pressing needs (see examples here and here);
- **Multi-Sector Needs Assessments** (MSNAs) and humanitarian assessments that identify subpopulations experiencing vulnerability;
- **conflict analyses** which explain the characteristics of the conflict, including subpopulations experiencing vulnerability and exclusion, and provide information on the power dynamics of the conflict as well as drivers/mechanisms and underlying causes;
- **health access and utilization surveys** (see example here) which are household surveys conducted (often annually) to monitor refugee access to and utilization of health care services;
- **Multi-sector Initial Rapid Assessments (MIRA)** which are used in sudden onset emergencies with information on needs, affected areas and affected subpopulations (IASC, 2015);
- **ACAPS CrisisInSight** which is an analysis portfolio that captures developments for sudden-onset disasters, protracted and forgotten crises. Methodologically, several tools are combined to assess severity, humanitarian access, trends and risks, including the biannual ACAPS Humanitarian Access Overview, quarterly trend reports and risk analysis reports;
- **the Humanitarian Emergency Settings Perceived Needs Scale (HESPER)** which assesses the perceived needs of affected populations in large-scale emergencies, focusing on the serious problems and with the potential to identify issues missed in more structured assessments (WHO, 2011).

Documents regarding the pre-crisis situation of health service coverage across various subpopulations in the country can also be relevant, acknowledging that inequities existing in pre-crisis situations can be magnified and exacerbated during crises. Other sources, both pre-crisis sources and those developed after onset of the crisis (such as the documents listed above), should be used to check whether extracted information speaks to the current context.

In addition to the above, there are also digital sources that are particularly relevant to humanitarian contexts, including:

- **Health Cluster webpages** which are dedicated to providing centralized data, updates and information products for all countries with humanitarian response plans, as well as health cluster reports. These may include the webpages of the Global Health Cluster and health working group (if one has been established in the crisis being assessed), among others;
- **UNHCR web portals** which are centralized platforms developed for “refugee emergency situations” to provide operational data and information products related to the emergency;
• the International Organization for Migration (IOM) Displacement Tracking Matrix, which is based on surveys;

• ReliefWeb, which is managed by the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), is a collection of updates and information from humanitarian agencies, research institutions, the media and governments (at all levels);

• the websites of donors and implementing organizations which, depending upon the nature and timing of the crisis, are likely to have relevant programmatic updates, evaluations or monitoring reports.

Often, it will be necessary to meet organizations in the field and request their programme plans, evaluation or assessment reports, and other important documents. Individual and group interviews or stakeholder meetings can provide an opportunity to understand what sources may exist and to request them. Documents may have biases towards the organizations’ areas of focus and/or specific programmatic approaches. Organizations may also selectively report information in furtherance of funding for specific activities, or out of fear of repercussions for releasing information on politically sensitive topics or counter to higher-level agendas. The often political nature of humanitarian response can influence what information is reported by whom, potentially masking important health service barriers while exaggerating others in the interest of a particular agenda. Teams must evaluate the quality and potential biases of all documents when considering which to include in the review and how limitations will be addressed. Similar issues can emerge regarding quantitative data being collected through studies, so it is important to not only consider the documents but also the entire process of study design, including the sampling framework, site selection, etc. Additional information sources are discussed further in the next section relating to quantitative data sources.
References for Module 4

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Module 5

Quantitative data analysis

This module provides guidance on how the research team can identify and interpret quantitative data from existing data sources. It also provides a case-study of an example approach to collecting raw data, if existing datasets do not provide the needed information and if research teams have the capacity.

Module objectives

This module supports users to:

- define the scope of the quantitative component of the assessment, considering the research questions identified through using Module 2;
- select indicators and data sources and, as appropriate, consider the need for and feasibility of primary data collection;
- finalize data analysis and summaries, and input key findings into the evidence synthesis framework (Table 1, Module 1).
Tip: Using this module at two intervals during the assessment

Handbook users will typically refer to this module on two occasions during a barriers assessment. First, they will read through the module and do some preliminary data source reviews and (if necessary) data analysis when designing the research protocol. Later, in the process of completing the assessment, they will finish all the steps outlined in the module.

Quantitative data can be used during the preparation phase/initial design of a barriers assessment in a number of ways. Specifically, it is important to review the available quantitative data to:

- **Inform decisions on tracer conditions to be included.** The availability of quantitative data is one factor in deciding which tracer conditions should be selected, in addition to factors related to their relevance (e.g. high burden of disease among specified populations, and those that reflect different parts of the health system across service delivery, use and financing).

- **Inform decisions on which specific subpopulations to focus on.** Study teams can analyse differences between subpopulations (defined according to dimensions of inequality) to identify which are disadvantaged in terms of exposure to risk factors, health status outcomes, health service coverage and/or financial protection. In this way, health inequality analyses can inform decisions about the selection of specific subpopulations. Guidance on health inequality monitoring (see: https://www.who.int/data/inequality-monitor), including the Health Equity Assessment Toolkit (HEAT) software application (WHO, 2024a), are available to help with this analysis.

- **Facilitate selection of subnational study locations.** Study teams can also use quantitative data to inform the selection of study sites. Data may be used to select study sites on the basis of geographic differences (Pratt & Hyder, 2016), where there are differences in levels of programme implementation or outcomes, or to cover important administrative or geographic regions of a country (as shown in Module 2).

The following sections of this module explain the steps to be undertaken during the completion of the actual assessment.
Defining the scope of the quantitative component of the overall assessment

The research team should start by revisiting the study objectives and research questions established during Module 2 and identify how these can be addressed in the quantitative analysis. As an aid in this process, the study team can reflect on the research questions in relation to the framework in Fig. 9. For example, in relation to tracer conditions this would entail considering: For which services (right side of square) is there information available for each Tanahashi coverage domain (top of square) that can be disaggregated by different dimensions of inequality (front of square)? The circles can aid reflection on the types of data sources and at what level they are capturing this information.

Fig. 9. Barrier domains, dimensions of inequality, types of services, and levels of intervention and analysis

Source: adapted from Chee et al. (2013) and Evans et al. (2001).

Selecting indicators and data sources

The team can consider an initial set of variables or indicators that will answer the research questions identified in Module 2 and which respond to the reflections prompted by Fig. 9. The following subsections provide guidance for indicator selection, data source identification and (if relevant for the research team) an example of primary data collection. The tables provided in Annex 2 will aid the team as they work through the next subsections.
Table A2.1 can be used to identify commonly available indicators relevant to the Tanahashi domains, drawing from the *Primary health care measurement framework and indicators: monitoring health systems through a primary health care lens* (WHO & UNICEF, 2022b) and the *2018 global reference list of 100 core health indicators (plus health-related SDGs)* (WHO, 2018), among other sources.

Table A2.2 provides a blank template for teams to create an initial list of all the indicators they want to include.

Table A2.3 can be used as a guide for reviewing common data sources, as it considers units of analysis, geography, dimensions of inequality, indicators and barriers.

Table A2.4 provides a blank template for teams to use in data source mapping.

**Indicator selection**

The assessment team can select a set of quantitative indicators that will give appropriate and specific insight into health inequities, unmet need and barriers to health services that emerge from within and beyond the health system. For deciding on the indicators that illuminate health inequities and selecting barriers, the research team may wish to consult the WHO Health Inequality Data Repository (see Box 15). This includes many of the indicators found in Table A2.1 (see Annex 2). The team may also wish to consider indicators from the PHC measurement framework, which features equity alongside quality and resilience as key cross-cutting monitoring dimensions (WHO & UNICEF, 2022a). The framework is accompanied by a document that details the technical specifications for each indicator mapped to the framework (e.g., brief definitions, possible disaggregation, level of data, and preferred data sources) (WHO & UNICEF, 2022b).

**Box 15. Description of the WHO Health Inequality Data Repository**

The Health Inequality Data Repository was released by WHO in 2023 as the largest global collection of publicly available inequality data on health and determinants of health. It encompasses more than 2000 indicators broken down by characteristics such as sex, age, place of residence, disability, economic status, education, and others. Indicators included in the Repository pertain to current health and development priorities, including: the SDGs; COVID-19; reproductive, maternal and child health; immunization; adult health; nutrition; environmental health; and other determinants of health. The Repository is updated on an annual basis to reflect global availability of disaggregated data. The Repository can be accessed at: [https://www.who.int/data/inequality-monitor/data](https://www.who.int/data/inequality-monitor/data).

Source: WHO (2024b); Kirkby et al. (2023).

In household surveys, and as stated in Module 1, the approach for measuring forgone care and linked barriers typically constitutes a question on whether there was a time the survey respondent needed health care but did not receive it or whether they had to forgo health care, and what the barriers were (Rosenberg et al., 2023; OECD, 2020). Work has been done to review the availability of data for these barriers-related questions across countries, with three example resources highlighted in Box 16. Such sources can be drawn from by the research team to identify potential indicators on unmet need and linked barriers in their country.
Box 16. Monitoring barriers to health services and unmet need through household surveys

**Monitoring access barriers to health services in the Americas**

In 2020, the WHO Regional Office for the Americas/Pan-American Health Organization conducted a systematic mapping review study to identify access dimensions and indicators of access for general health services already described in the literature, and to identify whether data for those indicators could be derived from household surveys in the Americas. The study found 49 eligible surveys (287 datasets) from 31 countries, from which 23 measures of access barriers could be generated. These indicators measured self-reported access barriers for unmet health care needs through forgone care, as well as delayed care, dissatisfaction with care and experiences during health service provision. There was a marked heterogeneity in the variables included in surveys for capturing information on barriers. The surveys allowed for data disaggregation by dimensions of inequality.


**Unmet health care need in older adults in 83 countries**

Kowal et al. (2023) conducted an analysis examining responses to self-reported questions about unmet need asked as part of 17 health, social and economic surveys conducted between 2001 and 2019, representing 83 countries across all income levels. The questions on unmet need across the surveys (which are featured in the article in a dedicated table) are considerably varied, touching on different dimensions of the Tanahashi framework domains and the patient pathway for a given condition. Nonetheless, the study identified several household surveys which could be used to estimate the prevalence and reasons for forgone health care, and even unmet need for social care, among older persons – a growing demographic group for which health data are generally sparse. These could be a valuable data source for countries as they undergo health systems reform amid population ageing, even if the data are not directly comparable across all 83 countries.


**Drivers of financial hardship, financial barriers to services and unmet need in the European Region**

In the 2023 publication *Can people afford to pay for health care? Evidence on financial protection in 40 countries in Europe*, the WHO Regional Office for Europe reports on how out-of-pocket payments for health care can lead to financial hardship (impoverishing and catastrophic health spending) or create a barrier to access, resulting in unmet need for health care. The report draws on data for 40 countries in Europe, including the whole of the European Union. Data on unmet need come from household surveys that ask people if there was a time in the last year when they needed health care but were not able to access it due to cost, distance or waiting time. Data on unmet need for health care (medical examination or treatment) and dental care (dental examination or treatment) come from the European Union statistics on income and living conditions (EU-SILC), and data on unmet need for prescribed medicines due to cost come from the European health interview survey (EHIS).

The research team may want to identify indicators linked to the social, commercial and environmental determinants of health that can impede effective coverage with health services. Examples of these may include, for instance, indicators on the likelihood of a person paying a bribe to receive a service (linked to financial accessibility barriers and drivers of financial hardship), literacy rates (linked to informational accessibility barriers) and birth registration (linked to administrative accessibility barriers). More indicators linked to determinants are featured in the publication *Intersectoral factors influencing equity-oriented progress towards universal health coverage: results from a scoping review of literature* (WHO, 2017b). In addition, the WHO monitoring framework on social determinants of health equity (see Box 17) includes a menu of indicators and provides guidance for monitoring and using data (WHO, 2024c).

**Box 17. Monitoring social determinants of health equity**

Social determinants of health encompass the conditions in which people are born, grow, live, work and age, and people’s access to power, money and resources, impacting health outcomes and exacerbating health inequities within and across countries. In 2024, WHO released the *Operational framework for monitoring social determinants of health equity*, which provides guidance on monitoring the social determinants of health as well as the policies and interventions addressing them, and on using the data for action to reduce health inequities. This publication supports policy-makers and practitioners in making data-driven decisions to tackle social determinants of health to improve the health of all populations and advance health equity.


Dimensions of inequality are the criteria used to define subgroups in a population, offering insight into the possible sources of health inequities and barriers. The relevance of different dimensions of inequality is context- and indicator-specific (WHO, 2013). The study team can use Table A2.1 and Table A2.2 (in Annex 2) to help to identify the dimensions they can expect for different types of priority indicators and their respective data sources. Teams should choose the subpopulations and geographic areas (e.g. state, district, county, ward, etc.) that are most representative and relevant.

To select the final set of indicators to study, the team should compare the initial set of tracer conditions and other priority indicators, as discussed above and also considering those identified in Table A2.1, with the final set of indicators available in data sources (see next subsection on Identification of data sources). If study teams identify indicators in their initial list which are critical to the assessment but are unable to find data among the suggested secondary sources, teams may choose to collect primary data to fill the gaps (see the subsequent section on Collecting primary data). When selecting indicators, it is also important to identify for which indicators there are disaggregated data (data disaggregated by dimensions of inequality of interest), to proceed with inequality analysis. This is done through the data mapping exercise.
Identification of data sources

Data for the assessment should include health and non-health sector datasets and prioritize national and subnational sources. Data sources include: (a) population-based sources, which provide data on everyone in the population or a representative sample of the population; and (b) institution-based sources, which provide data on individuals that have contacted the institution collecting the data (WHO, 2013). For example, administrative data, records kept by health facilities, disease registers and claims data are institution-based, while household surveys, civil registration and vital statistics, and census data are population-based. Global surveys and databases can complement national sources where needed. Common data sources are provided in Table A2.3 (see Annex 2) for the study team's consideration in selecting data sources. The choice of data sources will depend on the availability of data on indicators of interest, identified as per the above section.

Collecting primary data

If key variables sought by the research team have not previously been collected in the national context, and if there is the time, resources and necessary ethical clearances for doing so, the research team can collect primary data.

In primary data collection, the challenge of participant selection and response bias is significant. Selecting a representative sample is crucial to ensure findings are generalizable to the broader population. However, this can be complicated by non-response or the inability to reach certain populations, potentially leading to skewed results. Additionally, accurately capturing the nuances of barriers requires well-designed, culturally appropriate survey instruments. To address these challenges, rigorous sampling techniques can enhance the representativeness of the sample and proactive measures can be put in place to mitigate non-response issues. For the survey design, having expert consultations during the questionnaire development can ensure the questions are comprehensive, culturally appropriate and capable of capturing the complex aspects of barriers to health services. Additionally, training survey administrators on how to conduct interviews and handle sensitive topics can improve the quality of the data collected. These strategies, combined with a strong emphasis on ethical considerations and respondent confidentiality, can significantly enhance the reliability and validity of the data.
While it is beyond the scope of this handbook to give detailed guidance on primary data collection, Box 18 describes how this was done in a barriers assessment in North Macedonia and provides a link to the questionnaire.

**Box 18. Case-study from North Macedonia: national telephone survey on barriers to health services**

In support of equity-oriented progress towards UHC in North Macedonia and to provide evidence for the PHC reform, 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. This convergent parallel mixed methods assessment was commissioned to the TIM Institute, Skopje, and included a literature review, a nationally representative public opinion telephone survey, key informant interviews and focus groups discussions.

A computer-assisted telephone interviewing survey was done with 1139 respondents (adult citizens of North Macedonia), with an estimated margin of error of +2.95 percentage points at the 95% confidence interval. The TIM Institute defined a multi-stage stratified sample 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 the Macedonian language for ethnic Macedonians and members of non-majority communities, and in the Albanian language for ethnic Albanians. For analysing the data, the following statistical methods were used: chi-square, t-test and bivariate correlation (Spearman, Kendall’s tau).

Indicators reflected the Tanahashi domains and the barriers in the evidence synthesis framework (Table 1, Module 1).

The survey questionnaire, and the findings of the report, can be found in:

Extracting and analysing data

Once teams have identified secondary data sources and/or collected primary data, they can organize all data and use their research plan to guide analysis. The next steps are then to:

- produce estimates of health outcomes, service coverage, unmet need, barriers and dimensions of inequality from available data;
- prepare disaggregated data to explore the distribution of health outcomes, service coverage, unmet need and barrier indicators by relevant dimensions of inequality;
- produce summary measures of health inequality for health outcomes, service coverage and barrier indicators.

Detailed guidance for the above can be found in existing WHO publications/resources on health inequality monitoring, such as those listed below (drawing from Hosseinpoor et al., 2023).

1. **Handbook, step-by-step manuals and workbooks**: WHO’s handbook on health inequality monitoring, together with step-by-step manuals and accompanying workbooks, provide conceptual and practical guidance for health inequality monitoring. These resources are designed to be highly accessible to a wide diversity of users, with dedicated material addressing low- and middle-income country contexts as well as topics such as immunization and sexual, reproductive, maternal, newborn, child and adolescent health.

2. **Health inequality monitoring eLearning channel**: The health inequality monitoring eLearning channel on the OpenWHO platform consists of free, online training materials for strengthening capacity in health inequality monitoring. The channel contains three series of courses, which are self-directed, designed to help learners to build a conceptual understanding of the inequality monitoring process, apply these concepts within different health topics, and develop practical skills to carry out monitoring (Bergen et al., 2022).

3. **State of inequality and Explorations of inequality report series**: These detailed technical reports by WHO showcase best practices in health inequality analysis, interpretation and reporting. They apply foundational monitoring concepts, reporting on the latest status of inequality and changes in inequality over time at global and regional levels. In some cases, the reports provide the first systematic global assessment of inequalities in the topic area.

4. **Health Equity Assessment Toolkit (HEAT and HEAT Plus)**: The HEAT and HEAT Plus toolkit is a free, open-source software application that facilitates the interactive exploration of within-country health inequalities using disaggregated data. Inequalities can be assessed through disaggregated data and summary measures of health inequality, visualized in interactive graphs, maps and tables (Kirkby et al., 2022). There are two editions of the software: HEAT, Built-In Database Edition, which has the Health Inequality Data Repository pre-installed, and HEAT Plus, Upload Database Edition, which allows users to upload their own data.

5. **Statistical codes**: WHO has published several resources to support the production of disaggregated estimates from household survey data and calculate summary measures of health inequality (WHO, 2024d). Calculating disaggregated estimates from household surveys requires taking sampling design complexities (such as weighting, clustering and stratification) into consideration, therefore statistical codes are available in Stata, SPSS, SAS and R to support this process. eLearning courses on preparing disaggregated data using Stata, R and Excel are also available in the Health Inequality Monitoring eLearning channel on OpenWHO. Moreover, calculation methods and codes for 21 summary measures of health inequality are available using Stata, R and Excel.
Fig. 10 can aid reflection on the multi-level approaches to data disaggregation across some of the indicator types discussed previously in this module.

**Fig. 10. Approaches to quantitative data analysis for a barriers assessment**

<table>
<thead>
<tr>
<th>Potential indicators for understanding barriers and their disproportionate impact</th>
<th>Indicators for understanding barriers</th>
<th>Indicators for scoping the review and understanding the differential impact of barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Indicators on self-reported unmet need and its causes (barriers)</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Indicators on determinants that influence barriers (e.g. literacy)</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Indicators on health system performance issues that influence barriers (e.g. from facility assessments, health workforce accounts, National Health Accounts)</td>
<td></td>
</tr>
</tbody>
</table>

Explore inequalities

- By subnational governance unit (state, province, etc.)
- By geographical areas (e.g. rural and urban)
- By household-level differences (income, etc.)
- By individual differences (sex, age, etc.)
- Multivariate analysis (e.g. age + income)

Do summary measures

- Triangulate with qualitative data sources (see Module 7)

Source: the authors.

During the data mapping and extraction stage, the team is likely to find gaps in the reporting of existing data on barriers to services. For example, data on barriers disaggregated by different dimensions of inequality for different parts of the country are often available in household surveys. Yet, these data on barriers may not have been analysed previously. Even if analyses have been done, the assessment team may want to conduct a more sophisticated multivariate analysis. For example, multivariate regression analysis allows researchers to examine the relationship between multiple independent variables and the dependent variable. This method is crucial for controlling for confounding factors and understanding how different variables, such as socioeconomic status, geographic location or cultural factors, simultaneously influence barriers.

The study team can review Table A2.3 (see Annex 2) to consider which data sources are worthwhile for further re-analysis or which data need primary collection, and whether they have sufficient time and personnel to conduct re-analysis or primary data collection before proceeding. Research teams should begin with cleaned datasets (e.g. checking for missing and miscoded data, standardized variable naming, etc.) and specify a data analysis plan. Any dataset that has disaggregation by dimensions of inequality such as wealth/income, geographic location and others can be analysed to show differences across subpopulations (for examples, see: PAHO, 2023; Houghton & Bascolo, 2022). Inequality in non-ordered dimensions can also be analysed. Tools for this, including for summary measures of health inequality, include the WHO HEAT Plus application (WHO, 2024a).
Upon completion of extraction and analysis of relevant data, study assessment teams can organize key findings pertaining to each research question, including barriers identified, their differences and similarities across tracer conditions, geographic locations, population groups, and so on. Decisions surrounding which results and key findings to report should be based on the research question and the knowledge, technical skill set and interests of the target audience. Key findings – in shorthand – can be fed into the evidence synthesis framework (Table 1, Module 1), with links to files with graphs, tables and narrative text with interpretation. These sources will later feed into the data triangulation and overall synthesis report of the barriers assessment (Module 7).

The study team can also document the methods applied in the quantitative analysis and summarize any limitations, which will be included in the overall synthesis report as well. These may include: gaps in the availability of indicators, measurement of barriers, or data disaggregated by dimensions of inequality; gaps and/or limitations in important data sources (including for some subpopulations or parts of the country); limitations in the indicators used for tracer conditions; limitations in interpretation due to the design of the data sources (sample selection bias, insufficient sample sizes, etc.) and limitations in the quality of data, among others.

**Completion checklist for Module 5**

By the end of this module, the users of this handbook should:

- ✓ have defined the scope of the quantitative component of the barriers assessment;
- ✓ have selected indicators and data sources, and – as appropriate – considered the need for and feasibility of primary data collection;
- ✓ have analysed and summarized the data and included key findings in the evidence synthesis framework (Table 1, Module 1), with linked summary files ready for consideration in the data triangulation, cross-analysis and reporting stage (Module 7).
Identifying and analysing quantitative data in a humanitarian context

Not all possible data sources are available in every humanitarian crisis, and the types of data available are unique to each crisis. Table 5 provides information on potential data sources in humanitarian contexts, by Tanahashi domain.

Table 5. Potential data sources in humanitarian contexts, by Tanahashi domain

<table>
<thead>
<tr>
<th>Potential data sources</th>
<th>Availability</th>
<th>Accessibility: geographic</th>
<th>Accessibility: financial</th>
<th>Accessibility: organizational and informational</th>
<th>Acceptability</th>
<th>Contact coverage*</th>
<th>Effective coverage</th>
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</thead>
<tbody>
<tr>
<td>WHO: Health Resources and Services Availability Monitoring System (HeRAMS)</td>
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<td>UNHCR: Integrated Refugee Health Information System (IRHIS)</td>
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<td>Response planning documents/ guidelines</td>
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<td>WHO: Harmonized Health Facility Assessment (HHFA)</td>
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<td>WHO: Surveillance System for Attacks on Health Care (SSA)</td>
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<td>UNHCR: Balanced Score Card Dashboard</td>
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<td>WHO: AccessMod 5</td>
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<td>Primary qualitative data collection (e.g. KAP surveys, household health-seeking surveys, etc.)</td>
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<td>Household expenditure surveys (e.g. by Intercluster cash working groups)</td>
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<td>Multi-Sector Needs Assessments (MSNAs)</td>
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<td>Health Access and Utilization Surveys (HAUS)</td>
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<td>National Health Accounts</td>
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<td>Demographic and Health Surveys (DHS)/ Multiple Indicator Cluster Surveys (MICS)</td>
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<td>Health management information systems and DHIS2</td>
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<td>Medical record review (e.g. HHFA Module 3)</td>
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<td>Global Health Cluster: Quality toolkit</td>
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<td>Health facility quality assessment (e.g. Primary Care Facility Quality of Care Assessment Tool (PGAT)</td>
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<td>OCHA: the Humanitarian Data Exchange (HDX)</td>
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*For contact coverage, indicators should be selected based upon the context and which, if any, tracer conditions are used.
In many emergencies, the absence of baseline data makes it difficult to quantify changes in access and associated barriers. Especially in early-stage and acute emergencies when data are limited, teams should not be overly reliant on quantitative information at the risk of overlooking important barriers not adequately captured in these data. Other more qualitative or open-ended tools and sources (such as the HESPER), as well as workshops, can be drawn from.

When considering stratified analysis focused on barriers for vulnerable groups, data available in many emergencies are often at the aggregate level and accessing disaggregated quantitative data may not be possible. Although not a perfect substitute, in cases where disaggregated quantitative data are not available, qualitative data collection such as focus groups (see Module 6) can facilitate capturing information on barriers experienced by specific subpopulations of interest in the assessment.

In the rare event when there is little or no quantitative data available to assess the current situation – and if teams have ample time, resources and necessary ethical clearance – then collection of additional primary data can be done. Purposive sampling or site-based sampling may be used to optimize the likelihood of obtaining the necessary information with the least investment (of time, money, resources) and risk. This could include direct observation and health facility visits. For further guidance, see:

- relevant sections in the Global Health Cluster rapid health assessment materials;
- section on “Participatory observation and spot checks” in the UNHCR Tool for Participatory Assessment in Operations;
- general principles and overview outlined in the ACAPS Technical brief: direct observation and key informant interview techniques for primary data collection during rapid assessments.

It could also include household/telephone surveys. For guidance and an example, see:

- UNHCR’s Health access and utilization survey among Syrian refugees in Lebanon 2019;
- Médecins Sans Frontières’ Assessment Toolkit. Part I: practical steps for the assessment of health and humanitarian crises;

In contexts where available information is anticipated to be limited and when sufficient time is available to do a sequential explanatory rather than a parallel convergent mixed methods study, it may be beneficial to revise the sequence of the assessment methodology so that secondary quantitative data analysis precedes qualitative data collection. This would allow qualitative questions to be formed with an understanding of data gaps. Reporting information gaps can also be useful for informing indicator selection in efforts to rebuild national information systems. Integrating indicators from the barriers assessment with health information management systems and other monitoring systems also provides an opportunity for more rapid reassessment of health service barriers as the emergency progresses or the context changes.
References for Module 5


This module proposes ways to advance focus group discussions with subpopulations most likely to be experiencing significant barriers and, as appropriate, in-depth individual interviews with select participants from each focus group.

**Module objectives**

This module supports users to:

- plan for the focus group discussions, including working with local counterparts, defining sampling and focus group composition, and undertaking logistical arrangements;
- convene focus groups and undertake in-depth individual interviews for follow-up on specific issues;
- transcribe, analyse, summarize and input key findings to the evidence synthesis framework (Table 1, Module 1).

**Planning and logistical arrangements for subnational qualitative research**

**Partnering with local counterparts**

Once the subnational sites have been selected, the research team can begin planning for the focus group discussions and in-depth individual interviews. Given the time it can take to set these up, the sooner planning is commenced, the better. This will provide enough time for the teams to begin:

- sensitizing community leaders;
- distributing formal letters of introduction;
- identifying possible communities/participants;
- helping to identify suitable venues, childcare and interpreters who are acceptable to community members (Liampittong, 2011).
Sampling and selection criteria

Focus groups do not aim for a representative sample but a “theoretical sample” (Macnaughten & Meyers, 2004). Purposive sampling occurs when participants are chosen because they have specific features or characteristics that enable detailed exploration and understanding of the central themes or study aims and objectives (Ritchie et al., 2003). Purposive sampling involves developing, prioritizing and applying a set of prescribed selection criteria. The key issues to consider for a barriers assessment using this handbook are described below.

- **Including a mix of both users and non-users of a service/programme in all focus groups.**
  - Including users is important to understand why some people may not obtain the intended treatment aim due to adherence, provider compliance and other issues (such as the cost of referrals to higher levels of care, or the cost of medicines).
  - Including non-users is important to understand why some people never access services at all. If the focus groups are composed of only service users, information on critical factors linked to availability, accessibility and acceptability that deterred use/resulted in forgone care would not be appropriately explored. Non-users are often difficult to identify but snowball sampling can be a useful tool.

- **Including other key characteristics or criteria/variables.**
  - **Sex/gender and age** are a starting point. Most barriers assessments are likely to require some sex-specific focus groups and/or a splitting out of the group into two parts (see subsection on “Individual follow-up interviews and/or follow-on focus group discussion”). Age may not need to be considered as a separate variable, but to enable exploration of differences among older and younger adults, the focus groups could include older persons (using the most relevant age categories in the national context).
  - **Socioeconomic, cultural and other factors** (see PROGRESS-Plus in Box 1, Module 1). Focus groups are unique opportunities to hear demand-side perspectives on compounding and intersecting barriers experienced by people in situations of vulnerability. Hence, due attention can be given to considering which subpopulations may be at risk of being left furthest behind and ensuring they are prioritized for engagement.
  - **Variables related to the specific context of each of the three subnational sites.** The sites may include important differences, such as ethnicity, religion and other aspects, and these would ideally be reflected in the focus group composition.

- **Using (two to three) tracer conditions.** The research team can decide to hold separate focus groups for each condition or systematically consider all tracer conditions within each focus group.

While this handbook assumes that a parallel convergent mixed methods study is being undertaken, if the research team has more time and a sequential explanatory mixed methods study is done (see Annex 1), there is an opportunity to add relevant variables identified from previous modules. This can enable the views and reported experiences of people with those characteristics to be collected, thereby bringing contrasting and/or complementary insights to the assessment.

The research team can prioritize the identified selection criteria to determine the precise composition, quotas and number of focus groups. Individual focus groups should usually be composed of participants who are like one another and have experience relevant to the aims of the assessment (Kreuger & Casey, 2014). Some diversity is required, however, to ensure that differences can be explored (Ritchie et al., 2003). For example, WHO estimates that 16% of the global population have a significant disability (WHO, 2022); as such, 1–2 persons with disabilities could be included in age- and gender-appropriate group discussions to reflect this diversity. In addition, power dynamics that may influence how freely some participants share information or what they say also need to be taken into account, with participants being split into separate groups as needed. Ritchie et al. (2003) suggest prioritizing the overarching selection criteria for focus group composition into levels of primary, secondary and tertiary importance.
It is then necessary to translate these prioritized criteria into the number of focus groups required and quotas within each focus group. Box 19 describes the approach taken to focus group discussions during a barriers assessment in Viet Nam.

**Box 19. Focus group discussions as part of the assessment of barriers to health services in Viet Nam**

A barriers assessment using the methods in this handbook was done to feed into the 2015 Joint Annual Health Review in Viet Nam, the development of the National Health Sector Plan for 2016–2020 and related health reforms. The assessment aimed to gather evidence on barriers in access to health services in Viet Nam, their root causes and potential strategies for overcoming them. For the assessment’s qualitative components, the subnational locations included three “disadvantaged” provinces from three regions of Viet Nam (selected based on criteria set by Ministry of Labour, Invalids and Social Affairs, including the percentage of poor households, infrastructure quality, and access to employment promotion programmes). Within each selected province, one hard-to-reach district (based on Government decision 1049/QD-TTg in 2014) was chosen for the study.

A total of 12 focus groups took place, four in each district, involving 102 people across the three districts. Selection of focus group participants was done using a purposive approach and in consultation with local authorities and service providers. The following criteria were generally applied for the different participant groups:

- experiencing poverty: this group constituted a member of a household with an income lower than the national poverty line \(n = 30\);
- ethnic minority: \(n = 26\);
- older persons: this group constituted persons aged 60 and older \(n = 26\);
- people without health insurance: \(n = 20\).

<table>
<thead>
<tr>
<th>Target group (8–10 people per group)</th>
<th>District</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dien Bien</td>
</tr>
<tr>
<td>Experiencing poverty</td>
<td>1</td>
</tr>
<tr>
<td>Ethnic minority</td>
<td>1</td>
</tr>
<tr>
<td>Older persons</td>
<td>1</td>
</tr>
<tr>
<td>People without health insurance</td>
<td>1</td>
</tr>
</tbody>
</table>

Each focus group discussion lasted for 60–90 minutes. In all groups, due attention was given to ensuring equal representation of women and men. To address some specific gender considerations, female respondents were asked to stay for a second part of the discussion. Focus group participants had their identities protected and other measures were taken to ensure confidentiality and avoid any ethical issues.

*Source: Van Minh (2015).*
How many participants in a focus group and how many focus groups?

The general recommendation is for each focus group to have 6–10 people (Liamputtong, 2011; Morgan, 1997). If groups are too small (fewer than six people) there may not be enough information gathered; or if they are too big (more than 10 people) then participants may not want to talk and/or lose interest while waiting to speak. The size of the focus group may need to be smaller when the topic is sensitive (Liamputtong, 2011).

The subnational qualitative research is aiming for depth over breadth (Ritchie et al., 2003). As a general guide for qualitative research using focus groups, experts recommend a total sample size of no more than 90–100 individuals (12–14 groups with an average of eight people per group) (Ritchie et al., 2003). This is equivalent to at least four focus groups in each of the assessment’s three subnational sites.

Participant recruitment approaches

It is likely that a combination of approaches will be required to identify and invite participants to the focus groups. Options include using:

- administrative records of people who participate in a community or government health scheme (Ritchie et al., 2003);
- pre-existing quantitative surveys to randomly identify and recruit eligible participants (Bloor et al., 2001) on the basis, for example, of socioeconomic status or receipt of benefits.

However, in both cases, the consent of participants must have been obtained: for administrative records, the potential participants have to consent for their names and contact details to be released to the research team; and for population-based surveys, participants’ consent to use the data for different purposes would have been required as part of the original data collection for the survey (Ritchie et al., 2003; Bloor et al., 2001).

Other options for recruiting participants include:

- working through an organization that provides services to or represents specific populations (Ritchie et al., 2003). Trusted members of a community (e.g. formal and informal group leaders, service providers, businesspeople) can make the initial contacts, particularly where the researchers are not known to participants and/or from different cultural and socioeconomic backgrounds (Liamputtong, 2011);
- advertising in, for example, shopping centres, markets and/or health centres (Liamputtong, 2011). However, for barriers assessment research it is unlikely that people not using services will respond to advertisements and participate, particularly with regards to adverts in health centres;
- snowballing, which includes asking people who have already been interviewed to identify other people they know who fit the selection criteria. It is a useful approach where key selection criteria are sensitive (Liamputtong, 2011; Ritchie at al., 2003). The challenges with this approach include when people identify family members or close friends, limiting the diversity of the sample and/or creating a convenience sample.

Documentation of the process helps to identify potential biases for reporting (Ritchie et al., 2003) and includes recording the reasons the participants were invited, accepted, refused and/or excluded.
**Venue/location: facilitating participation**

Discussions need to be held in places where participants feel comfortable and safe to speak. Organizing focus groups around people’s working and daily lives, and providing childcare and transport to the session, can facilitate recruitment and attendance at the focus groups (Liamputtong, 2011). The type of venue will make a difference. Ensuring the security of a venue will be critical in many countries. Participants should be able to get to and from the venue without incurring costs and without other community members knowing that they are participating in a focus group. Consideration also needs to be given to the transportation available and physical accessibility of the venue for participants with a disability. This includes having adequate space and accessible toilets for wheelchair users. Some persons with disabilities may wish to participate with an assistant or support person, and sign language interpreters should be provided where needed (UN, 2021).

The use of virtual focus groups has been growing in the last 10 years. There are two types: synchronous (real-time) and asynchronous (not real-time) (Liamputtong, 2011, pp. 149–64). Asynchronous focus groups occur when people post their views or feedback to a dedicated website at different times. Virtual focus groups, while having benefits in terms of cutting the travel time and cost of facilitators, may have an adverse influence on who participates and introduce bias towards participants that live in areas with better broadband connection, have WiFi at home or in another private/personal space, are computer literate, and are versed in participating in online meetings using chat and hand-raising functions. As focus groups are aiming to gather the insights of people who are experiencing socioeconomic and/or spatial disadvantage and may have lower levels of computer literacy, offering only online focus groups could unintentionally exclude some of the very participants the research team is most keen to hear from.

The issue of compensation for participation in health and social research is a controversial one. At a minimum, it is recommended that the direct costs and additional costs to participants of being part of a focus group (transport, accommodation, childcare costs, cost of interpreters/assistants/support people for participants with disabilities) are covered or reimbursed by the researchers (Krueger & Casey, 2014; Liamputtong, 2011; Morgan, 1997). Ideally, participants should not have to incur costs and then seek reimbursement. The overall objective of compensation is to enable people’s participation and recognize the time and investment that participants give to the process.

**Conducting the focus groups**

**Preparing for the facilitation team**

To ensure adequate facilitation of the focus groups, the research team can advance the preparatory tasks described below.

- **Adapting the focus group guide.** While the guide may have the same core areas for all focus group discussions, the specific questions could vary for some focus groups depending on the profile of participants. Also, the guide may need to be adapted to address specific services for the selected tracer conditions.

- **Choosing appropriate facilitators.** Ideally, focus group discussions should be led by a facilitator of the same sex/gender, language, and ethnic or religious background as participants to promote rapport and understanding (WHO, 2019). This may not always be possible. At a minimum, the facilitator should have the cultural and language competencies to work with participants in a non-discriminatory and non-stigmatizing way (Liamputtong, 2011). Focus group discussions are usually only conducted by one facilitator; however, consideration should be given to having an assistant facilitator from the community (of the same sex/gender, language, and/or ethnic background) to support facilitation (see Box 20).
Any assistant facilitator will need to have training (e.g. in key terminology, confidentiality requirements, informed consent) and familiarity with the discussion guide and the overall study objectives. Due attention should be given to the co-facilitator’s positionality and to ensuring that participants feel what they share will remain confidential.

- **Finding interpreters.** Interpreters are often required, particularly in subnational locations and for participants who are deaf or hearing-impaired and use sign language. Ideally, professional interpreters familiar with the technical terms of the study should be used. If these are not available, community members with fluent knowledge of both languages can be used (see Module 3), with due attention to confidentiality issues. Organizations of persons with disabilities can recommend appropriate sign language interpreters, if needed.

- **Planning for recording and notetaking:** Ideally, the focus group would be recorded. However, where participants do not agree for the discussion to be recorded or if there is no capacity for recording, notetaking of the discussions will need to be undertaken by a second person on the research team who has observer status in the focus group. If the session is to be recorded, it will also be beneficial for the notetaker to document other aspects of the group discussion, such as body language and information that may not be picked up by an audio recording.

**Box 20. Facilitating focus groups with diverse characteristics**

Having mixed groups where participants’ socioeconomic, gender and/or other cultural characteristics are diverse will require the moderator to pay special attention to the group dynamics. For example, keeping an eye on gender (and linked cultural) norms: whether women are not speaking because men are present and/or vice versa (Liamputtong, 2011; Macnaughten & Meyers, 2004; Morgan, 1997). The moderator should be familiar with the gender and cultural norms (as well as manifestations of classism and racism) before the focus group commences.

**Confidentiality and informed consent**

While planned measures to ensure confidentiality and identity protection will have been included in the approved research plan (Module 2), the measures must be operationalized for each data source. Focus groups can identify sensitive issues and it is essential to ensure that proper measures are in place to maintain confidentiality and protect the identity of participants. Privacy and confidentiality concerns that need to be addressed are described below.

- **Over-disclosure.** Participants may over-disclose personal information on sensitive topics and may later be distressed about this. This can happen both when participants are known to each other and when participants are strangers (Morgan, 1997). In the opening session, the facilitator can encourage participants to set boundaries to the discussion, emphasize the voluntary nature of participation, and prepare an information sheet for participants including referral sources and relevant agencies, if appropriate (Morgan, 1997).
Privacy – what is said in the focus group stays in the focus group. Possible ground rules or options for increasing confidentiality include participants agreeing to switch off their mobile phones during the focus group and to not take photos, and/or to keep their mobile phones visible so it is clear they are not being used. Where relevant for protecting privacy, participants could introduce themselves by using a different first name to their actual name. The facilitator should also remind participants that they may know each other or have common acquaintances, and invite the group to set their own ground rules (Morgan, 1997). This helps both with over-disclosure and to support discussion of topics that might ordinarily be sensitive.

Focus group discussion guide

Box 21 provides an example guide for the focus group discussions, with a sample script, divided into three sections.
1. Introduction and solicitation of informed consent (approximately 15 minutes).
2. Discussion (about 90 minutes)
3. Closing and setting up for follow-up interviews (5–10 minutes)

Box 21. Sample guide for focus group discussions

1. Introduction and solicitation of informed consent

1a. Purpose

- This focus group is about barriers to health services. We would like to discuss your experience(s) of trying to obtain and/or using good health services, in general and/or with a focus on use of [insert services for tracer conditions].
- The discussion will probably take about 90 minutes, and then we might ask to speak with a few of you individually afterwards, for a short time.
- The information that we collect through today’s discussion is feeding into a larger assessment which includes other focus groups and information. The findings will inform [insert information on the purpose of the study].

1b. Confidentiality

- Everything that is said in this group discussion will remain confidential. We will take measures to ensure that your personal identity is not disclosed.
- For this discussion, we would also ask that everyone respects each other’s privacy and does not share what is said here outside of the group later. What we discuss here will remain confidential. We ask everyone not to use their phone during this meeting.

1c. Informed consent

- Your participation in this group discussion is entirely voluntary. At any time during the group discussion or afterwards, you can decide to withdraw from the assessment. There will be no repercussions. At this point, we would like to ask:
  - if you have questions or any comments on the purpose of the assessment?
  - if you have questions or comments on how your identity will be kept confidential?
  - if you wish to give consent to engage in the study [entailing signing of consent form]?
1d. Recording

- We would like to audio record the discussion and take notes to help us to remember the details later. No one's name will be connected to what they say, and the recording will be kept confidential.
- Do you agree to this? [If the participant(s) do not all agree at the commencement or for any specific part of the discussion, then only notetaking must be done.]

2. Discussion

Question 2.1. What do most people you know do if they have health care needs?
[Prompts around other family members or peers or friends. Participants can talk about what they do, but it might be easier to start by talking generally about what people do or “other people” do.]

Question 2.2. Do you think these experiences in care-seeking vary across different groups of people in your communities?
[Here it will be important to explore “how” participants talk about “differences”, including how age groups are defined and differences between genders/sexes, and whether other groups are identified by the participants such as people who are unemployed, people experiencing poverty, people living in rural and remote areas, people with lower education levels, people who lack health insurance, migrants and refugees, persons with a disability, people of varying ethnicities or religions, etc. This helps to set the scene for exploring differences in barriers in more detail in the subsequent sections.]

Now, we would like to learn more about any barriers that people experience when they are trying to get good health care. I will be asking some questions about different kinds of barriers. If you or other people you know have experienced any of these barriers, please explain and provide examples.

[The facilitator would then ask questions 2.3–2.7, below. Possible follow-up questions are provided below each question, drawing from the “evidence synthesis framework”. Note: 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, with a question such as:

Is this a common problem for people? Please explain:
- Does it happen to most people, or only about half, or only a small number?
- Please explain if this affects some groups of people more than others.]

Question 2.3. (Availability): I will start by asking about barriers linked to the availability of services. Which health services are available where you live (in your municipality/village)? [Adapt for tracer conditions as needed.]

- Are these services widely known about by people where you live (municipality/village)?
- Are there any health services that are lacking or under-provided? If yes, which ones?
- Do health services have enough staff, medications and equipment?
- Do health facilities have basic amenities, such as improved water and sanitation, constant electrification, etc.?
- Who runs these services (government, private entities, nongovernmental organizations, faith-based groups, etc.?)
● Are there sufficient outreach services, such as home visits or mobile clinics?
● Are there sufficient health promotion activities, engaging other sectors such as schools and workplaces?
● Are there sufficient emergency services, including ambulances?
● If someone prefers to be seen by a health worker of their same sex/gender, are there (enough) health workers of that sex/gender?

Question 2.4. (Accessibility): Now I am going to ask you some questions about barriers that people may face in reaching and paying for health services. [Adapt for tracer conditions as needed.]

2.4a Do you or others that you know of encounter any problems getting to the service, e.g. with distance or transportation, the service location or the way the facility infrastructure is built? [Probe about distance and travel time to health facilities, transportation modalities including access to public transport, difficult terrain, seasonal issues impacting transportation, women needing someone to accompany them or having to take children with them, accessibility for people with disabilities including those with intellectual or psychosocial impairments, perceived danger/security when getting to the provider.]

2.4b Are there any problems with costs of services? [Probe about out-of-pocket costs of services, costs of essential medicines or prescribed health products, indirect costs (e.g. costs of travel and accommodation, costs of childcare, missed work), informal payments.]

[Potential additional probes during the discussion:

[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?]

[Can you share an example of someone who is facing barriers to accessing health services because they cannot afford to pay?]

2.4c Do you or other people experience any problems with how the service(s) is organized or with accessing information about the services? [Probe about opening hours, waiting times, information accessibility including for persons who are illiterate or speak other languages, administrative requirements, etc.]

[Potential additional probes during the discussion:

[If people cannot get health services when they need them, what do they do instead?]}

Question 2.5. (Acceptability): Have you or others you know of had negative experiences – or fear potential negative experiences – that could impact trust and willingness to seek out health services again? [Adapt for tracer conditions as needed.]

● Do you think that most people trust the quality of the services provided?
● Do you find that most health workers are respectful to you?
● Do service providers protect patients’ privacy and confidentiality?
● Are certain health conditions stigmatized, by your community and/or by health providers?
● Do you know of cases where health workers have discriminated against people?
● Do you and your peers ever prefer other health services [e.g. private clinics or traditional healers] over government health services? If so, why?
● Do you feel that health providers respect your culture, religion and traditions?
● Do you think that your safety is guaranteed when you receive health services?
Question 2.6. (Contact coverage and effective coverage): Are there any other reasons why you or your peers might not attend government health services when you need health care? Please explain and provide examples. [Adapt for tracer conditions as needed.]

- Do you think sometimes people might not recognize when they need health care?
- For which health conditions is there the greatest unmet need for services? Why is this?
- Sometimes people start treatment for a health problem but do not finish it. 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 those services?
- Do you believe that health services offer timely care and follow-up for [insert tracer conditions] across all aspects of treatment and on an ongoing basis?
- Have you ever heard of people in your community being misdiagnosed? If yes, what happened?
- Can you think of any other reasons why people discontinue treatment for their health condition, or have other negative experiences with health services, which influence their overarching health and well-being?

Question 2.7 (Facilitating factors): Please take a moment to think about the different groups in the population we have talked about, and the different barriers that prevent them from getting good health services. We will now focus on what could help them to get the services they need.

- What factors, in your opinion, would help these groups to get the quality services that they need? Which factors are the most important?
- Do you think that there are enough opportunities for people to be involved in decision-making about services that affect health? How can this be improved?

3. Closing and setting up for follow-up interviews (5–10 minutes)

- Thank you very much for participating in this discussion.
- Do any of you have any questions for us before we end?
- At this time, we would like to interview two or three people individually for 15–30 minutes. This is a normal part of the assessment, and people are selected based on instructions we have already been given.
- Can you all please wait a few minutes while I consult my colleague? Then we will let you know who we would like to interview, and the other participants can leave.
- Thank you all again.
**Individual follow-up interviews and/or follow-on focus group discussion**

After the main focus group discussion is completed, there can be two means by which to gather additional information from a subset of participants: in-depth individual interviews; or a second session to the focus group involving only people with certain characteristics (women, people who lack health insurance coverage, etc.).

Individual follow-up interviews are meant to be brief and unstructured. Participants should be selected for these one-on-one interviews if they brought up important information about barriers to health services that warrant further exploration and clarification. This might be particularly important for barriers that are sensitive and not easy to talk about within the group. The in-depth interviews are done by one member of the research team only, and where gender makes a difference, the interviewer should be of the same gender as the participant. Prior to each follow-up interview, the interviewer should again request verbal permission from the participant to audio record it.

The continuation of the focus group for a subset of participants would be done by both of the facilitators, and typically follows a structured guide prepared in advance. It would serve to solicit information regarding topics that the subset of people may feel uncomfortable speaking about in a larger group. These could include – but are not limited to – issues related to women's health and gender norms, roles and relations, which women may feel less able to disclose information about in the presence of men. Example questions, taken from a focus group guide used in a barriers assessment in North Macedonia (WHO Regional Office for Europe, 2024), are shown below in the continuation of Box 21.

**Box 21 (continued). Sample guide for focus group discussions**

**Only with women participants (duration 20 minutes)**

**Example questions on 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?
  - Are these factors different for women than for men?
Analysing and preparing the data for triangulation, cross-analysis and reporting

Directly after the session, the researcher(s) should complete a debriefing form for each focus group and each in-depth individual interview/follow-on focus group. Module 3 contains a template for a debriefing form that can be adapted for this purpose. Once the transcripts from all focus group audio recordings are completed, they should be reviewed by the facilitator and notetaker/other research team members to commence the process of analysing themes using deductive and inductive content analysis, following the same approach as that described for the key informant interviews.

The evidence synthesis framework (Table 1, Module 1) provides the main categories for coding the data, with additions made as per new themes that emerge through inductive analysis (including any new themes from previous modules as well). As per Module 3, it is recommended to use dedicated software to assist in coding and subsequent analysis and production of summaries per theme.

Key findings should then be mapped to the evidence synthesis framework, with all linked summary files ready to feed into the data triangulation, cross-analysis and reporting process elaborated in Module 7. In addition, the research team may want to finalize its description of the methods used for the focus group discussions, and any limitations. These will also feed into the final report (Module 7).

**Completion checklist for Module 6**

By the end of this module, the users of this handbook should:

- ✓ have selected and recruited focus group participants;
- ✓ have conducted focus group discussions and held in-depth individual interviews with selected focus group participants;
- ✓ have transcribed, analysed and summarized data, and incorporated key findings into the evidence synthesis framework (Table 1, Module 1), with linked summary files ready for consideration in the data triangulation, cross-analysis and reporting stage (Module 7).
Conducting subnational focus groups in humanitarian contexts

This section includes key adaptations for conducting subnational focus group discussions in humanitarian contexts. It also includes an example of such focus group discussions (Box 22).

**Logistical challenges**

Additional local counterparts may be necessary to access populations in hard-to-reach areas in humanitarian contexts. Appropriate counterparts will most often be an implementing organization involved in the humanitarian response in target areas, with an understanding of the context and affected populations, and experience in qualitative data collection. These counterparts can be identified using platforms such as the health cluster or health working group for the humanitarian response, where established.

Research teams should consider potential biases that certain organizations may introduce to the study, such as population perceptions of partner organizations that can impact focus group participants’ willingness to engage in discussions openly and honestly. If partner organizations are engaged in providing humanitarian assistance to the affected population from which focus group participants are recruited, it is of the utmost importance to separate participation in the barriers assessment from receipt of assistance. In all cases, a concerted effort must be made to sensitize populations, stress confidentiality and ensure informed consent is obtained from participants.

When selecting a venue or location in which to hold focus group discussions, the team should be cognizant of the impact that conducting focus groups in certain locations (such as government buildings, United Nations agency offices, or even local health facilities) can have on participants’ perceptions of the study’s association with other entities and programmes.

**Selecting focus group participants and group composition**

Prioritizing the selection criteria for participants is essential in humanitarian settings. Focus group composition should reflect the contextual nuances that are often central to obtaining reliable data in humanitarian emergencies. The ability to obtain accurate, comprehensive information from focus groups will depend on the participants’ comfort levels when discussing sensitive issues. Common characteristics by which groups may be separated in humanitarian settings are: age (different age groups have distinct needs and vulnerabilities in humanitarian contexts); gender/sex (cultural norms can inhibit women’s autonomy and ability to express themselves, e.g. disclosing sexual and gender-based violence only to other women); and people living in hard-to-reach or nongovernment-controlled areas (where access to quality services may be particularly challenging/face specific obstacles). Additional characteristics that may lead to separate groups are described below.

- **Humanitarian context subpopulation** (e.g. refugees, internally displaced persons, host community members). In contexts where large populations are displaced, tensions commonly arise with members of the host community stemming from increased pressure on local resources brought about by the population influx, competition for jobs and perceptions of unfair distribution of aid, among others. These tensions not only pose security threats in mixed focus groups, but greatly impact participants’ willingness to speak openly about the challenges they are facing.
Political affiliation. It may be beneficial to conduct separate focus group discussions based on participants’ political affiliations in settings where these have a role in the humanitarian crisis. However, conflict sensitivity should be applied when selecting participants of a specific political affiliation to avoid putting participants at risk.

Ethnicity and religion. Separating focus groups by participants’ ethnicities and religions can be advantageous, as ethnic and religious minority groups are often among those facing the greatest barriers to health services due to compounding discrimination in resource-tight environments and given that inter-ethnic/religious violence is a factor in some humanitarian crises.

When planning approaches for recruiting focus group participants, the methods presented in this module can still be appropriate but may require adaptation. Collaborating with an organization that specializes in working with targeted vulnerable or isolated groups can more easily allow for the identification of otherwise hard-to-reach portions of the population. This approach may, however, introduce bias in that participants identified by the organization are more likely to have received some type of assistance or otherwise interacted with the organization. This approach can be a useful starting point for identifying potential participants but should be combined with another approach (such as snowball sampling) to identify non-care seekers as well.

An alternative approach is site-based sampling (Weiss, Bolton & Shankar, 2000; Arcury & Quandt, 1999). In site-based sampling, the assessment team would identify key locations regularly visited by the relevant subpopulations (e.g. markets, mosques/churches, health facilities), contact appropriate “gatekeepers” for each site (e.g. a shop/market owner, or church/mosque leader) and, after explaining the assessment, ask for their assistance in identifying individuals to participate in the focus group. Appropriate participants can also be identified by contacting existing community groups in humanitarian settings, if any. Teams can pay attention to potential biases in the participants selected by gatekeepers or community groups when considering the overall sample across sites to ensure that vulnerable members of the community are not systematically overlooked.

The way in which focus group participants are identified and approached can pose threats to their safety and well-being if recruitment is done in public spaces where others in the community can easily identify them. In settings where the humanitarian response or association with particular groups/authorities is politicized, then engagement in the assessment may present undue threats to participants. Alternatively, community members not recruited for focus group may believe those who were recruited will receive compensation or direct benefit from attending the focus group discussion. This can lead to tensions within the community and potential threats to participants. Recruitment approaches and focus group venues can be selected in such a way that the assessment team can ensure the anonymity of participants.

Data management

The focus group discussion notes and all data resulting from primary data collection should have all identifying information removed immediately, so that no individual can be directly identified within the data. In many settings, recording of focus group discussions is discouraged for the same reason; however, if discussions are recorded, teams must carefully plan for safe storage of recordings and determine when and how they will be destroyed.
Box 22. Example of focus groups in humanitarian contexts

The WHO Attacks on Health Care Initiative has conducted focus group discussions as part of their mixed methods assessments on attacks on health care and barriers for accessing health care in fragile, conflict-affected and vulnerable contexts. These have been conducted both among health care workers and community members (with purposive selection for maximal variation in age, gender and vulnerability status), and were held in geographically defined areas exposed to either high or low levels of attacks on health care. Focus group discussions typically consisted of:

- a free listing exercise, in which participants were asked to list all possible reasons for not/delaying accessing health care when one is unwell (free listing data are amenable to both quantitative and qualitative analysis);
- a scenario-based question, in which participants were requested to describe the necessary steps for a family member or a fictional community member (e.g. unwell child, pregnant woman with complications, person with physical injuries) to reach health care;
- exploratory questions on the links between attacks on health care and the availability/accessibility/acceptability of health care options in the community.

In situations where participants expressed a reluctance to share personal experiences on attacks on health care and/or difficulties in accessing health care with a group of peers, focus group discussions were replaced with in-depth interviews with the same participants.
References for Module 6


This module describes how to synthesize findings across data sources and report findings. By this stage, the research team will have assembled a large amount of data. The triangulation, cross-analysis, interpretation, synthesis and succinct reporting of the data is critical for the overarching success of the assessment.

**Module objectives**

This module supports the research team to:

- use the completed version of the evidence synthesis framework (Table 1, Module 1) to systematically triangulate and cross-analyse data across assessment methods and data sources;
- synthesize, prioritize and summarize findings, and describe differences and outliers;
- advance the draft report of findings, leaving placeholders for inputs from the final stakeholder meeting (Module 8).

**Organizing all inputs**

In completing this module, the research team will build on what was produced through previous modules, specifically:

- the research protocol featuring planned methods (an output of Module 2), and additions from the write-ups of methods applied and limitations identified across the research process (outputs of Modules 3–6);
- the evidence synthesis framework (Table 1, Module 1), with data entered and additional linked summary files and coded raw data files (outputs of Modules 3–6);
- the repository of references of all secondary data sources used in the literature review or drawn on for the research protocol.
Data triangulation

The team will have been steadily inputting information into the evidence synthesis framework (Table 1, Module 1) across the research process. The framework is used to guide triangulation. It will feature a high-level synthesis of the main emerging themes, from each data source, under each of the Tanahashi domains and barrier types (and any newly added barriers as a result of inductive analysis). The framework by itself is not enough to complete triangulation; it can be thought of as a summary guide that points the team back to relevant source summaries and raw data.

The research team achieves triangulation by exploring patterns, linkages, and rival or competing themes. One rationale for triangulation in a mixed methods approach is based on the notion that no single research method is without limitations and biases, and bringing the data together neutralizes the weaknesses (Creswell, 2014). Triangulation across sources can deepen the analysis produced for the separate data sources by also exploring dimensions of breadth, causal pathways, intersecting or compounding factors, or consequences for any given phenomena (in this case, barriers to health services). Because each method reveals different aspects of a phenomenon, multiple methods of data collection and analysis provide a basis for better understanding. The nuances that result from comparing across different methods and perspectives can be illuminative to the research team (Patton, 1999), while also highlighting areas for future research.

As explained in Module 2, the likelihood of restricted timelines for the entire assessment will limit the team’s ability to conduct explanatory or exploratory designs; thus, this module explains the type of merged analysis that would result from the convergent parallel design described in this handbook. This is where quantitative and qualitative data are collected simultaneously, and results are merged and interpreted (as per Fig. 11).

Fig. 11. Parallel convergent design and merged analysis

Source: the authors.
For this process, the research team may consider using four kinds of triangulation: methods triangulation; triangulation of sources within a method; analyst triangulation; and theory/perspective triangulation (Patton, 1999). The evidence synthesis framework can support triangulation at these different levels, while linking to both the summaries per data source and the coded raw data in key informant interview and focus group discussion transcripts, as well as the literature review and quantitative findings. The team can identify whether findings across methods and sources are consistent, inconsistent or complementary in nature. If there are inconsistencies, the team will need to explain any differences (e.g. by type of respondent, nature of experience, etc.). It is important to carefully consider what each finding contributes to the overall bigger picture, and the different interpretations that may arise and how well they are supported by data (Patton, 1999).

To achieve triangulation, the research team can use the evidence synthesis framework, summaries and raw data files to address the tasks described below, derived from Patton (1999) and Creswell (2022).

- **Methods triangulation**: Consider the consistency of findings generated by different data collection methods. Were the barriers found (mapped to each Tanahashi domain) similar across the data sources? Were there considerable differences? Were sources complementary (e.g. one source highlighted a barrier whereas the other source gave insights as to the reasons for the barrier)? Did the sources suggest a similar prioritization of which barriers were most critical and pressing?

- **Triangulation of sources (or within a method)**: Ascertain the consistency of different data sources within the same method. Within the same method (e.g. key informant interviews) were there important differences? For example, between national and subnational interviewees, those working for authorities versus those who work for civil society organizations, interviewees from different parts of the country? While this type of analysis will have been conducted for each respective module, it can be useful to revisit prior analyses to view the findings as a whole and see possible emerging patterns.

- **Analyst triangulation**: Use multiple analysts to review the findings from differing areas of expertise. The research team may have divided the labour by specialty, and triangulation represents an opportunity for the team to come together with their different lenses. They can bring their differing exposure to the data and discipline expertise to discuss the key emerging findings across all sources, as well as their perceptions of which barriers emerge as the prioritized ones for the full dataset. Teams can be mindful of any existing biases about which type(s) of data might be seen as more useful or valuable, and give proper attention to all forms of data collected.

- **Theory/perspective triangulation**: Use multiple perspectives of theories to interpret the data. The evidence synthesis framework reflects the Tanahashi framework for effective coverage. That said, as described in previous modules, the analysis will have been both inductive (seeing what emerges from the data independent of any framework) and deductive (looking at what findings emerge in relation to the Tanahashi framework and its domains). In addition, there may be other important lenses or frameworks that team wants to build into their analysis. Given the importance of PHC-oriented health systems strengthening for overcoming barriers to health services and ensuring progressive universalism, this could include the *Operational framework for primary health care: transforming vision into action* (WHO & UNICEF, 2020).
Interpretating and synthesizing triangulated results

**Interpretation**

Interpretation of the summarized triangulated results can support arguments for prioritization, provide context, and advance programmatic and policy thinking in the field.

During the interpretation phase, teams can consider (and support, using literature) the following questions.

1. **Which findings are most important and why?** This may be based on priority research questions, barriers that emerge as the most critical in a patient’s pathway to health, the percentage of the total population experiencing a given barrier, the barriers disproportionately impacting populations in situations of disadvantage due to poverty and other factors, or other criteria determined by the team and oversight committee. Be careful not to just prioritize findings emerging from the quantitative data.

2. **Are the findings real?** At times, findings may come through (e.g. an outlier comment in a focus group) that have been proved false by other studies in the field.

3. **What explains the findings?** Sometimes the quantitative findings will be explained by the qualitative (key informant interview and focus group discussion) findings or insights from the literature review. It is important to document levels of uncertainty within those explanations and areas that require further exploration and verification, highlighting any knowledge gaps.

4. **What are the key limitations that add caveats to the findings?** It is important to consider how the key findings can still be justified (or not) despite the limitations.

In preceding modules, teams were asked to highlight limitations of each methodological approach. Those limitations, and the actions the research team took to address them, can be used to bolster the discussion on limitations of this work. All studies have limitations, but it is useful for the team to explain why they still believe in their conclusions despite the limitations. It is also important to avoid interpretation biases, as explained in Box 23.

**Box 23. Avoiding interpretation biases**

The triangulation approach is designed to help teams to identify the most relevant findings across the different approaches used in the barriers assessment. It is important for teams to maintain this type of thinking during the interpretation stage as well, and intentionally cross-check the following:

- Have you taken a consistent and appropriate approach to considering differences across subnational regions and subpopulations, drawing on PROGRESS-Plus and other relevant dimensions of inequality?
- Do your findings cover all main domains of the Tanahashi framework? If not, why?
- Were any findings or results weighted more heavily, and if yes, why?
- Has more attention been given to some quotes versus others, and if so, why?
- Can you explain your interpretations based on previously published findings?
- Have you thoroughly considered the limitations of the approaches you used and how they might influence your interpretations?
For more information on mixed methods study design and analysis, teams may refer to Creswell’s open-access online tutorial that explores integration (Creswell, 2022) or the resource book Research design: qualitative, quantitative, and mixed methods approaches, 6th edition (Creswell & Creswell, 2022).

**Synthesizing and reporting triangulated results**

Synthesizing and reporting findings from across data sources in a fluid way is challenging. This is because researchers often get in a comfort zone of telling a narrative or story within the context of one data source at a time rather than within a linked narrative in which the sources speak to each other. For a policy-making audience with limited time, telling an integrated/streamlined story is critical. Below is an example of an integrated storyline:

Across all data sources, the issue of [X] consistently emerged. The literature review identified sources providing historical trend analysis in relation to [X]. [Feature results]. The quantitative analysis highlighted, for selected indicators related to [X], the differences between [feature results on inequities by subpopulations and subnational locations]. The key informant interviews, particularly those from subnational government levels and from civil society organizations working with disadvantaged subpopulations, offered information on some of the programming challenges and opportunities in addressing [X]. [Feature results]. The focus group discussions provided important insights on the reasons and contexts in which [X] emerges and how it impacts the patient pathway. For instance, [feature results]. Finally, both the focus group discussions and the key informant interviews illustrated how [X] interacts with gender norms and roles, as seen in the below quotes from both male and female focus group participants and a national key informant. The issue of the interrelation between [X] and gender inequality was also reflected in the article by [Author et al. (year)] found through the literature review. [Feature results].

Research teams may find that only one of the data sources picks up on a certain topic. This can often be the case with focus group data and/or key informant data on proposed solutions and/or sensitive topics and/or complex causal pathways behind health inequities. These data should be reported even if only emerging from one source (stating as much); teams can also note if these data emerge from a particular subgroup of participants.

The final step is to use the findings and their interpretations to formulate tangible considerations for addressing the barriers identified through this work. This is an important component of interpretation, which asks teams to think beyond “so what?” and formulate recommendations for “what is next?” This provides an opportunity for teams to consider the knowledge gaps that require future research, as well as initial steps to move towards evidence-based action. This section can be specific and serve to outline needs for further analysis of existing data, further studies (and their types), and types of programme implementation changes (e.g. pilot testing, trials or quality improvement processes). To aid in this process, teams may wish to draw on the Operational framework for primary health care: transforming vision into action (WHO & UNICEF, 2020), considering the implications of the findings for activities now underway nationally in relation to the strategic and operational levers for PHC-oriented health systems strengthening. The potential use of this framework in stakeholder consultation on ways to address barriers is described in more detail in Module 8. The research team can also consider the implications of their findings for strengthening ongoing monitoring and evaluation, as part of a human rights-based approach to accountability. The PHC measurement framework (WHO & UNICEF, 2022) and WHO’s handbook on health inequality monitoring (WHO, 2017) can be useful sources for reflecting on enhanced equity-oriented monitoring approaches.
Writing the report and considering other information products

Report outline

Table 6 provides a sample report structure. The suggested target length would be no more than 50 pages, with the executive summary and all references included.

Table 6. Sample structure for the report of assessment findings

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary content</td>
<td>This includes the title page, copyright page, table of contents, lists of graphs and figures, acronyms list, and foreword.</td>
</tr>
<tr>
<td>Executive summary</td>
<td>This is a 5 +/- page overview of the barriers assessment and key findings that could be extracted as a policy brief. It can include a figure with an overview of findings, to give readers the ability to grasp all top-line findings at a glance.</td>
</tr>
<tr>
<td>Introduction</td>
<td>This can include the rationale for conducting the review, a description of the problem and the study context, in addition to study aims, objectives and the research questions addressed by the review. Note that the research plan (Module 2) feeds into this.</td>
</tr>
<tr>
<td>Methods and limitations</td>
<td>Teams can draw from the research plan to describe the methods applied in the study, the process of conducting the assessment, and engagement steps with stakeholders throughout. This section can provide details on mixed methods approaches, including how methods built on each other, as well as any changes/diversions from the original research plan. It can give rationale for key focus areas/directions that emerged during the research. Limitations of the research can be noted here.</td>
</tr>
<tr>
<td>Findings</td>
<td>The key results section can be organized in keeping with the research questions for the study (related to the Tanahashi domains). Each question can be addressed in a subsection. Each subsection would start with an overview of all barriers found in relation for that question, and then explore distinct barriers more in depth, using the approaches described earlier in this module. Teams are encouraged to use tables, figures and graphics wherever possible to report findings. Teams can also leave “placeholders” at the end of each subsection for capturing inputs from the final stakeholder meeting, instead of doing a separate meeting report and as described in the section on “Preparing for the workshop” (see Module 8). Note: it is recommended that the research team avoid reporting all desk review findings, then all key informant interview findings, then all quantitative findings, then all focus group discussion findings in four separate subsections. This becomes repetitive and weakens readability and comprehension of the findings.</td>
</tr>
<tr>
<td>Implications/Emerging ways forward</td>
<td>Here the research team will describe implications for ongoing planning, programming, and monitoring and evaluation, in relation to the national context in which the barriers assessment was conducted (e.g. a PHC reform). They will highlight the main issues for consideration by key stakeholders and potential next steps.</td>
</tr>
<tr>
<td>References</td>
<td>These would include all sources drawn on for the report.</td>
</tr>
<tr>
<td>Annexes</td>
<td>Annexes can include:</td>
</tr>
<tr>
<td></td>
<td>● study instruments</td>
</tr>
<tr>
<td></td>
<td>● consent forms</td>
</tr>
<tr>
<td></td>
<td>● agenda of study inception meeting with national stakeholders (Module 1)</td>
</tr>
<tr>
<td></td>
<td>● agenda of final national stakeholder meeting (Module 8).</td>
</tr>
</tbody>
</table>
Overview figure

Providing an overview figure or “joint display” in the report that depicts all top-level findings in relation to the Tanahashi domains and/or study questions can help readers to understand the findings in their entirety. This enables the findings to be more visually accessible and also has a technical and strategic function in stimulating systems thinking and reinforcing the importance of synergized and linked solutions that, for instance, span health system functions or the levers being addressed through a PHC reform. Such figures can also be used to activate deeper reflections on the need for intersectoral action and enhanced social participation to address multiple barriers and optimize facilitating factors. Fig. 12, from a barriers assessment done in North Macedonia that provided evidence for PHC reform, is an example.

Fig. 12. Overview of top-level findings from a pilot assessment of barriers in North Macedonia

Source: WHO Regional Office for Europe (2024).
An additional example is from Nigeria, where a barriers assessment was done to provide evidence for the *National policy on the health and development of adolescents and young people in Nigeria* (as described in Box 3, Module 2). In Fig. 13, potential emerging ways forward identified through a stakeholder consultation (see Module 8) were added to the core overview of findings.

**Fig. 13. Overview of top-level findings from a pilot assessment of barriers in Nigeria**
Completion checklist for Module 7

By the end of this module, the users of this handbook should:

✓ have advanced data triangulation through merging and analysing results across data sources, using the completed evidence synthesis framework (Table 1, Module 1), data source summaries and the coded raw data;

✓ have completed the draft report of findings, with placeholders for the contents to be added during Module 8;

✓ have started work on a journal article on the findings, to synergize its release with the final launch of the report.

Journal articles

Teams may be interested in publishing their findings from the assessment in a peer-reviewed journal. The benefit of this is that a journal article may get a wider readership than an organizational website as it can be easily found via search databases. That said, there are some important considerations regarding the staging of these deliverables. For instance, the incomplete full draft report of findings, shared as an unpublished “working paper” at the stakeholders meeting, will not ordinarily jeopardize publication of the findings in a scientific journal (Oxford Academic, 2020). However, publishing the full final report of findings online first will make it more challenging to subsequently get a paper accepted by a scientific journal. If publication in a peer-reviewed journal is desired, organizational (government, sponsoring agency, research institute) reports of findings should be timed to coincide with or follow journal publication, with appropriate copyright permissions having been obtained (Oxford Academic, 2020). The benefit of having the full final report published in tandem or after a scientific journal article is that the peer review process undertaken for the article can help to improve both products.
Cross-analysing findings and completing the assessment report in a humanitarian context

**Data triangulation and extrapolation**

Accounting for potential biases of data sources is particularly relevant in humanitarian emergency contexts. **Data triangulation** should incorporate weighing the possible biases of each source and their validity and reliability within the context. In cases where data are limited, the available data should not be immediately discounted or excluded if the assessment team believes the data to be biased; instead, this can be noted in the assessment limitations section of the report (see next subsection).

If data on a topic or potential barriers are available from multiple sources, the triangulation process should involve identifying where these sources may be providing conflicting information and, if so, evaluating the reliability of each source. While there is no universal standard for weighing conflicting data sources, generally, primary data directly from affected populations should be given greater weight than secondary data or information from key informants outside the affected population or from the initial workshop of stakeholders. When conflicting information emerges from key informants or from the initial study conception workshop, greater weight may be given to information from those with more experience or knowledge in the context, or to individuals speaking in apparent contradiction to their own self-interest (Darcy et al., 2013).

In situations where there are no reliable data to understand the situation in a particular subpopulation, **data extrapolation** is necessarily limited. When groups or areas are entirely inaccessible, including through the alternative methods discussed in previous sections, findings from the broader population should not be generalized to include inaccessible areas or groups. If available data are limited, assessment teams can weigh the quality of the available information and the degree to which inaccessible areas appear to differ from accessible areas to determine the extent to which overall findings can be extrapolated to inaccessible groups/areas. If an area was inaccessible for interviews, it is likely that provision of health services is also difficult in that area, so it would be high risk for availability barriers. Triangulation could therefore be done through mapping of functional health services.

If teams determine that findings cannot be conclusive in the light of assessment limitations and constraints, assessment results may be used to suggest hypotheses to explore in future assessments or indicators to be incorporated into response monitoring mechanisms.

**Reporting limitations**

Assessment limitations will necessarily be greater in humanitarian emergencies. Teams can be explicit in reporting the limitations and also explain the impact that limitations may have had on assessment findings. Common limitations of studies in humanitarian contexts are outlined below.

- **Representativeness of data and findings, including limited or no access to certain areas or groups.** Challenges accessing portions of the affected population can be a considerable limitation of any assessment in humanitarian settings, casting doubt on the credibility of the overall assessment if not transparently acknowledged.
• **Uncertainty about population denominators.** Given the fluid nature and complexity of most crises and common absence of reliable pre-crises population figures, it is immensely challenging to obtain accurate estimates of population denominators (Abdelmagid & Checchi, 2018). If alternative approaches to estimating population sizes (e.g. projection from census or large-scale surveys, registration counts, flow monitoring, etc.) are used to determine indicator denominators then the limitations of these methods should be stated.

• **Changes to the context during the assessment period.** This is especially important in the early stages of an emergency when situations commonly evolve rapidly. Assessment findings may not be useful for informing response efforts if they do not reflect the current or anticipated future context.

• **Gaps in available data.** Data gaps should be mentioned to make clear when the absence of specific barriers from findings and recommendations is due to a lack of information rather than because they were explicitly identified as not being barriers to health services. This can be useful in prioritizing primary data collection, including monitoring. Underreporting due to fear of repercussions can also be highlighted.

• **Different views and perceptions of the situation and key health service barriers.** The diverse mixture of stakeholders involved in humanitarian contexts often brings a wide range of views (which can be conflicting) on the situation itself, response efforts, and key health service barriers for affected populations.

**Drafting the report/information products and preparing for the workshop**

Shorter reports and information products are often more appropriate for humanitarian contexts, and the utmost attention should be given to the criteria for inclusion and exclusion in deciding what goes into the final report. In humanitarian contexts in general, there is a higher risk that assessment and evaluation findings are misused, suppressed or distorted to feed into different stakeholders’ agendas. In moving towards Module 8 (with the workshop where all relevant stakeholders come together) and beyond (in finalizing the report post-workshop), research teams should ensure communications maintain fidelity to the data (i.e. transparent, complete and accurate representation of results and associated recommendations) when attempting to frame the results to facilitate optimal uptake of recommendations.

In the “Implications/Emerging ways forward” section of the report, it is particularly important that the contents of this section reflect the constraints of humanitarian settings, with their more limited resources and a need for immediate solutions. The most useful recommendations are those that are specific, directed to an identified group or entity, actionable, relevant, feasible, practical (given resource and time constraints) and individually prioritized, and which have budget orientations. This same principle can be considered when designing the break-out group guides (Module 8).
References for Module 7


This final module focuses on convening a stakeholder workshop to deliberate assessment findings, identifying the next steps for advancing potential solutions to barriers, and finalizing the assessment report. The processes in Module 8 are typically led by the assessment research team together with the oversight committee.

Module objectives

This module supports the research team to:

- prepare for the national stakeholder workshop by identifying participants, designing the agenda, and preparing supportive background materials to inform and guide deliberations;
- convene the workshop and document participants’ reflections on findings and emerging ways forward to address the barriers;
- finalize the assessment report, incorporating the workshop inputs, and produce shorter information products summarizing the findings;
- disseminate the report nationally, and close feedback loops with participants and subnational stakeholders involved in the study.
Preparing for and convening the workshop

This section covers creating the list of participants for the workshop, organizational aspects, conceptual underpinnings for the workshop, creating a draft agenda and preparing workshop materials.

List of participants

Any stakeholder analysis undertaken at the outset of the barriers assessment (see Module 2) is an important starting point for considering who to invite to the workshop. The list of participants in the initial inception workshop is the basis for the list of invitees to the final stakeholder meeting (with an ideal number of no more than 40 participants). In addition, it is important to consider stakeholders who need to be involved in or aware of future action to address the barriers identified. These stakeholders may come from both within and beyond the health sector. The work of the Overseas Development Institute (ODI, 2009) can be useful to help to identify which stakeholders have: (a) vested interest in the findings as they are likely to or could be affected; and/or (b) power to eventually help to achieve or block the change necessary to address the barriers identified.

At the workshop, it is important to have a mix of national and subnational authorities and other representatives who work directly at the interface with patients, including frontline health workers, patient associations and nongovernmental/civil society organizations working with subpopulations experiencing vulnerability. This mix will result in more comprehensive deliberations on both the causes of the barriers and potential solutions/ways forward.

Organizational aspects

There are certain organizational aspects that will be important to determine before designing an agenda. These include the positioning of the workshop within the policy and programming cycle, the total length of the workshop, the participatory platforms to be used and the facilitator group.

- **Aligning the workshop with policy and programming reviews.** The results of the barriers assessment are intended to be aligned and integrated within agreed policy, programming and/or planning processes. As such, a key decision is whether the stakeholder workshopping of the findings will be embedded within an existing wider programme review mechanism (such as an annual review meeting), or if a separate dedicated workshop will be convened, and the outputs from the latter feed into the review. If the findings are deliberated in the context of a wider regular review meeting (a decision often driven by cost savings and organizational practicalities), there is a risk that the deliberation on the causes and potential solutions to the barriers get drowned out by other agenda items. To counter this, it is important that the meeting organizers consistently build in the barriers assessment findings and discussion of potential solutions to different places in the review meeting’s agenda, as a cross-cutting focus that gets adequate attention. As a preferred option, this module describes the processes and inputs for a standalone workshop, the outputs of which would later feed into the review cycle.

- **Length of workshop.** The proposed length of a standalone workshop dedicated to deliberating the assessment findings and ways forward is at least 2.5 days total. This enables the:
  - first (half) day to be dedicated to familiarizing the stakeholders with the core emerging findings;
  - second (full) day to focus on prioritizing the most salient barriers for immediate redress and exploring the root causes of those barriers;
  - third (half) day to be dedicated to identifying the emerging ways forward.
• **Hybrid versus in-person.** The organizing team will have to decide the extent to which the workshop could be hybrid, with some (e.g. subnational representatives) participants online and some in-person. While there can be benefits of this in terms of cost savings, it can introduce a power dynamic and inequitable opportunities for influencing deliberations. As such, to the extent possible, all participants should have equal chances for engaging; and if hybrid is the only venue possible, participatory platforms for full engagement (also in break-out groups) need to be planned.

• **Facilitator group.** The facilitator group can comprise the research team and potentially the oversight committee, as well as skilled professional event coordinators. The latter can add value through their knowledge of guiding large groups through complex content in limited timeframes, dealing with interpersonal dynamics that can arise linked to contentious deliberations at a meeting, and steering a group towards finding common ground/agreement on ways forward.

**Conceptual underpinnings for the workshop**

The Tanahashi framework for effective coverage, which underpins the assessment itself, has strengths in describing the “problem space” in relation to coverage domains. That said, the workshop needs to go one step beyond this and bridge into the “solution space”, linking the problem analysis to potential solutions in the context of PHC-oriented health systems strengthening across the full continuum of health services. For this, it is suggested to draw on the operational framework for PHC (WHO & UNICEF, 2020), the theory of change for which is featured in Fig. 14.

**Fig. 14. Theory of change for PHC**

<table>
<thead>
<tr>
<th>PHC APPROACH</th>
<th>PHC LEVERS</th>
<th>PHC RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrated health services with an emphasis on primary care and essential public health functions</td>
<td>1. Political commitment and leadership 2. Governance and policy frameworks 3. Funding and allocation of resources 4. Engagement of communities and other stakeholders</td>
<td>Improved access, utilization and quality</td>
</tr>
</tbody>
</table>

**Source:** WHO & UNICEF (2020).
The exercise of linking the assessment findings (originally presented by Tanahashi domain) to priority levers for PHC-oriented health systems strengthening is a key step in the workshop design. For this process, the team can use root cause analysis methods to understand the underlying health system bottlenecks/root causes contributing to the barriers. When the root causes of the barriers have been determined, the operational framework for PHC can assist in identifying entry points for advancing equity-oriented progress towards UHC, with due attention to the entire system. During the exercise of considering applicable interventions and actions, attention should also be given to related existing policies, programmes, guidelines/standard operating procedures and other initiatives underway.

The PHC measurement framework and its indicator set is an additional resource that can support the translation of priority actions and interventions into measurable indicators (WHO & UNICEF, 2022). The measurement framework facilitates the mapping of synergies between structures, inputs, processes, outputs, outcomes and their intended impact. Adapting the framework and indicator set to the priority areas identified can inform ongoing monitoring and evaluation to see if coverage gaps and barriers are being reduced.

It can be useful to supplement this process with other frameworks (such as those in Blas & Kurup, 2010, and Solar & Irwin, 2010) that aid in understanding how intersectoral action/health-in-all-policies approaches can help to address barriers that originate outside of the health sector. Review teams may also wish to see Step 6 in WHO’s Innov8 approach to review health programmes to leave no one behind: technical handbook (WHO, 2016), the Health in all policies training manual (WHO, 2015) and Working together for equity and healthier populations (WHO, 2023) for more ideas on exploring intersectoral action to address barriers. In addition, for deeper reflection on barriers specifically linked to gender norms, roles and relations, the WHO gender analysis matrix can be used (WHO, 2011).

Creating a draft agenda

Table 7 provides a sample agenda for a 2.5-day workshop for a hypothetical assessment. The generic objectives for the workshop, each mapped against a day in the agenda, are to:

- deliberate the findings from the assessment of barriers and facilitating factors in obtaining effective coverage with health services;
- consider the upstream causes of key prioritized barriers;
- identify potential solutions and emerging ways forward to address barriers.

6 Different approaches exist for this, and may vary by type of barrier. For example, for understanding the root causes of health workforce-related barriers, it may be appropriate to draw on WHO’s Health labour market analysis guidebook (WHO, 2021).
Table 7. Sample draft agenda for hypothetical stakeholder workshop to deliberate assessment findings

**Day 1**

<table>
<thead>
<tr>
<th>Time</th>
<th>Agenda item</th>
<th>Description</th>
<th>Presenters/co-facilitators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 1 objective: To deliberate the findings from the assessment of barriers and facilitating factors in obtaining effective coverage with health services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13:00</td>
<td>Welcome and participant introductions</td>
<td>Official welcome by organizers Round of introductions across all participants</td>
<td>Oversight committee/national health authorities and research team</td>
</tr>
<tr>
<td>13:30</td>
<td>Workshop objectives</td>
<td>Recap of objectives of the meeting, overview of the agenda and expected outputs</td>
<td>Member of the oversight committee</td>
</tr>
<tr>
<td>13:45</td>
<td>Overview of assessment findings</td>
<td>OVERVIEW PRESENTATION Assessment aims and objectives, study questions, methodology, limitations and key emerging findings</td>
<td>Research team</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Questions and answers in plenary</td>
<td></td>
</tr>
<tr>
<td>16:00</td>
<td>Coffee/tea break</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16:20</td>
<td>Patient pathways interactive exercise</td>
<td>Participants are divided into four groups and review patient pathways with overlaid barriers that emerged from the assessment, and discuss their views of the most pressing barriers that need to be resolved to enable effective coverage</td>
<td>Each group nominates a facilitator and a rapporteur; a member of the research team provides support to each group</td>
</tr>
<tr>
<td>17:00</td>
<td>Report back in plenary</td>
<td>Each rapporteur reports back on barriers prioritized by their group</td>
<td>Participants who have been nominated by their groups as rapporteurs</td>
</tr>
</tbody>
</table>
| 17:30  | Questionnaire                                    | QUESTIONNAIRE All participants are asked to complete a 15-minute questionnaire considering which 5–7 barriers are the most salient to address, based on:  
• contribution of addressing the barrier to overarching progress towards UHC in the country  
• extent of the overarching prevalence of the barrier for the whole population  
• extent to which the barrier deepens health inequities for certain subpopulations or compounds/interacts with gender inequalities  
• operational opportunities for acting on the barrier | Facilitated by research team |
| 17:50  | Close of Day 1                                   | Wrap-up by organizers of Day 1                                              | Member of the oversight committee                |

**Day 2**

<table>
<thead>
<tr>
<th>Time</th>
<th>Agenda item</th>
<th>Description</th>
<th>Presenters/co-facilitators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 2 objective: To consider the upstream causes of key prioritized barriers to effective coverage with health services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>09:00</td>
<td>Introduction to Day 2</td>
<td>Overview of the agenda and objective for Day 2, and recap of Day 1</td>
<td>Member of the oversight committee</td>
</tr>
<tr>
<td>09:15</td>
<td>Questionnaire results</td>
<td>Presentation on the results from the questionnaire from the end of Day 1, identifying the most-prioritized five barriers</td>
<td>Research team</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Discussion in plenary</td>
<td></td>
</tr>
<tr>
<td>09:40</td>
<td>&quot;Causes-of-the-causes&quot; group exercise</td>
<td>Participants are divided into four groups and asked to complete causal analyses for the most-prioritized five barriers. Simple causal analysis can be done by asking why the barrier and its driver exist (going to five levels of questioning to arrive at a multi-level causal pathway).</td>
<td>Each group nominates a facilitator and a rapporteur; a member of the research team provides support to each group</td>
</tr>
<tr>
<td>10:30</td>
<td>Coffee/tea break</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:50</td>
<td>&quot;Causes-of-the-causes&quot; group exercise (continued)</td>
<td>Continued as above. The outputs of the exercises are documented in PowerPoint slides. The group rapporteur gets ready to report back in plenary</td>
<td>Same as above</td>
</tr>
</tbody>
</table>
12:00  Report back  Each rapporteur takes 5 minutes to describe their group findings, after which there is discussion in plenary  Group rapporteurs, facilitated by the research team

13:00  Site visits (and lunch)  In collaboration with local authorities and nongovernmental/civil society organizations, participants are taken to a site location to meet with providers and/or civil society/patient representative groups who can describe some of the barriers to services in their contexts and some of the interventions put in place to address them

15:30  Policy and programming panel on the current context for acting on specific barriers  Representatives from different health authorities share presentations on entry points in national policy and programming cycles for incorporating measures to address barriers, oriented by the PHC operational framework and reflecting on inputs from midday group report-back session  Representatives from the respective programme in the health ministry, health insurance fund, etc.

16:30  PHC operational framework groupwork sessions  Participants are divided into four groups and are asked to reflect back on the patient pathways and the "causes of the causes" exercise, and consider how to best address the prioritized barriers through concerted PHC-oriented health systems strengthening (drawing inspiration from the PHC operational framework). Groups are asked to write their answers on coloured cards  Each group nominates a facilitator and a rapporteur; a member of the research team provides support to each group

17:15  Report back  Each rapporteur reports back and posts their cards on a large white sheet or wallboard in which the PHC operational framework is drawn  Group rapporteurs, facilitated by the research team

17:50  Close of Day 2  Wrap-up by organizers of Day 2  Member of the oversight committee

Day 3

<table>
<thead>
<tr>
<th>Time</th>
<th>Agenda item</th>
<th>Description</th>
<th>Presenters/co-facilitators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 3 objective: To identify potential solutions and emerging ways forward to address barriers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>09:00</td>
<td>Introduction to Day 3</td>
<td>Overview of the agenda and objective for Day 3, and recap of Day 1 and 2</td>
<td>Member of the oversight committee</td>
</tr>
<tr>
<td>09:15</td>
<td>Solutions panel</td>
<td>The research team and additional external experts and representatives from other countries tackling similar issues, as appropriate, share case-studies, guidelines and other evidence related to tackling key barriers selected by the research team in advance  Discussion in plenary</td>
<td>Research team and external experts</td>
</tr>
<tr>
<td>10:15</td>
<td>Strengthening ongoing monitoring and evaluation</td>
<td>Presentation on ways to adjust ongoing monitoring and evaluation to better account for inequities in access to health services (as well as barriers and their drivers)  Discussion in plenary</td>
<td>Members of the research team and the oversight committee</td>
</tr>
<tr>
<td>10:45</td>
<td>Coffee/tea break</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11:00</td>
<td>River of change</td>
<td>Participants are divided into four groups and asked to identify: • top five solutions to advance within the next year • ways to foster community participation and intersectoral action • ways to adjust the monitoring and evaluation approach  Each group nominates a facilitator and a rapporteur; a member of the research team provides support to each group</td>
<td></td>
</tr>
<tr>
<td>12:00</td>
<td>Report back</td>
<td>Each rapporteur takes 5 minutes to describe their findings, after which there is discussion in plenary</td>
<td>Group rapporteurs, facilitated by the research team</td>
</tr>
<tr>
<td>17:50</td>
<td>Close of meeting</td>
<td>Closing addresses, highlighting next steps</td>
<td>Member of the oversight committee</td>
</tr>
</tbody>
</table>
Preparing workshop materials

Preparatory outputs for the workshop are described below.

- **Overview presentation:** The workshop would typically begin with a recapitulation of the aims, objective, research questions and methods of the study, followed by the “overview figure” (see Module 7) and a synopsis of the emerging findings (by each Tanahashi domain and/or study question). Attention to key cross-cutting issues (e.g. gender, geographic location, socioeconomic status and ethnicity in relation to differential experiences with barriers) would clearly emerge in this presentation.

- **Placeholder sections in the report for the stakeholder meeting inputs:** The draft report that goes to the stakeholder meeting is incomplete, as input from stakeholders on the potential ways forward is an important part of the overarching assessment method. So, a place for the emerging outputs from the workshop deliberations should be built into the draft report structure (with dedicated placeholders). Doing this will make it clear to participants how their inputs will be taken on. It will also prevent an entirely separate meeting report from being produced in parallel to the assessment report.

- **Break-out group guides:** A barriers assessment focuses on the barriers that emerge at the interface between the services and the population, as explained in previous modules. Through break-out group guides, the workshop can look at the upstream causes of the barriers and contextualize ways forward within wider health system reforms and cross-sectoral development processes. The draft agenda in this module includes multiple ideas for groupwork, and each of these would have a guide.

- **Patient pathways:** Assuming that tracer conditions were used in the assessment, it can be helpful to generate visual depictions of these that can be used in workshopping the findings (see the example in Fig. 15). These diagrams can incorporate the steps along the pathway that a hypothetical patient would need to navigate, with the participants themselves inserting the types of barriers and facilitating factors that emerged from the data. Use of patient pathways (sometimes called care cascades) in solution finding to barriers can activate systems thinking, particularly around integration of services and patient-centredness, and can also highlight how barriers compound and intersect (and thus need to be addressed in a synergized way). It may be appropriate to have multiple hypothetical patient profiles (e.g. of patients of different sex/gender, socioeconomic status, ethnicity and migrant backgrounds) that can illustrate the heterogeneity in the population and the varying type of barriers. These should be based on the assessment findings.
**Fig. 15. Example of patient pathway**

- **Solutions mapping:** One key output of this workshop is the initial formulation of solutions to address priority barriers. Once the triangulation analyses are complete, teams will have a good idea of which barriers are likely to be discussed. A preliminary mapping of existing solutions will be a useful tool to help to guide stakeholders in their discussion. Teams can focus on reviewing the published literature including guidelines, evidence reviews, case-studies and other research describing which solutions may be most relevant and deserving of further investigation.

- **Deciding on the prioritization approach and designing the questionnaire:** In the above draft agenda and at the end of Day 1, stakeholders are asked to prioritize barriers for further exploration, using a dedicated questionnaire. It is advised that meeting organizers agree to their core criteria for prioritizing barriers prior to the meeting and transfer this to a questionnaire format (with explanations). Key considerations may include: the contribution of addressing barriers to the overarching progress towards UHC in the country; the overall prevalence of the barrier for the whole population; the extent to which the barrier deepens health inequities for certain subpopulations; and operational (including financial) opportunities for acting on the barrier. During the meeting itself, data – either from the separate sources or from the merged results – can be displayed in ways that feed into prioritization (see Box 24). Certain health topics may also have prioritization and planning tools that can be linked to for this activity, such as EQUIST for child health (UNICEF, 2021).

- **Planning in advance for how workshop outputs are documented:** Prior to the workshop, it can be opportune to think through how the evidence from the workshop will be documented, such as via PowerPoint presentations and flipcharts from the working groups, via recordings of the report-back sessions (if participants agree), and/or use of notetakers. Having evidence collection intentionally designed in advance will make the post-workshop task of synthesizing outputs and completing the report much easier.
Box 24. Using data displays that facilitate prioritization

Consideration needs to be given to presenting results in ways that support prioritization. As an example, Fig. 16 displays quantitative results from a scoping review in Guatemala of barriers to coverage of early childhood health and development interventions. The barriers to coverage are organized by theme under the Tanahashi domains, clearly showing the frequency of the reported barriers in the literature reviewed. This approach could be similarly applied to other quantitative and qualitative data collected via the barriers assessment, including merged results. In prioritizing, it is also important to account for potential biases in individual source findings and refer to triangulation findings to help to cross-check these.

Fig. 16. Frequency of barriers to effective coverage of early childhood health and development interventions identified by the Tanahashi model, by common themes, Guatemala 2005–2019

<table>
<thead>
<tr>
<th>Tanahashi domain</th>
<th>Specific barriers</th>
<th>Barriers according to Tanahashi domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability</td>
<td>Shortage of resources (medications, supplies, human, technology)</td>
<td>49</td>
</tr>
<tr>
<td>72</td>
<td>Shortage of appropriately trained human resources</td>
<td>15</td>
</tr>
<tr>
<td>21.4%</td>
<td>Information shortage</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>2</td>
</tr>
<tr>
<td>Accessibility</td>
<td>Financial costs (direct or indirect)</td>
<td>29</td>
</tr>
<tr>
<td>90</td>
<td>Geographic barriers (distance, lack of transportation, time of transport)</td>
<td>26</td>
</tr>
<tr>
<td>26.7%</td>
<td>Language barriers</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Discriminatory attitudes by providers</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Inadequate service hours or excessive wait times</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>7</td>
</tr>
<tr>
<td>Acceptability</td>
<td>Beliefs and myths</td>
<td>23</td>
</tr>
<tr>
<td>121</td>
<td>Lack of empowerment to make decisions</td>
<td>21</td>
</tr>
<tr>
<td>35.9%</td>
<td>Machista culture or gender norms</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Social norms</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Distrust</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Fear or embarassement</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Social stigma</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Religious influences</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Discriminatory attitudes by providers</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Cultural incompatibilities between user and provider</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>3</td>
</tr>
<tr>
<td>Contact coverage</td>
<td>Lack of user awareness</td>
<td>22</td>
</tr>
<tr>
<td>31</td>
<td>Negative perception of care (impersonal/low quality)</td>
<td>8</td>
</tr>
<tr>
<td>9.2%</td>
<td>Other</td>
<td>1</td>
</tr>
<tr>
<td>Effective coverage</td>
<td>Lack of provider compliance</td>
<td>15</td>
</tr>
<tr>
<td>72</td>
<td>Lack of treatment adherence</td>
<td>5</td>
</tr>
<tr>
<td>21.4%</td>
<td>Barriers to referral process</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>337</strong></td>
</tr>
</tbody>
</table>

Source: reproduced from Marra & Espinosa (2020).
Finalizing and disseminating the report

Finalizing the report of findings and other information products

After the workshop, the objective is to finalize the full report by filling in the dedicated placeholders with the key outputs from the meeting. The suggested target length for the full report is not more than 50 pages, as described in Module 7.

Given the richness of data that emerges from a barriers assessment, and acknowledging that many stakeholders to whom the findings are relevant may not read the report, it is smart to consider additional information products. These can include infographics, media releases, shorter briefs (often an expanded version of the executive summary from the report) and web stories, among other products. In creating these, it is important to have very clear criteria for the prioritization that underpins further data reduction and summary, as well as to draw from across the data sources and to not lose sight of the importance of reporting differences between subpopulations and subnational areas. In presenting to the media, given that some data from barriers assessments can be sensitive, it is important that the oversight committee and research team are fully ready to deal with follow-up media queries.

Closing feedback loops

Module 2 describes the importance of feedback loops, particularly with people who participated in the research by sharing insights and personal experiences. Ideally, the subnational sites will be involved in identifying next steps and potential remedial actions either through participation in the national workshop or holding smaller workshops at subnational level. Where this is not possible or does not happen, materials on prioritizing barriers and solutions mapping could be sent to subnational stakeholders in advance of the national workshop, so that inputs from subnational sites can be considered. Following the workshop, it is important that the report is disseminated to subnational sites, as well as to all key informants, as part of closing the feedback loop and providing an opportunity for any final feedback or inputs.

Streamlining findings into national policy and programme review processes

In many cases, the barriers assessment will have been undertaken as part of a programme or policy review, or as part of a health system performance assessment feeding into a reform or a new health plan. A key step following the assessment is to ensure that the assessment findings and the ideas for emerging ways forward feed into national policy and programming processes. The oversight committee typically has a key role in identifying these opportunities, working closely with the research team for adaptations.

Completion checklist for Module 8

By the end of this module, the users of this handbook should:

✓ have prepared for and convened the national stakeholder workshop;
✓ have finalized the assessment report by incorporating the workshop inputs;
✓ have disseminated the report nationally;
✓ have closed feedback loops with participants and subnational stakeholders involved in the study.
Workshopping the findings in a humanitarian context

Most content in this module is equally applicable in humanitarian contexts; however, several components will require particular attention.

**Workshopping the findings and appropriate stakeholder engagement**

Careful attention should be paid when identifying the number of workshops (if one is held nationally or if additional ones are convened in specific subnational locations), planning the composition of attendees at each workshop (knowing who to invite, accounting for sensitivities), and organizing the structure of each workshop to take into account stakeholders’ influence and sensitivities. Workshops to discuss and prioritize findings can often be organized with the national health cluster. Having kept all key stakeholders updated across the process, i.e. from the inception meeting to the final workshop, can reduce pushback, increase ownership of findings and recommendations, and improve the likelihood that findings will be appropriately used as intended.

**Dissemination approaches**

In emergencies of all types with international response and funding, there is a tendency for parties at all levels (and sides) to politicize findings (Darcy et al., 2013). When preparing dissemination materials, such issues must be considered, and potential misrepresentation of findings mitigated where possible. Stakeholder mapping, micro-political mapping and context analysis can be useful tools for understanding the context-specific dynamics of decision-making and programme/policy change to frame and disseminate findings for uptake most effectively.

Common dissemination products in humanitarian contexts, potentially with better uptake than a full/longer assessment report, might include: assessment summaries (1–4 pages long); briefs for policy-makers highlighting the recommendations (1–2 pages); infographics with key data; and fact sheets. Communication channels such as cluster webpages, blog posts, social media, videos and podcasts are increasingly being used to share assessment findings in humanitarian contexts. Particularly in protracted emergencies, the use of webinars, conferences, peer-reviewed articles and case-studies can aid in fostering uptake of assessment findings.

When planning and implementing the dissemination strategy, it is important to consider the distinctions in dissemination approaches and appropriate next steps within each element of the humanitarian programme cycle. The dissemination strategy will depend on the assessment objectives, and whether this is the first barriers assessment conducted or a re-assessment. However, several overarching distinctions can be made, as described below.

- **Emergency response preparedness:** Depending on the context, during preparedness, dissemination can most usefully focus on recommendations for contingency planning, likely with national authorities and development actors.

- **Needs assessment and analysis:** Dissemination would be well-suited to focus on strengthening the evidence base by collaborating and integrating with other assessments. Findings can be integrated in the health sector humanitarian needs overview.
- **Strategic response planning**: Findings will likely be most immediately useful to stakeholders during response planning to add strategic objectives to address identified priority barriers.

- **Implementation and monitoring**: Dissemination targeted to individuals and humanitarian partners involved in implementation and monitoring activities can support integration of assessment findings with broader efforts. This will also allow key indicators of priority barriers to be included in subsequent monitoring systems, to follow progress in reducing barriers.

- **Resource mobilization**: Dissemination efforts can be targeted to guide funding allocations to activities that address gaps in health service access and utilization. Findings should be shared with the most important humanitarian donors and funding agencies.

- **Operational peer review and evaluation**: Dissemination approaches can be designed to provide relevant stakeholders with insight into the reach of ongoing interventions and changes in the barriers to health services faced by the affected population or subgroups. Particularly in cases where barriers to health services are being re-assessed, findings at this stage can contribute to stakeholders’ understanding of changes in the light of response activities.
References for Module 8


Annex 1. Sample terms of reference for contracting the lead research institute/entity

This annex contains a sample terms of reference for the university or other research institute to which the work would be commissioned. These terms of reference can be adapted for the study in question, and used as a basis for soliciting proposals from potential contractual partners through a competitive bidding process. In addition, the commissioning entity will need to budget for other costs outside of the terms of reference, e.g. the hosting of the inception and final stakeholder meetings.

SAMPLE TERMS OF REFERENCE

Background

In country X, [include one paragraph on country-specific context and study rationale].

This study is being commissioned by [insert entity’s name] to [insert name of university or research institute with extensive experience in qualitative and quantitative research and mixed methods analysis]. The study will be overseen by an oversight group (comprising representatives from relevant national authorities, WHO, United Nations sister agencies and other development partners), which will convene regular meetings with the contractual partner and be engaged throughout the process.

Planned timelines

Start date: XX/XX/XXXX          End date: XX/XX/XXXX

Requirements – work to be performed

Objective 1: Support preparations. Support the preparatory and scoping stage for the study, including the convening of the oversight team, the production of a research proposal and its submission for ethical review, the selection of subnational study locations, the request of access to datasets, and the assembly of an inception meeting with stakeholders.

- Deliverable 1A: Draft research proposal in format of submission to the ethical review body.
- Deliverable 1B: Draft agenda for inception meeting.
Objective 2: Conduct key informant interviews. Conduct national and subnational key informant interviews to get a more in-depth understanding of barriers to effective coverage with health services.

- Deliverable 2A: Draft initial list of potential interviewees to approach (based on sampling framework defined in research proposal deliverable 1A).
- Deliverable 2B: Final key informant interview guide, post-piloting/testing and translation.
- Deliverable 2C: Key informant interview data analysed and findings incorporated into the evidence synthesis framework.

Objective 3: Conduct literature review. Review existing literature on barriers to effective coverage with health services, identified through scientific search databases and grey literature.

- Deliverable 3A: Excel file with shortlisted resources based on an abstract review (following database search as indicated in the research proposal deliverable 1A), and PRISMA diagram.
- Deliverable 3B: Literature review data analysed and findings incorporated into the evidence synthesis framework.

Objective 4: Analyse existing quantitative data. Analyse existing quantitative datasets for 2010–current period to understand barriers to effective coverage with health services, focusing on selected indicators as examples.

- Deliverable 4A: Building on the description of the defined scope of the quantitative component of the assessment in the research proposal (deliverable 1A), produce a 3-page progress update with initial sets of variables, data sources, indicators for further analysis of gaps, and identification of which datasets will require getting permissions to access.
- Deliverable 4B: Summary tables for all relevant indicators, and incorporation of findings into the evidence synthesis framework.

Objective 5: Conduct focus groups. Conduct focus groups in three subnational locations with high indices of poverty and/or multidimensional deprivation, as well as key additional subpopulations (e.g. people with disabilities, people with migrant or refugee status, Indigenous Peoples and ethnic minorities) to get a more in-depth understanding of barriers to effective coverage with health services.

- Deliverable 5A: Progress report covering final site location, composition quotas and local recruitment approaches.
- Deliverable 5B: Final focus group guide, post-piloting and translation.
- Deliverable 5C: Focus group data analysed and findings incorporated into the evidence synthesis framework.

Objective 6: Final draft report. Cross-analyse all data sources, using data triangulation methods as appropriate, and produce a draft report of findings for review by WHO, the study oversight team and participants in a wider stakeholders meeting.

- Deliverable 6A: Completed evidence synthesis framework with inputs across data sources.
- Deliverable 6B: Completed draft report of findings.
Objective 7: Stakeholder meeting and report revisions. Provide organizational support for the convening of all stakeholders who participated in the inception meeting and others who are particularly relevant for addressing specific barriers identified through the study.

- Deliverable 7A: Draft agenda and list of participants for the stakeholder meeting.
- Deliverable 7B: PowerPoint presentation with consolidated findings.
- Deliverable 7C: Revised report of findings incorporating key suggestions on next steps/way forward that emerged from the meeting.

Budget
The total cost of this service will be [insert currency and amount].

Inputs
Regular meetings of the oversight team and contractual partner will be convened for executing the above. The oversight team will provide advice for and feedback on deliverables.

Activity coordination, reporting and place of assignment
The selected contractual partner/supplier will work under the supervision of [insert relevant person(s) title, agency and role]. The place of assignment is [insert location]. Duty travel to subnational locations will be required.

Characteristics of the contractual partner
The selected institute is required to have following skills/knowledge, experiences and characteristics:

- comprises a team of researchers to deliver in a timely and coordinated way (this is preferable to hiring separate/unlinked consultants in their individual capacity for different parts of the study);
- has extensive experience with managing national studies in health services and health financing using literature review, qualitative research and quantitative analysis methods, as well as mixed methods;
- has a strong publication record, including studies published in peer reviewed journals and examples of reports from similar assessment exercises;
- has staff with extensive experience in equity analysis, vulnerability assessments, gender analysis and/or research underpinned by human rights-based approaches;
- is available within the timeframe required and provides good value for resource expenditure.
Annex 2. Tables and templates to support quantitative analyses of barriers to health services

Table A2.1. Barrier indicators in common existing datasets

The below tables feature selected indicators only and are not exhaustive. Their purpose is to give the research team ideas of potential data available. Module 5 explains how indicators, including many of the below, can be disaggregated by inequality dimensions as part of a barriers assessment.

<table>
<thead>
<tr>
<th>Availability coverage</th>
<th>Barriers</th>
<th>Example indicators</th>
<th>Reference</th>
<th>Unit of analysis: Individual, household, population, health facility, policy</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Insufficient number or density of health facilities</td>
<td>Health facility density and distribution</td>
<td>WHO (2018), WHO (2015)</td>
<td>Health facility</td>
<td>Routine facility information system: facility database/master facility list, geospatial modelling</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hospital bed density (per 10 000 population)</td>
<td>WHO (2018)</td>
<td>Health facility</td>
<td>Routine facility information systems/national database</td>
</tr>
<tr>
<td></td>
<td>Insufficient supply of health workers, with the competencies and skill‑mix to match the health needs of the population, including in underserviced areas</td>
<td>Health worker density and distribution</td>
<td>WHO (2018); WHO &amp; UNICEF (2022)</td>
<td>Health facility</td>
<td>Health worker registry</td>
</tr>
<tr>
<td></td>
<td>Absenteeism of health workers</td>
<td>Provider availability (absence rate)</td>
<td>WHO &amp; UNICEF (2022)</td>
<td>Health facility</td>
<td>Health facility surveys</td>
</tr>
<tr>
<td></td>
<td>Inadequate mix of services provided</td>
<td>Service package for essential health services and public health functions developed and meets criteria</td>
<td>WHO &amp; UNICEF (2022)</td>
<td>Policy, health facility</td>
<td>Qualitative/key informant survey and/or desk review with verification from key country documents</td>
</tr>
<tr>
<td></td>
<td>Scarcity or poor quality of necessary health products/inputs (e.g. medicines, equipment, link to laboratory network, cold chain, personal protective equipment)</td>
<td>Percentage of health facilities that have a core set of relevant essential medicines available and affordable on a sustainable basis (SDG indicator)</td>
<td>WHO (2018); WHO &amp; UNICEF (2022)</td>
<td>Health facility</td>
<td>Health facility surveys, routine health facility data</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Median availability of selected generic medicines</td>
<td>WHO (n.d.)</td>
<td>Health facility</td>
<td>Routine health facility data</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Percentage of health facilities with availability of essential in vitro diagnostics</td>
<td>WHO &amp; UNICEF (2022)</td>
<td>Health facility</td>
<td>Health facility surveys</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Percentage of health facilities with availability of priority medical equipment and other medical devices</td>
<td>WHO &amp; UNICEF (2022)</td>
<td>Health facility</td>
<td>Health facility surveys</td>
</tr>
<tr>
<td>Shortage of or poorly functioning basic amenities (electricity, water and sanitation) in facilities</td>
<td>Percentage of facilities with availability of power</td>
<td>WHO &amp; UNICEF (2022)</td>
<td>Health facility</td>
<td>Health facility surveys</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>Percentage of facilities with availability of basic WASH amenities (potable water, toilet, sink, waste management)</td>
<td>WHO/UNICEF Joint Monitoring Programme (2024)</td>
<td>Health facility</td>
<td>Health facility surveys</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of emergency transportation for patients that is available by call or stationed at facility, with emergency care worker and a driver available 24 hours a day</td>
<td>Percentage of facilities with access to emergency transport for interfacility transfer</td>
<td>WHO &amp; UNICEF (2022), WHO (2015)</td>
<td>Health facility</td>
<td>Health facility surveys</td>
<td></td>
</tr>
<tr>
<td>Insufficient outreach mechanisms/community-based service points</td>
<td>Formal linkages exist between facility-based and community-based primary care providers</td>
<td>WHO &amp; UNICEF (2022)</td>
<td>Health facility</td>
<td>Health facility surveys</td>
<td></td>
</tr>
</tbody>
</table>

### Accessibility coverage

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Example indicators</th>
<th>Reference</th>
<th>Unit of analysis: Individual, household, population, health facility, policy</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reported problems accessing care when a person had a health care need (as per Demographic and Health Survey) due to: • getting permission to go for treatment • getting money for treatment • distance to the health facility • not wanting to go alone Other factors (depending on survey; see Module 5)</td>
<td>Perceived barriers to access (geographic, financial, sociocultural)</td>
<td>WHO &amp; UNICEF (2022)</td>
<td>Individual/household, population</td>
<td>Population-based survey</td>
</tr>
<tr>
<td>Distance, availability of transport and time for transportation</td>
<td>Percentage of population living within 5 km (or 1 hour) of a comprehensive primary care provider and 2 hours of an emergency care unit/provider</td>
<td>WHO &amp; UNICEF (2022)</td>
<td>Individual/household, population and health facility</td>
<td>Routine facility information system: facility database/master facility list, geospatial modelling</td>
</tr>
<tr>
<td></td>
<td>Percent of households possessing transportation (by means of transport)</td>
<td>DHS (2020b)</td>
<td>Individual/household, population</td>
<td>Demographic and Health Survey</td>
</tr>
<tr>
<td></td>
<td>Travel distance to obtain assistive products</td>
<td>WHO (n.d.)</td>
<td>Population-based household survey</td>
<td>Population-based survey: household survey conducted using the rapid Assistive Technology Assessment</td>
</tr>
<tr>
<td>Drivers of financial hardship that contribute to discontinuation of treatment and out-of-pocket payments represent a barrier to access for people unable to find the economic resources needed</td>
<td>All indicators for catastrophic and impoverishing health expenditure</td>
<td>WHO (n.d.)</td>
<td>Individual/household, population</td>
<td>Household budget surveys, household income and expenditure surveys, household socioeconomic and living standards surveys, health surveys with a module on household expenditures</td>
</tr>
<tr>
<td>High perceived cost of services</td>
<td>Percent of persons reporting willingness or ability to pay for services</td>
<td>Individual/household, population</td>
<td>Household surveys</td>
<td></td>
</tr>
<tr>
<td>High cost (and/or perceived cost) of medicines and health products</td>
<td>Median consumer price ratio of selected generic medicines</td>
<td>WHO (n.d.)</td>
<td>Individual/household, population</td>
<td>Special facility surveys</td>
</tr>
<tr>
<td></td>
<td>Percent of persons reporting price of medicines (or health products) as a reason for forgoing care (or as a barrier to obtaining medicines/products)</td>
<td>Individual/household, population</td>
<td>Household surveys</td>
<td></td>
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<tr>
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<td></td>
</tr>
<tr>
<td>Indirect costs for health services (including transport, food and lodging)</td>
<td>Nonmedical costs, such as travel, lodging and food, relative to out-of-pocket expenditure</td>
<td>Individual/ household, population</td>
<td>Household budget surveys, household income and expenditure surveys, household socioeconomic and living standards surveys, health surveys with a module on household expenditures</td>
<td></td>
</tr>
<tr>
<td>Percent of persons reporting indirect costs as their primary barrier to utilizing health services (or forgoing care)</td>
<td>Individual/ household, population</td>
<td>Household surveys</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informal payment requirements to access services</td>
<td>Percent of persons reporting having to pay a bribe, give a gift, or do a favour for a health worker or clinic or hospital staff in order to get the medical care or services needed</td>
<td>Afrobarometer (2024)</td>
<td>Individual/ household, population</td>
<td></td>
</tr>
<tr>
<td>High cost (or price) for health insurance (premiums, deductibles, co-payments)</td>
<td>Average cost (to population) of insurance premium (or deductibles, co-payments); and as percent of average household consumption</td>
<td>Individual/ household, population</td>
<td>Household surveys</td>
<td></td>
</tr>
<tr>
<td>Limited health insurance coverage</td>
<td>Percent of persons (or households) reporting any health insurance coverage</td>
<td>DHS (2020b)</td>
<td>Individual/ household, population</td>
<td></td>
</tr>
<tr>
<td>Insufficient financial protection offered through health insurance</td>
<td>Limited range of services covered (including specific exclusions)</td>
<td>Policy</td>
<td>Policy documents</td>
<td></td>
</tr>
<tr>
<td>Insufficiency of financial protection offered through health insurance</td>
<td>Percent of persons affected by restrictive eligibility rules</td>
<td>Individual/ household, population, policy</td>
<td>Household surveys, policy documents</td>
<td></td>
</tr>
<tr>
<td>Insufficiency of financial protection offered through health insurance</td>
<td>Percent of persons reporting difficult enrolment procedures (and reasons)</td>
<td>Individual/ household, population</td>
<td>Household surveys</td>
<td></td>
</tr>
<tr>
<td>Insufficiency of financial protection offered through health insurance</td>
<td>Percent of persons reporting slow and limited reimbursements</td>
<td>Individual/ household, population</td>
<td>Household surveys</td>
<td></td>
</tr>
<tr>
<td>Exclusionary administrative requirements for health service use</td>
<td>Existence of right-to-health legislation</td>
<td>WHO &amp; UNICEF (2022)</td>
<td>Policy</td>
<td></td>
</tr>
<tr>
<td>Lack of birth registration and legal identity inhibiting access to health services</td>
<td>Completeness of birth registration</td>
<td>WHO &amp; UNICEF (2022)</td>
<td>Individual/ household, population</td>
<td></td>
</tr>
<tr>
<td>Inability to make use of eHealth/ telemedicine/digital health services</td>
<td>Percentage of people that have had at least one virtual health consultation in the past 12 months</td>
<td>WHO &amp; UNICEF (2022)</td>
<td>Individual/ household, population</td>
<td></td>
</tr>
<tr>
<td>Limited schedules/opening times of health facilities</td>
<td>Percent of health facilities with limited opening hours (defined locally)</td>
<td>Health facility</td>
<td>Health facility surveys</td>
<td></td>
</tr>
<tr>
<td>Long waiting times and complex systems to schedule appointments</td>
<td>Index of patient-reported experiences (including in primary care facilities)</td>
<td>WHO &amp; UNICEF (2022)</td>
<td>Individual/ household</td>
<td></td>
</tr>
<tr>
<td>Inability of a person to both read and write a short simple statement on her/ his everyday life, with understanding of its meaning</td>
<td>Literacy rate</td>
<td>WHO (n.d.)</td>
<td>Population</td>
<td></td>
</tr>
<tr>
<td>Educational attainment, which can improve both access to and demand for health services</td>
<td>Percent of population completing secondary education</td>
<td>DHS (2020a)</td>
<td>Individual/ household, population</td>
<td></td>
</tr>
<tr>
<td>Inaccessibility of health facilities by persons with disabilities</td>
<td>Proportion of persons with disabilities reporting access to public buildings in urban and rural areas, including government buildings in national and regional capitals</td>
<td>United Nations (2020)</td>
<td>Individual/ household, population</td>
<td></td>
</tr>
<tr>
<td>Percentage of health facilities that meet accessibility standards and guidelines</td>
<td>WHO (in press)</td>
<td>Health facility</td>
<td>Health facility surveys</td>
<td></td>
</tr>
</tbody>
</table>
## Acceptability coverage

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Example indicators</th>
<th>Reference</th>
<th>Unit of analysis: Individual, household, population, health facility, policy</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inappropriateness of services to meet age and gender expectations</td>
<td>Health workers by sex (%): Male or female doctors as percentage of all medical doctors at national level; male or female nurses as percentage of all nurses at national level</td>
<td>WHO (n.d.)</td>
<td>Individual</td>
<td>Health worker registry</td>
</tr>
<tr>
<td>Proportion of health facilities providing adolescent health services</td>
<td>WHO (2017a)</td>
<td>Health facility</td>
<td>Health facility surveys</td>
<td></td>
</tr>
<tr>
<td>Lack of sensitivity or awareness of cultural and religious needs or inadequate interpersonal skills of health workers to provide people-centred care and treat patients with dignity and respect</td>
<td>Percent of persons who feel providers treat them with respect all of the time or some of the time</td>
<td>DHS (2020b)</td>
<td>Individual/ household, population</td>
<td>Demographic and Health Survey</td>
</tr>
<tr>
<td>Information sources not in language (or dialect) or formats appropriate to the heterogeneity of the local population</td>
<td>Presence of government-supported internet sites providing information in multiple languages</td>
<td>WHO (n.d.)</td>
<td>Policy</td>
<td>Third global health survey on eHealth</td>
</tr>
<tr>
<td>Lack of coordination with traditional health systems</td>
<td>Percentage of outpatient visits to traditional and complementary medicine facilities/facilities offering traditional and complementary medicine services</td>
<td>WHO (2018)</td>
<td>Individual/ household, population</td>
<td>Population-based survey</td>
</tr>
<tr>
<td>Discriminatory or disrespectful attitudes by health providers</td>
<td>Percent of people feeling that they are treated with respect (somewhat or a lot) when dealing with health workers and clinic or hospital staff</td>
<td>Afrobarometer (2024)</td>
<td>Individual/ household, population</td>
<td>Afrobarometer</td>
</tr>
<tr>
<td>Gender norms, roles and relations that inhibit access to services due to factors including limited autonomy in decision-making</td>
<td>Percent of women aged 15–49 reporting they have serious problems in accessing health care for themselves when they are sick and state the problem as “getting permission to go for treatment”</td>
<td>DHS (2020b)</td>
<td>Individual/ household, population</td>
<td>Demographic and Health Survey</td>
</tr>
<tr>
<td>Percentage of currently married women who usually make a decision about their own health care either by themselves or jointly with their husbands</td>
<td>UNAIDS (2024)</td>
<td>Individual/ household, population</td>
<td>Population-based survey</td>
<td></td>
</tr>
<tr>
<td>Percent of respondents who believe that, if her husband has an STI, a wife can either refuse to have sex with him or propose condom use, of all respondents having heard of STIs aged 15-49 in a population-based survey</td>
<td>UNAIDS (2024)</td>
<td>Individual/ household, population</td>
<td>Population-based survey</td>
<td></td>
</tr>
<tr>
<td>Perceived lack of privacy and confidentiality</td>
<td>Index of patient-reported experiences (including in primary care facilities)</td>
<td>WHO &amp; UNICEF (2022)</td>
<td>Individual/ household</td>
<td>Population-based survey or patient survey (as part of an exit-interview during a facility survey or a separate visit/follow-up patient questionnaire)</td>
</tr>
<tr>
<td>Stigma related to health conditions or services needed</td>
<td>Percentage of people living with HIV who report having experienced stigma and discrimination in the general community in the last 12 months</td>
<td>UNAIDS (2024)</td>
<td>Individual/ household</td>
<td>Population-based survey, People Living with HIV Stigma Index</td>
</tr>
</tbody>
</table>
## Contact coverage

Please refer to the WHO Global Health Observatory for measures of utilization:

https://www.who.int/data/gho/data/themes/world-health-statistics

https://www.who.int/data/gho

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### Effective coverage

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Example indicators</th>
<th>Reference</th>
<th>Unit of analysis: Individual, household, population, health facility, policy</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insufficient provider compliance, (for tracer services) in relation to:</td>
<td>Percentage of facilities meeting minimum standards to deliver tracer services</td>
<td>WHO (2018); WHO &amp; UNICEF (2022)</td>
<td>Health facility</td>
<td>Health facility surveys</td>
</tr>
<tr>
<td>• staff and guidelines</td>
<td>Adherence to clinical standards for tracer conditions</td>
<td>WHO &amp; UNICEF (2022)</td>
<td>Health facility</td>
<td>Facility survey (patient–provider observation or record review)</td>
</tr>
<tr>
<td>• equipment</td>
<td>Diagnostic accuracy (provider knowledge)</td>
<td>WHO &amp; UNICEF (2022)</td>
<td>Health facility</td>
<td>Patient–provider observations or record reviews during facility surveys</td>
</tr>
<tr>
<td>• diagnostics</td>
<td>Protocols for patient referral and emergency transfer</td>
<td>WHO &amp; UNICEF (2022)</td>
<td>Policy</td>
<td>Qualitative assessment</td>
</tr>
<tr>
<td>• medicines and commodities</td>
<td>Percentage of facilities using single, comprehensive patient records</td>
<td>WHO &amp; UNICEF (2022)</td>
<td>Health facility</td>
<td>Health facility surveys</td>
</tr>
<tr>
<td>Lack of diagnostic accuracy (e.g. due to provider bias and other error, or technological limitations)</td>
<td>Index of patient-reported experiences (including in primary care facilities)</td>
<td>WHO &amp; UNICEF (2022)</td>
<td>Individual/ household, population</td>
<td>Population-based survey or patient survey (as part of an exit interview during a facility survey or a separate visit/follow-up patient questionnaire)</td>
</tr>
<tr>
<td>Weak referral systems and methods for continuity of care</td>
<td>Existence of policy, strategy or plan for improvement of quality and safety</td>
<td>WHO &amp; UNICEF (2022)</td>
<td>Policy</td>
<td>Qualitative assessment, policy document</td>
</tr>
<tr>
<td>People-centredness of services provided:</td>
<td>People's perceptions of health system and services</td>
<td>WHO &amp; UNICEF (2022)</td>
<td>Individual/ household, population</td>
<td>Population-based survey</td>
</tr>
<tr>
<td>• communication</td>
<td>Existence of a system for post-crash care that includes key attributes</td>
<td>WHO &amp; UNICEF (2022)</td>
<td>Policy</td>
<td>Qualitative assessment, routine health information system (for prehospital emergency care)</td>
</tr>
<tr>
<td>• respect</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>• autonomy</td>
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<tr>
<td>• confidentiality</td>
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<tr>
<td>• social support</td>
<td></td>
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<tr>
<td>Deficient quality improvement system</td>
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</tr>
<tr>
<td>Negative perceptions about health services, highlighting perceived challenges along the patient pathway and potentially influencing future care-seeking</td>
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</tr>
<tr>
<td>Lack of efficient coordinated care in emergency situations</td>
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</tr>
</tbody>
</table>
Table A2.2 Template for barrier indicators

This template can support the identification of relevant indicators, with due attention given to the barrier domains listed below.

- **Availability coverage**: having the right types of services offered to those who need them, when they need them, including skilled service providers, equipment, medicines and physical infrastructure.
- **Accessibility coverage**: geographic.
- **Accessibility coverage**: financial.
- **Accessibility coverage**: organizational and informational.
- **Acceptability coverage**: the relationship between how responsive health service providers are to the social and cultural expectations of individual users and communities.
- **Contact coverage**: a measure of utilization or actual use of services by those who need them.
- **Effective coverage**: an estimate of the fraction of potential health gain that is actually delivered to the population through the health system.

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Indicator(s)</th>
<th>Indicator reference</th>
<th>Dimensions of inequality</th>
<th>Indicator priority</th>
<th>Relevant service type(s)</th>
<th>Unit of analysis</th>
<th>Data availability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Tracer</td>
<td>Primary priority</td>
<td>Individual/household</td>
<td>Population</td>
<td>Type of source data</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Secondary priority</td>
<td>Health facility</td>
<td>Policy</td>
<td>Date of collection</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Frequency</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Geography</td>
</tr>
</tbody>
</table>


Table A2.3 Data sources that include barrier-related indicators

As indicated in Module 5, the following table can be used by review teams to consider potential data sources to draw from. It was developed using WHO (2020), WHO (2017b) and WHO (2013).

<table>
<thead>
<tr>
<th>Source(s)</th>
<th>Unit of analysis</th>
<th>Type of source data</th>
<th>Frequency</th>
<th>Geography</th>
<th>Dimensions of inequality</th>
<th>Indicators commonly available in the data source</th>
<th>Barriers linked to these indicators</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Census</td>
<td>Individual</td>
<td>Survey</td>
<td>Commonly done every 10 years</td>
<td>National</td>
<td>Geography, sex, age</td>
<td>Distribution of population by geography and demographic details</td>
<td>Intersectoral, depends on country context; birth and death outcomes</td>
<td>Limited health data; usually restricted to demographic details</td>
</tr>
<tr>
<td>Civil registration and vital statistics</td>
<td>Individual or population</td>
<td>Administrative</td>
<td>Ongoing</td>
<td>National</td>
<td>Geography, sex,</td>
<td>Births and deaths registration; all-cause and cause-specific mortality (some countries)</td>
<td>Intersectoral; birth and death outcomes</td>
<td>Amount of useful information for the barriers assessment varies by country; can be incomplete or low quality</td>
</tr>
<tr>
<td>National Health Accounts or expenditure data</td>
<td>Policy</td>
<td>Administrative</td>
<td>Annual</td>
<td>National or subnational</td>
<td>Geography</td>
<td>Costs of services, sources and amount of funding for health sector, health sector budget breakdown</td>
<td>Financial accessibility; health financing outcomes</td>
<td>May not be a current source of data depending on country</td>
</tr>
<tr>
<td>Facility survey</td>
<td>Health facility</td>
<td>Survey</td>
<td>Occasional</td>
<td>National, subnational and district</td>
<td>Geography, facility type, provider type, service type</td>
<td>Indicators with the health facility as the unit of analysis, including quality of services; referral systems; services provided; distance and location of health facilities; facility-level inputs (e.g. medicines, staff)</td>
<td>Effective coverage; contact coverage; geographic accessibility; availability</td>
<td>May be conducted on an ad hoc basis; can include sampling errors; cross-sectional; represents the facility at a moment in time and may not always provide an accurate picture of current conditions, especially for older datasets</td>
</tr>
<tr>
<td>Provider surveys</td>
<td>Health facility</td>
<td>Survey</td>
<td>Occasional</td>
<td>National, subnational and district</td>
<td>Geography, facility type, provider type, service type</td>
<td>Diagnosis accuracy, compliance to protocols, referral systems, communication with patients/discrimination, care coordination</td>
<td>Effective coverage; acceptability; availability</td>
<td>May not be a current source of data depending on country; can include sampling errors</td>
</tr>
<tr>
<td>Patient surveys (e.g. exit interviews, follow-up surveys)</td>
<td>Health facility</td>
<td>Survey</td>
<td>Occasional</td>
<td>National, subnational and district</td>
<td>Geography, facility type, provider type, service type, patient characteristics</td>
<td>Discrimination, trust, communication with providers, attractiveness of health services, stigma, appropriateness, access to information, costs of care, distance/transportation</td>
<td>Effective coverage; acceptability; financial accessibility; geographic accessibility; availability - limited to service users</td>
<td>May not be a current source of data depending on country; can include sampling errors; may not be representative of small population groups (e.g. ethnic or religious minorities)</td>
</tr>
<tr>
<td>Source(s)</td>
<td>Unit of analysis</td>
<td>Type of source data</td>
<td>Frequency</td>
<td>Geography</td>
<td>Dimensions of inequality</td>
<td>Indicators commonly available in the data source</td>
<td>Barriers linked to these indicators</td>
<td>Limitations</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
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<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Routine health facility data (health management information system) or surveillance systems; DHIS2 (in countries with system implemented)</td>
<td>Health facility</td>
<td>Administrative</td>
<td>Monthly or quarterly</td>
<td>National, subnational and district</td>
<td>Geography, facility type, provider type, service type, patient age and sex</td>
<td>Reproductive, maternal, child and adolescent health coverage; immunization coverage; tuberculosis, HIV and other disease-specific service coverage indicators; mortality and morbidity; resource records (medicines, beds, staffing)</td>
<td>Contact coverage; outcomes; availability</td>
<td>Can be incomplete or low quality; generally, represents the public sector only and may be misrepresentative if private health care provision is a large component of health service delivery in the country/district; only includes individuals who have had contact with the public health service delivery system</td>
</tr>
<tr>
<td>Health insurance claims data</td>
<td>Individual or Health facility</td>
<td>Administrative</td>
<td>Ongoing</td>
<td>National, subnational and district</td>
<td>Geography, facility type, provider type, service type; may include sex, age, socioeconomic status (inferred through coverage type), or place of residence (inferred through coverage type)</td>
<td>Service coverage, service costs</td>
<td>Contact coverage; financial accessibility; geographic accessibility (limited to enrollees)</td>
<td>Does not include populations not covered by insurance; requires sophisticated insurance information systems; does not identify reasons for not using care</td>
</tr>
<tr>
<td>Nationally conducted household or population-based survey (e.g. the district-level health surveys in India)</td>
<td>Individual or population</td>
<td>Survey</td>
<td>Occasional</td>
<td>Various</td>
<td>May include place of residence, sex, education, socioeconomic status, individual and household characteristics</td>
<td>It is possible to have data on any individual- or population-level indicators, but availability is dependent on the specific survey</td>
<td>Contact coverage; financial accessibility; geographic accessibility; acceptability</td>
<td>May not be a current source of data depending on country; can include sampling errors; may not be representative of small population groups (e.g. ethnic or religious minorities)</td>
</tr>
<tr>
<td>Standardized household health surveys: DHS, MICS; World Health Surveys: Study on Global AGEing and Adult Health</td>
<td>Individual or population</td>
<td>Survey</td>
<td>Every 5 years (DHS); every 3 years (MICS)</td>
<td>National and subnational</td>
<td>Place of residence, sex, education, socioeconomic status (using relative asset indices), individual and household characteristics</td>
<td>Wide range of individual and household indicators</td>
<td>Contact coverage; financial accessibility; geographic access; acceptability; other barriers are also covered if it includes a question on forgone care/ reasons for unmet need</td>
<td>May not be a current source of data depending on country; can include sampling errors; may not be representative of small population groups (e.g. ethnic or religious minorities)</td>
</tr>
<tr>
<td>Source(s)</td>
<td>Unit of analysis</td>
<td>Type of source data</td>
<td>Frequency</td>
<td>Geography</td>
<td>Dimensions of inequality</td>
<td>Indicators commonly available in the data source</td>
<td>Barriers linked to these indicators</td>
<td>Limitations</td>
</tr>
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<td>Standardized and country-specific household surveys tracking health expenditures: Living Standards Measurement Study, World Health Surveys, International Household Survey Network, Household Consumption Survey, Household Education and Health Survey</td>
<td>Individual or population</td>
<td>Survey</td>
<td>Variable; every 5–10 years</td>
<td>National and subnational</td>
<td>Place of residence, sex, education, socioeconomic status (typically consumption-based), individual and household characteristics</td>
<td>Financial protection, health expenditure indicators (catastrophic, out-of-pocket payments, poverty headcount)</td>
<td>Financial accessibility; financial outcomes</td>
<td>May not be a current source of data depending on country; can include sampling errors; may not be representative of small population groups (e.g. ethnic or religious minorities)</td>
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<tr>
<td>Intersectoral sources</td>
<td>Various</td>
<td>Survey</td>
<td>Various</td>
<td>National or subnational</td>
<td>Various</td>
<td>Intersectoral factors, exclusionary requirements, health literacy, ability to demand services, accessing information, treatment by providers, locally appropriate languages, coordination with Indigenous health systems</td>
<td>Intersectoral indicators; acceptability; availability</td>
<td>May require consultation with experts outside the assessment team to access and interpret data; may use different methodological approaches than health sector sources; and/or may not have access to methodological details regarding data, depending on the composition of the assessment team</td>
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</table>
Table A2.4 Data source mapping template

The following template supports data source mapping (see Module 5).

<table>
<thead>
<tr>
<th>Source(s) name</th>
<th>Unit of analysis</th>
<th>Type of source data</th>
<th>Date of collection (or reference period)</th>
<th>Frequency</th>
<th>Geography</th>
<th>Dimensions of inequality</th>
<th>Indicators available in the data source</th>
<th>Barriers linked to these indicators</th>
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References for annexes


