Putting gender upfront in vaccine delivery systems

While developments in vaccine technology have helped eradicate some of the most devastating livestock diseases, women livestock smallholders in particular face barriers to accessing existing livestock vaccines and benefiting from them. To adapt vaccine delivery systems to better serve women smallholders, policy-makers and local leaders need to have a better understanding of these issues, backed by evidence. The Livestock Vaccine Innovation Fund has set itself the goal of delivering such evidence.

By Evelyn Baraké and Wendy Manchur

Demand for animal-sourced food is projected to increase in the coming decade, particularly in low- and middle-income countries. But in many of these areas, preventable and curable livestock diseases continue to harm the livelihoods of smallholder farmers, especially women, who make up two-thirds of livestock smallholders.

Livestock rearing has many benefits for individuals and households. Livestock are a financial asset and a source of income, and they provide nutritious food. While local contexts differ, smaller livestock species, including sheep, goats and chickens, are more commonly reared by women. These generally require less land, and land ownership is not a requirement for animals to forage. In settings where it is more difficult for women to own land or where they do not benefit from land tenure security, these are significant advantages. Consequently, endemic diseases of small livestock in low- and middle-income countries – including Peste des petits ruminants and contagious caprine pleuropneumonia in sheep and goats, as well as Newcastle disease in chicken – tend to disproportionately disadvantage women. These diseases can be managed using existing veterinary husbandry practices, including vaccines.

Sixty-one-year-old "Mama" Zaina Said, right, is head of the local dairy goat organisation in Kunke Village, Mvomero District, Morogoro Region of Tanzania. Photo: IDRC/ Brian Sokol

Agricultural technology development is not gender-neutral

Vaccines are among the most cost-effective and sometimes the only means to protect livestock against devastating diseases. Developments in vaccine technology have helped eradicate some of these, such as rinderpest. But like most agricultural technologies, vaccines do not benefit everyone equally. Dominant social norms, power relations, beliefs, institutions and other social structures affect how they are developed, commercialised, marketed and distributed. When these processes do not consider the gender-specific needs, preferences, and constraints of women livestock smallholders, inequalities in vaccine access and uptake emerge. Not only can this harm women's livelihoods and economic security, it also poses risks to the health and food security of families, communities and nations.

In some communities for instance, gender norms can constrain where a woman goes and when, limiting her access to vaccination services requiring her to travel to a specific location with her livestock. They may also restrict her livestock management choices, including around vaccination, in settings where a male head of household traditionally makes these decisions. Other common obstacles for women livestock keepers include limited knowledge about livestock vaccines, their benefits and how to use them, as well as their costs. To adapt vaccine delivery systems to better serve women livestock smallholders, policy-makers and local leaders need to have a better, evidence-based understanding of these issues.

Gender norms are informal rules that define what is socially acceptable behaviour for adults and children, based on a person's gender. This, in turn affects their choices, privileges, and abilities. Inequitable gender norms echo the uneven power relations that exist in a society, and they often put women at a disadvantage.

Gender and livestock vaccine value chain research in practice

Currently, there is limited research on the different roles that women and men have in livestock vaccine systems and on the factors that affect their ability to participate in and benefit

from them. Smallholders' perceptions of livestock vaccines and their value, as well as their willingness to use them when available also need to be better understood.

To fill this gap, a cohort of four research projects working in six countries – Ghana, Kenya, Nepal, Rwanda, Senegal and Uganda – and funded by the Livestock Vaccine Innovation Fund (LVIF; see bottom Box) were specifically designed to generate new evidence on how women can better benefit from vaccines for small livestock and participate in these vaccine systems, and to address the myriad of barriers women face. These projects support the empowerment of women as livestock farmers, entrepreneurs and veterinary service providers along the livestock vaccine value chain for chicken and goats. Their design was informed by past research programmes which have yielded important lessons on how to effectively integrate gender considerations in development research (see upper Box).

In research that involves challenging inequitable gender norms, transforming social roles and power relations, the process is as important as the findings, including decisions of who to involve as stakeholders. Researchers must be mindful of how their presence and interventions could negatively affect community relationships and select approaches to minimise these risks. For instance, it is especially important for researchers to engage women and men together, rather than singling out women for interventions. This avoids potential negative backlash and provides the opportunity for men to become facilitators for women's empowerment in their communities beyond the lifetime of the research. Facilitated group discussions are essential to this work. They create important spaces for critical reflection where men and women can openly discuss gender norms in their community or work environment, as well as the changes they would like to see.

Measuring changes in behaviour can be challenging and requires a variety of innovative methods and tools. Researchers use a combination of approaches, both qualitative and quantitative, to determine what worked, what did not, and why. The cohort of LVIF projects working on women's empowerment in livestock vaccine value chains has involved diverse groups from their early stages, including local government officials, ministerial representatives as well as women and men farmers, representatives of community groups and co-operatives, community animal health workers, agro-vet shop owners, animal vaccine distributors and importers, and veterinarians, to name a few. By fostering dialogues between groups that normally would not interact, this engagement process has helped spark attitude shifts and raise awareness of the inequalities in livestock value chains. In turn, this can influence decision-makers to make changes to extension services and policies.

Lessons on how to do action research for women's empowerment

Dedicated approaches for integrating gender in research and development programmes:

1. **Gender experts should lead the research.** In natural sciences research, consultants or female junior staff are often tasked with the responsibility to integrate gender in research. This can effectively sideline gender integration as an objective, limiting progress on gender equality outcomes.
2. **Include systematic processes to integrate gender at every stage,** consistently and continually from design to evaluation. Participatory action research and gender transformative approaches help us understand the inequalities and power dimensions in a context and contribute to a stronger foundation for more equitable and lasting contributions of research to the development process.
3. **Develop robust management frameworks to measure gender outcomes and impacts at the research project and programme levels.** This should include common quantitative and qualitative indicators to enable cross-project learning, data collection for greater impact, and opportunities for reflection and challenging assumptions.

Transforming food systems for gender equality is necessary work

Inevitably, building trust with different stakeholders and understanding what motivates their behaviours that contribute to the status quo is sensitive work that cannot be done overnight. The time and resources required to do this type of research may explain why it remains so rare. It is certainly easier to work on traditional, more technical, livestock programmes that are not gender transformative than to engage with the socio-economic and political dimensions of women's empowerment. But taking the easier route has risks. Gender-blind interventions can widen existing inequalities by redistributing power and resources, dispossessing women and other marginalised groups of their assets and their decision-making power. And interventions for livestock disease control cannot be effective when they systematically overlook certain groups, such as women smallholders. Eradicating vaccine-preventable diseases then becomes very difficult, as animals managed by women could remain reservoirs of disease.

Women livestock smallholders are critical players in food systems all around the world, yet they continue to be underserved by current livestock vaccine delivery systems. To promote gender equality and improve the lives of rural women, as well as to increase the long-term resilience of food systems, research and development initiatives must recognise the critical need to empower women and other marginalised groups in livestock programmes.

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The Livestock Vaccine Innovation Fund (LVIF)

The Livestock Vaccine Innovation Fund (LVIF) is an initiative funded by the Bill & Melinda Gates Foundation, Global Affairs Canada and Canada's International Development Research Centre (IDRC) with 57 million Canadian dollars for the development of vaccines that are affordable, available and acceptable to livestock smallholders and to facilitate their use at scale. LVIF targets livestock diseases that have the most impact on both women and men livestock smallholders in sub-Saharan Africa and South and Southeast Asia.

More information:
www.idrc.ca/en/initiative/livestock-vaccine-innovation-fund