IMPLEMENTATION RESEARCH TOOLKIT

Intersectional gender lens

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Developing implementation research projects with an intersectional gender lens

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TDR For research on diseases of poverty

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DEVELOPING IMPLEMENTATION RESEARCH PROJECTS WITH AN INTERSECTIONAL GENDER LENS

Definitions

Sex	The biological attributes that separate males, females and intersex people. Sex is assigned at birth and may differ from a person's gender identity *(1)*.
Gender	Gender refers to the socially constructed roles, behaviours, activities, attributes and opportunities that any society considers appropriate for men and women, boys and girls and people with non-binary identities *(1–3)*.
	Gender is often relational, shaping how men/boys, women/girls and people with non-binary identities interact with each other and the world around them. As a social construct, gender varies from society to society and can change over time, as individuals construct differing roles and identities that are shaped by broader political, social, and economic circumstances *(4)*.
	Gender influences people's experience of and access to health care *(5)*.
Gender identity	Gender identity refers to a person's deeply felt, internal and individual experience of gender, which may or may not correspond to the person's assigned sex at birth *(4)*.
Intersectionality	Intersectionality is an analytical lens that examines how different social variables (such as gender, class, race, education, ethnicity, age, geographic location, religion, migration status, ability, disability, sexuality, etc.) interact to create different experiences of privilege, vulnerability and/or marginalization within structures of power *(6)*.
	Intersectionality and its application in health research is an emerging research paradigm, that seeks to "move beyond single or typically favoured categories of analysis (e.g. sex, gender and class) to consider simultaneous interactions between different aspects of social identity, as well as the impact of systems and processes of oppression and domination." It embraces the complexities that are essential to understanding social inequities, which in turn are manifested in health inequities *(7)*.
	Intersectionality is not additive; consider how human and social characteristics such as age, gender, sex, ability, disability, ethnicity, sexuality, etc. interact to shape individual experience at a given point or time *(1)*.
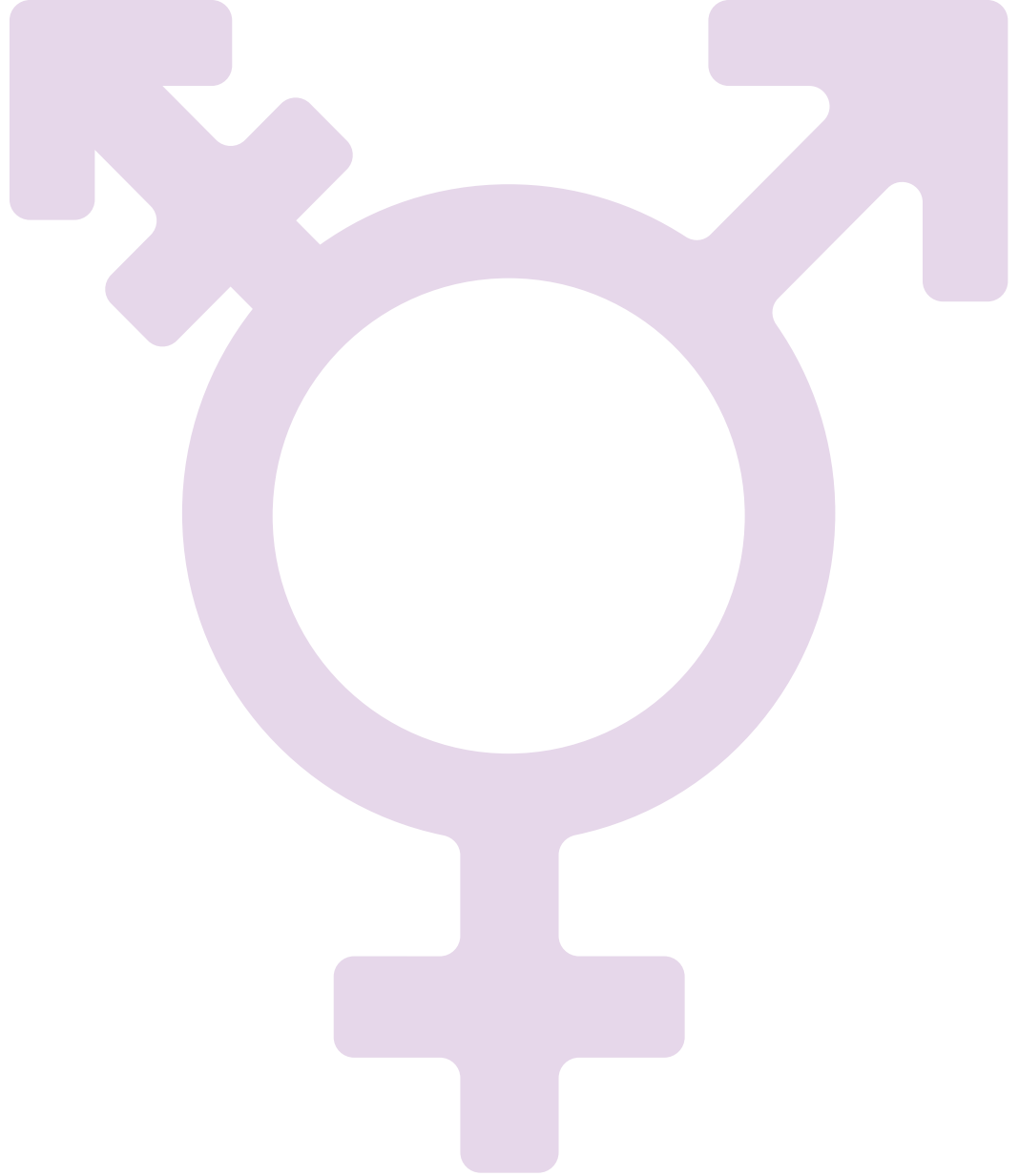
Gender analysis	The process of analysing how gender power relations affect the lives of women, men and people with non-binary identities, how differences are created in their needs and experiences, and how policies, services and programmes, can help to address these differences *(1)*.
Intersectional gender analysis	The process of analysing how gender power relations intersect with other social stratifiers to affect people's lives, create differences in needs and experiences, and how policies, services and programmes can help address these differences *(1)*.
	While intersectional gender analysis aims to move from one dominant social category of analysis and resist essentializing, it does not follow a pure intersectional approach. In this type of analysis, gender is used as an entry point for analytical purposes with an intersectional lens.

Introduction

This module aims to strengthen the capacity of researchers by incorporating an intersectional gender perspective in implementation research (IR). It is a step-by-step guide for researchers to develop an IR proposal incorporating an intersectional gender lens. It aligns with the format of the current World Health Organization (WHO)/ Special Programme for Research and Training in Tropical Diseases (TDR) *Implementation research toolkit (8)*, and draws from the WHO/TDR *Incorporating intersectional gender analysis into research of infectious diseases of poverty toolkit (1)*.

After completing this module, researchers will be able to:

- understand the relevance and importance of gender and intersectionality in IR;
- develop an IR proposal incorporating an intersectional gender lens;
- plan to implement IR projects using an intersectional gender lens.

Although there are certain elements that are common to other IR toolkit modules, some aspects in this module are emphasized to guide both IR project development *and* addressing implementation challenges for interventions using an intersectional gender lens. The aim of the process is to contribute to the optimization of a given health intervention while ensuring equity in its coverage, thereby contributing to the 2030 agenda for sustainable development and the objective of "leaving no one behind".

Before using this module, researchers should have already reviewed the Introduction and Understanding IR modules of the IR toolkit *(8)*. Furthermore, you should be familiar with the process of stakeholder analysis and community engagement. It is important that researchers work through the current module *before* designing research questions, as this will help in incorporating an intersectional lens into research questions formulation. For further guidance, refer to the WHO/TDR intersectional gender analysis toolkit *(1)*.

This module comprises four sections:

- Introduction to the concepts of gender, intersectionality and intersectional gender analysis.
- Relevance and importance of incorporation of an intersectional gender approach in IR.
- Development of an IR proposal using an intersectional gender lens.
- Implementation of an IR project using an intersectional gender approach.

Introducing gender

Gender refers to the roles, behaviours, activities, attributes and opportunities that any society considers appropriate for men, women, girls, boys and people with non-binary identities. It is often relational, as it shapes how men/boys, women/girls and people with non-binary identities interact with each other and the world around them. Gender is hierarchical and produces inequalities that intersect with other social and economic inequities. Due to its social construction, gender frequently varies through spaces, contexts and time, as individuals construct differing roles and identities shaped by broader political, social, historical, and economic circumstances *(1–3)*. Gender, as a social determinant of health and a relational construct of power, manifests in different ways to influence peoples' experience and access to health care at different levels of the health system *(9)*. For example, at an individual level, women's lack of access to resources can limit the affordability of health services. At a societal level, physical access to health care may be

hampered by social norms that require married women to obtain permission from their husbands/partners before they can seek health care. At the system level, how the health services are organized can either facilitate or limit one's access to health services, for example, if the opening hours do not favour their use by women *(10)* or the sex of the health provider (e.g. due to religious reasons).

The intersection of gender with an individual's social variables (e.g. ethnicity, class, socioeconomic status, disability, age, geographical location, sexual orientation and sexual identity etc.) with wider social processes (e.g. ableism, racism etc.) and structural processes (e.g. politics, economy, globalization etc.) culminate in individual life experiences of discrimination, marginalization and social exclusion – all of which have complex effects on an individual's health and response to interventions. For further guidance on how gender intersects with other social variables refer to the WHO/TDR intersectional gender analysis toolkit *(1)*.

Introducing intersectionality

The term "intersectionality" was first coined by Kimberlé Crenshaw in 1989 *(11)*. Historically speaking, the concept emerged from various theoretical foundations on feminism *(6,12)*. Intersectionality is an analytical lens that examines how different social variables (such as gender, class, race, education, ethnicity, age, geographic location, religion, migration status, ability, disability, sexuality etc.) interact to create different experiences of privilege, vulnerability and/or marginalization within structures of power *(6)*. An intersectionality approach supports health researchers to understand the drivers of social inequality through due consideration of real-world complexity *(13)* in which inequities are rarely the result of single, distinct factors but are the outcome of intersections of different social locations, power relations and experiences *(6, 14)*.

The visual representation of intersectionality shown in Figure 1 describes what intersectionality means in practice. It includes three concentric layers that surround each person's unique circumstances of power, privilege and identity: the inner ring describes an individual's characteristics (e.g. age, occupation, religion etc.); the middle ring describes social processes (e.g. ableism, racism, discrimination etc.); and the outer ring describes the structural processes (e.g. politics, legal system, capitalism etc.). It highlights how multiple individual social variables (age, gender, education, etc.) interact within wider social processes (ableism, racism, discrimination, etc.) and structural factors (politics, capitalism, etc.) to shape an individual's position, privilege or disadvantage within society, culminating in an individual being either in a privileged or disadvantaged social category *(15)*. In practice, the use of an intersectionality approach aids researchers to examine power relations, understand the social variables of research participants and how they interact with systemic structural factors to shape their life experiences *(7)*.

Figure 1. Intersectionality wheel. Extracted from *(15)*.

The intersectionality wheel shows three concentric rings surrounding a central circle labelled "Unique circumstances of Power, Privilege and Identity".

Inner ring (identity factors): Education, Indigeneity, Occupation, Age, Gender, Income, Class background, Caste, Geographic location, Social status, Sexuality, Life experience, Spirituality, Family status, HIV status, Skin colour, Housing situation, Religion, Disability, Experience of racialization, Work history, Citizenship status, Refugee status.

Middle ring (forms of discrimination): Ableism, Racism, Discrimination, Homophobia, Heterosexism, Ageism, Sexism, Transphobia, Ethnocentrism, Classism.

Outer ring (structural forces): Colonization, Politics, Globalization, Legal system, Capitalism, Economy, War, Social forces, Education system, Historical forces, Immigration system.

Table 1 presents key considerations regarding intersectionality, including a focus on social inequality and its implications, power dynamics of social relations, the structural and political context, and researchers' reflexivity *(13)*.

Table 1: Key elements of intersectionality. Extracted from *(13).*

Focus of intersectionality	What it is...	What it is not...
Social inequality	Based on mutually constituted and intersecting social categories	Based on adding up advantages and subtracting disadvantages assuming equivalence between them
Dynamic nature of inequality	A way of understanding inequalities as dynamic relationships	A static examination of inequalities that omits relational aspects
Contextual dependency	Based on the understanding that power configurations are time and location dependent	A group of *a priori* assumptions regarding the importance of any one or multiple social categories
Structural and political context	Focus on structural and political factors that shape inequalities	Focus on individual behaviour without consideration of structural and political constraints
Power relations	Explores how social inequalities are shaped by power relations	Ignores the impact of power relations on social inequalities
Implications for most disadvantaged	Focus on implications for vulnerable and marginalized within a group	Focus on implications for those whose status are protected or elevated with a group
Researcher reflexivity	Researchers reflect upon how their own background identity shapes research process and interpretation of results	Researchers attempt to completely remove themselves from the research and analysis process

From an intersectionality perspective, inequality is never the result of a single, distinct factor. Rather inequality is the outcome of intersections of an individual's characteristics, power relations and experiences with the social systems and structures of power they are embedded in.

Key message

Why an intersectional gender lens in implementation research?

To incorporate an intersectional gender lens in IR, we have selected gender as our entry point to analyse and understand access to health care and how people experience and respond to ill-health and health services, as well as other health-seeking experiences. Gender roles, norms and relations intersect with other axes of inequality (e.g. age, experience of racialization, social status and disability) and these intersections, under connected systems and structures of power, influence why and how health is shaped in specific ways. Understanding how gender intersects with other axes of inequality is important in all stages of the IR process, to avoid neglecting the social dynamics that exist in the community context and how these impact on how and for whom a health implementation strategy works *(5)*.

An intersectional gender analysis in research enables understanding of within-group differences at community level and the complex contexts that drive gender and other social inequalities. Figure 2 below shows the modified intersectional gender analysis wheel where gender is considered as the entry point for doing intersectional gender analysis. This figure helps researchers to think about how gender intersects with other social variables of an individual (for example, age, gender identity, occupation, religion etc.) and interacts within wider processes of social (e.g. ableism, racism, etc.) and structural (e.g. politics, capitalism, etc.) discrimination and privilege to shape an individual's position within society. This approach helps researchers to examine the inequities created at the intersection of such social factors under specific systems and structures of power, which are also influenced by policy processes that are, in turn, shaped by the contexts in which they operate. In addition, as gender is relational, its intersection with other variables within the intersectionality wheel can culminate in privileges or disadvantaged positions in society. It also enables researchers to understand how gender power dynamics and other contextual factors within the community influence implementation and uptake of a given intervention at the different levels of the health system *(1)*.

Figure 2. Modified intersectional gender analysis wheel. Extracted from *(1)*.
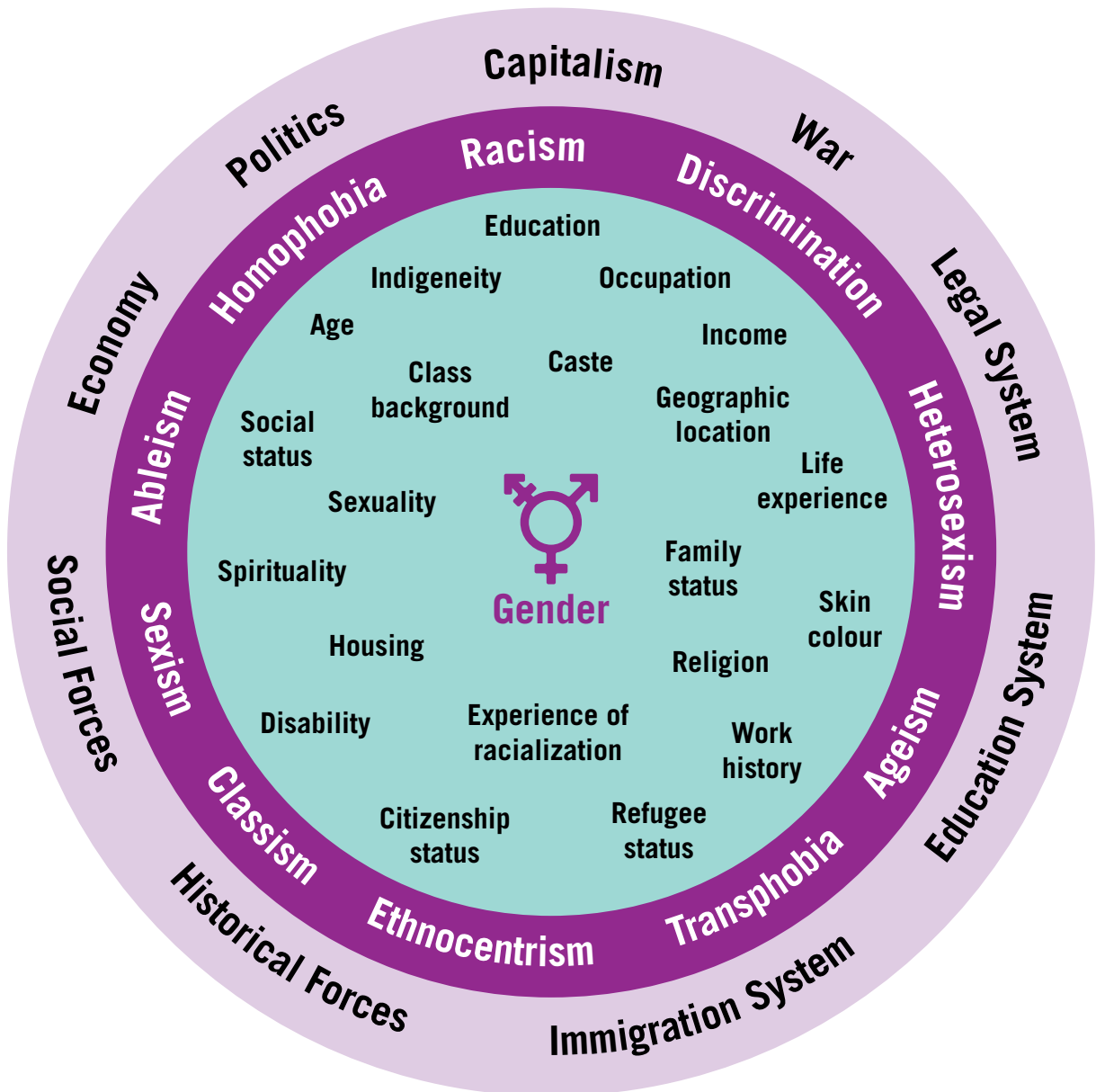
Various gender analysis frameworks *(16–18)* can be used as a starting point for incorporating gender analysis within research. These frameworks systematize information about gender-related dimensions across various domains of life and examine how these differences affect the lives and health of men, women, boys, and girls, as well as people with non-binary identities. The *Jhpiego Gender Analysis framework (17)* (Figure 3) describes four gender relation domains: access to assets; beliefs and perceptions; practices and participation; and institutions, laws and policies. Power pervades each of these domains and is key to understanding how gendered hierarchies exist and how these can be a driver of inequality.

Figure 3. Jhpiego Gender Analysis Framework. Extracted from *(17)*.
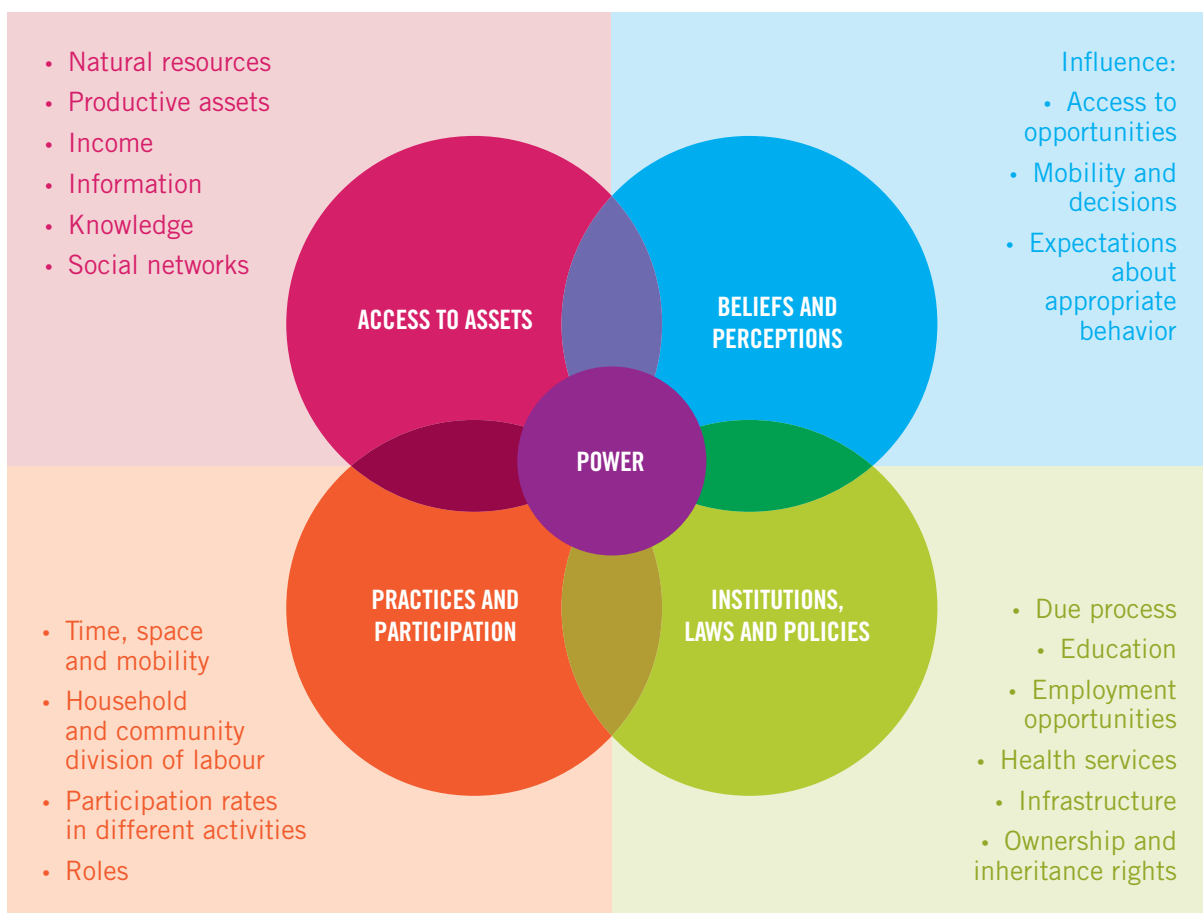
Intersectional gender analysis frameworks help researchers to explore how gender intersects with other social variables to influence access to specific health interventions *(19)*.

For further details on gender analysis frameworks and guidance on how to conduct intersectional gender analysis, refer to the WHO/TDR intersectional gender analysis toolkit *(1)*. In implementation research, applying an intersectional gender approach enables researchers to understand how gendered power relations and other contextual factors within the community influence implementation and uptake of the intervention at the different levels of the health system.

Evelyn Kabia et al *(20)* conducted a qualitative study in Kenya to explore how the interaction of personal factors (gender, disability, and poverty) of women living with disabilities and environmental factors influenced their experience while accessing health care (Box 1). Corroborating their findings using the Jhpiego gender framework shows that the intersection of disabled (individual's social variables) women who were also living in/under poverty conditions with household division of labour (practice and participation), limited mobility (access to opportunities), being dependent (access to assets) and negative attitude of the health workers (institutions, laws and policies) influenced their health-seeking behaviours.

Box 1. Example of intersectional gender analysis in health

How do gender and disability influence the ability of the poor to benefit from pro-poor health financing policies in Kenya? An intersectional analysis (20)

A qualitative cross-sectional study in Kenya used an intersectional approach to explore how gender, disability and poverty interact to influence if and how women living in/under poverty conditions in Kenya benefit from pro-poor financing policies that target them. In-depth interviews were conducted with women with disabilities living in poverty who were beneficiaries of the health insurance subsidy programme and those in the lowest wealth quintiles residing in the health and demographic surveillance system.

Results: Women with disabilities living in poverty often opted to forgo seeking free health care services because of their roles as the primary household providers and caregivers. Due to limited mobility, they needed someone to accompany them to health facilities, leading to greater transport costs. The absence of someone to accompany them and unaffordability of the high transport costs made some women forgo seeking antenatal and skilled delivery services, for example, despite the existence of a free maternity programme. The layout and equipment at health facilities offering care under pro-poor health financing policies were not disability friendly. In addition, negative health care workers' attitudes towards women with disabilities discouraged them from seeking care. Negative stereotypes against women with disabilities in the society led to their exclusion from public participation forums, thereby limiting their awareness about health services.
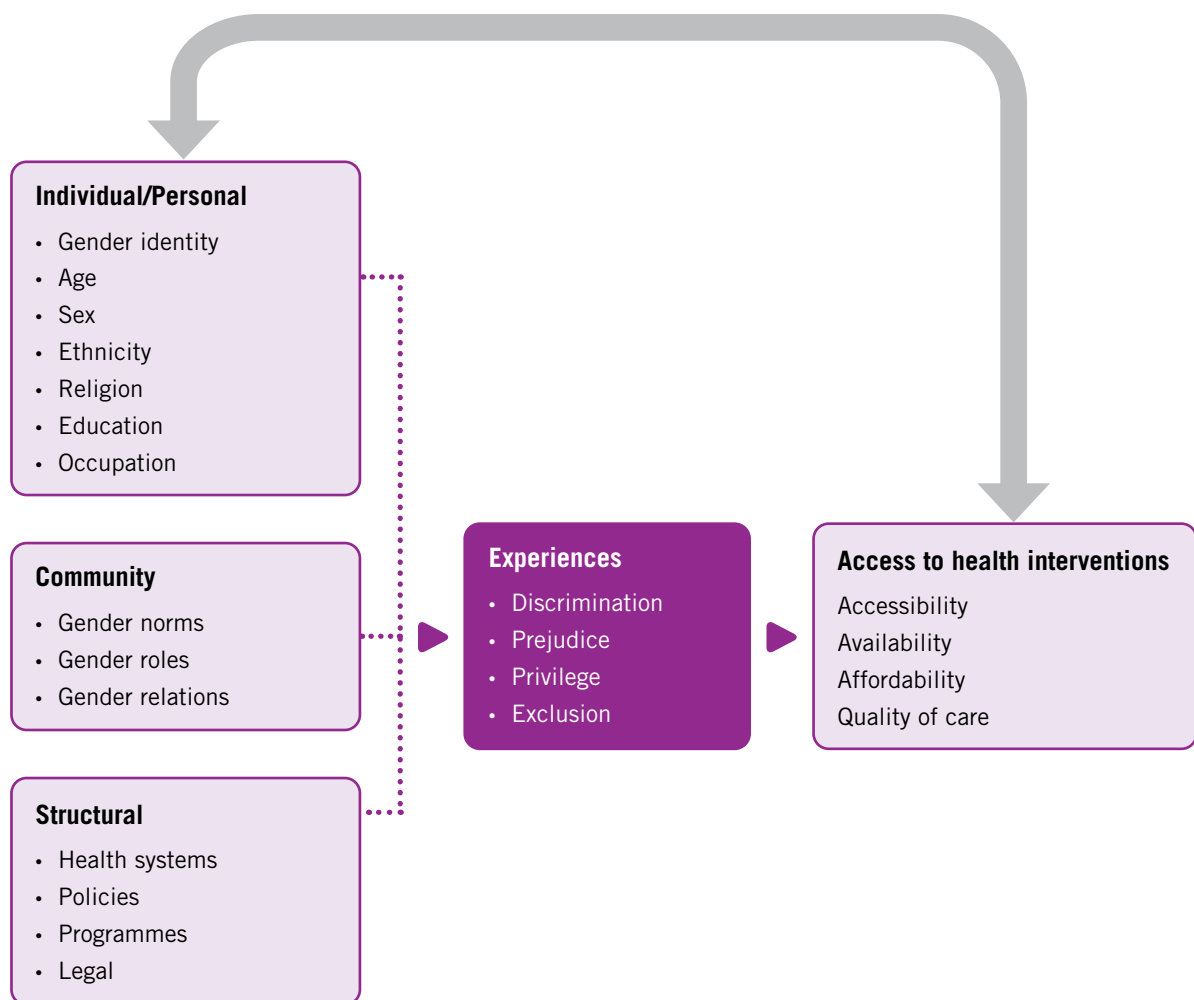
Conclusions: Intersections of gender, poverty and disability influenced the experiences of women with disabilities benefiting from pro-poor health financing policies in Kenya. Addressing the health care access barriers they faced might include ensuring availability of disability-friendly health facilities and public transport systems, building cultural competence in health service delivery, and encouraging the women to engage in public participation.

Using an intersectional gender lens in IR contributes to our understanding of what factors contribute to disadvantaged people within the study population being left behind or neglected while accessing health care, thus enabling researchers to provide evidence based recommendations for policy change.

key message

An individual's social variables interact with local community and structural forces to produce an experience that subsequently affects access to the IR health interventions (Figure 4). If an individual's gender identity influences their access to resources and decision-making, then this can contribute to the individual being in either a privileged or disadvantaged position, which can subsequently influence access to an IR health intervention. In this way, access to, use of and response to health interventions at a community level are significantly influenced by gender power relations with regards to resource availability, resource allocation, societal values and structural systems *(1,20)*.

Figure 4. Intersectional gender analysis framework showing intersection of gender with other social variables. Adapted from *(20)*.

Individual/Personal

- Gender identity
- Age
- Sex
- Ethnicity
- Religion
- Education
- Occupation

Community

- Gender norms
- Gender roles
- Gender relations

Structural

- Health systems
- Policies
- Programmes
- Legal

Experiences

- Discrimination
- Prejudice
- Privilege
- Exclusion

Access to health interventions

Accessibility
Availability
Affordability
Quality of care

REFLECTION ACTIVITY

Consider the following questions, where possible in relation to your IR project:

- **What is gender and intersectionality?**
- **What is the relevance of gender and intersectionality in implementation research (IR)?**
- **Reflect on the different intersectional gender analysis frameworks.**
- **Reflect and consider why incorporating an intersectional gender perspective is important and its relevance to your IR project.**

Key resources for intersectionality

Hankivsky O. Intersectionality 101 (https://www.researchgate.net/publication/279293665_Intersectionality_101, accessed 3 April 2022) *(6)*.

Larson E, George A, Morgan R, Poteat T. 10 Best resources on… intersectionality with an emphasis on low- and middle-income countries. Health Policy and Planning. 2016; 31*(8)*: 964–969 (https://academic.oup.com/heapol/article/31/8/964/2198131, accessed 30 March 2022) *(13)*.

Lucas H, Zwarenstein M. A practical guide to implementation research on health systems. Brighton: Institute of Development Studies; 2016 (https://opendocs.ids.ac.uk/opendocs/handle/20.500.12413/14383, accessed 3 April 2022) *(19)*.

Integrating an intersectional gender lens in implementation research

Implementation research is neither a single nor linear activity but a continuous, cyclical process that adopts the six steps outlined in this Toolkit.

Although an intersectional gender lens may be incorporated throughout the IR cycle, it should be incorporated as early as possible, such as during the study problem identification and proposal development phases. Further, it is recommended that an intersectional gender perspective is sustained throughout the entire IR cycle (Fig. 5) i.e., from contextualization of the research to dissemination and utilization of the research findings) *(21)*.

Figure. 5. Incorporating an intersectional gender lens into the IR cycle
Adapted from *(8)*.
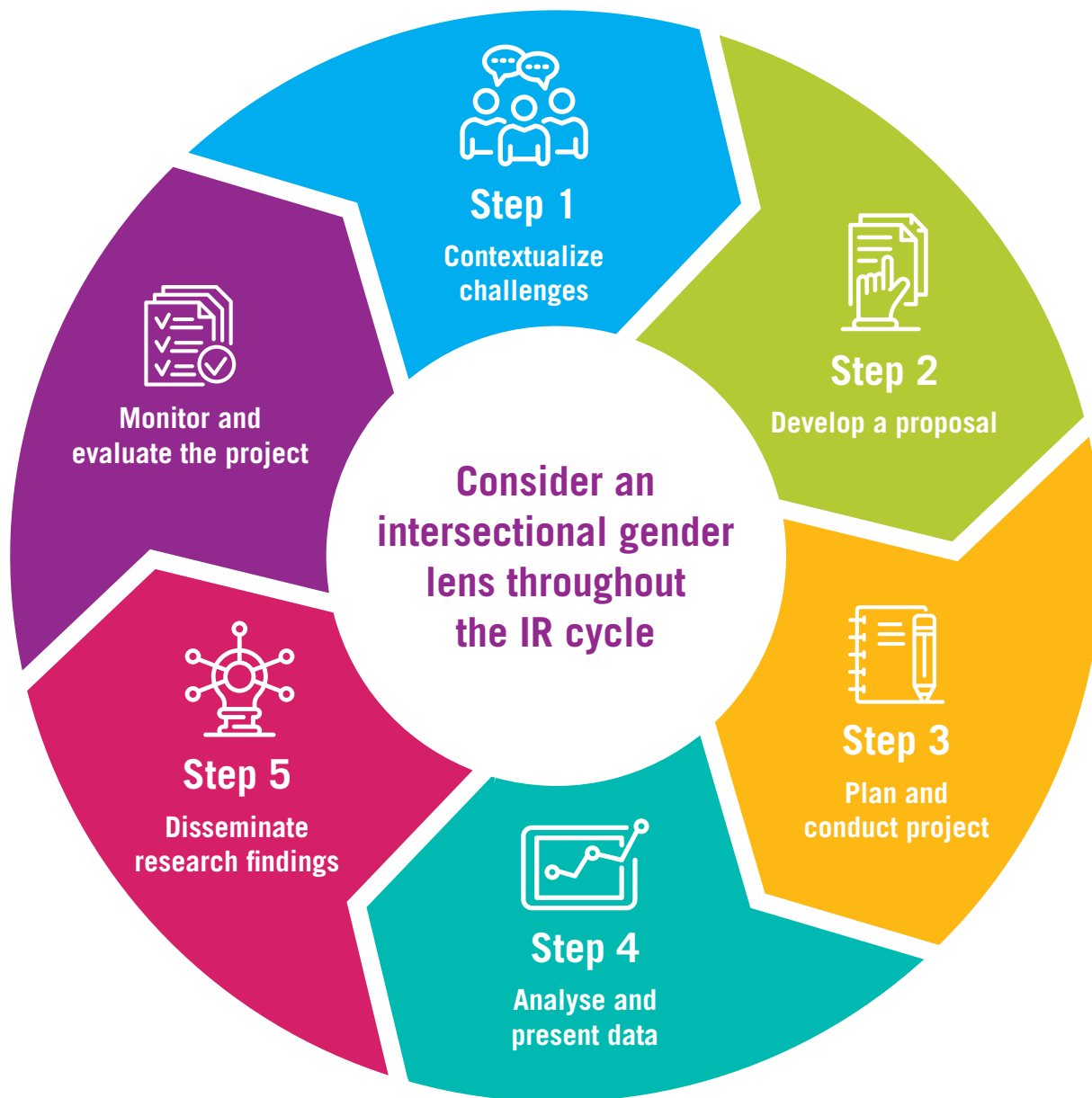
Since IR operates in real-life contexts where several factors including gender and other social factors intersect, researchers should adopt an intersectional gender approach during the IR stakeholder and community engagement processes, project execution and dissemination of research findings (Table 2).

Table 2: Key elements for incorporating an intersectional gender lens in the IR cycle. Adapted from *(1,8,12 and 22).*

IR process	Issues for consideration
IR study inception	
Setting up a multidisciplinary team	How will you ensure that there is adequate opportunity for participation of men, women and people with non-binary identities in the research team in order to form a diversified team?
	How might your research teams' personal values, experiences, interests, beliefs and political commitments play a role at each stage of the research process?
Problem identification	What are the perspectives of the target population/ community of interest?
	What social variables are relevant in the study context?
	What inequities (between and within groups of people) exist in relation to the health issue/intervention to be researched?
Setting goals and objectives	What are the living experiences of the study participants and how do their social variables intersect to influence these experiences at different levels of the health system?
Stakeholder consultation	How gender and other social variables impact on who wants to be involved; who is able to be involved; how those who are involved interact with each other, and how that affects their contributions (e.g. are power dynamics influencing who is able to speak up in your meetings). These factors can be subtle (e.g. men speaking more often and for longer; hierarchical position amongst men with juniors not speaking in the presence of seniors) or unsubtle (e.g. men speaking on behalf of or over women).
	How will you identify and select stakeholders to include diverse representation of the community, especially considering that women or marginalized people may be selected as tokenistic representatives.
Proposal development	
Study design	What methodology is appropriate for your study?
	What data needs to be collected and disaggregated (e.g. age, gender identity, sex, social demographics of study participants) to enable an intersectional gender analysis?
Data collection	Who is involved in the data collection and how will data be collected?
	How will interview questions be formulated to explore intersecting social variables, including how gender intersects with other axes of inequality (e.g. age and disability, among others)?

IR process	Issues for consideration
IR study inception	
Data analysis	Plan data analysis keeping in mind that different groups of people may be affected variably by the same health condition or issue.
	How can the findings be interpreted within the wider community context?
	Are there any unexpected findings (e.g. social variables that only emerge as important during the data analysis?)
Communication of research findings	What do the findings mean for policy, practice and the community, especially in relation to addressing inequalities and vulnerabilities?
	How to present findings that are sensitive, inclusive and unbiased? What gender-sensitive (responsive) communication products and derivatives will be developed?
	How do you ensure research findings reach vulnerable and disadvantaged groups?
Project planning	What are the sociocultural and gender relation domains of the study context?
	What are the sociocultural values and gender dimensions of the implementers?
	What are the researcher biases and power dynamics within the team and the various project areas, and how can they be mitigated?
	How do participants with the social identities under research want to be involved in the implementation of the IR project?
Ethical issues	How to address issues of confidentiality and anonymity especially where a given social identity is not recognized by law?

Inception of an IR project

For a successful IR project, a competent interdisciplinary research team (with expertise in biomedical and social sciences) must be assembled, and relevant stakeholders/community members must be identified and actively engaged.

Study team

A multidisciplinary team comprising researchers, policy-makers, programme implementors and health care providers is the core requirement for any IR project. The team should include social science researchers with the knowledge, experience and expertise needed to incorporate and apply an intersectional gender approach in health research. While designing the study, adopt an 'insider perspective' that relates to and identifies with the lived experiences of the study participants. This is important because it promotes empathy, trust and rapport-building,

and ensures the research project is sensitive to the needs and experiences of participants *(23)*. To achieve this, all research team members should reflect upon and recognize how their own values, experiences, knowledge and social positions may influence the research process and outcomes. Researchers can accomplish this through a reflexivity process, which is a cultivated awareness of the influence of relevant identity and power differentials. Reflexivity can help to transform the process of public involvement in health research when both researchers and engaged public research partners bring critical self-awareness about the assumptions and truths in their work *(12)* (Table 3)*.*

Furthermore, as researchers, you should be cognizant that reflexivity is a continuous process of engaging with and articulating the position of the researcher and the context of the research. The process involves the researcher exploring how their own social variables such as gender identity, ethnicity, level of education, age, religion etc., may affect fellow researchers, study participants and the entire research process. Therefore, an intersectional gender approach calls for a reflexive and continuous examination of the research context, including recognition of how biases influence researcher's activities, and analysis of how multi-level factors interact during the research process and influence forces shaping health-related conditions *(14)*.

Table 3: Reflexivity process: Questions for research project team. Extracted from *(12)***.**

Questions for research project team
a. What are my own personal values, experiences, interests, beliefs and in the area of health we will be researching?
b. How does my social position (e.g. gender identity, race, ethnicity, indigeneity, socioeconomic status, gender expression, age, sexual orientation, migrant status, religion etc.) and my personal opinions/experiences of oppression (e.g. patriarchy, colonialism, capitalism, racism, heterosexism, ableism) influence the research process, and research outcomes?
c. What are my personal values, assumptions, perspectives and experiences regarding participants' living experiences?
d. While working together, how can team members become more aware of and take advantage of opportunities where they can challenge each other's ideas and work towards achieving equality within their project team?
e. What do you think are some of the ways to ensure that everyone feels "comfortable" when working together on this research project? What are some of the best ways to work together to address the research problem?
f. How do you think people with lived experience in this area of health would prefer to be involved in research and why? What types of challenges would need to be addressed to make it easier for them, as well as their families and communities to become involved in research?

REFLECTION ACTIVITY

The purpose of this activity is to help:

(i) individual researchers pay attention to their research context, dynamics within the research team, and potential biases through critical self-reflexive practice;

(ii) team members work collaboratively to become more aware of power imbalances and take advantage of opportunities to challenge assumptions towards more equal team dynamics.

Each team member should individually answer the reflexivity questions in Table 3 and analyse your answers. As a team, reflect and analyse how the interplay of individual identities, the research context and team dynamics may affect your IR project overall.

Stakeholder identification and engagement

Stakeholders have been defined as individuals, organizations and communities that have a direct interest in the process and outcomes of a project, research or policy endeavour *(24,25)*. Stakeholders include those people for whom the research will be beneficial. The type and number of stakeholders will vary depending on the nature of the research problem, but typically include research participants and other community members, policy-makers, government officials, health workers, funding agencies, programme officers, development workers and the researchers themselves. Since IR and intersectional gender analysis are participatory in nature, researchers should pay special attention to engaging stakeholders so that the group is diverse enough to include all stakeholders relevant to your IR study. Conducting a stakeholder analysis helps to understand the context of the intervention as well as to identify all relevant stakeholders, assess how they are likely to be affected by the research, and how they might respond to the research outcome. Similarly, it helps you as a researcher to identify their needs, understand their priorities and plan how to respond to them. The process of stakeholder identification and engagement should be iteratively led by the researchers and incorporated throughout the IR project cycle.

An intersectional gender perspective should be considered while selecting stakeholders from all relevant organizations and segments of the population. To ensure diversity of participants, consider how gender and other social variables

impact on who wants to be involved, who can be involved, how those who are involved interact with each other and how that affects their contributions. As researchers, it is good to be cognizant that gender-related power dynamics influence stakeholder participation. During stakeholder meetings, the moderator has a key role in identifying stakeholders who are shy or being overridden by other participants, and encouraging them to engage and participate in the discussions. For example, female participants might not speak up if male participants consistently override them while speaking, but the moderator can encourage the female participants to speak. Power and position of a participant can also influence the engagement of other participants. For example, if two persons from the same organization with different hierarchical positions are involved, the junior person might not speak and shy away from taking leadership even when they have better knowledge and competence than their senior colleague(s). The key steps for conducting a stakeholder analysis are:

a. Define the purpose of the analysis.
b. Generate a list of potential stakeholders (an initial list can be constructed by brainstorming relevant issues and further additions to the list can utilize a 'snowball' technique, during which stakeholders identify additional stakeholders).
c. Collect necessary data (e.g. using interview guides and semi-structured questionnaires).
d. Analyse and present data in matrices (i.e. type of stakeholder, levels of interest and influence, and the roles they will be or are playing in the implementation of the proposed intervention).

In addition, you should be mindful that the social variables of individuals involved in designing the study, recruiting participants, collecting, analysing and disseminating data are critical to effectively respond to the specific needs of the study participants.

Community engagement

Community engagement is vital throughout an IR project, building on the strengths and resources within the community. 'Community' may be understood as a group of people who live in the same local geographical area or who have some other non-spatial element of shared social identity, such as a similar trade or group membership, or organized entities that operate within a community such as local government, district health teams, or other community-based organizations, such as religious or civil society groups *(26, 27)*. Community engagement is the meaningful, respectful and fit-for-purpose involvement of community members in one or more aspects of an IR project *(27)*.

Actively engage the community throughout the entire IR cycle (i.e. from problem conceptualization during the design and development of the research proposal, project planning and implementation, data collection, analysis, and interpretation of results). This involves consultation, communication, participation, partnerships

and raising awareness. Community engagement also provides a conducive co-learning environment for both the researchers and the community, which is based on the communities' experiences, historical and current social cultural context. In addition, it builds trust and rapport that aids the entire research process, enhancing a timely balance between research and action *(28, 29)*. Table 4 summarizes the role of community engagement at the different phases of the IR cycle, and also highlights potential opportunities to incorporate an intersectional gender perspective.

Table 4: Potential roles of community engagement at different points throughout the IR cycle Adapted from *(25).*

Phase in the IR cycle	Input on key problems or issues to be addressed
Problem identification	Understanding context, needs and priorities of the community; conceptualizing key issues; identifying key stakeholders to involve; conducting stakeholder mapping and intersectional analysis.
Design and planning	Shaping key research aims; questions to meet local objectives; input into methodology especially contextually appropriate approaches for data collection (including those for intersectional analysis); review of research documents and tools (e.g. protocols, consent forms, instruments that include intersectional variables).
Implementation	Generating awareness and ownership of research project; potential involvement in an intervention being studied; pilot testing of instruments; participating as data collectors or respondents; formal partnership and collaboration with community groups that go beyond single or favoured social categories/identities.
Analysis and interpretation	Interpreting findings; discussing implications; adding contextual depth and sensitivity to recommendations.
Knowledge translation	Discussing implications of findings; issue prioritization, planning and implementation of follow-up actions; tailoring evidence to enhance community voices of diverse social identities.
Iteration and adaptation	Establishing ongoing community participatory monitoring and evaluation (M&E) and social accountability mechanisms to increase transparency of key service delivery outcomes.

Box 2 provides an example describing how engaging the community enabled implementers to identify the appropriate and effective medicine distribution points in a mass drug administration (MDA) programme for neglected tropical diseases (NTDs) in four west African countries.

Box 2. Example of community engagement in implementation of a health intervention

Understanding who is left behind and why in mass drug administration (MDA) initiatives: Lessons from four country contexts

Background: A study by Dean et al (2019)*(30)*, established that active engagement of the community is critical for the success of an IR project. They used participatory community mapping methods across, Cameroon, Ghana, Liberia and Nigeria and identified key medicine distribution methods during MDA.

Results: Across all contexts, both house-to-house and fixed-point distribution methods were called for by community members. In Liberia, house-to-house methods were preferred in some rural areas because it allowed community drug distributors (CDDs) to identify those who were reluctant to take medicines and to ensure appropriate spread of awareness messaging. On the other hand, in Nigeria and Cameroon both house-to-house and fixed-point distribution methods were indicated to minimize cost and time for community members. However, in other rural areas, fixed point distribution was preferred as group distribution was thought to have the potential to increase medicine acceptability especially among women who felt more comfortable taking medicines in the presence of their friends.

Conclusion: Intersectional factors that guided preference for fixed-point distribution locations across contexts included geography (urban/rural), religion, gender, presence of clinics, existing community meeting points, religious structures, and marketplaces. The social position of chiefs in Cameroon and Nigeria enhanced their house to be selected as distribution points.

Box 3 presents an example describing how community engagement with the Indigenous people in Australia was key in linking them with the health system, improving local health services, increasing their trust and access to care.

Box 3. Example of effective engagement between community and health services for the improvement of health care for Indigenous population in Australia

Background: In 2016, the study entitled "Improving healthcare for Aboriginal Australians through effective engagement between community and health services" from Durey et al *(31)* evaluated a unique strategy of community engagement between local Indigenous populations and health providers across five districts in Perth, Western Australia to improve local health service delivery for Indigenous Australians. This qualitative study aimed to identify whether this Indigenous community considered the community engagement strategy effective in identifying their health service needs, translating them to action by local health services and increasing their trust in health services.

Methods of community engagement: Community consultations were conducted to identify key health areas of concern for this community, to strengthen existing relationships and build the community's trust through transparent communication. Forums were held with up to 80 Indigenous Australians attending area-wide gatherings to share, review and exchange information with the community, and using community feedback to improve practice. The Aboriginal Health Team (AHT) coordinated and brought together local Indigenous citizens, Indigenous community-controlled health services, representatives from the Department of Health Western Australia, public hospitals, mental health and community health services, and divisions of general practice. These interactions resulted in the establishment of five District Aboriginal Health Action Groups (DAHAGs) located within the organizational structure of the Department of Health in Western Australia.

Results: Findings from 60 participants suggested the engagement process was effective: it was driven and owned by the Indigenous Australian community, captured a broad range of views, and increased community participation in decisions about their health care. It built community capacity through regular community forums and established DAHAGs comprising local Indigenous community members and health service representatives who met quarterly, and were supported by the Aboriginal Health Team at the local Population Health Unit. Participants reported health services improved in community and hospital settings, leading to increased access and trust in local health services.

Conclusions: The evaluation concluded that this process of actively engaging the Indigenous community in decisions about their health care was a key element in improving local health services, increasing their trust and access to care.

Key resources for stakeholder analysis and community engagement

Glandon D, Paina L, Alonge O, Peters DH, Bennett S. 10 Best resources for community engagement in implementation research. Health Policy and Planning. 2017; 32(10:1457–1465 (https://academic.oup.com/heapol/article/32/10/1457/4582360, accessed 30 March 2022) *(27)*.

De Weger E, Van Vooren N, Luijkx KG et al. Achieving successful community engagement: a rapid realist review. BMC Health Serv Res. 2018;18:285 (https://doi.org/10.1186/s12913–018–3090–1, accessed 30 March 2022) *(32)*.

Hyder A, Syed S, Puvanachandra P et al. Stakeholder analysis for health research: case studies from low- and middle-income countries. Public Health. 2010;124(3):159~66 (doi: 10.1016/j.puhe.2009.12.006, accessed 30 March 2022) *(33)*.

Conceptualization of research

Study conceptualization that is rooted in gender and intersectionality analysis frameworks can examine the complex systems of feedback loops and interactions between different levels of the intersectionality wheel *(34)*. The first step to incorporate an intersectional gender lens or approach in IR should be during the conceptualization of the research project *(22)*. This can be systematically carried out through the collective engagement of relevant stakeholders. To avoid any potential conflicts arising later in the research process regarding interpretation of concepts, the definitions of social variables and research outcomes should be clear and concise from the outset. The definitions should be in alignment with the social, cultural, economic, political and historical context of the selected community or geographic location. You may start the process by brainstorming through the concepts awnd terminologies. It is also helpful to consult prior work done in that region to understand how the local community members perceive certain terminologies. It is critical for all team members to clearly understand the concepts and definitions before you proceed.

After your team has agreed on the relevant concepts and definitions, incorporating an intersectional gender approach allows for critical reflection about how gender intersects with other social variables in the context in which the study participants live and where the health interventions would ultimately be implemented. This enables exploration and understanding of these intersections and the societal and institutional factors that facilitate or impede a given IR study. *F*urther guidance on incorporating an intersectional gender analysis throughout the six steps of the IR process to achieve the desired outcomes is highlighted in Figure 6.

Due consideration should be given to gender domains and social variables that are relevant to a specific research problem. Such an intersectional gender analysis process is a critical step and if it is skipped, then important social variables – that may play a significant role within a given study context – could be overlooked *(35)*.

Figure 6. Modified intersectional gender analysis framework for IR. Adapted from (1,8).
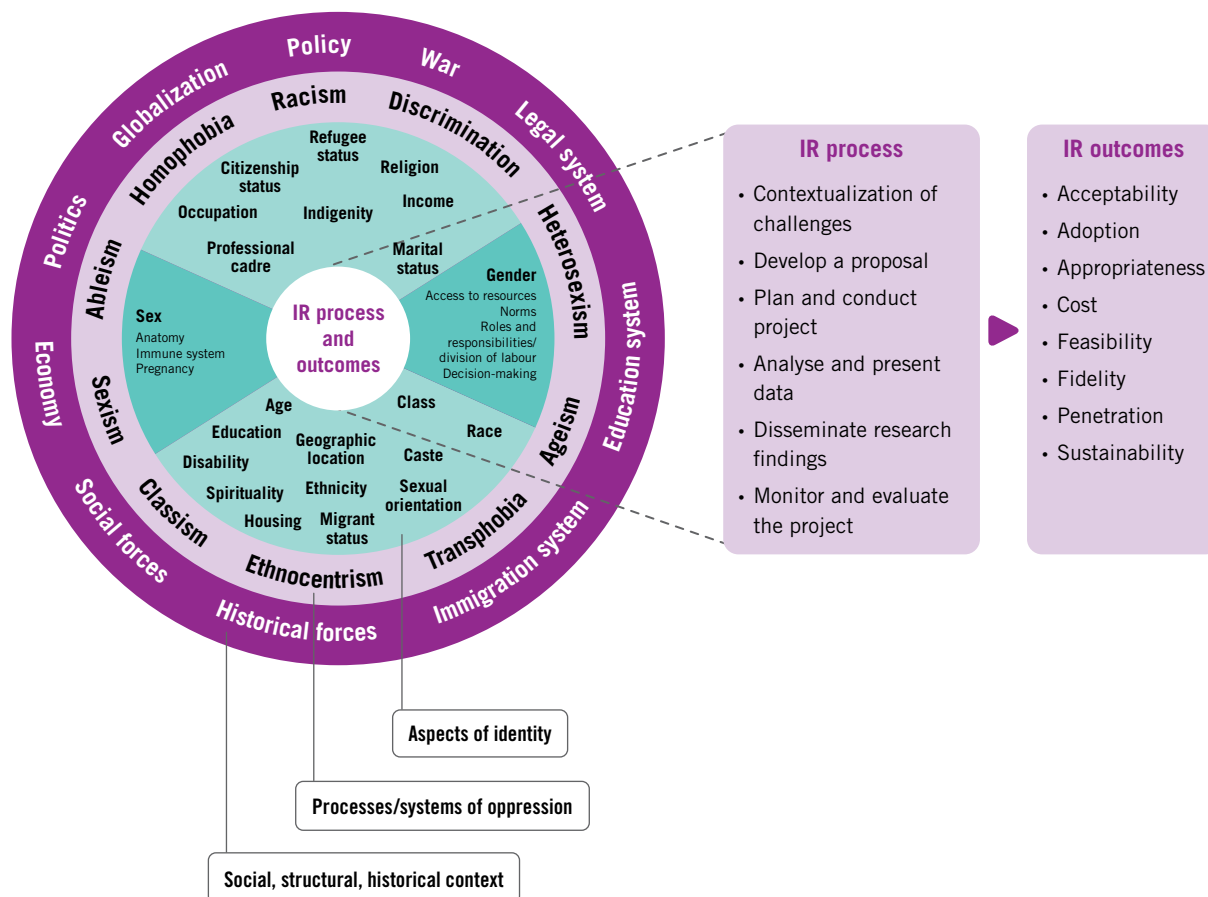

Various health system frameworks have evolved over time. WHO defines a health system as: "All organizations, people and actions whose primary intent is to promote, restore or maintain health" (36,37). The 'building blocks' of the WHO *Health Systems Framework* can be used as a guide by IR teams to assess how each of the building blocks might be implicated in the health intervention under study, as well as in the solutions to identified barriers.

Health systems are not gender neutral; gender is a key social variable and affects health system needs, experiences and outcomes (19,38). When designing and implementing health systems interventions, it is often assumed that an intervention will be equally effective for men, women and people of other gender identities across all socioeconomic strata (39). It is important to be cognizant that implementers often fail to recognize how power relations related to gender can affect how someone interacts with, accesses, uses or generally responds to a specific health intervention (19).

An individual's experiences while accessing health services also shape their decisions regarding utilizing a health intervention. For example, if an adolescent unmarried girl visiting a health facility for information on oral contraceptives is ridiculed or judged by a health worker for seeking such information, she will prefer not to seek care from that health facility irrespective of the best intervention rolled out in the future targeted for adolescent girls. Figure 7 shows how the intersectionality wheel is intrinsically linked to the health system, and can also affect the uptake of a health intervention in a given IR project.

Figure 7. Interlinkages between the intersectionality wheel, health system and IR outcomes. Adapted from *(1 and 8).*
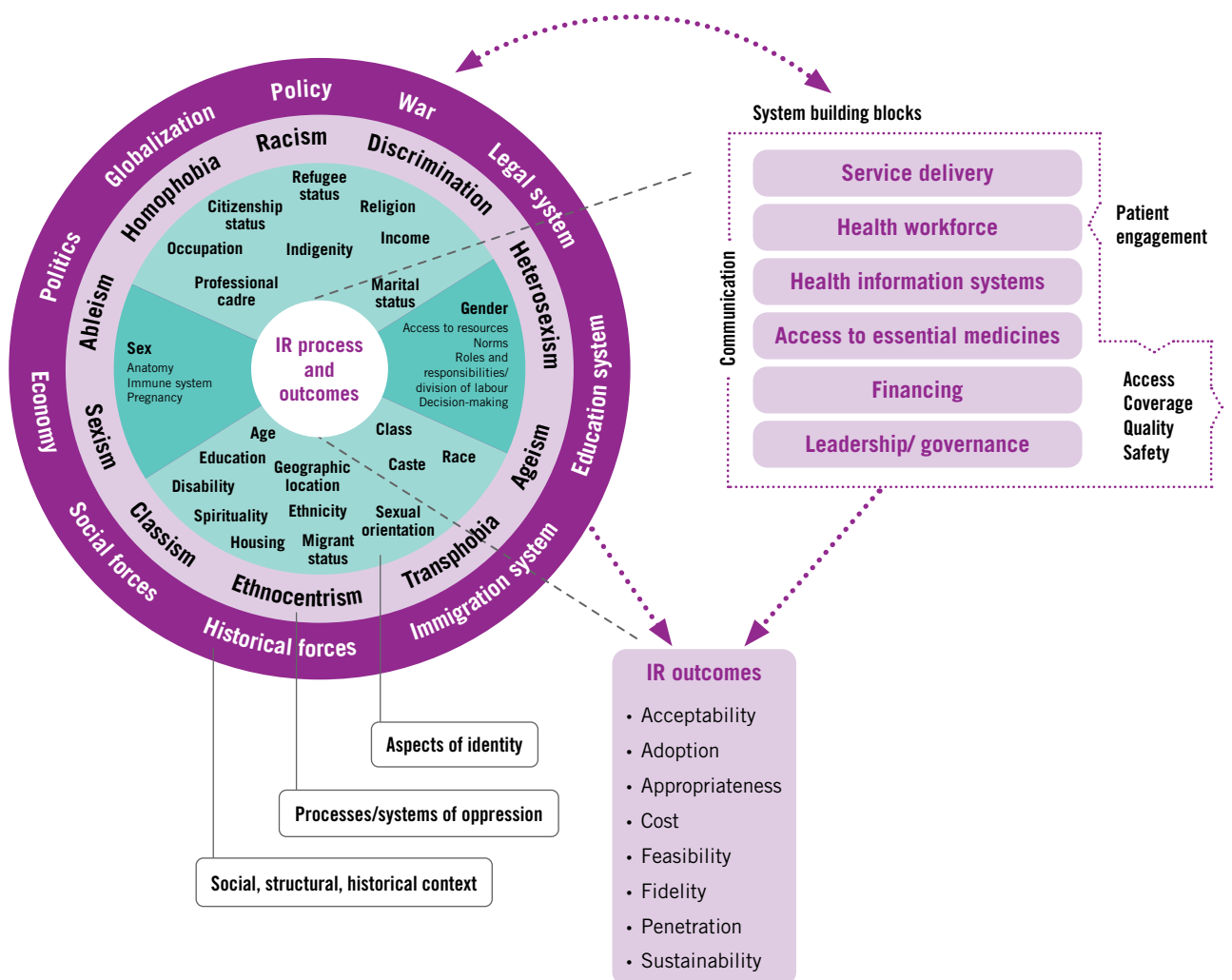
Participatory community engagement is key for study conceptualization as it helps identify community problems or concerns, understand their priorities and needs, identify relevant stakeholders, and ensure continuous participation throughout the research process.

key message

REFLECTION ACTIVITY

In your teams:

1. **Define the social variables relevant for your IR project.**

2. **Discuss how gender can interact with the social variables selected for your IR study.**

3. **Brainstorm about how you will engage the community and conduct a stakeholder analysis in the selected geographic location.**

4. **Discuss which intersectional gender analysis framework is appropriate for your study in alignment with your selected IR outcomes.**
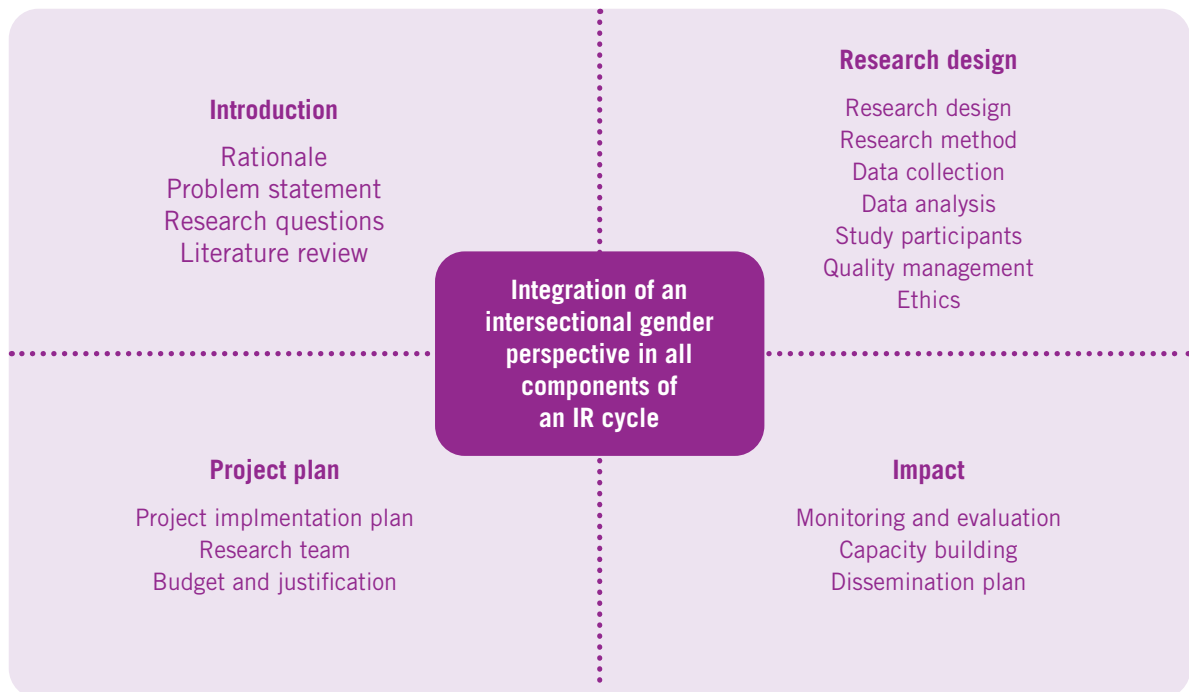
Proposal development with an intersectional gender lens

Proposals for IR projects differ from those used in other types of research primarily because IR originates from a problem identified and prioritized by end-users – so that the research findings can be used within the available health system framework and implemented appropriately for end-users' immediate benefit. Developing an IR project proposal from an intersectional gender perspective is critical for addressing implementation bottlenecks (Figure 8).

Integration of the intersectional gender perspective should start at proposal development stage of the IR process *(22)*, which includes conceptualization of the research, problem analysis, research design and plans for data collection, analysis and implementation, and dissemination of research findings.

**Figure 8. Integrating an intersectional gender perspective within all
components of an IR proposal.** Adapted from *(8)*.

Introduction

Rationale
Problem statement
Research questions
Literature review

Research design

Research design
Research method
Data collection
Data analysis
Study participants
Quality management
Ethics

**Integration of an
intersectional gender
perspective in all
components of
an IR cycle**

Project plan

Project implmentation plan
Research team
Budget and justification

Impact

Monitoring and evaluation
Capacity building
Dissemination plan

Study rationale

The rationale of an IR study should be convincing to relevant funding agencies
and policy-makers, so they will potentially commit resources to your IR project
and make relevant policy decisions or changes informed by the results of the
study. In the rationale of an IR proposal, the importance of the research – in
relation to existing local and national research agendas or policies – should be
clearly described and justify why the study needs to be conducted. State how the
'voices' of the vulnerable population will be incorporated and harnessed to draw
the necessary recommendations that will enhance their access to the intervention,
including at different levels of the health system *(40, 41)*. This can be achieved
by clearly describing how participants will be selected during stakeholder and
community engagement steps to ensure diversity and representation of vulnerable
populations in the study context.

Research problem statement

The research problem should be of interest and justifiable to all stakeholders (e.g.
researchers, policy-makers, decision-makers, funding agencies, care providers
and the community affected by the research). In your problem statement,
describe the problem, its magnitude, the current health practices, health-seeking
behaviours of vulnerable populations and factors preventing them from accessing

the intervention. Describe what might be the gender-related challenges and opportunities for the proposed IR solutions. Specifically, using an intersectional gender lens, explore how gender dimensions interact with other social variables (e.g. socioeconomic status, sexuality, age, refugee status, geographic location or religion, among others), to influence implementation of your IR study.

Research questions

Research questions should be of interest and relevance to all project stakeholders.

Informed by gender frameworks, intersectional gender analysis questions can be developed to guide researchers in the overall direction of the study, including informing research objectives, developing research questions and hypotheses. These questions help researchers move beyond describing the differences between men/boys, women/girls, and people with non-binary identities, to examine and critically interpret how gender inequities manifest within a particular context, how they intersect with and are influenced by other drivers of inequality, and their effect on IR *(1)*.

When developing intersectional gender-informed IR questions, consider the different social variables within the inner circle of the intersectionality wheel *(15)*, that interact to shape individual experience under the contextual factors in which the IR project is being conducted. Key contextual factors – such as physical factors, political environment, economic, social and cultural structures, health systems etc. – should be analysed objectively to ensure that the research questions are formulated and framed considering such factors.

IR questions must be sensitive to the diverse characteristics of the IR project target population (e.g. gender identity, age, social status, (dis)ability, sexual orientation etc.). An intersectional gender perspective does not assume the same experience across population sub-groups (e.g. not all pregnant women in the same geographic area experience similar barriers to access health care). This reflects that decision-making is influenced by different systems and structures of power as well as other factors that influence access to social, economic and political resources. For example, Morgan et al *(42)*, established that at a societal level, pregnant women with disabilities in a Ugandan community were shunned by the men who were responsible for their pregnancy, while at the health facility level, the health workers' poor attitudes and behaviours towards them were derogatory, which consequently negatively affected their maternal health-seeking behaviours.

This also highlights differences between gender analysis and intersectional gender analysis research questions, as illustrated in Table 5.

Table 5: Examples of gender analysis and intersectional gender analysis research questions. Adapted from *(1)*.

Gender relations domains	Gender analysis questions	Intersectional gender analysis questions
Access to resources *(e.g. education, information, skills, income, employment, services, benefits, time, space, social capital, etc.)*	How does access to financial resources affect men's and women's abilities to access the IR intervention? How does access to health information affect men's and women's abilities to access the IR intervention?	To what extent does access to financial resources differ between the different social categories of men, women, people with non-binary identities (e.g. education, migration status, age, ableism etc) to influence their access to the IR intervention? To what extent does access to health information regarding the IR intervention differ between the different social categories of men, women, people with non-binary identities (e.g. ethnicity, marital status, geographical location, education, migration status, age, ableism etc)?
Division of labour *(within and beyond the household and everyday practice)*	To what extent does men's and women's household work role affect their ability to access the IR intervention?	How do socially assigned household roles/responsibilities influence access to the IR intervention between the different groups of men, women, people with non-binary identities (e.g. class, migrants, education level, age etc.)?
Social norms *(ideologies, beliefs, and perceptions)*	How do social/cultural norms affect women's ability to seek the IR intervention?	How do the social norms in relation to seeking the intervention in your IR project differ between different groups of women by (e.g. age, education, class, ethnicity etc)?

Gender relations domains	Gender analysis questions	Intersectional gender analysis questions
Decision-making power (*e.g. seeking permission to leave the house, on how financial resources will be used*)	Do women have autonomy to access the intervention in your IR project? Do women make decisions on how to use finances to access the intervention in your IR project?	How does autonomy to seek the intervention in your IR project differ between different groups of women (e.g. age, education, religion, class etc.) How does autonomy to use finances to seek the intervention in your IR project differ between different groups of women (e.g. age, education, religion, class, occupation, disability etc.)

To develop gender analysis questions for IR, recognized implementation outcome variables should be used to develop related gender analysis questions. Various implementation outcome variables have been devised that act as indicators of how well the intervention is working *(43,44)*. The variables are acceptability, adoption, appropriateness, feasibility, fidelity, implementation cost, penetration and sustainability.

While constructing intersectional gender analysis questions, it is important to ask: How does this differ between different groups of men, women and non-binary people? How does gender intersect with other social variables (e.g. age, gender identity, education) to create differences between different groups of men, women and non-binary people? Table 6 shows an example of intersectional gender analysis questions informed by a gender framework *(16)*, mapped against feasibility, one of the implementation outcome variables.

Table 6: Examples of intersectional gender questions linking a gender domain and an implementation research outcome. Adapted from *(1, 19).*

Implementation outcome variable: Feasibility *(i.e. the extent to which an intervention can be carried out in a particular setting or organization)*	
Gender power relations domain	**Examples of intersectional gender questions**
Access to resources	To what extent do women and men (or other marginalized categories of people) have the same access to material resources and opportunities for education and training? To what extent do family support and roles help or limit opportunities for training by gender identity, marital status, age or other social variables? How might this affect stakeholder engagement within an intervention?
	To what extent do women (or other marginalized categories) have sufficient literacy, autonomy and access to technology to effectively use an intervention?
	To what extent is protective health equipment and gear made available and does it fit bodies that are not the male standard?
Division of labour and roles	To what extent are women more or less likely to work in frontline health service delivery in poorly compensated (including volunteer) or less-supported positions than men? How does this affect who implements an intervention and how?
	How do men's and women's roles and responsibilities affect the use of products used within the intervention (e.g. bed nets, vaccinations)?
	What are the challenges different groups of women and men might face in adhering to long-term treatment (e.g. for tuberculosis, HIV or diabetes)? Are they appropriately supported, or stigmatized within health systems and community-based structures?
Social norms	How do women and men within households and communities prioritize individuals' access to medical technologies or commodities used within an intervention (e.g. are boys or girls more likely be prioritized for oral rehydration therapy)?
	How do social norms and notions of masculinity and femininity influence men's and women's decisions to use the protective equipment required in an intervention?
Rules and decision-making	To what extent does regulation stand in the way of making services used within the intervention more widely accessible for women or marginalized groups (e.g. medical abortion, family planning)?
	What is the effectiveness of regulatory mechanisms to ensure that medical products for women or other marginalized groups are not misused (e.g. oxytocin to augment labour)?

REFLECTION ACTIVITY

How will you identify the problem relevant for your IR study?

What are the gender relations domains you have selected for your study?

What are the implementation outcomes you plan to achieve?

Using Tables 5 and 6 to guide you, develop your research question incorporating an intersectional gender lens that is relevant to your IR study.

Example of an intersectional gender analysis research question

To what extent does access to mass drug administration (MDA) for lymphatic filariasis differ between men, women and people with non-binary identities, and how do their social variables (e.g. ethnicity, geographical location, education, migrant status, age, ableism etc.) intersect to influence their access?

Literature review

A literature review provides a foundation of knowledge on a given research topic.

To incorporate an intersectional gender perspective, focus the literature search on exploring how gender intersects with other social variables or axes of inequality in relation to your IR problem *(1)*. Use keywords sensitive to gender and intersectionality. For example, O'Neill et al *(45)* explored the utility of using an acronym PROGRESS (i.e. place of residence, race/ethnicity/culture/language, occupation, gender/sex, religion, education, socioeconomic status, and social capital) while conducting 11 systematic reviews and methodological studies published between 2008 and 2013 to assess effects of interventions on health equity. Box 4 shows examples of keywords for intersectional variables that can be used while conducting a literature review.

Box 4. Example of intersectional variables used as keywords for a literature review. Adapted from *(45 and 46).*

Intersectional variables at the:

- *Individual level*: (age, sex, gender, gender identity, "race", ethnicity, income, education, employment status, professional status, socioeconomic status/class indicator (SES-indicator), marital/partnership status, single-parent household, migrant status, religion, dis/ability, sexual orientation, region of residence, urbanity/rurality).
- *Area level*: (age, sex, gender, gender identity, "race", ethnicity, migrant status, income, education, employment status, SES-indicator, marital/partnership status, social capital, urbanity/rurality).
- *Regarding contextual inequality indices:* (gender inequality, indices of multiple deprivation) as well as occupational segregation (sex, gender identity, "race", ethnicity).

Consult multiple sources of data including specific community-based research, published and grey literature. Much of the community-based research might not be published in peer-reviewed journals. Therefore, it will be useful to conduct internet searches for the information posted on the respective websites of community organization *(47)* that are active in the geographic area of your IR project. You can also enrich your literature review by citing prior studies that highlight significant similarities and differences between the different social identities, which in turn can inform the thinking behind the research project design.

Research objectives

Research objectives should be specific, measurable, achievable, realistic and time bound. While developing your research objectives, think about which implementation outcomes are appropriate for your study and how they can be measured. IR study objectives with an intersectional gender lens should be aligned with the corresponding research questions and sufficiently strategic to help reduce implementation bottlenecks, thereby promoting access and intervention coverage among the vulnerable target population. In other words, the objectives should contribute to the elimination or alleviation of the negative experiences by the vulnerable target population. Box 5 shows examples of research studies in which research objectives denote an intersectional gender approach.

Box 5. Examples of research objectives with an intersectional gender lens.

To assess barriers to VL [visceral leishmaniasis] diagnosis and treatment for different groups of men, women, and people with non-binary identities in endemic districts with a high burden of VL *(48).*

To assess the extent of disparities in health expectancy among the elderly from different ethnic groups using quality-adjusted life expectancy *(49).*

REFLECTION ACTIVITY

Using the examples in Box 4, brainstorm among team members to develop your research objectives adopting an intersectional gender lens that is relevant for your IR project.

Research design

Research design is the conceptual blueprint or strategy within which research is conducted *(50)*. Various study designs can be employed in IR projects. The different study designs and factors guiding appropriate study design selection have been described in detail elsewhere in this Toolkit.

In this section of your IR proposal, specify the study design and the justification for its adoption. While deciding on your study design, adopt an intersectional gender lens to explore and reflect upon 'what', 'why' and 'how' questions, to uncover how different social variables intersect to influence the implementation of and access to the intervention under consideration *(43)*. The WHO *Gender responsive assessment scale (4)* is a framework used to help determine the extent to which gender is incorporated into research. The scale includes five types of research:

  a. *Gender unequal research* perpetuates gender inequality by reinforcing unbalanced norms, roles and relations.
  b. *Gender-blind research* ignores gender norms, roles and relations.
  c. *Gender-sensitive research* considers inequality generated by unequal gender norms, roles and relations but takes no remedial action to address it.
  d. *Gender-specific research* considers inequality generated by unequal gender norms, roles and relations and takes remedial action to address it, but does not change underlying power relations.
  e. *Gender-transformative research* addresses the causes of gender-based health inequities by transforming harmful gender norms, roles and relations through the inclusion of strategies to foster progressive changes in power relationships between women and men.

For conducting IR studies and/or health interventions, the gender continuum framework *(5,51)* is useful to help determine how gender is addressed within intervention design and implementation. The framework classifies interventions into:
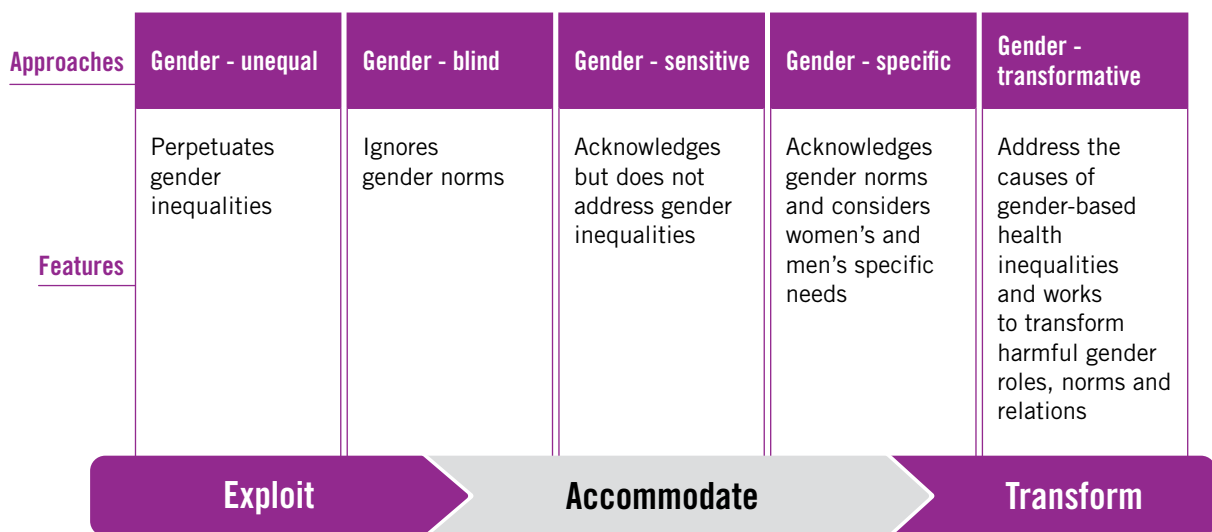
  a. *Gender-exploitative interventions* that take advantage of existing and prevalent gender inequities, norms, behaviours or stereotypes in order to achieve programme outcomes.
  b. *Gender-accommodative interventions* that adjust or compensate for existing gender inequities, norms or behaviours to achieve programme outcomes.

c. *Gender-transformative interventions* that attempt to challenge or change existing gender power relations that reinforce gender inequities.

Figure 9 helps researchers to assess their planned activities against each approach/level to determine the extent to which their research and/or interventions are currently integrating sex and gender *(1)*.

Figure 9. A continuum of approaches for integrating sex and gender. Reproduced with permission from: Greaves L, Pederson A, Poole N (Eds). Making it better: Gender transformative health promotion. Toronto: Canadian Scholars' Press – Women's Press; 2014. Extracted from *(5 and 52)*.

Approaches	Gender - unequal	Gender - blind	Gender - sensitive	Gender - specific	Gender - transformative
Features	Perpetuates gender inequalities	Ignores gender norms	Acknowledges but does not address gender inequalities	Acknowledges gender norms and considers women's and men's specific needs	Address the causes of gender-based health inequalities and works to transform harmful gender roles, norms and relations

Exploit	Accommodate	Transform

While conducting your research design exercise, reflect on the data that needs to be collected and disaggregated according to various intersecting variables to facilitate intersectional gender analysis. To be more precise with the results, focus specifically on social variables that can be disaggregated to create meaningful group-level variables *(53)*. The inclusion of such reliable and valid measures allows researchers to explore the complex factors that shape and influence the experiences of individuals influenced by different gender dimensions.

Research methods

Study designs used in IR can be interventional (e.g. experimental, quasi-experimental, before and after, cohort studies or randomized controlled trials) or observational (e.g. exploratory, descriptive and comparative) studies. For your IR project, you can use quantitative, qualitative research methods or a combination of the two (i.e. mixed methods).

Key factors to consider while choosing your research methods include:

- Strengths and limitations of the research method considering the objectives of your study.
- Validity of the study.
- Applicability of the study results to the wider population.
- Consistency of the study findings.

IR focuses on identifying the challenges and bottlenecks related to the roll out of health interventions, as well as on developing and testing effective strategies designed to overcome them. If the health intervention is new, you can test the acceptability, adoption, appropriateness, feasibility and sustainability of that intervention. For example, if your IR explores barriers and facilitators of access to the intervention by the intended participants in the community, an intersectional gender approach helps to understand the magnitude as well as the contributing factors that influence barriers to access the intervention. Participatory research methods (PRM) place the most vulnerable populations at the centre of research *(40,47)*. PRMs are collaborative and equitably engage all partners in the research process, for example during problem identification and action planning for change, thereby increasing participants' likelihood of using the research findings for appropriate actions *(54,55)*.

Furthermore, engaging vulnerable populations enables researchers to appreciate the gender relations at play and how these intersect with other social variables to influence access to the intervention. If the health intervention is well established, you can test its fidelity, cost and coverage. If your study is to learn about the bottlenecks of the implementation of the intervention, then understanding the implementers perspective (e.g. doctors, nurses, community health workers delivering care or treatment) will be helpful for researchers to see how gender differences influence the implementation. The three commonly used research methods that you can employ in IR with an intersectional gender lens are briefly described in the following section.

Qualitative methods

The use of an intersectional gender lens in qualitative research methods allows greater understanding of people's lived experiences, and how practices, policies and programmes are responding to the needs of women/girls, men/boys, and people with non-binary identities. You can consider PRM while designing your qualitative study. Some of the different PRM include participatory mapping (e.g. community maps, transect walks), timelines (e.g. life histories, daily activity) as well as priority ranking, Venn diagramming, matrix scoring and use of problem trees. In recent years, participatory action research (PAR) has been used as a tool to encourage both communities and health system actors to recognize their own problems and create solutions that can promote social change *(56)*.

In your IR proposal, you should describe the qualitative data collection methods your study will use, including the process followed to identify the study sample. Qualitative research instruments used for data collection in IR include key informant interviews (KIs), focus group discussions (FGDs), observations, documents (e.g. diaries and historical documents), among others.

Quantitative methods

Quantitative methods involve the collection and analysis of objective data, often in numerical form and used to examine relationships between variables. The research process, interventions and data collection tools (e.g. questionnaires, observation check lists, performance-based instruments) are standardized to minimize or control possible bias *(53)*.

Mixed methods

The majority of IR research questions require answers to both the 'what' and the 'why' aspects and, as a result, require use of mixed methods that include both quantitative and qualitative approaches. If you use a mixed methods approach, you should explain why your team chose the approach, and how the use of qualitative and quantitative methods will provide information to address the research question and objectives.

Study participants

Under this section of your proposal, describe: (i) the individuals in the social category of interest; (ii) how gender dynamics and various gender domains interplay in the implementation and outcome of the intervention; (iii) how other axes of inequality and structures of power such as social background, education, sexism, classism, homophobia, or any relevant combination of these, impact on their experience with the health care system. For example, if your study is to test the uptake of an intervention for any noncommunicable disease in primary health care settings, you may wish to consider the differences between men and women who will use the intervention and whether their religion, education, income status, age etc. – given their specific context – intersect to influence their decision to use the intervention.

Recruitment of study participants

People often face unique barriers while accessing interventions due to interpersonal, societal and/or structural power dynamics and discriminatory practices. This is especially common for those who may not be socially or legally respected in certain contexts, for example in the case of gender identities beyond the binary gender categories. It is important to intentionally develop and implement a strategy to identify and meet appropriate respondents, avoid any harms their participation might cause them, and ensure key respondents are not being excluded.

For example, in societies with acute health and social inequities across populations, if you are identifying participants from a database of health facility patients, there is a chance you will lose the most vulnerable community members as they may not be accessing services at health facilities. In areas of east Ethiopia, for example, where gender norms dictate son preference, more than 50% of households had increased odds of preferential care-seeking for boys, but decreased odds for girls, compared with communities in which fewer than 50% of households were Muslim *(57)*.

You should be mindful not to focus the recruitment entirely from traditionally recognized institutions such as health care facilities and training institutions, and broaden your strategy to other institutions, civil society organizations and human rights networks that can contribute to the recruitment phase of your research project. Other sources to consider for recruitment include advocacy organizations, religious centres, empowerment groups, community centres, unions/fraternities, and web-based locations such as social media, chatrooms, blogs and support groups *(58,59)*.

In case of hard-to-reach populations, you can consider using venue-based sampling or time-location sampling (TLS). The TLS strategy assists researchers to intercept hard-to-reach populations in places and times where they might gather *(60,61)*. For example, it can be used for adolescents who may come together to access services provided to them in specific social venues at certain times of the day. Community gatekeepers exist who can be excellent sources to help identify participants. However, selection bias may occur as these gatekeepers have the potential to rule out key participants who might have a language barrier, who are hesitant to speak or for those who might have to seek permission from family members to participate in the study. To ensure that there is no selection bias, it is better to approach different community gatekeepers, preferably of different gender identities and social locations, so that a heterogenous group of people is included in your study.

Sampling

Under this section of the proposal, describe the steps of your sampling process. The main steps are *(62)*:

  i.   Defining the target population.
  ii. Selecting the sampling frame.
  iii. Choosing the sampling technique.
  iv. Determining the sample size.

In general, sampling techniques can be divided into two types:

Probability or random sampling	Non-probability or non-random sampling
Simple random	Quota sampling
Stratified random	Snowball sampling
Cluster sampling	Judgment sampling
Systematic sampling	Convenience sampling
Multistage sampling	

In general, probability sampling techniques are typically used in quantitative research methods and non-probability sampling techniques in qualitative research methods. Overall, ensure that the sample is as heterogeneous as possible to allow diversity within the study population. This facilitates representation of those who would have been overlooked *(58)*. Before sampling, it is important to define the inclusion and exclusion criteria for your study.

Quantitative study

As quantitative studies require a representative sample in relation to population characteristics, a probability sampling is preferable. This enables every individual in the population to have a certain chance of being included in the sample. While planning your sample size, consider how data will be disaggregated in your study. For example, if your study explores barriers to access a health intervention by adolescents residing in a specific geographic location, you will want your sample size to be representative of adolescent boys and girls. In order to incorporate an intersectional gender perspective, it will be helpful to also consider social variables such as education status, religion, marital status etc. as relevant to your study while considering your sample size, so that it is possible to collect disaggregated data for analysis.

Qualitative study

In qualitative research, the use of purposive, quota and snowball sampling strategies from an intersectional gender perspective, strengthens the study design and promotes diversity and inclusivity of participants *(60,63)*.

With qualitative research, the sample should be designed to allow for in-depth understanding of the role of gender and its intersection with other social variables. Consider the similarities and differences within the study population. The sampling strategy will depend on the objective of the study and the type of analysis (i.e. inter-categorical or intra-categorical) you plan to do.

For inter-categorical analysis, you can divide your sample into different groups according to the relevant social variable that you are studying. For example, to do an intersectional gender analysis of how gender intersects with economic status between different groups of people while seeking health care, your sample will have to be diverse enough that data can be disaggregated into poor men vs poor

women vs rich men vs rich women. The sample needs to be as representative as possible with respect to a community or population of interest, while being heterogeneous enough to allow for inductive explorations (e.g. interrogating how various categories can intersect to differentially shape experience) *(64)*. An intra-categorical analysis focuses on one specific group at the intersection of multiple social variables to explain within-group differences and larger social structures influencing their lives. For example, if your IR is exploring barriers and facilitators for adolescent girls to seek reproductive health services, then your sample will remain homogenous as you are identifying only adolescent girls. However, while conducting intersectional gender analysis, you have to be mindful that different social variables such as education, religion, etc. of an adolescent girl will intersect to influence her experience of seeking reproductive health services. Thus, within your sample of adolescent girls, you should be able to analyse the differences in their experience arising because of their different social variables and other structural or contextual factors.

Data collection plan

As a researcher, you should be cognizant of how power relations, biases and other key factors can influence the quality and validity of the data collected (Table 7).

Table 7: Key factors to consider for data collection. Adapted from *(1 and 22).*

As a power relation gender influences…	Key considerations	Actions
Who participates as respondents	Respondents may be excluded due to differential levels of education, literacy, proficiency in national languages or proficiency with technology.	Implement an intentional strategy to identify and access appropriate types of respondents and ensure that key respondents are not being excluded.
	Respondents who are women/girls may need to have additional permissions to participate within the research and/or travel to research locations to participate in focus group discussions, have less free time to participate in research or privacy, and will often have more gatekeepers inhibiting their involvement.	Ensure that participants are not being overburdened through participation in research.
	Sampling may be skewed towards respondents who are the most visible subjects, without including the less visible gatekeepers or decision-makers that frame the contexts in which those subjects live and work.	Include gatekeepers and/or decision-makers within sample; ensure inclusion does not further disempower women and girls or other marginalized groups.

As a power relation gender influences…	Key considerations	Actions
When data is collected and where	Men/boys and women/girls have different responsibilities within and outside of the home, which affects when they are available.	Schedule data collection at a time that does not inconvenience participants.
	Context may affect the extent to which individuals have privacy.	Where possible, ensure that interviews or surveys are conducted in a private setting.
	Participants who have been affected by infectious diseases of poverty may experience increased stigma because of participation within research, which may be exacerbated by gender relations and the intersection with other social variables.	Include participants in a confidential manner; where participation might increase stigma, ensure data is collected in a neutral location.
Who is present during data collection	Power relations between and among respondents can affect the quality and accuracy of data collected (e.g. women may respond differently in the presence of men and may remain silent, even if they disagree or if inaccurate information is given or adolescent girls (and boys) may respond differently in the presence of parents or guardians).	If conducting focus group discussions, conduct separate discussions for men and women, boys and girls.
		Consider the power dynamics that may exist between participants and structure focus group discussions or other data collection methods accordingly, (i.e. disaggregate participations by age, occupation etc.).

As a power relation gender influences…	Key considerations	Actions
Who collects and analyses data	The position of researchers may influence respondents' responses or ability and/or willingness to participate (e.g. in some contexts it may be important for respondents to be interviewed by a researcher of the same sex).	Where possible, use data collectors that are the same sex as the respondents.
	The sex of the researcher may affect the ability to get access to collect data; for example, in many contexts only data collectors who are women will be allowed to enter homes or will be allowed to collect anthropometric measurements of women and children.	Use local data collectors where relevant.
	Researchers will have gender biases that influence the data collection and analysis process.	Ensure that all data collectors receive training and supervision to become aware of their own gender or other biases and how they can address them.
		As a research team, reflect on own power dynamics and position within the data collection and analysis process. Be prepared to challenge each other's assumptions and questions asked of the data. Be flexible to reconstitute data collectors if necessary.
		Use joint reviews of transcripts and debriefing meetings among team members to identify potential bias and check assumptions.

To increase participation during data collection, outline the measures you will use to give every participant the same opportunity to be involved. Also describe how the research team will ensure confidentiality throughout the entire research process. Privacy, safety and confidentiality should be ensured during data collection, and the research team should be sensitive to existing gender dynamics. For example, in certain contexts or circumstances, women may feel uncomfortable if the data collector/researcher is not a woman. Similarly, the institutional hierarchy may influence junior officers responses during focus groups in the presence of their

supervisor or senior manager. At the household level or school setting, adolescent boys or girls might be fearful to participate openly in the presence of a parent, guardian or teacher.

Be aware of the gender dimensions (e.g. gender roles, norms, and relations) that influence the division of labour at the household and community levels. For example, in some communities, gender norms dictate women do unpaid work within the household while men are expected to work outside home to earn a living. Thus, it may be difficult to collect data during certain hours of the day, since both women and men may not be available during the day or season.

Therefore, it is pertinent to be sensitive to gender norms, roles and relations in a given community, to ensure availability of target respondents and confidentiality of responses during the data collection process. Research proposals should describe the process of participant identification, the time periods, and the convenient places for data collection to ensure comprehensive information including from those who tend to be less centrally engaged in the participatory process.

REFLECTION ACTIVITY

- **What is the appropriate sampling strategy for your study methodology?**

- **How does gender intersect with other social variables to create differential levels of power within the data collection process? How might this affect your data collection?**

- **What key gender-related factors need to be considered during the data collection process?**

- **How might you minimize ways in which gender power relations impact the quality, accuracy and validity of your data?**

Developing intersectional gender indicators for an IR project

During the planning phase, it is important to establish baseline indicators to contribute to monitor and measure the progress of your IR project. These should be developed in collaboration with the community and the study population. The intersectional gender analysis questions already considered/developed can be used to inform these indicators. Gender-sensitive indicators can be sex-specific, sex-disaggregated and/or indicators for gender equality. In general terms, indicators

should: (i) guide collection of data that can be disaggregated by the relevant social variables; (ii) measure and monitor the achievements of expected results; (iii) measure any gaps in the experiences of the study participants; (iv) avoid large group categorizations that may miss intra-group differences; and (v) be gender sensitive (i.e. measures gender equality directly or is a proxy for gender equality).

Within the data collection tools and indicators, consider gender-related variables/proxies in alignment with the gender domains that are integral parts of your IR study. Table 8 shows examples of gender proxies/variables that support analysis of gender power relations domains against relevant implementation health outcomes.

Table 8: Gender proxies used to understand gender relation domains.
Adapted from *(1)*.

Gender relations domains	Gender-related variables/proxies
Access to resources	• Cash earnings • Ownership of land • Education • Information Access (e.g. to what extent are marginalized populations able to access relevant information and care related to an intervention?)
Distribution of labour	• Works outside home • Time spent doing housework • Employment (e.g. from an implementers' perspective, how might costs of accessing an intervention affect women and men differently?)
Social norms, beliefs and values	• Women delivering at home • Unmarried young girls should be in the company of their kinsmen when accessing care • All household earning belong to the man in the house
Decision-making autonomy	• Decision-making related to the health intervention (e.g. who decides whether or not it is acceptable for someone to participate in an intervention?) • Control over household's earnings/resources

To develop gender equality indicators explore the role of gender power relations specific to your IR project as included in your gender framework.

While developing indicators, consider the relevant IR outcomes that you will measure. For example, if your study is exploring how decision-making influences acceptability of a given health intervention (i.e. IR outcome) for married women, your intersectional gender equality indicator could be:

Proportion (%) of married women aged 15–49 who usually decide to accept the health intervention either by themselves or jointly with their husbands, disaggregated by income, age, education, etc.

Table 9 shows examples of differences between gender-sensitive indicators and intersectional indicators.

Table 9: Comparison of gender-sensitive and intersectional indicators.
Adapted from *(1)*.

Type of indicators	Examples of sex and gender-sensitive indicators	Examples of intersectional indicators
Sex-specific indicator: a type of gender-sensitive indicator that pertains to only females or only males.	Proportion of females or males who are living with HIV.	Proportion of females or males who are living with HIV disaggregated by income, age, education, etc.
Sex-disaggregated indicator: a type of gender-sensitive indicator that measures differences between females and males in relation to a particular metric.	Proportion of females and males who are living with HIV.	Proportion of females and males who are living with HIV disaggregated by income, age, education, etc.
Gender equality indicator: a type of gender-sensitive indicator that measures gender equality directly or is a proxy for gender equality. Indicators that can act as a proxy for gender equality include those that explore the different domains included in a gender framework. These may include access to resources, distribution of labour/roles, norms and values and decision-making.	Proportion of married women aged 15–49 who usually decide about their own health care – either by themselves or jointly with their husbands.	Proportion of married women aged 15–49 who usually decide about their own health care either by themselves or jointly with their husbands disaggregated by income, age, education, etc.
	Proportion of women who are able to leave the house without permission.	Proportion of women who are able to leave the house without permission disaggregated by income, age, education, etc.
	Proportion of women who decide how their own income will be used.	Proportion of women who decide how their own income will be used disaggregated by income, age, education, etc.

REFLECTION ACTIVITY

Case scenario example: In one country, the majority of pregnant women deliver their child(ren) at home because social norms dictate restrictions for delivering at a health facility. An IR project has developed an intervention to promote deliveries at health facilities.

Activity: Formulate intersectional gender indicators to measure uptake of institutional delivery by pregnant women in that country.

Data analysis plan

It is important to clearly outline the plan for data analysis in your IR proposal. Both the techniques and models for data analysis should be in accordance with the study objectives, research methods used and the types of anticipated IR outcome variables. The data analysis plan should have the target audience in mind with a focus on simplicity and interpretability. Clearly explain the analyses you intend to conduct on the data. Indicate the appropriate software you may use in the data analysis.

To analyse data effectively using an intersectional gender lens, the IR team should have taken preparatory steps from the initial stages of the study design. This includes disaggregation of data or sampling frameworks by sex and other social variables, the use of gender frameworks and the incorporation of intersectional gender analysis questions into data collection tools.

It is useful to develop an intersectional gender analysis matrix relevant to your study at the beginning of the proposal development process. Because it is difficult to ask about gender power relations directly, gender frameworks are used to break down the ways in which they manifest and then develop proxies to indirectly analyse gender relations against relevant health or other outcomes. An intersectional gender analysis matrix can be used to help you think about which domains might be most relevant for your study. Researchers should begin by filling in the matrix by identifying how the different gender relations domains may affect areas of interest relevant to your study, and which social variables are likely to intersect with gender to influence a person's marginalization or vulnerability regarding these domains.

Table 10 illustrates an example of using the intersectional gender analysis matrix while conducting research in infectious diseases. This helps researchers to identify how gender relations domains affect the infectious diseases domains, and helps to identify which social variables can potentially intersect with gender to influence an

individual's vulnerability. It is important to develop an intersectional gender analysis matrix specifically for the relevant gender domain, study domain and social variable relevant to your research. For example, if you are planning to conduct IR on access to bed nets by adolescent boys and girls in a dengue endemic area, to ascertain their ability to prevent exposure to mosquito bites, you can identify the contextually-relevant gender norms, relations and values and also consider which specific social variables intersect with the boys/girls access to bed nets. If gender norms allow only adolescent boys to wear shorts (i.e. unprotected clothing), this will decrease their ability to prevent mosquito bite exposure as compared to girls. In this scenario, the possible social variables that can be considered to influence risk of exposure may include age, sex, race/ethnicity, education status and socioeconomic status.

Table 10: Intersectional gender analysis matrix for infectious diseases of poverty. Extracted from *(1)*.

Infectious diseases of poverty domains	Biological and social stratifies					Gender relations domains			
	Sex	Age	Race/ ethnicity	Income	Disability	Access to resources	Distribution of labour and roles	Norms and values	Decision-making power
Vulnerability to disease/ illness	x	x	x	x	x		Women care for sick family members. Women wash clothes outdoors.	Boy permitted to swim in infected bodies of water	
Ability to prevent exposure		x		x		Women lack knowledge of how to prevent exposure.	Men unable to reach health facilities during opening hours due to employment.		Men decide whether to buy bed nets.
Response to illness		x		x		Women lack access to financial resources to access health facilities			

Data can be analysed in two different ways:

a) *Intra-categorical* focusing on one social group only and analysing experiences of that one group (e.g. focusing only on adolescent boys and analysing how their age, sex, race/ethnicity, education status and socioeconomic status intersect to influence their access to bed nets, thus affecting their ability to prevent exposure).

b) *Inter-categorical* (e.g. analysing data for differences between both adolescent boys and girls and across social variables such as age, sex, race/ethnicity, education status and socioeconomic status). For example, you can identify and compare differences and experiences in terms of vulnerability to disease exposure across social groups such as poor uneducated boys and poor uneducated girls.

Quantitative data analysis incorporating an intersectional gender lens

Before analysing quantitative research data using an intersectional gender lens, your data should be disaggregated by variables relevant to your IR study. Depending on your research design, analysis can be intra-categorical or inter-categorical. In both approaches, the analysis focuses on the intersection of selected social variables to understand how these variables interact to create different experiences of marginalization and discrimination, which in turn shape health outcomes related to your IR study.

It is also possible to conduct a gender analysis on secondary quantitative data, such as demographic health surveys, population-based surveys or own quantitative data sets. Generally, the secondary data sets help further sex-specific (males or females) and sex-disaggregated (males and females) analysis. For example, if you are studying the prevalence of malaria in a population residing in an endemic area, you can conduct a sex-specific analysis for males and females separately. To conduct a sex-disaggregated analysis, the differences in prevalence between males and females diagnosed with malaria are considered. However, to conduct an intersectional sex-specific analysis, you must disaggregate this data by the relevant variable chosen for your study (e.g. age, education, ethnicity etc.). Intersectional sex-disaggregated analysis explores the prevalence of malaria between and among groups of males and females, against the different variables chosen as relevant for your IR study.

Generally, data cannot be disaggregated by gender in the same way it can be disaggregated by sex. Therefore, relevant gender relations domains need to be included within data collection tools and interrogated separately; these are sometimes referred to as gender variables and are used as proxies to understand gender relations *(1)*. Refer to Tables 8 and 9 to identify gender variables/proxies and intersectional gender indicators, respectively.

Unlike traditional quantitative methods, intersectionality-informed analysis uses an additive approach, using an initial 'baseline' upon which further analyses are applied using multiplicativity (e.g. regression coefficient) to account for effects of intersecting categories on health or social outcomes.

Qualitative data analysis incorporating an intersectional gender lens

Intersectional gender analysis begins during data collection, when researchers are gathering and reflecting iteratively on the data and practicing reflexivity throughout the coding process as well as subsequent interpretation and reporting. Regardless of the level of analysis or approach, it is important to note that expectations and potential biases of the researcher must be open, particularly those resulting from the interaction between the data and the researchers' backgrounds. Caution should be taken to avoid reproducing inequality within the data coding and analytic processes (65). A multi-stage analysis is needed to enable moving from additive towards interactive analysis. When analysing

data, you will therefore need to go beneath the surface of what is being stated/ said to understand how gender intersects with other social variables to influence different experiences, relating this to the larger social, political and cultural context. Data analysis often occurs on one level, the semantic level, which involves analysing data at face value, only considering what participants have articulated or written. However, to conduct an intersectional gender analysis, researchers must go deeper to understand and identify assumptions, beliefs, thought patterns and conceptualizations that characterize semantic content. This is particularly true in instances where a person's identity may be so normalized/ ingrained, they may not see how their experiences are shaped by systems or structures of privilege and/or oppression resulting from that identity, therefore, it the researcher's responsibility to make these connections. This interpretative analysis helps achieve a more comprehensive analysis *(22,66).*

Gender frameworks can be used to develop coding frameworks that facilitate the analysis of qualitative data. In terms of analysis, the type of coding methodology is often based on the types of framing used. As such, inductive analysis should be used, when possible, as it allows for codes to be derived from existing data. To facilitate intersectional gender analysis within qualitative research, a multistage analysis is needed. There are three main levels of coding:

Open coding, which involves analysis of data that codes a passage using multiple and overlapping codes (e.g. access to resources, gender norms, gender roles, decision-making, age, etc.).

Axial coding, which focuses on inductively refining each separate code into more distinct codes (e.g. a code for the intersections of gender roles with age, one for intersection of gender roles and poverty, etc.). These codes are often developed following identification of relationships and patterns that emerge during the open coding stage. Grouping open codes into different themes that help explain what is going on can facilitate identification of axial codes.

Selective coding is used to further refine codes to reflect a specific aspect of intersectional experience (e.g. how married women's experience of assigned domestic responsibilities influences her access to a health intervention). These codes often link the intersections of different social variables to experiences of advantage or disadvantage in relation to the implementation outcome of a given IR study.

Box 6 illustrates an example of how gender domains can influence men's health-seeking behaviours.

Box 6. Example showing the influence of gender norms on men's health seeking behaviours.

Masculinity and men's health-seeking behaviours in Nigeria *(67)*

Aim: To investigates men's health-seeking behaviours and to examine the extent to which gender/masculinity impede their acceptability of and accessibility to available health care facilities in Nigeria.

Method: Case study research design incorporating eight in-depth interviews conducted with men volunteers over seven weeks. The socio-demographic variables and inclusion criteria of the participant selection were age, academic status, religion, occupation, location of residence, marital status and financial status.

Results: Hegemonic masculinity built into the society's classification of men as the stronger sex and women as the weaker sex is an influencer of men's health care. Seven of the eight participants argued that men conform to the belief of masculinity identity in seeking health care. It was observed that there was no difference in perception of health-seeking behaviours among the respondents, despite their educational and the employability status. Men express some form of masculinity and sentiments that men should not be sick. The 'masculinity factor' is reflected in the rejection of medical help because of the feeling that being treated by women, labelled "the weaker sex", is a taboo. The majority of the respondents reiterated the importance of their religious beliefs and doctrines as compared to seeking adequate health attention when the need arises. To them, as long as these beliefs are in place, their health status/stability is guaranteed.

Conclusion: Cultural and patriarchal norms/beliefs that often characterize men as being resilient and brave among other socially constructed expectations still play vital roles in determining the health-seeking behaviours of men, regardless of their educational and professional attainments.

Key resources for intersectional data analysis

Fehrenbacher AE, Patel DR. Translating the theory of intersectionality into quantitative and mixed methods for empirical gender transformative research on health. Culture, Health & Sexuality. 2019;22:145–160. doi: 10.1080/13691058.2019.1671494 *(68)*.

Bauer G, Bowleg L, Rouhani S, Scheim A, Blot S. Harnessing the power of intersectionality: Guidelines for quantitative intersectional health inequities research. London, Canada; 2014 (https://www.researchgate.net/publication/343140477_ Harnessing_the_Power_of_Intersectionality_Guidelines_for_Quantitative_ Intersectional_Health_Inequities_Research, accessed 3 April 2022) *(53)*.

Jasmine A. Abrams, Ariella Tabaac, Sarah Jung, Nicole M. Else-Quest. Considerations for employing intersectionality in qualitative health research. Social Science & Medicine. 2020; 258:113138. doi: 10.1016/j.socscimed.2020.113138 *(69)*.

Selecting appropriate intersectional gender analysis frameworks helps guide development of data analysis plans. Developing an intersectional gender analysis matrix during proposal development is a facilitating factor in achieving IR outcomes.

key message

REFLECTION ACTIVITY

- **What are the intersectional gender indicators relevant to your IR study?**

- **Based on your study design, select the appropriate intersectional gender analysis framework and develop the best applicable data analysis plan.**

- **Using the example in Table 10, develop an intersectional gender analysis matrix for your planned IR intervention to help conduct intersectional gender analysis.**

Quality Management

Embedding a quality management plan in an IR proposal is essential in ensuring that research meets (or exceeds) scientific, ethical and regulatory standards.

Research ethics

As in other forms of research, ethical considerations are of vital importance to IR with an intersectional gender perspective. Respecting the dignity of all research participants and avoiding causing any physical, emotional or psychological harm to study participants are essential throughout the entire research process. It is important to take extra caution to minimize the risks that may be associated with working with vulnerable populations. It is also essential to be cognizant of sensitive issues in relation to the local context, for example, and to use the language of the participant community and respect how the community identifies itself. This communicates respect for their right to self-determination and respects their lives (70). Participatory approaches may be particularly useful, as they can allow individuals who represent the population of interest to work with researchers to ensure linguistic and cultural appropriateness of written or verbal

consent documents, for example. Research should be approached with 'cultural humility' in communities where any lingering historical mistrust of researchers may exist, as in many marginalized communities for example, due to past unethical research practice *(71)*.

REFLECTION ACTIVITY

In your research team, identify the context specific ethical issues to consider in your research project and the strategies you can use to conduct an ethically sound research project.

Dissemination plan

Communicating research plans and findings are among the good research practices in IR. Communicating research findings makes you accountable to participants and to the research process itself. Disseminating research findings – especially to the research participants – not only provides them with data, but also sensitizes them to related issues, and enables them to utilize the findings to improve their health-seeking practices *(28)*. Your proposal should include a section on your dissemination plans, including where and to what audiences you intend to disseminate your research findings. As much as possible, you should aim to communicate the results and findings of your research to all the stakeholders engaged in the research effort, using the most appropriate and relevant channels.

The dissemination plan should include:

a. A communication goal, which aims to promote ownership and engagement in the research by key stakeholders, and ultimately to help promote and facilitate uptake of research results into related policies, practices and programmes.

b. Your primary and secondary audiences.

c. Clear timelines for your dissemination to take place.

d. Dissemination channels/tools you plan to use (e.g. educational or informal community presentations; information sessions; policy briefings; press conferences; slide shows etc.), an estimate of the number of refereed and other planned publications (including the names of journals and newsletters, printed hand-outs, policy reports etc.), and the number and names of the academic and professional conferences the team will attend each year.

During proposal development, it is also important to consider how a gender lens will be used in reporting of study findings. The first step is to ensure development of gender-sensitive reports considering how men, women and people with non-binary identities will be differently affected by the results. While writing a gender-sensitive report, be cautious that potentially harmful gendered stereotypes are not replicated. When conducting gender analysis, common pitfalls that may bias research include *(1,72):*

a. *Overgeneralization:* Occurs when only one sex is studied but the data are presented as if they were of general (rather than sex-specific) applicability. Over-generalization can be represented in the language used to discuss results, such as when only the terms 'he' or 'man' are used when both sexes are intended. Within health reporting, generic terms are often used for all-women or all-men groups, such as patients, community members, community health workers or single parents, which masks any gender-related differences that might exist. Groups should always be distinguished by sex or gender identity, even when only one sex or gender identity is included within the sample.

b. *Sex and gender insensitivity:* Occurs when sex and gender are not addressed in the research, although they are related to the research content.

c. Harmful gender stereotypes and/ or norms: May be replicated/perpetuated.

d. *Double standards:* Occur when similar behaviours, traits or reactions are experienced by men and women but are reported differently.

Some key questions to be considered while generating gender-sensitive reports are:

- Is data reported in a gender-sensitive way (i.e. have you avoided common pitfalls)?

- If the result of the research includes policy recommendations, have the outcomes been considered in relation to equal opportunity of men, women and people with non-binary identities?

- Are images of different gender identities projected within the reports or publications? Do these images reproduce stereotypical gender roles or harmful gender stereotypes and/or norms?

- Do the findings replicate harmful gender stereotypes and/or norms? How can people of different gender identities use the results in different ways?

- Are results and conclusions about gender and sex outcomes reported even if no differences were found?

Execution of an IR project with an intersectional gender lens

Execution of an IR project involves implementation and monitoring of the proposed research activities as well as updating and revising the project plan according to emerging lessons and/or conditions. This phase should also include the closure and evaluation of the project, as well as reporting and disseminating the processes and findings of the research.

This section introduces important activities that will enable your research team to plan and execute an IR project with an intersectional gender lens . These include:

- i. Reflexivity process.
- ii. Development of data collection tools.
- iii. Pilot testing of the tools and methods.
- iv. Project implementation.
- v. Good research practices.

Planning for IR project execution

Reflexivity process by the implementation team

The composition of the implementation team and meaningful stakeholder/community engagement are both vital to inform your project design and implementation activities. Researchers should be self-aware of their own biases to avoid any social prejudices against the study participants. Thus, before implementing your project, use the questions in Table 11 to guide your research team to critically reflect on your own biases and power dynamics might impact the project activities.

Table 11: Reflexivity process by research team. Adapted from *(12)*.

Questions for the research team
1. How can we ensure that we do not reinforce existing stereotypes or biases or produce further inequities (i.e. avoidable and unjust inequalities) for some people and populations?
2. What is the best way for people with lived experience, their families and communities to be involved in making sure that the outcomes/results of the research lead to a reduction in inequities (i.e. avoidable inequalities between and within groups of people)?
3. In what ways we can work together to make sure everyone on the research team (as well as any people involved in the research project) feel "comfortable"?
4. (a) How do people with lived experience in the project area prefer to be involved in research and why?   (b) What types of challenges would need to be addressed to make it easier for people living with the experience – as well as their families and communities – to become involved in research?
5. How do we make sure that interpersonal interactions promote a sense of belonging for ALL members of the research team (as well as any participants in the research study)? What makes me feel psychologically safe? What types of interactions do not make me feel safe and should be avoided?

Development of data collection tools with an intersectional gender lens

Collaborate with the research participants when designing the research tools for your study. It is important to include some research participants in your research team. This participatory approach will not only enhance the relevance and sensitivity of the questions in your study tools, but also minimize power imbalances in the research process, as well as the risk of perpetuating stigma and social injustice *(22)*. Use gender frameworks as a basis for developing questions with an intersectional gender lens to explore how the different social variables under analysis intersect with the relevant gender domains to shape participants' experiences with the IR intervention. Use the information from the intersectional gender analysis matrix to design the data collection tools.

Below are some tips for designing questions for data collection tools incorporating an intersectional gender lens *(73–75)*:

- Ensure that the questions capture details of the different social variables (e.g. sex, gender identity, education level, ethnicity etc.) so data can be disaggregated as relevant to your study.

- Consider gender relations domains that are most relevant in the context of your study.

- While developing the data collection tools, consider the differences between the needs of women, men and non-binary people and how such differences vary in specific situations relevant for your study.

- Start questions by asking about one social variable first (i.e. avoid combining two variables in a single question). For example, do not ask: "How do you think your age or gender identity influence your decision to seek health care?" Rather, begin the question with: "How do you think that your gender identity influences your decision to seek health care?" The other intersecting social variables such as age, sex, ethnicity, sexual orientation, education etc. can be asked subsequently so all the variables – as adequate to your study – can be included.

- Questions must allow for intersectional gender interactions to be investigated. For example, how does being a woman and being a migrant affects one's access to health care in a specific context?

- The data collection tools/methods must be sensitive to the participant's identity. For example, be sensitive to the different social variables of the study participants' and formulate questions paying extra attention to the wording of the questions, avoiding gender stereotypes, misconceptions or stigmatizing terms.

- Include some open questions about the participants' experience with the intervention.

Pre-testing of the data collection process

All study instruments (quantitative and qualitative) should be pre-tested to check the validity and reliability of data collection tools. Pre-testing allows the research team to check whether the research instructions and questions are clear, context-specific and that adequate time has been allowed to administer the questionnaire, etc. Ideally, pre- testing with individuals from the population of interest ensures that potential participants understand the questions and helps the research teams to design questions that are sensitive to the needs and experiences of participants *(76)*. If this is not feasible, pre-testing should be conducted from a comparable study population and environment.

Pre-testing the research methodology with participants, and using their feedback, can make the research design more robust. It assists identification of ideal data collection sites, time periods for data collection and any other related requirements that may have been overlooked during the planning phase, such as compensation of participants *(70)*. Since data management is critical to the success of the research, the research team should be available during discussions that follows the pre-test, in order to incorporate changes into the final design of the tool and facilitate the incorporation of appropriate checks into the data entry system. This stage includes designing the forms for recording measurements, developing programmes for data entry, management and analysis, as well as planning dummy tabulations to ensure the appropriate variables are collected.

Implementation of the project plan

The implementation of the overall research project involves both conducting and monitoring the proposed activities, as well as updating and revising the project plan according to emerging lessons and/or conditions. You should be aware that the planning and start-up phases of an IR project can take a considerable amount of time, especially when the project is intentional about ensuring gender inclusion aspects. You should take this into consideration while developing your project timeline. As mentioned, your implementation team should be interdisciplinary in nature with expertise in heath, gender and intersectionality research, and should be self-aware of their own biases. Use participatory approaches, methods and tools and be respectful and accountable to research participants and the community at large.

Consider the following tips to incorporate an intersectional gender lens when implementing your IR project:

- Ensure a robust study design that allows analysis of why and how relevant social variables intersect to influence implementation.
- Determine what intersecting social variables are most relevant to the implementation context and why.
- Conduct activities during times and spaces when respondents are likely to be available and free to interact with the project team.

- Use formats that are readily accessible to participants (e.g. meetings, surveys on paper, online, phone calls).
- Explore how the study participants with different social variables are impacted by the IR problem in question.
- Provide the research team with adequate capacities, expertise and resources on approaches to enable them to conduct intersectional gender analysis.

Project monitoring

The main objective of monitoring is to assess whether the project implementation is aligned with the IR project objectives and plan.

IR teams should conduct monitoring continuously, with the aim of improving project implementation processes. Use your baseline indicators to monitor both the process as well as the progress of the project activities. Seek feedback and adjust accordingly. Assess indicators for different groups of people in each project area, for example:

- Obtain feedback from team members and project participants on whether the project is meeting their needs and request their suggestions for improvement.
- If all project stakeholders are unable to participate, ascertain the reasons why not. For example, in certain contexts, women may not have been able to participate because they needed permission from their spouses.
- Adjust your research plan as necessary to enable you to achieve the IR project objectives.

Dissemination and uptake of research findings

Communication must be an ongoing and continuous component of the overall IR project process from initial planning stages, throughout implementation and during the final evaluation. Involving stakeholders in the development process early enhances ownership of the project, drives engagement in the process and promotes the ultimate uptake of the research findings and conclusions. Transparency, openness and engagement among IR team members, and with broader project stakeholders and participants are vital elements. Implementation research is different from other forms of research because the IR study can be adjusted according to the bottlenecks identified during the phases of the IR cycle. As new knowledge and data are being generated from your study, it is important to share them with stakeholders and key end-users during interactive collaborative sessions. This integrated knowledge translation approach will not only help researchers become more active and context-aware but also creates a much higher likelihood of the research findings being acknowledged, augmented and used by stakeholders and end-users. End-of-study knowledge translation activities are typically conducted at the end of the research and are focused on translating knowledge into more conventional information products and disseminating those to generally

broader audiences, and over a longer period. The information should be accessible, simple to comprehend and clear, and communicated widely in an effective way through use of appropriate language, formats and technologies. Focus on the needs of the target audience, including the scientific community, nongovernmental organizations, policy-makers, technical staff and service providers, participants, and beneficiaries of the study. During dissemination consider the following points from an intersectional gender lens:

1. All forms of communication must avoid the reinforcement of gender stereotypes as well as harmful gender norms, roles and relations.

2. Present findings that are relevant to the study participants and, in doing so, highlight how the intersection of social variables influence an individual's experience at the household, community and health system levels.

3. Report disaggregated results, ensuring participants' confidentiality and anonymity.

4. Use inclusive, bias-free language, that is sensitive to the local geographical setting and cultural context.

5. Images and the type of media used to communicate health messages can and should be used to challenge gender-based stereotypes that may harm health. Avoid use of images depicting stereotypes or fostering stigma.

6. Highlight varying individual experiences in relation to gender power dynamics and at the different levels of the health system, household, community and institutional levels.

7. During the policy-making process, information should be presented to ensure decision-makers understand how the information impacts various populations, and how they are linked to inequalities in health outcomes. For example, highlight differences between vulnerable and non-vulnerable populations, and how information affects their access to health interventions, and how results differ in their health outcomes.

Evaluation and closure of a research project

At project closure, your project team should reflect upon and discuss successes, failures and lessons learned and re-plan accordingly.

Some contemplative questions on the lessons learned include the following:

a. Was the time allocated to complete the various IR project activities sufficient/adequate?

b. Did the project achieve desired, anticipated and/or unexpected outcomes?

c. What difference did the project make for the participants and their communities?

d. Did the project change or reinforce any gender-specific outcomes/attributes?

e. What could be designed differently in a future IR project to enhance the inclusion of an intersectional gender lens ?

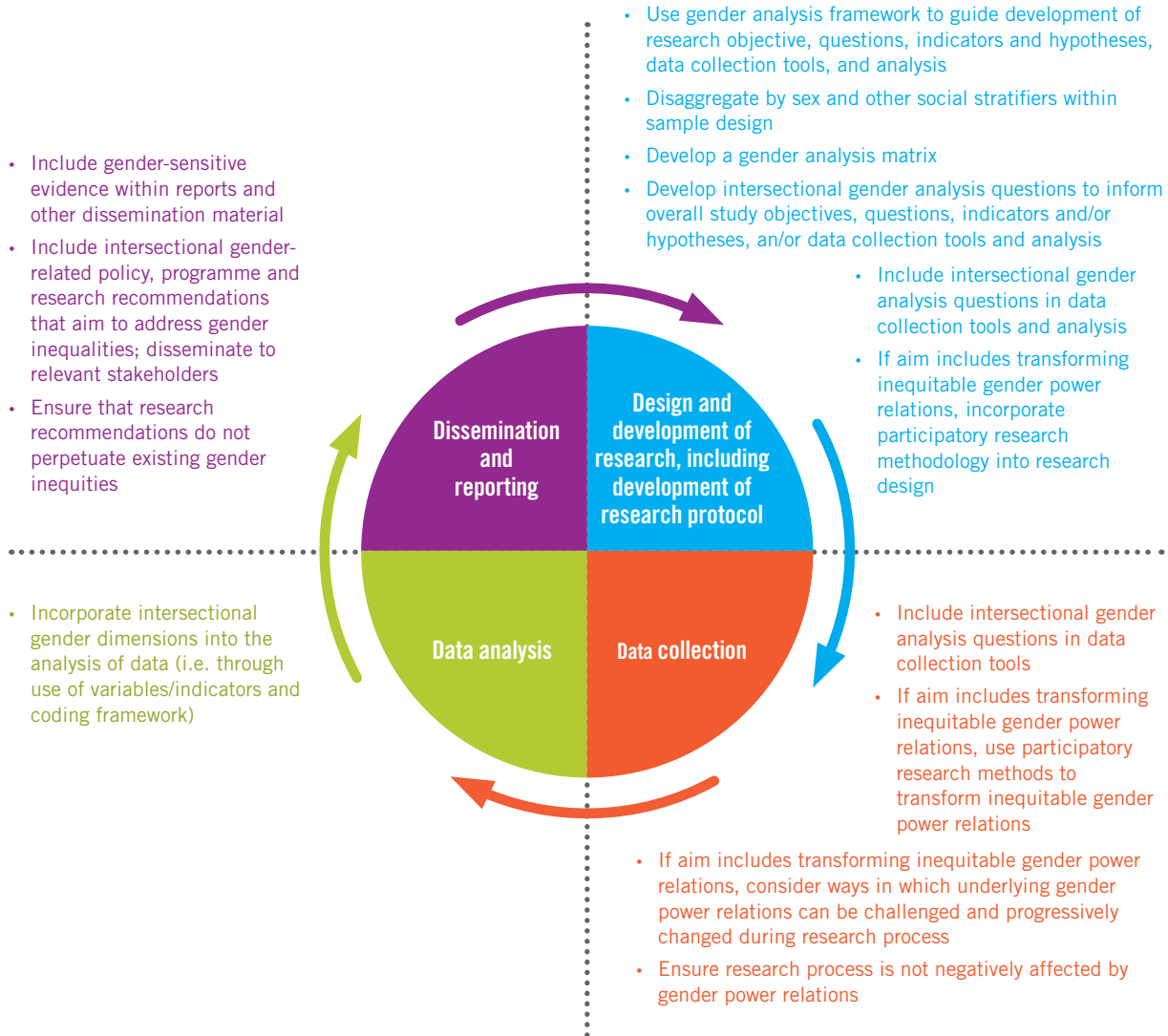## Good practices in IR projects with an intersectional gender perspective

Good research practices must be embedded thoughtout the entire process to ensure credible and timely data *(6)*.

Consider some of the good research practices below to incorporating an intersectional gender lens into your IR project.

a. *Disaggregate data* at different levels of the research cycle (e.g. data collection, analysis, implementation, and dissemination). This facilitates a more informed understanding of an issue or situational differences and inequalities to be identified.

b. *Promote inclusion and diversity* by paying special attention to including the voices of marginalized groups.

c. *Analyse power hierarchies* to address power inequalities between researchers and participants, as well as among participants.

d. *Use local taxonomies* that various communities use to identify themselves.

e. *Use the language of the participant community* to convey respect for their right to self-determination and respects their lives *(70)*.

f. Strengthen capacities of the project teams and communities in areas of intersectional gender analysis.

Figure 10 summarizes the various activities to incorporate an intersectional gender lens within the various IR phases.

Figure 10. Summary of intersectional gender analysis activities in research.
Extracted from *(1).*

- Include gender-sensitive evidence within reports and other dissemination material
- Include intersectional gender-related policy, programme and research recommendations that aim to address gender inequalities; disseminate to relevant stakeholders
- Ensure that research recommendations do not perpetuate existing gender inequities

- Use gender analysis framework to guide development of research objective, questions, indicators and hypotheses, data collection tools, and analysis
- Disaggregate by sex and other social stratifiers within sample design
- Develop a gender analysis matrix
- Develop intersectional gender analysis questions to inform overall study objectives, questions, indicators and/or hypotheses, an/or data collection tools and analysis

- Include intersectional gender analysis questions in data collection tools and analysis
- If aim includes transforming inequitable gender power relations, incorporate participatory research methodology into research design

- Incorporate intersectional gender dimensions into the analysis of data (i.e. through use of variables/indicators and coding framework)

Dissemination and reporting

Design and development of research, including development of research protocol

Data analysis

Data collection

- Include intersectional gender analysis questions in data collection tools
- If aim includes transforming inequitable gender power relations, use participatory research methods to transform inequitable gender power relations

- If aim includes transforming inequitable gender power relations, consider ways in which underlying gender power relations can be challenged and progressively changed during research process
- Ensure research process is not negatively affected by gender power relations

key message

Incorporating intersectional gender analysis as part of IR will help researchers to understand context and the ways in which gender, power and other social stratifiers shape systemic, individuals and/ or households abilities to access and use interventions.

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