

Laidlaw Scholars Programme 2026 Research Proposal

Research Title:

Antimicrobial resistance (AMR) national action plans (NAPs) and the World Health Organization (WHO)'s recommendations for a gender-inclusive and gender-transformative approach to health policy

Researcher: Rebecca Liu

Research Supervisor: Professor Amaya Perez-Brumer
University of Toronto St. George - Dalla Lana School of Public Health

Introduction

Approximately 10 million people will die annually from antimicrobial resistance by 2050 (Painuli et al., 2023). Since penicillin's discovery in 1928, modern medicine has made great advances in treating bacterial infections (Rutty & Sullivan, 2010, p. 5.1). However, as antibiotics become increasingly overprescribed and misused, bacteria have become resistant to many standard medications (Painuli et al., 2023). With the rise of resistant and multidrug-resistant (MDR) pathogens, AMR is threatening to “put many of the gains of modern medicine at risk” and cost up to 1 trillion additional health costs by 2050 (Painuli et al., 2023; World Health Organization, 2023).

Since 2015, the WHO has encouraged the development of national action plans (NAPs) to address AMR (Ruckerta et al., 2025). However, emerging research shows that AMR is felt unequally due to gender norms, social roles, and power disparities. Examples include gendered caregiving responsibilities, increased exposure for female frontline health workers, and unequal distribution of household labour, delaying timely diagnosis and treatment. Stigmas surrounding masculinity and sexuality also prevent access to healthcare. Despite this growing academic research, NAPs have lagged in revising their responses (Gatsch et al., 2026; Ruckerta et al., 2025). Not only is AMR data often not disaggregated, 48% of countries also do not currently report regular data (WHO Antimicrobial Resistance Division (AMR), 2025). With the release of the 2024 report, *Addressing gender inequalities in national action plans on antimicrobial resistance*, the WHO has updated its original recommendations to an intersectional focus that incorporates gender diversity and sexuality (World Health Organization, 2024).

My interest in this topic originates from my upbringing: as a pharmacist's daughter, I grew up surrounded by antibiotics. I became fascinated by antibiotic resistance in middle school after completing a research project on methicillin-resistant *Staphylococcus aureus* (MRSA). In high school, I conducted statistical analyses on the correlation between income inequality and AMR death rates. Both my interest and AMR itself have developed over the years. Through this programme, I want to explore how NAPs can be improved from an intersectional and policy perspective with a focus on gender and sexuality. I plan to channel my longstanding interest in AMR into a framework that can help policymakers improve global health outcomes.

Research Question & Objectives

How do selected antimicrobial resistance (AMR) national action plans (NAPs) translate the World Health Organization (WHO)'s 2024 recommendations to address gendered determinants of health through gender-inclusive or gender-transformative approaches to health policy?

The objectives of this study are to:

1. Conduct critical policy and discourse analysis of existing literature on how gender, sexuality, power, and norms shape AMR inequality.

2. Evaluate selected AMR NAPs through the WHO's 2024 report, focusing on how policies translate the recommendations to address gendered determinants of health into gender-responsive and gender-transformative responses.
3. Propose frameworks and suggestions for a more intersectional, equitable approach to AMR NAPs.

Methodology

Week 1: Conduct a literature review on AMR and its relationship with gender and sexuality. Focus on how social and structural determinants shape unequal health outcomes in AMR exposure, access to care, and treatment.

Week 2: Review the WHO's 2024 report, *Addressing gender inequalities in national action plans on antimicrobial resistance*. Develop thematic codes and policy analysis matrix informed by the WHO recommendations, key findings from the literature review, and existing analytical frameworks and indicators (e.g., matrices with indicators of "representation," "policy commitments," "recognition of gendered determinants").

Week 3-4: Select 3-5 AMR NAPs from diverse national contexts of healthcare systems, socioeconomic conditions, and policy approaches related to AMR governance. Conduct structured document analysis using the thematic codes and analytical matrix created. Selection criteria will be based on recent literature (e.g. Gatsch et al., 2026), including gender-related keyword frequency, gender-related policy commitments, and depth of thematic recognition of gendered issues.

Week 5: Synthesize findings and comparatively evaluate NAPs across distinct contexts to assess how well current policies incorporate WHO recommendations and address gendered determinants of health in AMR.

Week 6: Finalize the research report by developing policy recommendations and frameworks to strengthen the translation of WHO recommendations into specific policies in future NAPs.

Ethics Review

This research does not require ethics board approval. It only uses publicly available policy documents.

Interdisciplinary/International Focus

By examining AMR through an intersectional and feminist perspective to develop policy recommendations and frameworks, my research will combine public health, gender studies, and public policy. An interdisciplinary focus is essential, as AMR is impacted by complex care pathways and contextually specific national situations.

From an international standpoint, the WHO is the global authority on public health. Its recommendations are to be implemented by all member states committed to creating and revising AMR NAPs. By analyzing and comparing different world regions, my research will consider regional variability when deciding the best policy approaches.

Outcomes

The research into how women are disproportionately impacted by AMR globally is still emerging and limited. Despite AMR being one of the most important public health issues in modern history, there is minimal intersectional focus on how gender interacts with unequal societal expectations, labour responsibilities, cultural stigmas, and poor infrastructure, manifesting in systematically poorer health outcomes for women (Collignon & Beggs, 2019). Even scarcer are analyses of how policies are insufficiently gender and sexuality-responsive.

My contribution to the field will be an evaluation of NAPs, using the WHO 20-point guidelines to assess their effectiveness in addressing related gender disparities in AMR infections. Furthermore, by analyzing global regions, larger regional trends regarding gender, sexuality, and AMR can be identified. My paper will focus on framing, prioritization, and policy choices in AMR with the intention of creating evidence-based and thoughtful recommendations.

Ultimately, this will culminate in a framework and recommendations for policymakers, healthcare professionals, and the WHO to improve holistic AMR responses that I plan to present at student research presentations and at the Canadian Conference for Global Health. My research can help build more gender and sexually inclusive healthcare systems, all while raising awareness of the serious and often gender unequal burdens of AMR internationally.

Research Supervisor

Dr. Perez-Brumer is an Associate Professor at the Dalla Lana School of Public Health, University of Toronto, and a Tier 2 CIHR Canada Research Chair in Global Health Intervention Justice. She directs the 3P Lab: Centring Power, Privilege, and Positionality for Health Equity Research, supported by a CFI John R. Evans Leaders Fund award. Her research focuses on HIV and STBBI globally, with particular attention to gender and sexuality, making her an ideal supervisor. She is the 2025 recipient of the University of Toronto School of Graduate Studies Mentorship Award with a strong record of mentorship excellence, having supervised three UofT Excellence Award recipients, five PhD students, and two postdoctoral fellows. Over the course of the Laidlaw Scholars Programme, Dr. Perez-Brumer will provide weekly individual mentorship meetings and weekly lab meetings. I will also be provided desk space at the Dalla Lana School of Public Health as needed.

References

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