

Strengthening  
gender equality and  
social inclusion

in anti-microbial resistance  
intervention and  
implementation research

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# A RESOURCE FOR CHANGE

Harnessing gender insights  
to tackle antimicrobial resistance

## Introduction

In different parts of the world, gender norms influence the improper use of antibiotics, which drives antimicrobial resistance (AMR). Helping researchers to consider the interplay between gender and AMR in their particular contexts is the central aim of a new resource, developed by the Human Sciences Research Council and Jive Media Africa in South Africa, and Mahidol Oxford Tropical Medicine Research Unit in Thailand. Agnes Loriba and Kavitha Sriparamanathan are gender experts in Ghana and Vietnam, respectively, who participated in consultative workshops to refine the resource.

## Ensuring vaccinations reach women livestock rearers

For half the year, rain falls in northern Ghana, and maize, rice, and cowpea green the plains. Spring to November/December is harvesting time. By May, [households have begun to deplete their food stocks](#): May to August is known as the hunger season. Over the dry period, local farming communities rely on their livestock for their livelihoods and resilience, says Agnes Loriba, Ghana project manager at CARE International, an international humanitarian aid organisation.

However, goats and chickens in these communities frequently die from vaccine-preventable diseases. Loriba is the lead of the [Women Rear project](#) – a collaboration between CARE, the International Livestock Research Institute, and local start-up Cowtribe Technology – which seeks to increase the uptake of livestock vaccination in northern areas. In the process, the project helps to tackle antimicrobial resistance, which is partly driven by the inappropriate use of antibiotics (for instance, to prevent rather than treat disease in agricultural animals).

The Women Rear approach recognises two major obstacles: the logistical challenge of reaching rural communities; and, gender norms that preclude women from making decisions about animal healthcare. To tackle the former, the project uses drones to deliver the vaccines and mobile apps to register farmers and alert them when vaccinations are due.

The latter obstacle is perhaps more complex. "In these locations, there are norms that associate livestock and farming with a man, because livestock are considered... very important assets in the household," Loriba says. "So, although these women participate in keeping the livestock, they are most often not able to declare ownership."

As a result, women often cannot register for vaccine delivery and, when vets visit the communities with vaccinations, they seek out men rather than women. The outcome is lower vaccination rates among the animals that women rear – typically goats and chickens. This is particularly the case in households whose men are away working in the south. Since women generally not partake in the selling of the animals at markets, they also do not benefit from them financially, which also lowers their motivation to seek out vaccinations.

The team hypothesised that vaccination rates would increase if livestock-rearing women were able to declare ownership of their animals. Registering their livestock under their names would also contribute to women's economic empowerment. But to make that possible, the team needed to get to the heart of the underlying gender norms.

*Small-scale  
farmer Jane  
Kilonzo feeds  
her indigenous  
chickens.  
Photo credit:  
IDRC/Bartay*



## Applying a gender lens

Tackling gender norms in the context of vaccination uptake is challenging, Agnes Loriba said. "Because you are touching on – should I say – the core of the fabric of the society. There are also a lot of gatekeepers who want to ensure that these norms are respected."

Over the four year study, the team adopted [a social analysis and action approach](#). "Part of the work we did was to actually engage both men and women in the communities on the specific norms – so, the norms around ownership, norms around women's ability to sell, norms around the woman's ability to rear or keep the animals."

However, she says, the first step was to identify these norms with community members and leaders, and to jointly reflect on the ways in which they differently affected men and women. "We had to start by ensuring community buy-in ... We didn't go into the community and say, 'Oh, these are the specific norms that affect women's ability to rear and benefit from livestock.'"

During these dialogues, which took place about once a month, the Women Rear team and the communities also envisioned what change would look like, and how this change would affect women, and impact the wellbeing of the household. Community members formed a task team that guided the implementation of the agreements that the community had reached. Loriba and her colleagues also engaged with veterinary officers around gender norms and the benefits of engaging with women livestock keepers.

Loriba says that in their project, they focus on the incremental changes. "You don't expect that by going to do one dialogue, you're able to solve all the issues," she says, adding that each dialogue builds on the conclusion of the last.

## The importance of context

In Vietnam, Kavitha Sriparamanathan is a gender advisor from Veterinarians Without Borders, Canada, working with the Institute of Environmental Health and Sustainable Development (IEHSD). One of their projects involves tackling antimicrobial resistance in livestock. Sriparamanathan too emphasises the importance of working with the community to identify gender norms in AMR research.

"How gender is discussed at a community level is very important...", they say, "which is why we conducted a gender analysis, to see how we can work within the cultural norms and practices, so that it's not something that's completely foreign that's



*A community-level  
gender analysis  
can strengthen  
the contextual  
relevance of a  
project.*

*Photo credit: IDRC*



being imposed on the community..." How questions were framed influenced the responses of community members, who did not wish to cast their households or communities in a negative light.

"Instead of asking [a woman] 'What is the division of roles? Are you doing more housework and things like that?', we'd ask 'What does 24 hours look like for you, as a female partner, and then for your counterpart, what do they do?'" Sriparamanathan says, adding that the individuals they engaged with all identified as either male or female. "That allows more of an open discussion."

This community-level gender analysis followed a 2021 literature review that Sriparamanathan and co-author Phuc Pham-Duc conducted on [gender differences in knowledge and practices related to antibiotic use in Southeast Asia](#). "What we found was that whether males or females have more knowledge and better practice was highly contextual, and intersects with other demographic factors," Sriparamanathan says – particularly education and socioeconomic status.

The impact of gender norms varies from region to region, even within a single country, which is why conducting a gender analysis is so important. "It's about creating a framework that can be adapted to these different settings to highlight

and identify those gender differences." The gender and equity resource aims to provide such a framework, providing a starting point for AMR researchers in developing country settings to consider the kinds of questions they need to be asking.

Sripamananthan's literature review found that, in Southeast Asia greater education was associated with better antibiotic use practice among men and women. "The key recommendation that was provided was that we need targeted educational interventions, using health care settings and healthcare professionals who are trusted members of the community... to promote that messaging about better practices related to antibiotic use," Sripamananthan says.

They and their colleagues at IEHSD are now trying to work with universities in Vietnam to include a gender lens in their veterinary curricula. Meanwhile, in Ghana, Loriba says a particular lesson from the Women Rear project is the need for more female veterinarians in the north, to address gender disparities in that profession and ensure that vaccinations reach women livestock rearers.

## Reducing the intimidation factor

While there is widespread awareness of gender issues in research in Vietnam, Sripamananthan says, incorporating gender considerations in research can be intimidating for researchers.

"Where the issue arises is that gender is often seen as a huge thing. How can that be then integrated by someone who's not a gender expert?" they say. "And that's where the gap exists. A lot of the work I do revolves around capacity-building: displaying how, even on a small scale, gender considerations can be made in day-to-day work, regardless of whether you're a researcher, a social science researcher or whatever field you're working in."

Sripamananthan says that the HSRC's gender and equity resource will provide a useful framework for reducing the intimidation factor, and helping particularly non-gender experts to apply a gender lens in their work. Currently, Sripamananthan is designing training programmes for their institute to better understand gender differences, and to see how their gender analysis can inform educational interventions in the communities in Vietnam.

Back in Ghana, the Women Rear project is also beginning to yield results. Loriba and her team so far have conducted the qualitative analysis, which suggests that the 'stickiest' norm is around the selling of the animals at the market, considered men's domain. However, women's perceived roles in livestock rearing are beginning to shift, with more women able to claim ownership of their animals.



*Veterinary  
assistances  
vaccinate small-  
holder farmers  
livestock.  
Photo credit:  
IDRC/Bartay*



"We see that men are now more accepting and supportive of women who keep their own livestock," Loriba says. "So we have... women who took loans from the village savings and business associations to buy a few chickens and now have goats. There's one even who says she's been able to buy a cow."

And, although the ratio of female to male vets remains very low, farmers are becoming more receptive to the idea that women can perform this work capably, after working with female vet technicians from Loriba's team and engaging in the dialogues. "We have communities that are requesting that government even brings more women vets to their communities because they are more reliable," Loriba says with a laugh.