Gender and COVID-19: A Global Research Agenda

Background

Since the start of the pandemic, the interactions between sex, gender and COVID-19 have been complex and evolving. Apart from the direct effects of biological sex and socially-constructed gender differences on COVID-19 morbidity and mortality – with higher rates of severe disease and deaths among men, pandemic responses have also amplified existing gender inequalities, with women bearing the heaviest burden of the indirect health and socio-economic consequences. Beyond this general picture, context and the intersecting influence of other social determinants and/or identities (such as race, ethnicity, LGBTQIA or migrant status, etc.) have exacerbated the devastating health impacts for specific women, men and gender-diverse people.

Early calls and advocacy from activists, researchers, and policy-makers underscored the need to address and mitigate deepening gender inequalities in the crisis response. However, real-time responses are limited by widespread sex and gender biases among decision-makers, combined with a weak evidence base and incomplete data systems.

Under the coordination of WHO, the scientific community mobilized in an unprecedented way to identify research priorities and implement the COVID-19 Research Roadmap. Yet, sex-based differences and gender inequalities are insufficiently integrated in these research efforts, with implications for the quality of the science and the effectiveness of the tools being developed. As the world steps into the second year of the COVID-19 crisis, sex and gender must be included in research investments informing immediate COVID-19 care and action, as well as long-term recovery. If not, scientific solutions will remain inadequate for a large part of the population, and we will not realise the transformation needed in how health systems serve their populations to accelerate health and well-being for all.

In response to this gap, the United Nations University International Institute for Global Health (UNU-IIGH) and the School of Public Health at the University of the Western Cape have co-convened a collaborative gender and COVID-19 research agenda-setting exercise. The process is co-developed through real-time learning, and open calls with a broad range of stakeholders contributing to its design, scope and content, through webinars and a community discussion board (www.ghhbuzzboard.org). This crowd-sourced collaborative, anchored in the Global South, engages with over 400 participants from around the world through several steps.

The output will be a shared, prioritised, policy-relevant and people-centred research agenda for civil society, programme implementers, policy-makers, funders, and researchers that applies a gender lens to COVID-19 research investments and subsequently programming and policy actions.

Five themes spanning across benches, beds & boardrooms of the health sector

Theme 1: Health Status and Behaviours

While there are no differences in confirmed COVID-19 cases between men and women, men have a higher risk of severe disease and death. This likely reflects a combination of biological sex-based differences (immunological, hormonal, vascular), and gender-related factors (co-morbidities, risk and health-seeking behaviours). Emerging data also indicates more complex and nuanced findings among specific groups of women, such as postmenopausal women who may have similar risks as men.

As with other viral infections, biological differences in women and men's immune system activity and its modulation by sex hormones are likely to play a role in disease severity. This may also explain early indications of a higher risk of post-COVID condition (or 'long COVID') among women.

Gender norms and roles are also known to drive higher risk behaviours (including smoking, alcohol consumption, exposure to polluted environments), many of which are associated with COVID-19 co-morbidities that are more common among men, such as hypertension, diabetes, cardiovascular disease, and chronic lung diseases. Protective behaviours and the uptake of non-pharmaceutical interventions to prevent infection and transmission of the disease, are also characterized by known gender-related differences, with some early indication of lower mask usage, and compliance with pandemic measures by men. It will be critical to tackle gender norms or inequities that drive vaccine hesitancy and reduce vaccine uptake and completion.

In addition to the pandemic, the pandemic response itself impacts other gendered health outcomes by disrupting access to essential health services (in particular sexual and reproductive health services with significant impacts on women and girls' health). Social isolation measures and school closures also directly affect the mental health of women, men and gender-diverse people in different ways, as well as increase certain gendered risk factors for NCDs (including stress, physical activity, diets).

Theme 2: R&D for Therapeutics & Diagnostics

The research and product development for COVID-19 diagnostics, therapeutics, vaccines, and other medical interventions largely neglects sex and gender-based differences. This is a critical gap given existing evidence on sex differences in infectious disease pathology and outcomes documented in other respiratory tract infections (including influenza, SARS, MERS), as well as differences in therapeutic and vaccine outcomes.

The insufficient consideration of sex in basic science and its translation into diagnostics and therapeutics innovation leads to deep biases and blind spots that perpetuate harm, unmet need and sub-optimal care for women. Reasons for excluding females in medical research include the default use of the 'male body' as a norm, perceived complexity of female hormonal heterogeneity, women's hesitance to participate in trials, and foetal protectionary ethics. Gender-diverse bodies also continue to be excluded, especially those undergoing gender-affirming treatment that alter hormonal profiles, body composition and physiology.

Despite regulatory policies addressing this bias in research, a lack of enforcement is being repeated in COVID-19 innovation. COVID-19 clinical trials rarely report main outcomes by sex, and consistently exclude pregnant women (in phase 3 trials). By addressing these biases, COVID-19 presents an opportunity to reshape the ecosystem of R&D policy and practice, with synergistic efforts from regulatory agencies, journal editors, private and public research funders, academic groups, research laboratories and industry bodies.

Theme 3: Health service delivery

Some of the most important service delivery elements of resilient health systems in the face of the current and previous pandemics are ensuring the continuity of essential non-COVID care, managing surge capacity, and health service integration. Nearly a year into the pandemic, over a third of countries still report disruptions in critical antenatal and postnatal care, and over 40% report disruptions in family planning, contraception, and malnutrition services. The pandemic has highlighted the need for the health system to integrate community-based service delivery platforms to ensure expanded access to services. These include a tiered primary care approach, deployment of community health workers (CHWs), and self-managed care. In addition, telemedicine and other digital health technologies are being used to expand access to health services, including mental health and sexual and reproductive health. Gender and other inequities in access and literacy to use digital health innovations should be considered when these technologies are deployed.

Women, as 70% of health and social workers, have been at the forefront of responding to the COVID-19 pandemic. Yet, health workers have not been spared when it comes to lack of access to COVID-19 prevention commodities, or Personal Protective Equipment (PPE). In humanitarian contexts, they are experiencing added safety issues due to elevated infection risk, violence, or stigmatization. Yet, the data does not adequately highlight the gendered aspects of PPE production, distribution and utilisation. The deployment of CHWs is an important part of COVID-19 health sector responses, particularly in LMIC contexts and the health system must ensure safety and decent work conditions for this historically neglected and often female cadre.

Lastly, financing is key - how countries choose to finance COVID-19 services may influence access to services in gendered ways. Health resources have been reallocated from other services to COVID-19 in many countries, with significant impacts on services such as sexual and reproductive health and management of childhood illnesses.

Theme 4: Social determinants of health

The COVID-19 response has wide-reaching impacts on several social determinants of health, with strong gendered manifestations. Gender-based violence (GBV) was already a pandemic, with 1 in every 3 women experiencing physical and/or sexual violence in their lifetime. Pandemic-related economic insecurity and stay-at-home orders isolate survivors with their abusers and aggravate different forms of GBV.

Unlike other economic crises, this pandemic has a greater impact on sectors with high female employment, due to its unique feature of social distancing and lockdowns. Women are significantly more likely to lose their jobs, while also having limited safety nets given their lower earnings and savings, and over-representation in the informal sector. This is further compounded by the increase in women's (already disproportionate) burden of unpaid care work following the reduction in the supply of formal and informal care. As with past crises, unemployment can increase power imbalances, inequitable gender norms and heteronormativity, by reducing women's economic autonomy and men's ability to meet expectations around masculinity.

COVID-19 will mark the generation of 1.5 billion children who have experienced school closures, with there are distinct consequences for girls, including school drop-outs, unwanted pregnancies, violence, and reduced future economic opportunities.

Moreover, these social and economic effects are further exacerbated by the intersection between several pre-existing stigmas, health-related stigmas and gender inequalities, leaving already marginalised and vulnerable people more affected by the pandemic, including people with disabilities, elderly people, the LGBTQIA community and women in humanitarian settings. Limited attention and policy effort is going towards mitigating these negative impacts, although large social protection and economic recovery schemes can play a significant role if well-targeted and well-designed.

Theme 5: Health system governance

Gendered governance cracks in the nature of COVID-19 responses include the noted lack of women in key COVID-19 expert and decision-making bodies. Across 334 task forces assessed, women made up on average 24% of the membership of these taskforces and only led 19% of them (UNDP Gender Response Tracker). Female representation matters, as women leaders are more likely than male leaders to mention local level impacts and social welfare services. While improving the representation of women in COVID-19 leadership is critical, the social context through which that happens also matters. Countries with a social contract that has fewer power differentials, greater tolerance of uncertainty and more collectivism have lower COVID-19 fatality, and this is further amplified by female than male leadership.

The lack of female and community voices in COVID-19 decision-making bodies may explain the largely gender blind or gender insensitive nature of COVID-19 pandemic national responses (UNDP Gender Response Tracker; Global Health 50/50 Portal). More than half of the over 3000 COVID-19 policies examined by UNDP were gender insensitive in that they failed to address violence against women, women's economic security, or unpaid care work.

While further understanding is needed of how more equitable leadership leads to more effective COVID-19 policies that are gender mainstreamed, further research is also needed across a broader set of dimensions and levels of health governance that are relevant to gender and COVID-19 dynamics.

Emergency powers implemented during the pandemic have made it harder for social movements representing marginalized groups to function autonomously. Pandemic responses can also reinforce community hierarchies inadvertently. Finally, COVID-19 has brought certain regulatory issues to the fore and the gender dimensions of clinical trial reporting, patent regimes, and digital surveillance platforms, amongst others, need to be further examined.

Selected Illustrative Research Questions

(The prioritisation of the full list of research questions is ongoing. Sign up here to participate in the survey.)

1. Health Status and Behaviour

Sex and gender differences in COVID-19 risk, morbidity and mortality; the uptake of non-pharmaceutical interventions and vaccines; and impact on non-COVID health outcomes.

- What is the role of sex hormones in COVID-19 infection, morbidity and mortality?
- What are the direct and indirect health impacts of Post-COVID condition by gender, for both long-term physical and mental health?
- What are the most effective strategies to enhance uptake of non-pharmaceutical interventions considering gender and intersectional stratifiers?
- What is the impact of the pandemic on the levels of early pregnancy miscarriage and low-birth weight, unplanned pregnancies, safe and unsafe abortions, and their outcomes?
- What is the impact of COVID-19 on different non-communicable and chronic diseases by gender, including cancer, cardiovascular disease, cardiometabolic disease, auto-immune conditions?

2. Therapeutics and Diagnostics

Integration of biological sex (female, male, intersex) and gender (women, men, gender-diverse individuals) into the research and development of COVID-19 prophylactic products (including vaccines), therapeutics, medical devices, diagnostics, and digital health interventions.

- Does safety, efficacy, optimal dosing range and intervals, and protective duration of the different COVID-19 vaccines differ by sex, gender and age?
- Is there a sex difference in COVID-19 antibody production that affects diagnostic testing? If so, is this considered in commercial assay development and use, and in calibrating and reporting results?
- What are the regulatory and industry-based approaches for ensuring the design and reporting of research that considers biological sex and gender by scientist innovators, and commercial funders?
- Does user-perceived value and acceptability of therapeutics and vaccines differ between various groups of women (including pregnant and lactating women), men and gender-diverse users?
- What are the sex differences in vaccines outcomes in paediatric populations, and how can this be integrated into paediatric dosing, and formulation studies, and product planning?

3. Health Service Delivery

How gender influences the inputs for, quality of and utilisation of health service delivery for COVID-19 and non COVID-19 health conditions.

- What is the effectiveness of different service reorganization models to ensure continuity of maternal health, sexual and reproductive health and gender-based violence services during the pandemic?
- Which effective service delivery models can support home based care and reduce the increased and uneven distribution of unpaid care and labour for women and girls?
- What measures (including safety, remuneration, accommodation and transport) effectively address the gender imbalances in the health workforce made worse by the pandemic?
- What improvements should be made to health information systems to report sex-disaggregated data and other intersectional indicators to improve services during and beyond the pandemic?
- How are COVID-19 individual services paid for/financed, and how does it affect access to services and financial protection by gender?

4. Social and structural determinants
The impact of the COVID-19 pandemic on specific social and structural determinants of health with strong gendered manifestations, including gender-based violence; skewed gendered income, occupation, labour and unpaid care; social norms; education; and the environmental determinants of health.
● How has the prevalence, severity and frequency of different types of GBV (including online violence) changed during different phases of the COVID-19 pandemic, and by sub-population? ● Have past gains in key gender equality indicators (female labour force participation, shared domestic responsibilities, child marriages, school drop-outs) been reversed during the pandemic? ● How did the pandemic affect the stigma, discrimination and marginalisation experienced by different groups in different regions and contexts, including LGBTQIA persons, sex workers, persons with disabilities, refugees, asylum seekers, migrants, homeless people, etc.? ● How have school closures differentially impacted girls' and boys' education opportunities, including enrolment, drop-out rates and household coping mechanisms (e.g. child marriage, child labour)? ● How effective were governments' social protection policies and interventions at reducing gender inequalities further exacerbated by the pandemic (including for women-headed households)?
5. Gender and health governance for COVID-19
Understanding relationships across actors influencing power and decision making in health systems
● To what extent has COVID-19 influenced politicians and communities to commit to addressing the social and economic determinants of health, particularly related to gender and intersectionality? What enabled them to do this? ● What kind of evidence on gender and COVID-19 is needed for decision-makers and for what type of decision makers (government, donor organization etc.)? ● What approaches are most effective at successfully integrating multiple sectors into pandemic planning and response, and ensuring gender is centrally considered throughout these processes? ● To what extent have citizens and community members been involved in the implementation of COVID-19 measures – especially among marginalized populations? Which voices are heard more and why, and what are the implications for gender and COVID-19 concerns? ● What are the best ways of ensuring gender and intersectional balance in decision-making bodies governing COVID-19 responses?