DRAFT

# INCLUDING INTERSECTIONAL INDICATORS WITHIN AMR SURVEILLANCE

Author: GEAR up consortium

## HOW CAN WE DO IT IN PRACTICE?

Sex refers to biological aspects of the bodies of male, female and intersex people, while gender refers to the socially constructed roles, relations and norms that a society assigns to men and women, boys and girls, transgender people and people with non-binary identities. Gender is a complex social process and, therefore, can be challenging to collect as an indicator in many contexts. Sex (often captured as male, female or intersex) is a more commonly captured indicator in research and disease surveillance, and although sex refers to biological as opposed to social dimensions, data disaggregated by sex can illuminate health inequities that come about due to gendered power relations and other social processes that affect men, women and non-binary people. It is essential, however, that sex and gender are not conflated in this process.

Disaggregated data is an essential first step of an in-depth intersectional gender analysis, but it is only a starting point in understanding intersectional health inequities. Morgan et al. describe three different types of gender indicators that can be incorporated:

| TYPE OF INDICATOR | DESCRIPTION |
|---|---|
| Sex specific indicators | Indicators that only look at one sex or gender group |
| Sex disaggregated indicators | Indicators that look at differences between sex or gender groups |
| Gender power relations and systems indicators | Indicators that consider the ways in which gender power relations and systems manifest as inequities to affect differences in health and health system outcomes and experiences at all levels |

Collecting indicators that relate to multiple axes of inequity (including age, disability status, ethnicity and class for example) can then facilitate an intersectional approach, which explores how different social inequities and power relations interact dynamically. This may require the use of gender frameworks for data analysis and involve qualitative and mixed methods research that seeks to understand the underlying social and structural processes that create inequities in multiple settings.

## WHY IS IT IMPORTANT?

Disaggregating data by gender and other equity-related indicators, when used with appropriate frameworks and research questions, can provide essential insights into the drivers of health inequities. This includes inequitable experiences and impacts of infectious disease and antimicrobial resistance (AMR), and the ways that health systems may reinforce these inequities. Aggregated datasets often mask significant differences between groups.

DRAFT

### NOTE OF CAUTION

It is crucial to understand the significant limitations of AMR and antimicrobial use (AMU) prevalence data collected at facility level, as they may be significantly skewed by differences in barriers to health care access or preferences around care seeking across groups. Interpreting sex specific or sex disaggregated data collected at facility level requires caution. Quantitative and qualitative data collection that explores gender power relations and systems (including at community level) can help to address some of these issues.

### PRIORITIES FOR USE IN AMR

- Mainstream gender and equity indicators into data collection systems and processes, adapted to specific contexts
- Encourage training of staff and data collectors around value of gender and equity indicators
- Mainstream gender and equity indicators into AMR National Action Plans

## INDICATORS TO SUPPORT GENDER AND EQUITY ANALYSES:

The indicators and examples given here may not necessarily apply to all contexts, but we have provided illustrative examples to be flexible and adaptable to different contexts. These indicators relate to individual level data. Institutional level data may also need to be collected (such as in healthcare and farming).

Suggested as **routine data collection indicators**:

| | |
|---|---|
| **SEX (MALE/ FEMALE/ INTERSEX)** | An essential starting point for a gender analysis is having sex disaggregated data. Sex (biological factors) also influences susceptibility to infection, whereas gender (social and cultural factors) influences exposure to drivers of AMR, infection prevention, health care seeking practices, and treatment adherence. |
| **LOCATION (WHERE THE INDIVIDUAL LIVES)** | Gives an overview of trends across rural/urban/ peri-urban settings. Location can also affect exposure to drivers of AMR, access to infection prevention including WASH (water, sanitation, and hygiene), animal husbandry practices, distance to health facilities and other services etc. It can also influence livelihood opportunities and associated exposure to AMR. Location can also serve as a proxy to determine rough socio-economic status. It may also indicate refugee status or living in informal settlements/slums. You may wish to include whether they live near a river or wastewater treatment location and or stratify by rural/urban; slum settlements/non-slum poor settlements; hard-to-reach areas. |
| **AGE** | It's important to understand how gender affects experiences of AMR across the life course, e.g., women of reproductive age are more likely to have urinary tract infections (UTIs). There may be differences in the rates of taking culture samples in children, with a preference to sample boys over girls. Also, age is one of the important factors determining the patterns and rational use of antimicrobials, infection control practices, adherence to treatment, impact of co-morbidities, etc. |
| **OCCUPATION** | Occupation is highly gendered and certain occupations increase exposure to AMR bacteria. For example, men may work in slaughterhouses; women are more likely to be frontline health workers. Sex work is also a risk for exposure, though this may not be disclosed in a survey. Migrant workers in the city may face barriers to healthcare access, and migrant status also impacts travel and mobility. Also, animal husbandry practices are highly gendered, which determines the exposure to microbes and the chances of getting infections. For example, women perform most of the rearing and caring of animals. |
| **DISABILITY STATUS** | This is a key equity indicator. Disability may affect ability to access healthcare or may put people at risk of more long-term hospital setting exposure. It can also be stigmatising; this is particularly true for women with disability.<br><br>You can use the Washington group questions to as a proxy for disability status as different activity limitations would likely intersect with AMR differently.<br><br>Note answers should not be dichotomous as disability is dynamic:<br>1. Do you have difficulty seeing, even if wearing glasses? (1. No difficulty 2. Some difficulty 3. A lot of difficulty 4. Cannot do at all)<br>2. Do you have difficulty hearing, even if using a hearing aid?<br>3. Do you have difficulty walking or climbing steps?<br>4. Do you have difficulty remembering or concentrating?<br>5. Do you have difficulty with self-care such as washing all over or dressing?<br>6. Using your usual (customary) language, do you have difficulty communicating, for example understanding or being understood?<br>* also note these do not capture mental health so may be added as additional questions. |

| | |
|---|---|
| **ETHNICITY** | A key equity indicator. Ethnicity intersects with gender to influence livelihood opportunities, socio-economic status, access to healthcare services, discrimination and stigma, influencing the exposure to drivers of AMR. Please include questions here which make sense in your context. |
| **SOCIO ECONOMIC STATUS** | This gives a broad overview as to whether there are differences in AMR infection rates amongst different wealth quintiles, and how these intersect with gender.<br>This also influences access to health care services and exposure to drivers of AMR. This might be stratified to include proxies such as level of education, type of housing, asset index, access to clean water / toilet. Some of these are detailed separately below:<br><br>• Education status - Categorised by schooling years or other categories. Research suggests that lack of educational opportunity can lead to the entrenchment of unequal power structures as well as discriminatory gender norms and attitudes at individual or household level.<br><br>• Keeping of livestock - Many people, particularly in rural areas, may keep livestock to supplement their diet or income from other work. This might not be picked up through asking about occupation. Ideally, it would be good to know numbers and types of livestock (including chickens/fowl) and whether they are kept in or around the home.<br><br>• Health insurance status – coverage and access to health insurance or any other social protection scheme may impact access to care/antimicrobials and doctor's prescribing practices. |

## TO SUPPORT A MORE INTERSECTIONAL ANALYSIS YOU COULD ALSO COLLECT:

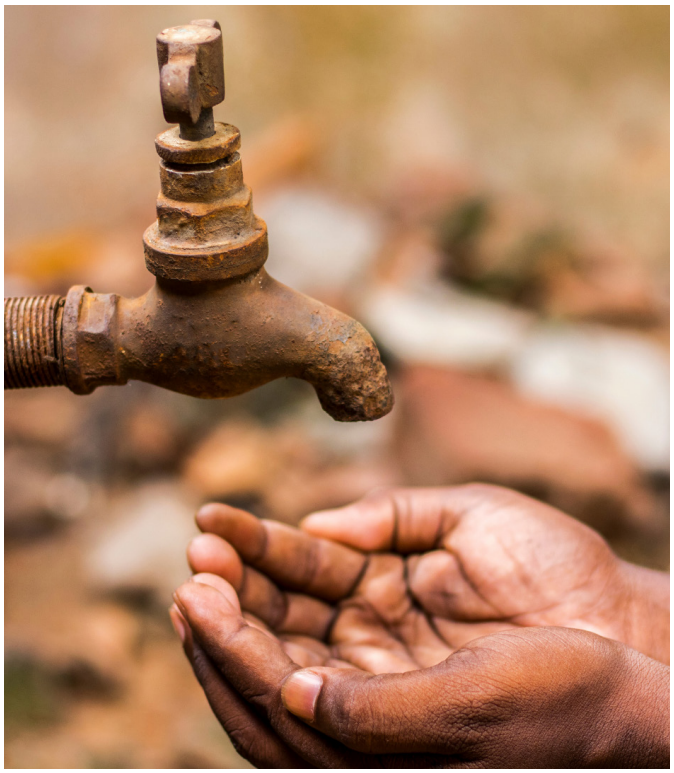
| | |
|---|---|
| **NUMBER OF FINANCIAL DEPENDENTS** | This may include children, elderly relatives or ill family members. |
| **MARITAL STATUS** | This can tell us about gendered household decision making. In some patriarchal societies men may have decision power over who in the family gets access to medication. It can also influence access to healthcare. Female headed households can face challenges with access to healthcare due to work and care burdens. Widowed and divorced/ separated status may impact on social and economic status with implications for health and healthcare (particularly if dependent on the private health sector) and may require a specific question. If appropriate you could also include a question about polygamous marriages. |
| **RELIGION** | There may be some religious practices/observations, around food preparation for example, that may impact upon exposure to pathogens and AMR. Having information on religion as well as ethnicity may also help identify minority groups. |
| **REFUGEE STATUS** | A key gap in the current literature. It is however, known that refugee communities may face exposure to AMR infections due to poor living conditions, and limited access to WASH and healthcare. |
| **SEXUALITY** | This can influence exposure to sexually transmitted infections. Further, people of the LGBTQIA+ community are less likely to seek healthcare due to discrimination. |
| **CIS/ TRANSGENDER** | For example, transgender people are particularly marginalised and may experience discrimination while seeking healthcare. |
| **MULTI-MORBIDITIES OR CHRONIC HEALTH CONDITIONS** | Can influence exposure and susceptibility to AMR. |
| **INDIGENEITY** | Self-identification as belonging to an Indigenous community or nation. |

DRAFT

## ABOUT GEAR UP

GEAR up aims to catalyse action on gender and equity within AMR by supporting the mainstreaming gender and equity within routine AMR systems and structures. GEAR up aims to increase awareness, and contribute to the knowledge, of structural inequities driving and shaping the AMR response and inspire action through:

- Supporting analysis of existing data by key equity stratifiers
- Mainstreaming further equity considerations into existing surveillance structures
- Informing National Action Plans on equity and AMR
- Supporting empirical research to understand the social and structural processes driving inequities in AMR
- Developing specific case studies, tools and resources
- Building global communities of practice to support global knowledge sharing - join us at gear.up.amr@gmail.com



## FURTHER RESOURCES:


- Morgan, R., George, A., Ssali, S., Hawkins, K., Molyneux, S. and Theobald, S., 2016. How to do (or not to do)... gender analysis in health systems research. Health policy and planning, 31(8), pp.1069-1078.
- Morgan, R., Davies, S.E., Feng, H., Gan, C.C., Grépin, K.A., Harman, S., Herten-Crabb, A., Smith, J. and Wenham, C., 2022. Using gender analysis matrixes to integrate a gender lens into infectious diseases outbreaks research. Health policy and planning, 37(7), pp.935-941
- World Health Organization, 2020. Incorporating intersectional gender analysis into research on infectious diseases of poverty: a toolkit for health researchers. World Health Organization.
- Morgan R, Decker MR, Elnakib S, Glass N, Hazel E, Igusa T, Kalbarczyk A, Luo A, Nakatabira M, Oladimeji A, Peters DH, Prihartono I, Tauseef H, Malhotra A. (2023) Gender Responsive Monitoring and Evaluation (M&E). Monitoring & Action for Gender & Equity (MAGE) project.



The Department of Health and Social Care (DHSC)'s Fleming Fund is a UK aid programme supporting up to 25 countries across Africa and Asia to tackle antimicrobial resistance (AMR), a leading contributor to deaths from infectious diseases worldwide. GEAR UP is funded by the Department of Health and Social Care (DHSC)'s Fleming Fund using UK aid. The views expressed in this publication are those of the authors and not necessarily those of the UK DHSC or its Management Agent, Mott MacDonald.