Establishment of Safety Culture Awareness for Field Veterinarians at Animal Health Research Institute, Benha Branch.

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Animal Health Research Institute

Vision
• Animal Health Equals Human Wealth

Mission
• Protection of animal, poultry and fish against serious diseases
• Monitoring and diagnosis of zoonotic diseases transmitted to human via foods of animal origin

Main Responsibilities
• Conduct researches to improve animal, poultry & fish health
• Diagnosis of animal, poultry & fish diseases
• Implement training programs
To Prevent Poultry Diseases

- Implementing Farm Biosecurity Controls
- Vaccination program
- Medication
Farm Biosecurity

Segregation

Traffic Control

Decontamination

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Background

- AI is very important disease due to:
  - Zoonotic disease
  - Highly contagious
  - High mortality & morbidity
- In Egypt, AI (H5N1) virus was first reported in poultry in 2006 and was declared to be enzootic in 2008.
- Egypt’s approach – vaccination
  - Failed to control the spread of the virus
    1. Outbreaks in poultry farms
    2. Mutation of virus
Background

• This lead to an increase of:
  • Human infections (From 2006-2017, 358 cases & 119 deaths in Egypt*)
  • Poultry infections (AI H5N1, H5N2, H5N8 and H9N2)
• In Egypt most poultry farms, about 75% (Regarding the number of farms not the production capacity) are lacking in biosafety controls (i.e. high risk facilities)

* WHO, 2017
Background
Original Objective

Establish a biosafety Personal Protective Equipment (PPE) training program for field veterinarians at AHRI-Benha Branch.

- PPE Usage & Disposal
  - Protect field veterinarian and their community
  - Prevent cross-contamination between farms

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Reasons for Change of Objectives

- Face-to-Face Communication
  Brought Up Other Concerns

- Pre-Training Field Visits

- Contact with Poultry Expert

= Expansion of Goals
Reasons for change of objectives

- Farmers do not trust the governmental field veterinarians
- Lack of poultry health and husbandry knowledge from field veterinarians
- Lack of trust
- No cooperation between groups
- Field vet. Infection + cross-contamination

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Aim of Work

Protect
- Field Veterinarians & their contacts
- Poultry farms cross-contamination

Build Trust
- Between field veterinarians and poultry farms owners & workers

Apply biorisk management through PPE

Provide simple, specific, accurate and applicable information

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Receive permission from the institution director

Face-to-face communication with field veterinarians

Develop observation checklists

Pre-training Field visits

Design 5 presentations
Project Flow

1. Develop pre & post training questionnaires
2. Implement training sessions & hands-on training
3. Post-training field visits
4. Data analysis
5. Final session

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Materials and Methods

Pre-training field visits (8)
Post-training field visits (15)
Checklists

Training presentations
- Biosafety basics
- Poultry farms biosafety
- Communication skills
- Cleaning and disinfection
- Vaccination failure

Hands-on Training
3 sessions, 5 F. Vet. each

Pre & Post Questionnaires

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Face-to-Face Communication

Is a veterinarian from the general government veterinary services with you on your farm visits?

How do you get to the poultry farm?

Are the sample birds brought to your vehicle/ taken out of the poultry farm or do you go into the poultry farm to take your samples?

What kind of PPE do you consider important during your visit?
Hands-on Training

Hands-on training included putting on and taking off:
- Gloves
- Mask
- Over shoes

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Pre and post training PPE
Data Collection and Analysis

Data Collection

• Field visit checklists
• Pre & post session questionnaires

Data Analysis

• Paired t-test by using Statistical Package for the Social Sciences (SPSS) software
Results: Pre & Post Training Evaluation %

All Post-training results revealed a highly significant (P<0.01) increase in evaluation %.
Two Main Challenges

1- Some field veterinarians feel biosafety procedures are unnecessary and put an unnecessary burden on the farmers- causing a bad relationship.

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<th>status</th>
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<td>continuous training</td>
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<td>3</td>
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<td>Face-to-face communication</td>
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<td>2</td>
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2- The sustainability to provide PPE.
- We can use primary PPE for AI samples collection like mask, gloves and over shoes.
- Corrective action:
  - We asked the top management to enforce the poultry farm owners to buy these simple PPE. (Why?)

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**Conclusion**

**Before**

- Minimal PPE
  - Most veterinarians did not use minimal PPE
    - No gloves
    - No over shoes
    - No mask
  - Provided minimal to no education regarding
    - Animal health and husbandry
    - Application of biosafety controls
    - Decontamination
    - Vaccination failure
    - Communicating with the farmers

**After**

- Minimal PPE
  - Most veterinarians used minimal PPE
    - Wore gloves
    - Wore over shoes
    - Wore mask
  - Provided proper education regarding
    - Animal health and husbandry
    - Application of biosafety controls
    - Decontamination
    - Vaccination failure
    - Communicating with the farmer
Improvement of biorisk management awareness is critical for field veterinarians and farm owners.

Hands-on training received very positive feedback.

Improved technical knowledge and good practice of field veterinarians lead to build a trust between them and farm owners.

Field veterinarians that are not interested in these implementations may become interested through continuous communication, education, and training.
Next Steps

Follow up with field veterinarians

Improve awareness of farms owners and workers

Applying the project to different AHRI branches

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Breaking down the walls and building trust will lead to:

- A decrease Human Infections
- An increase in poultry production
Small steps can lead to BIG changes
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Thank you for your kind attention