

"Newcastle Disease vaccination in local chicken as a tool for poverty alleviation"

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Presentation outline

- i. Background
- ii. What is Newcastle disease(ND)?
- iii. Symptoms of ND
- iv. Gaps in ND Control in backyard chicken
- v. Scope of PM's work on ND control in rural chickens
- vi. PM Strategy
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Background

- Nigeria has a poultry population of 150 million (*FAO,2008*) and the local chicken variety contributes to over 80%(113 Million) of the population.
- Most of the local chickens are reared by rural households. They are kept for subsistence as well as for income generation.
- 60% of local chickens are owned by women(*PM research 2015*)
- Average number of 22 chickens/rural household.



What is Newcastle disease?

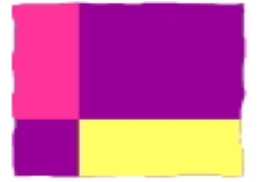
- Newcastle disease (ND) is a highly contagious, severe viral disease found worldwide that affects birds including domestic poultry.
- ND is endemic in all parts of Nigeria and is more common during the harmattan season (October –March) with the virus remaining dormant most times of the year.
- ND outbreaks commonly have mortality up to 100% (Alders, 2001).
- ND is transmitted most often by direct contact with faeces and respiratory discharge of diseases or carrier birds
- It can also be by contaminated food, water, equipment, and human clothing.

Symptoms of ND

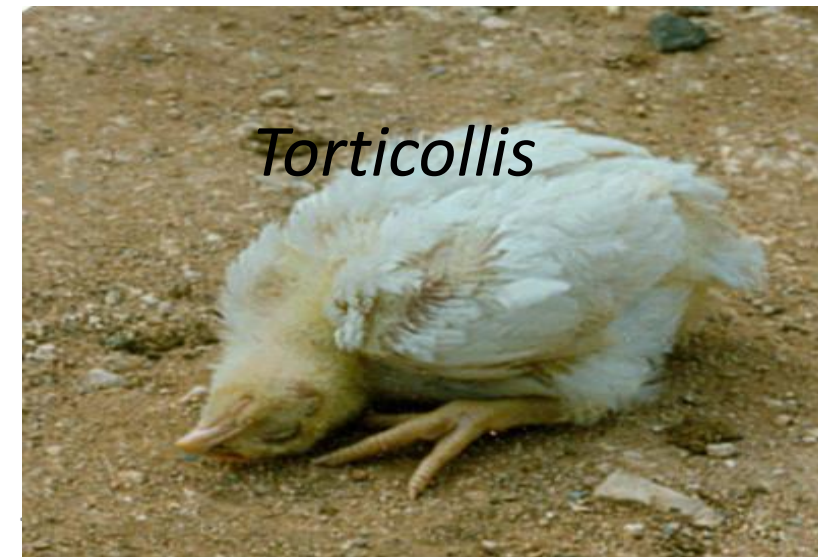
- Clinical signs include:
 - respiratory signs - gasping, coughing, sneezing and rales
 - nervous signs - tremors, paralyzed wings and legs, twisted necks, circling, spasms, and paralysis;
 - digestive signs – diarrhoea;
 - a partial or complete drop in egg production. Eggs may be abnormal in color, shape, or surface, and have watery albumen.

Symptoms of ND

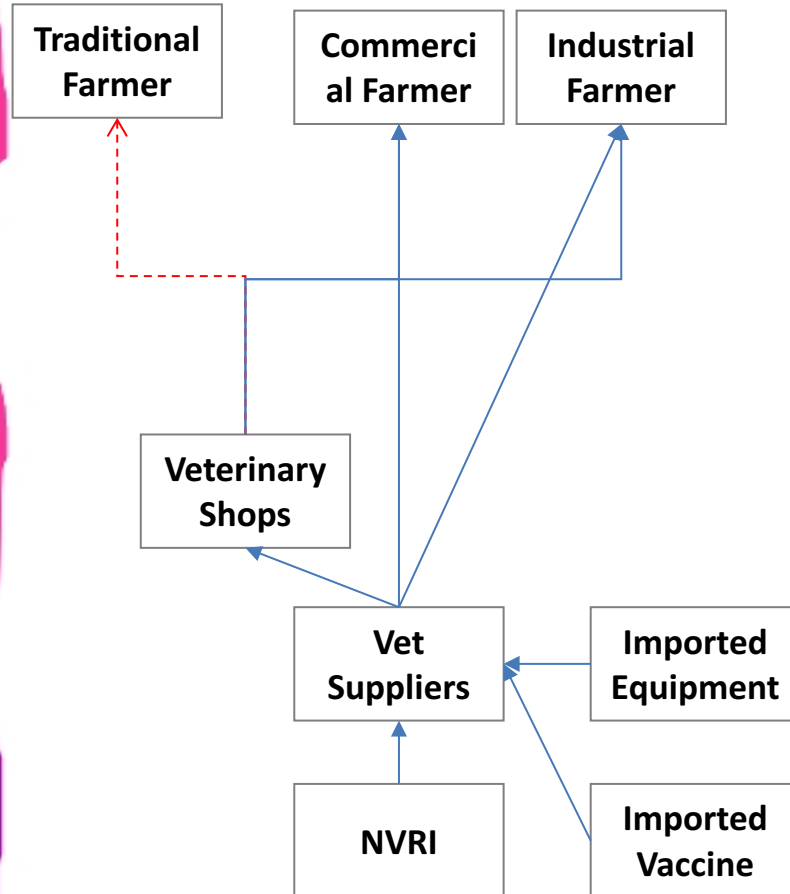
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Gaps in ND control in backyard/rural poultry



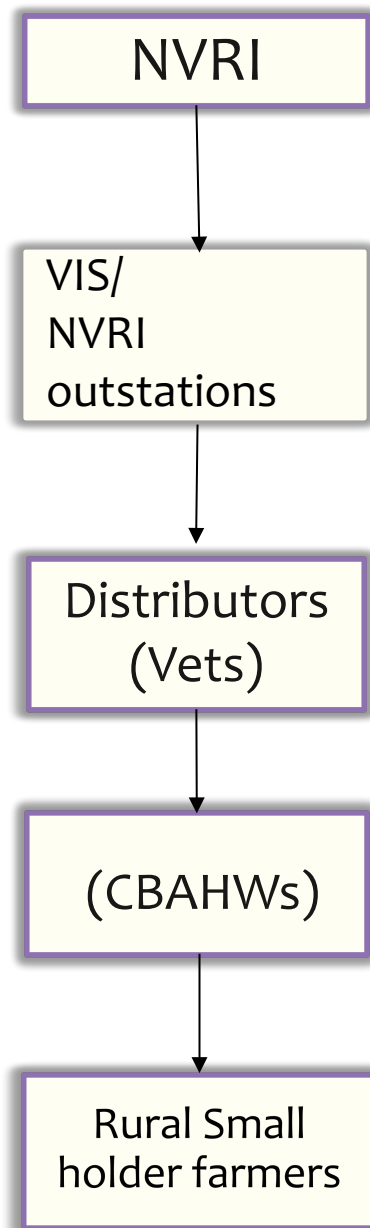
Backyard poultry lacks:

- Vet service providers: If Dr. Atiri wont do it, who will?
- Rural distribution network to deliver vet products
- Tailored products: Lasota x1000...?
- Information in real time
- Low awareness on ND control

Scope of PM's work on ND control in rural chickens

- Partner with suppliers/distributors to make available suitable ND vaccines and other veterinary products
- Support partners to develop/leverage on suitable grass root distribution channels to deliver affordable vaccines for ND along with other veterinary products
- Work with the relevant stakeholders to facilitate awareness and demand for veterinary services amongst smallholders, instituting 'for-profit' veterinary service delivery as a norm in rural communities
- Work with the regulatory agencies to create an enabling environment for the acquisition of relevant skills needed to deliver quality community-based animal health extension service

PM Strategy



Improving capacity
Efficient linkage to local suppliers

Restructuring outstations to become livestock information centres,
surveillance units and business outfits for livestock products
Supply chain/Efficient distribution model/Capacity building

Facilitates Training Program/Cost Recovery Sales Strategy for direct
recruitment of VBI/CBAHW
Introduction of Vaccination calendar to the trained CBAHW/VBI
Improving capacity to ensure quality service delivery

Trained and monitored by a Vet.
Effective grassroots awareness programs and campaigns on ND control through
vaccination

Basic Livestock Management practices

NVRI-National Veterinary Research Institute, Vom
VIS-Veterinary Input suppliers
Village based Inoculators
CBAHWS - Community based Animal Health workers

PM strategy

Vaccine producer (NVRI, Import) – **Revenue: N100**



Vet suppliers- **Revenue: N200**



Distributors – **Revenue: N300**



VBI/CBAHW – **Revenue: N700**



FARMERS – **Revenue: N600/bird**

The Rural poultry NCD Vaccine Market

- Number of (50 doses) vials needed : $113\text{M}/45 = 2.5\text{M}$ vials
- Two doses/chicken – $2.5\text{M} * 2 = 5\text{M}$ vials
- Profit/vial(Vet Supplier/Distributor) = N100
- Thus rural Poultry NCD vaccine Market - **N500M**
- You can also sell anthelmintics, dewormers, antibiotics and multivitamins.

Conclusion

- Small start-up costs for the VBI (N1,250 – N2,500).
- Efficiency in conducting community mobilization by the VBIs (use church, existing social structures in communities)
- Repeat business for VBI with the introduction of a vaccination schedule to capture new chicks born and old chickens
- Cheap training costs for the distributor/supplier/NGO because training is localized and community-based, reduced risk for the trainers using the 'cost-recovery sales strategy'.
- Affordable out-of-pocket costs to the farmer (between N20-30 per bird).



Vaccination of chicken intra occularly



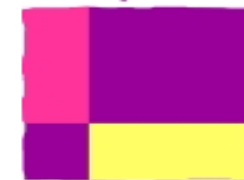
A VBI receiving payment for vaccination



Local chickens on display at the market.



A happy VBI displaying used vaccine vials.



THANK YOU