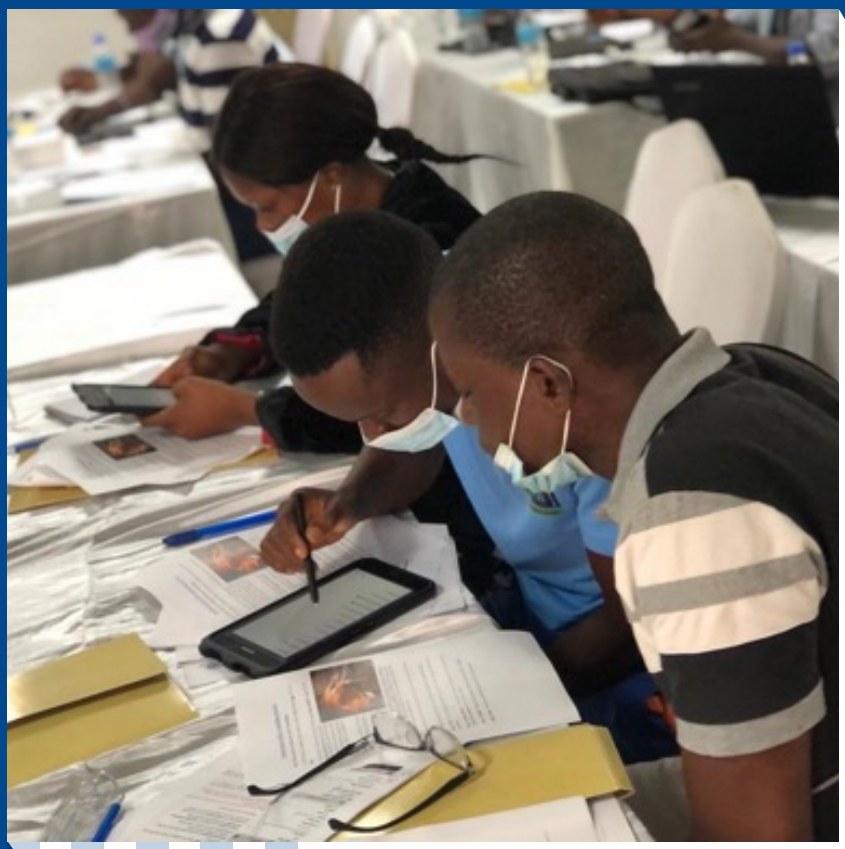
Success story: Sierra Leone

Reporting on antimicrobial use in livestock: challenges, actions and impact.



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Success story: Sierre Leone

Reporting on antimicrobial use in livestock in Sierra Leone: challenges, actions and impact

Why was this study done?

The collection of data on antibiotic use in livestock is central to informing Sierra Leone's efforts towards a 'One Health' approach to evaluating prescribing practices and improving antibiotic stewardship for tackling the emergence and spread of antimicrobial resistance.

Dr Leno Amara, Chief Surveillance Officer and Data Manager with the Ministry of Agriculture and Forestry, Livestock and Veterinary Services Division in Sierra Leone, conducted a country-wide audit to assess completeness of surveillance data on antibiotic use in livestock.

What did the study show?

There were major gaps in completeness and data quality, in available human resources and in computer availability and internet connectivity.

	Major gaps
Data Quality - Completeness	No reporting in 11 of the 14 districts in the country.
- Consistency	In three districts where reports were available, only 1% of reports were accessible but the data were incomplete and inconsistent.
Human resources	There were 72 community animal health workers against the recommended 168 (a gap of 57%).
Equipment	No district had a functional computer or internet connectivity.
	No motorbikes were available for field supervision.

How did the study impact policy and/or practice?

The study findings were persuasively communicated and the Ministry of Livestock, in collaboration with the Food and Agriculture Organization (FAO), have taken the following actions:

- The Director of livestock introduced country-wide mandatory weekly reporting of antibiotic use in livestock. Training on improved data collection was conducted in all districts.
- With support from FAO, thirty-two computer tablets were provided to facilitate electronic data transfer to data hubs; thirty motorbikes were also provided for field supervision by animal health workers.
- These interventions resulted in significant impact in reporting coverage and data quality. In 2021, a repeat assessment done through SORT IT study https://doi.org/10.3390/ijerph19095294 [1] showed that:
  - All 14 (100%) districts now reported livestock data (compared to three before).
  - 88% of 527 expected weekly reports were received (compared to 1% in previous years).
  - Data quality also improved, enabling an analysis of antimicrobial use under routine programmatic conditions, which will improve monitoring of antimicrobials in livestock.

Pictures: (left) Livestock officers visiting a field site for data collection; (top right) Training of livestock officers on the use of tablets for data entry and transmission ; (bottom right) Motorbike provided by FAO for field supervision.

References:

1. An Update on the Surveillance of Livestock Diseases and Antimicrobial Use in Sierra Leone in 2021—

   An Operational Research Study https://www.mdpi.com/1606104

Publication title:

Publication title: Leno, A et al. Veterinary Healthcare Provision and Quality of Reported Data on Antimicrobial Use in the Treatment of Livestock in Sierra Leone, 2016–2019.

Trop. Med. Infect. Dis. 2021, 6, 73. https://www.mdpi.com/1102742

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