

**Monitoring and Evaluation
Study Cover Sheet
May 2018**

Newcastle Disease Vaccine and Poultry Productivity Changes: Gairo, Tanzania

At a glance

Aim of study	A before and after comparison of poultry productivity changes in smallholder households associated with the Gairo Market Development Newcastle Disease (ND) vaccine distribution field project.
Field study dates	Baseline February 2014 Endline February 2016
Location	Tanzania (Morogoro) Gairo District
Total sample size	Number of surveyed smallholder households in GALVmed Market Development ND intervention project areas: Baseline 495 households Endline 495 households

Study Outputs Available on GALVdox

- Study write up
- Raw data files
- PowerPoint slides for use in presentations
- Peer-reviewed publication in Preventive Veterinary Medicine (2017)

Strategic Context - why did GALVmed undertake this study?

This study assesses data from one of the earlier GALVmed Market Development field projects where commercial ND vaccine supply chains were being introduced to serve smallholder customers. In addition to the ND vaccine; dewormers and improved poultry husbandry practices (relating to feeding and housing) were also introduced to smallholders. The primary project focus, however, lay in ND vaccines since this was considered the primary constraint in smallholder poultry production and the primary market opportunity for the animal health industry.

The project commenced in 2014 in Gairo District, Morogoro, Tanzania. At this time, GALVmed's Market Development team were initiating field projects where the main focus was ND vaccines, but where the strategic context was wider as GALVmed sought to build a better market understanding of the basic smallholder market issues (e.g. to what extent will smallholders realise productivity gains through better animal health inputs, to what extent will they pay the market price for these inputs, to what extent will supply chain actors, such as vaccinators, realise sustainable economic returns from these products).

This Monitoring and Evaluation study focuses on the analysis and interpretation of smallholder data, foremostly aimed at building market understanding for GALVmed and the numerous partners engaging the smallholder animal health market. It is also understood that the data emanating from this (and similar) studies may be of interest to researchers looking to undertake more rigorous impact assessments. Here GALVmed aims to produce useful and robust preliminary data that can point to interesting areas of subsequent research. It is not, however, in GALVmed's remit to undertake these rigorous and costly research studies, but rather to demonstrate the potential to the research community.

Headline Observations

- The Gairo District surveys were rolled out to smallholders prior to vaccine delivery (baseline) and after 24 months (endline). The questionnaires investigated various parameters including productivity, husbandry practices and income from poultry in the project area.
- Smallholders in the project area experienced significant productivity improvements from the use of the ND vaccine and other animal health products (Table 1).

Outcome	Baseline	Endline
Adoption of ND vaccine	68.1%	93.8%
Average household flock size	21.6	42.2
Average household poultry income	USD 162.45	USD 432.54
Expenditure on poultry-related medicines and vaccines	USD 2.68	USD 4.58
Expenditure on poultry feed	USD 21.35	USD 29.43
Poultry house ownership	11%	18%
ND cited as a major disease responsible for poultry death	94.4%	54%

Table 1: Summary table comparing parameters at baseline and endline.

- Statistically significant increases were seen in the number of clutches per hen per year, the number of eggs and poultry sold per clutch, the number of chicks put to hatch and hatched, per clutch per hen, and the number of poultry raised to maturity.
- There was a consistent increase in poultry meat consumption over the life of the project, with a reduction in respondents eating no poultry meat (14% at endline versus 51% at baseline). There was also an increase in respondents eating poultry more than once per week.

Further Studies

Further field studies will not be undertaken. The outputs from this study will be useful in assisting future impact modelling exercises where the beneficial impact of a portfolio of products will be considered.

Cross Reference: Other Related GALVmed M&E Studies

Study	Relevance
ND Vaccine and Poultry Productivity Changes Studies (Africa/Asia)	These studies are before and after comparisons of poultry productivity in smallholder households associated with the GALVmed Market Development field projects.
ND Vaccine and Husbandry Practices Study (Tanzania)	Comparing smallholder poultry husbandry practices between adopters and non-adopters of ND vaccine in Tanzania.
Poultry Productivity Studies	The Poultry Productivity Studies are impact / productivity related studies looking to make a direct comparison between ND vaccine adopters and non-adopters.
ND Pilot Project Durability Assessment	This study assessed the long-term commercial viability of the ND vaccine supply chain.