Flagship 5: Improving Human Health

Highlight 1: A4NH Joins Partners to Launch New CGIAR Antimicrobial Resistance Hub

To tackle a growing problem of rising antimicrobial resistance in low- and middle-income countries, in 2019, A4NH helped launch the CGIAR Antimicrobial Resistance Hub to help integrate and channel research and development efforts. The Hub was launched in February 2019 in Kenya. It will be led and hosted by the International Livestock Research Institute, an A4NH Managing Partner and co-leader of A4NH’s research flagship on Improving Human Health.

Antibiotics and other antimicrobial drugs are among the most important tools available to medical and veterinary professionals for curing human and animal diseases and improving their welfare, yet these drugs are increasingly failing. Development of resistance to these drugs in disease-causing bacteria and other microbes poses a major threat to global development; the World Bank estimates that annual global GDP could fall by more than US$1 trillion by 2030 as a result.

While the World Bank estimates that investments of US$6 to 8 billion annually could mitigate this loss, at present, it seems the antimicrobial resistance (AMR) problem will get rapidly worse before it gets better. Large quantities of antimicrobial drugs are used to cure human illness and in livestock and fish production. Though exact quantities are unknown, use of antimicrobials for livestock and in aquaculture is rising, particularly in low- and middle-income countries. These antimicrobials are often used in suboptimal ways, such as applying dosages too small to be effective, or over too long a time period to be environmentally healthy. Sometimes the wrong drugs are used, or antibiotics are used for diseases not caused by bacteria. Humans, livestock, and fish excrete these drugs, which leads to contamination of soil and water.

The greatest challenges and burdens of antimicrobial resistance will be felt by the poorest in poorer countries. While these countries with their rapidly growing populations face rising demand for increased food production, their populations suffer the greatest infectious disease burdens and have less access to relevant knowledge and veterinary and health services. These countries face challenges in enforcing regulations, managing incentives, and understanding and implementing effective antimicrobial resistance surveillance.

With its mandate to improve the livelihoods of poor people, improve food and nutrition security, and improve natural resource management through agriculture and food research, CGIAR is ideally positioned to tackle agriculture-related antimicrobial risks in developing countries and to develop, test, and promote solutions to mitigate these risks together with its partners. A4NH’s participation provides important contributions, with the program’s focus on health as it intersects with agriculture and nutrition. Already, A4NH has developed a One Health evaluation framework for AMR interventions that is being piloted in Kenya and Viet Nam.

Learn more about the challenges of AMR, and A4NH research in this area.

The new CGIAR AMR Hub will work to foster learning from past experiences, support research excellence in the Global South and ensure a critical mass of coordinated research to find suitable and sustainable solutions. Joining A4NH and ILRI as part of the Hub are CRP Fish, CRP Livestock, the International Food Policy Research Institute, the International Water Management Institute, and WorldFish. Together, these seven research programs and institutions with their national partners and partner research organizations outside CGIAR will support global research efforts among experts the world over—from low- to middle- to high-income countries.

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