README FILE

Supporting the National Action Plan on Antimicrobial Resistance (SNAP-AMR) data collection tools

This repository contains data collection tools designed for field studies associated with the research project “Supporting the National Action Plan on Antimicrobial Resistance (SNAP-AMR) in Tanzania”. These tools were used to collect various qualitative and quantitative data in rural, agricultural communities in northern Tanzania regarding health seeking, antibiotic access and use and antimicrobial resistance. The repository also contains all participant information sheets (PIS) and consent forms associated with the different tools.

The following tools and associated PISs/consent forms for six project activities are available for download. The activities for which they were used are described below.

1. Focus groups discussion (FGD) and in-depth interview (IDI) schedules
2. Household survey
3. Exit survey
4. Antibiotic provider survey
5. Drug bag questionnaire
6. Observation sheets
7. PIS/Consent forms

1) Focus groups discussion and in-depth interviews

These focus group discussion and in-depth interview schedules were designed to collect baseline information about community-level health seeking knowledge and behaviour, and healthcare options (treatment and diagnostics) within rural agricultural communities. There are separate interview schedules for discussions on human and animal health with community members, as well as two schedules to discuss human health with local human health providers and animal health with local animal health providers.

Human health care providers were invited from both public and private institutions and included: clinical medical officers, clinicians and nurses, pharmacists and drug shop vendors, community health workers and traditional healers or herbalists.

Animal health care providers were invited from both public and private institutions and included: livestock field officers and veterinarians, agrovet vendors, community animal health workers, traditional healers or herbalists.

Community members invited included: village leaders such as village and sub-village officers and chairs, 1-2 members of any pertinent health related village committee, respected elders, religious and traditional leaders and head teachers (primary and secondary). In addition, well-respected community members and farmers (nominated by the village chairperson) from across the village were invited.

These focus groups primarily focused on common diseases affecting both humans and livestock, as well as antibiotics and other medicines used regularly for treatment of such conditions. The insights gathered from these discussions played a crucial role in shaping the design of subsequent activities within the same study region. Specifically, they informed the selection of diseases and antibiotic treatment scenarios incorporated into the household survey. We also collected information about health campaigns and health message delivery.

Separate interview schedules can be found for:

* Human health providers discussions
* Animal health providers discussions
* Community human health discussions
* Community animal health discussions
* Community health campaign discussions

2) Household survey

The household survey was designed to give in-depth insights into health seeking and disease treatment practices of rural agricultural households, including treatment of adults, children and different livestock species. It focusses on an array of pre-determined human and animal conditions, as well as specific medicines, including several human and veterinary antibiotics. Furthermore, questions on disease prevention, knowledge, attitudes and practices towards antibiotic use and efficacy and antimicrobial resistance are included.

The household survey has two main parts: a human and a livestock health component. There are three versions of the livestock part, each either containing questions on poultry or cattle or sheep and goats. Furthermore, the survey includes choice experiments where information on health seeking choices for human and animal conditions are collected. In the human part, two diseases - malaria and urinary tract infections – are presented which can affect children and adults. Thus, four hypothetical scenarios were created - two for children and two for adults. This means that two separate human health parts exist. Therefore, six different versions of the full surveys exist, varying in the human part (CHILDREN or ADULT) and in the livestock part (POULTRY, CATTLE or SHEEPGOATS). One participant answered the human part either for adults or children and only one of the three livestock parts, either poultry, cattle or sheep and goats.

Due to lexicographic problems and given that our target population has low education levels, we only presented each respondent with four choice cards per disease scenario at a time. We generated a set of 48 choice cards for human health – half of them (24) for children disease scenarios and the other half (24) for adults’ disease scenarios. This translates to six survey versions for disease scenarios in adults and six survey versions for children. The choice cards could not be automatically randomised because we had so many skip logics owing to the many questions in our various surveys. Therefore, we designed separate choice experiments for cattle, sheep and goats, and poultry. For each of the livestock species, we generated 24 choice cards and shared them between the two disease scenarios hypothesised for each livestock species. Since each respondent was only presented with four choice cards per disease scenario, this translated to six survey versions per livestock species. To ensure design balance by allowing all choice cards to be presented to the respondents, it was important to produce different combinations of surveys. The final output is a total of 18 survey versions:

* AdultCattle1-3
* AdultPoultry1-3
* AdultSheepGoat1-3
* ChildrenCattle1-3
* ChildrenPolutry1-3
* ChildrenSheepGoat1-3

3) Exit surveys

The survey was specifically designed to be conducted with patients/clients as they exited rural public or private drug dispensing facilities. Its primary aim was to gain a better understanding of individuals' decision-making processes regarding healthcare, the accessibility of the chosen facility, and the treatments they needed and received. Through close and open-ended questions, the survey also aimed to collect information about the practices involved in dispensing treatments, including the advice and counselling provided regarding treatment selection and usage.

In addition, the questionnaire included a section where participants could self-report their purchase of antibiotics without a prescription from human retail outlets. This allowed for an estimation of the prevalence of this practice. Furthermore, participants were asked to list the drugs they were dispensed. This activity provided valuable insights into the drugs commonly dispensed and stocked across different outlets.

Lastly, participants were queried about their awareness and understanding of the terms "antibiotics" and "antimicrobial resistance" (AMR) in order to gain an understanding of their knowledge.

It is important to note that there are slight variations in the survey forms used for human and veterinary drug providers. The exit survey for human health providers was administered in both retail and public facilities. However, in public facilities, it should always be understood that antibiotics are not sold as products to clients, and, therefore, the responses should be interpreted exclusively in the context of dispensing practices.

4) Provider surveys

We created two questionnaires specifically designed to survey rural public and private community health providers who dispense medicines. The objective was to gather information about the variety and quantity of antibiotics being dispensed, and to assess the quality of such provision. The surveys consist of a combination of closed-ended and short open-ended questions, focusing on the following themes: provider demographics, antibiotic sales or prescriptions, dispensing and counselling practices, and antibiotic sourcing and stocking.

It is important to note that the surveys for veterinary and human drug dispensers have slight differences. The survey for human health providers was administered to both retail and public facilities. In public facilities, antibiotics are not sold as products to clients; therefore, responses regarding sales should be interpreted as relating to dispensing only.

5) Drug Bag questionnaire

This form was designed to capture information on antibiotic use and access within households in rural Tanzania. The questionnaire was adapted from the one used by Dixon *et al.* (2019) to match our specific local circumstances and research focus. For instance, we added a sorting activity and questions about perceived antibiotic quality/efficacy and about crossover-use with antibiotics.

Two sets of "drug bags" were prepared in advance, each containing antibiotics that were locally available for human and veterinary use. The data collection form consisted of a combination of qualitative and quantitative questions, which aimed to explore various aspects related to antibiotic access and use in households. These include information about the households or farms, common illnesses experienced, the medicines used within the households, the respondents' familiarity with antibiotics, their usage, accessibility and perceived quality/efficacy, experiences of crossover-use of human antibiotics of animals and vice-versa, and elicitation of narratives regarding specific antibiotics from the drug bags and more broadly related to health, healthcare provision and treatment.

Demographic information was collected specifically from the primary respondent, while the activity was open to all present family members who wished to participate and contribute. To ensure accurate capturing of qualitative descriptions and narratives, all interviews were recorded.

References

Dixon, J. et al. (2019) ‘The “Drug Bag” method: lessons from anthropological studies of antibiotic use in Africa and South-East Asia’, Global Health Action, 12(1). Available at: https://doi.org/10.1080/16549716.2019.1639388.

6) Observation sheets

 The purpose of this form was to facilitate observations in rural public and private community health facilities involved in medicine dispensing. The primary objective was to observe the interactions between clients/patients and providers, as well as the practices employed during the dispensing process. The form aimed to capture information about the treatments provided for specific conditions, the advice and counselling given alongside the treatments, the demand for particular medicines expressed by customers and the waiting times experienced by clients. Additionally, the form allowed for the calculation of the proportion of antibiotics dispensed with or without a prescription in human health retail outlets.

The order of the questions was designed to mimic the natural flow of interactions within these outlets. It is important to note that there are slight variations between the forms used for human and veterinary drug dispensing facilities. Antibiotics are not sold as products to clients in public facilities and, therefore, the responses obtained in such localities should be interpreted solely in the context of dispensing practices. In addition, the observations in public outlets focused solely on the interactions at the dispensing window, where patients present their prescription to receive the prescribed treatments. The interactions between the prescriber and the patient were not observed in public outlets.

7) Participant information and consent forms

Participant information and consent forms for all project activities can be found here:

1. Participant information and consent forms for drug bag interviews.
2. Participant information and consent forms medicine provider surveys.
3. Participant information and consent forms for observations which the observed provider singed. No forms were given to clients, as they were informed about the observation and their right to opt out orally by the providers directly when entering their premises.
4. Participant information and consent forms for community members and animal and human health providers. These were used for focus groups and in-depth interviews, as well as the household survey.
5. An oral participant information and consent form, which was used for exit surveys.