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GSL Policy Brief

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Integrating Gender Into National Action Plans on Antimicrobial Resistance

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Introduction

Since the endorsement of the Global Action Plan on Antimicrobial Resistance (AMR) by Member States of the World Health Organization (WHO) in 2015, 178 countries have developed national action plans (NAPs) on AMR. However, the gender dimensions of AMR are not recognized in the majority of NAPs even though research indicates that gender may be impacting the prevalence of drug-resistant infections (DRIs), as well as influencing health behaviours, and access to health care with repercussions for AMR (1,2).

To enhance the development and improve the implementation of NAPs on AMR, WHO introduced the people-centred approach (PCA). It places people, and the challenges they face when seeking access to essential health services for the prevention, diagnosis, and treatment of DRIs, at the centre of the AMR response (3).

This policy brief outlines evidence demonstrating the different health outcomes women, men, girls, boys, and gender-diverse populations experience related to DRIs from prevention to treatment. It presents policy recommendations that countries can adapt to their local context. The policy brief directly builds on findings from the WHO Guidance document on Addressing Gender Inequalities in National Action Plans on Antimicrobial Resistance (4).

Key Takeaways

1. Gender plays a significant role in the development and management of drug-resistant infections (DRIs), influencing health behaviors, access to health care, and exposure to drug-resistant pathogens.

2. Social norms, gendered labour roles and decision-making power, and unequal access to resources and health services affect how men, women, boys, girls, and gender-diverse populations engage in infection prevention and control and impact diagnostic and treatment options for DRIs.

3. Incorporating gender considerations into NAPs on AMR is critical; however, 86% of NAPs on AMR do not address gender dimensions of AMR.

Key Definitions

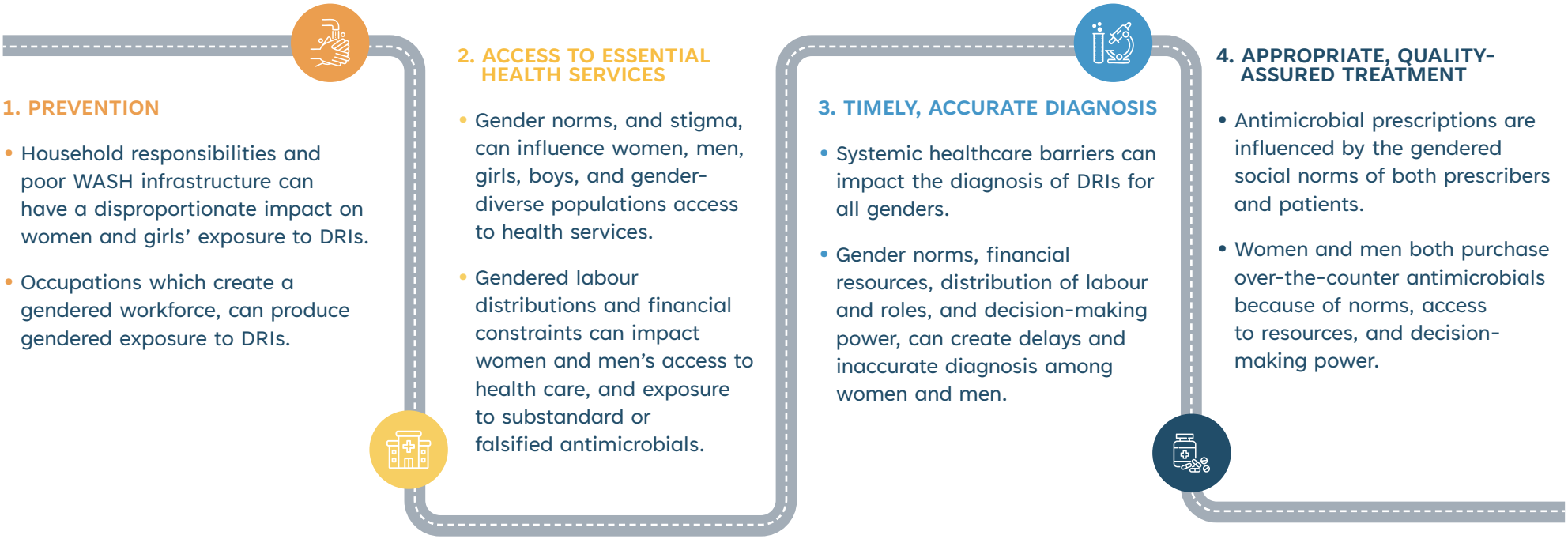
Gender	The socially constructed norms that impose and determine inequalities in power, roles and relations of, and between women, men, boys, girls, and gender diverse people, and that underlie gender-based discrimination. Gender norms, roles and relations vary from society to society and evolve over time (5).
Gender norms and values	Gender norms are a subset of social norms and are informal rules and shared social expectations that distinguish expected behaviour on the basis of gender. Gender norms vary across and within societies and are influenced by other factors of social differentiation, such as religion, culture, class, race, sexuality, and age (6).
Intersectional gender analysis	The process of analysing how gender power relations intersect with other social stratifiers (such as sex, gender, class, race, education, ethnicity, age, geographic location, religion, migration status, ability, disability and sexuality) to affect people's lives, how they create differences in needs and experiences, and how policies, services and program either exacerbate or mitigate these differences (5).
Sex	The biological or chromosomal attributes that separate males, females and intersex people. Sex is assigned at birth based on appearance of external genitalia and may differ from a person's gender identity (5).
Stigma	In the context of health, social stigma refers to the negative association between a person or group of people who share certain characteristics and a specific disease. This may mean people are labelled, stereotyped, discriminated against, treated separately, and/or experience loss of status because of a perceived link with a disease (7).

Impact of Gender Along the AMR People-Centred Journey

Gender norms and values, distribution of labour and roles, access to resources, and who has decision-making power can contribute to DRIs by creating barriers associated with prevention, access to health care services, diagnosis and treatment of infections (8–10).

In the sections below, we take you along WHO's PCA AMR people-centred journey to prevent and control resistant infections and outline the evidence at each step of the journey, which demonstrates how gender can impact AMR outcomes. Figure 1 below highlights key barriers women, men, girls, boys, and gender-diverse populations can encounter.

Figure 1: Key mechanisms from the results on how gender norms and values, distribution of labour and roles, access to resources, and who has decision-making power can impact health outcomes along the AMR people-centred journey



Prevention

The ability for women, men, girls, boys, and gender-diverse people to engage in practices to prevent and control infections– including DRIs - is rooted in social norms and values. Social norms and values can govern the allocation of tasks between men, women, boys and girls in communities and health care settings, and influence the adoption of behaviours related to infection prevention and control.

Household responsibilities and poor water, sanitation, and hygiene (WASH) infrastructure can have a disproportionate impact on women and girls' exposure to DRIs. Household roles, such as fetching water, food preparation, and caregiving, are primarily the responsibility of women and girls in low-resource settings and can increase their exposure to waterborne diseases, such as Escherichia coli, which is increasingly evolving to be drug-resistant (8). Limited WASH infrastructure and sanitary products at home and in the community, such as at schools, can create suboptimal menstrual hygiene for women and girls, contributing to a rise in urinary tract infections (UTIs). In resource-constrained settings, where health care delivery can lack safe and hygienic conditions, women can experience increased exposure and susceptibility to DRIs during pregnancy, abortion, and childbirth (11,12).

Occupations which have a gendered workforce, can produce gendered exposure to DRIs. Occupations dominated by men, such as animal husbandry, industrial farming, and employment in slaughterhouses, can expose workers to antibiotics administered to food animals, increasing their likelihood of acquiring DRIs (13). Women comprise 70% of nurses and community health workers (8); however, personal protective equipment is designed for the average body of a man and is often ill-suited and unsafe for women, increasing their exposure to DRIs (8).

Sex workers can experience heightened vulnerability to sexually transmitted infections (STIs), with gonorrhea and syphilis being known to develop resistance to antibiotics (5,14). Sex workers may have limited ability to negotiate safe sex practices, such as the use of condoms, which can contribute to the spread of STIs, which are increasingly becoming drug-resistant (8).

Invest in safe and inclusive WASH infrastructure: prioritize accessible facilities that accommodate all genders and promote women's participation in facility design. Measures like providing menstrual hygiene products, gender or sex-separated toilets, and improving WASH facilities in maternal and neonatal units to reduce morbidity and mortality could be considered for implementation.

Utilize sex-disaggregated surveillance data: leverage sex-disaggregated surveillance data to identify and address gender inequalities in exposure to DRIs, including raising awareness of occupational hazards and establishing minimum infection prevention and control standards.

Access To Essential Health Services

Gendered inequities in accessing essential health services are prevalent in many countries. Gender norms and roles can impact women, men, girls, boys, and gender-diverse population's economic and social resources, which can either support or challenge one's access to health services. Barriers to health care can result in delayed diagnosis, misdiagnosis, or inappropriate treatments for infections, contributing to the development and spread of DRIs.

The manifestation of gender norms and values into stigma, can influence women, men, girls, and gender-diverse populations' access to health services. Stigmatization of certain infections, such as multi-drug-resistant tuberculosis, STIs, and UTIs can cause women and girls to avoid seeking diagnosis, or self-medicate because of fear of being seen as promiscuous, or unfeminine. Men may also delay, prematurely discontinue treatment, or self-medicate because receiving proper health care may be perceived as a weakness (15). Similarly, lesbian, gay, bisexual, transgender, intersex, queer, asexual, and other sexually or gender-diverse (LGBTIQ+) populations face stigma and related barriers from laws criminalizing homosexual relationships and discriminatory policies in certain countries, particularly affecting access to healthcare for STIs (8).

Gendered labour distributions and financial constraints can impact women and men's access to health care, and exposure to substandard or falsified antimicrobials. Women's access to

quality-assured health products for diagnosing and treating DRIs is limited by unequal distribution of, and unpaid, household responsibilities, resulting in inadequate financial resources, and limited autonomy and decision-making power over household finances. Consequently, women are more prone to informal care, self-diagnosis, and utilising unregulated markets for antimicrobials to receive health care treatment. Men are also likely to self-medicate, or prematurely discontinue treatment for fear of losing income, especially if they are the primary household earner, and anticipate being unable to financially provide for their family.

Provide gender-responsive health care: ensure health service providers offer care with health insurance and/or benefits packages covering service, diagnostics, and antimicrobials for DRIs, especially for women. Expanding coverage to address gaps will limit out-of-pocket costs and reduce inequalities.

Strengthen knowledge and attitudes of antimicrobials at the community level: regarding where antimicrobials are purchased, along with gender-disaggregated data on their use from pharmacies, could be leveraged to identify and address gender inequalities in access. This could target individuals at higher risk of acquiring substandard or falsified antimicrobials from informal markets. Additionally, an assessment of local infection epidemiology by sex and gender could guide the updating of standards for forecasting and procuring antimicrobials in health care facilities.

Timely, Accurate Diagnosis

The timely and accurate diagnosis of infections and DRIs is vital for effective antimicrobial stewardship, appropriate treatments, and optimal patient outcomes. However, women, men, girls, boys, and gender-diverse populations have differential access to resources, along with systemic factors, which can create inequities in timely, accurate diagnoses for DRIs.

Systemic health care barriers can impact diagnoses of DRIs for all genders. In low-resource settings, laboratories often experience a shortage of laboratory staff, insufficient training of staff, challenges with diagnostic supplies, high patient volumes, and too few locations which can create long travel times for patients. These laboratory conditions can prevent patients from accessing timely and accurate diagnostic testing. Moreover, the gender or sex of patients is often not reported on laboratory request forms even though this information could enhance diagnosis and treatment accuracy. For instance, sepsis cases among men are more prone to misdiagnosis, while women are more likely to experience progression to severe conditions (16).

Together, gender norms, financial resources, distribution of labour and roles, and decision-making power, can create delays and inaccurate diagnoses among women and men. Appropriate diagnostic testing for women is undermined by gender norms which may require women to be accompanied by their husbands or other family members who are men; be treated by women physicians or be unable to provide bodily fluids for fear of being unfeminine (17,18). Among men, financial constraints can create pressure for individuals to choose paid labour rather than a diagnosis for DRIs. Factors such as sexual orientation can also prevent or delay the diagnosis of STIs for men who have sex with men.

Conduct retrospective reviews and audits: implement reviews of diagnostic services to ensure patient sex and gender identity are included in laboratory requests, updating stewardship with sex-specific recommendations, training prescribers, and supporting research on gender-related barriers to access.

Mansi Midha/mages of Empowerment

Appropriate, Quality-Assured Treatment

Positive health outcomes require appropriate and quality-assured treatment of infections and DRIs; however, effective treatments are often impacted by gender norms, resources, and decision-making power. Gender inequities can promote inappropriate and overuse of antimicrobials among women, men, and gender-diverse populations, leading to the spread of DRIs.

Antimicrobial prescriptions are influenced by the gendered social norms of both prescribers and patients. Men have been found to receive inappropriate prescriptions of antimicrobials less frequently than women, and throughout their lifetime, women are 27% more likely to receive a prescription for antibiotics (19). Increases in antibiotic prescriptions for women are especially common during childbearing years. Among health care workers, gendered norms can also influence prescribing patterns. Doctors who are women are more likely to adopt a wait-and-see policy than their male colleagues, while recommendations from pharmacists who are men are 20% more likely to be accepted by doctors (20).

Women and men both purchase over-the-counter antimicrobials because of norms, limited access to resources and unequal decision-making power. Women often self-medicate by purchasing antimicrobials informally, over the counter from pharmacies, or sharing leftover antimicrobials with family. In low-resource settings where women primarily take on unpaid household responsibilities, they lack the time and control over household funds to receive appropriate treatment for DRIs. Similarly, men report purchasing over-the-counter antimicrobials to quickly resume work because of financial pressures related to having to promptly return to work (8).

Conduct gender assessment in evaluation of policies on antimicrobial access: perform gender assessment to evaluate the unintended effects of policies that reduce over-the-counter sales of antimicrobials, utilizing patient knowledge, attitudes, practices, sex- and age-disaggregated data, and national health surveys. This could support better understanding of individuals at higher risk of acquiring substandard or falsified antimicrobials from informal markets. Additionally, an assessment of local epidemiology by sex and gender could guide the updating of standards for forecasting and procuring antimicrobials in healthcare facilities.

Perform gender analysis in prescribing practices: conduct regular gender analyses in prescription audits to provide feedback to prescribers in order to address identified inequalities in their prescribing practices.

Conclusion

Currently, 86% of NAPs on AMR do not contain gender considerations. This policy brief underscores the critical need to integrate gender considerations into NAPs on AMR. It describes the various pathways by which gender norms, roles, and inequities shape differential exposure to DRIs and influence access to health care services, diagnosis, and treatment for different genders, and gender-diverse populations. Addressing gendered access barriers is essential for enhancing the effectiveness of AMR interventions. Incorporating gender-sensitive strategies within NAPs, informed by evidence on how women, men, girls, boys, and gender-diverse populations experience and manage DRIs, will be crucial for ensuring an equitable and comprehensive response to AMR at both national and global levels.

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