



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

*Ali Mohamed,  
Associate professor, Ph.D.  
Animal Health Research Institute,  
Benha Branch, ARC, Egypt.*

*Heather Blair,  
Assistant Biosafety Officer, MS, RBP,  
SM(NRCM), CBSP  
Colorado State University, Colorado, USA.*

# 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

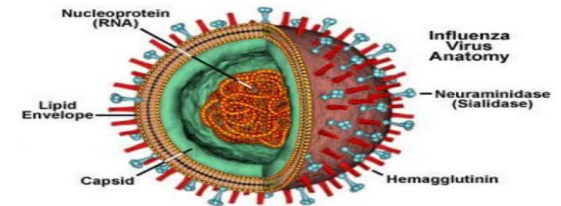


Decontamination



# 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



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# Original Objective

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

Branch.

PPE Usage  
& Disposal

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graph LR; A((PPE Usage & Disposal)) --> B[Protect field veterinarian and their community]; A --> C[Prevent cross-contamination between farms];
```

Protect field veterinarian and their community

Prevent cross-contamination between farms



# 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

# Aim of Work

## Protect

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

Apply biorisk management through  
PPE

## Build Trust

Between field veterinarians and  
poultry farms owners & workers

Provide simple, specific, accurate  
and applicable information

# Project Flow

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

Develop pre & post training  
questionnaires

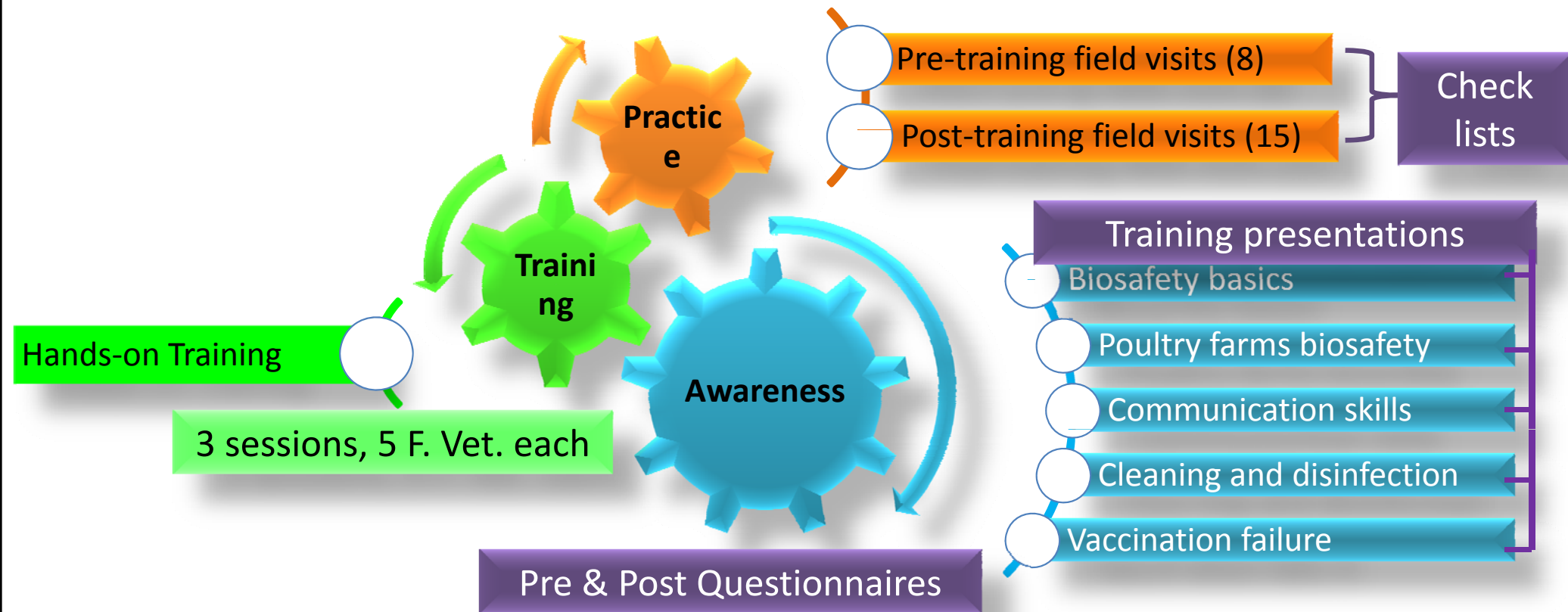
Implement training sessions & hand-  
on training

Post-training field visits

Data analysis

Final session

# Materials and Methods



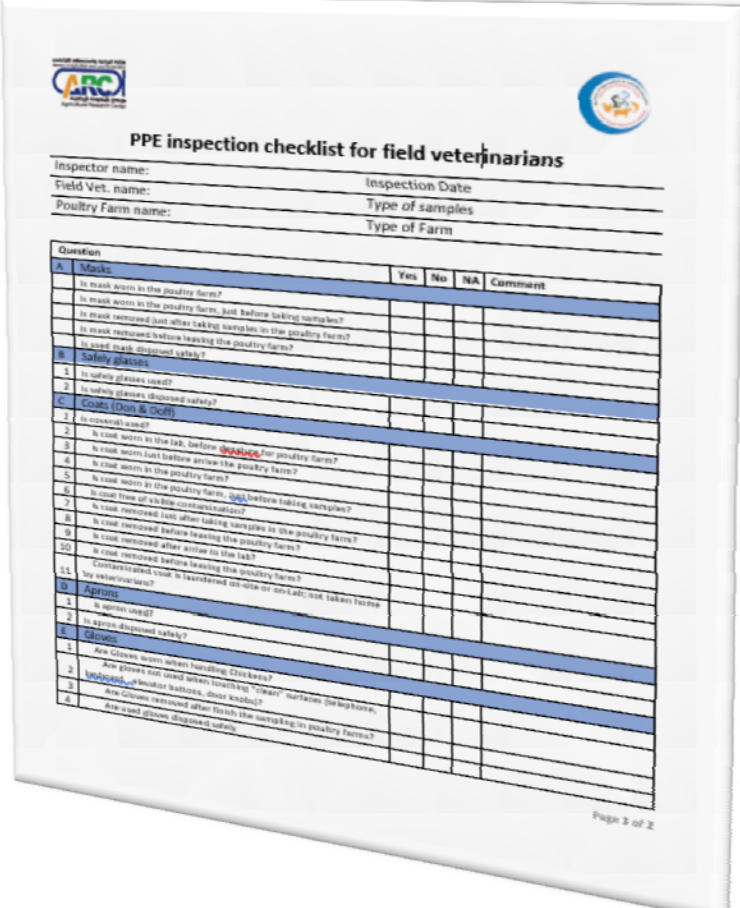
# Face-to-Face Communication

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?



The image shows a 'PPE inspection checklist for field veterinarians' form. It includes fields for 'Inspector name:', 'Field Vet. name:', 'Poultry Farm name:', 'Inspection Date', 'Type of samples', and 'Type of Farm'. The main body of the form is a table with columns for 'Question', 'Yes', 'No', 'NA', and 'Comment'. The questions are categorized into sections: A. Masks, B. Safety glasses, C. Coats (Don & Doff), D. Aprons, and E. Gloves. Each section contains several specific questions about PPE usage and disposal. For example, under 'Masks', questions include 'Is mask worn in the poultry farm?', 'Is mask removed just before taking samples?', and 'Is mask removed just after taking samples in the poultry farm?'. Under 'Safety glasses', questions include 'Are safety glasses used?' and 'Are safety glasses disposed safely?'. Under 'Coats (Don & Doff)', questions include 'Are coats used?', 'Are coats worn in the lab, before going to poultry farm?', and 'Are coats removed just before entering the poultry farm?'. Under 'Aprons', questions include 'Are aprons used?' and 'Are aprons disposed safely?'. Under 'Gloves', questions include 'Are gloves worn when handling chickens?', 'Are gloves not used when handling "clean" surfaces (e.g. tables, the floor, etc.)?', and 'Are gloves removed after touch the carcass in poultry farms?'. The form is marked 'Page 2 of 2' at the bottom right.

# 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

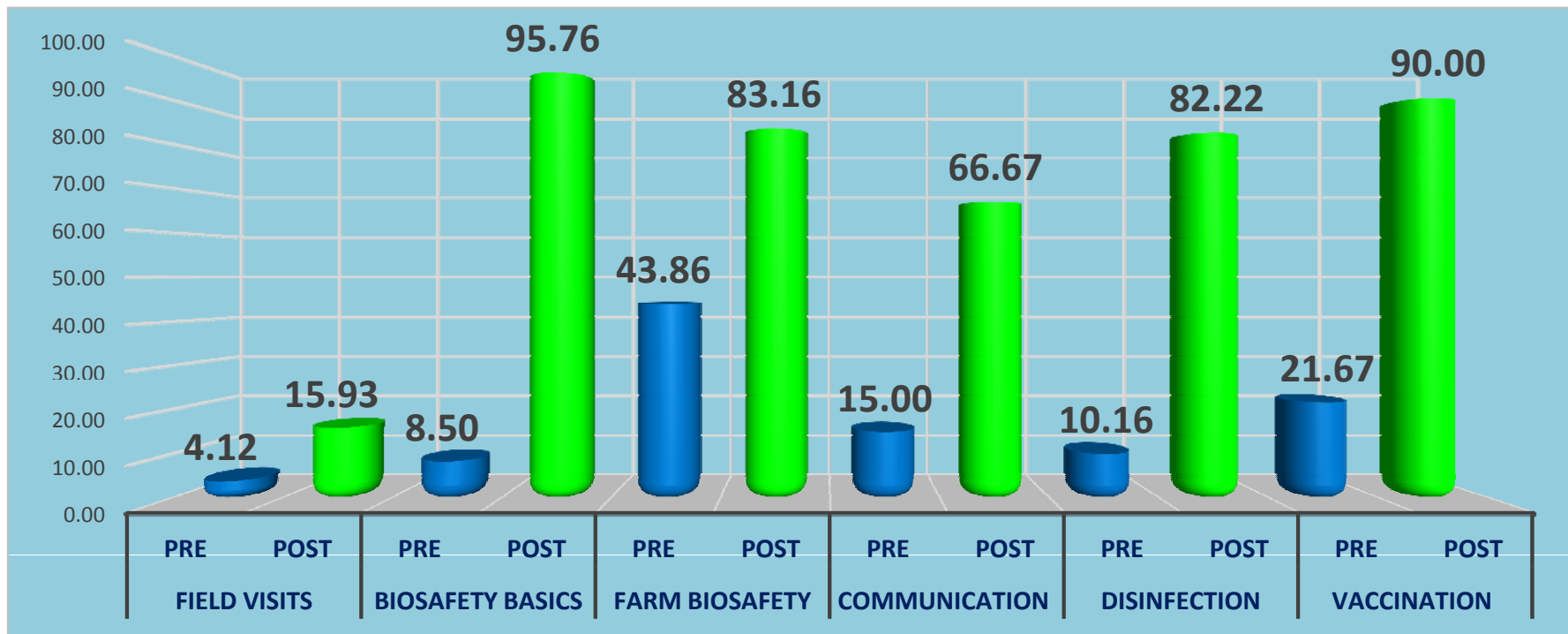
## Data Collection

- 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 %



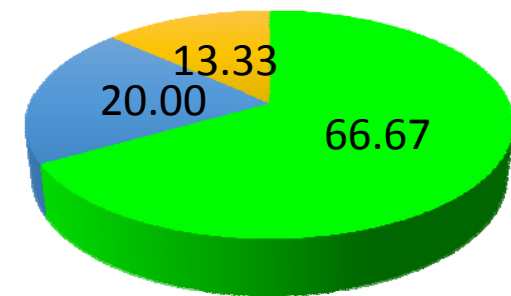
All Post-training results revealed a highly significant ( $P < 0.01$ ) increase in evaluation %.

■ Pre-training  
■ Post-training

# Two Main Challenges

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

No.	status	Action
10	Very interested	continuous training
3	Not interested	Face-to-face communication
2	Reject	Excluded from the field visits



■ Very Interested ■ No interest ■ Reject

**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?)

# 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


# Learned Lessons

- 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



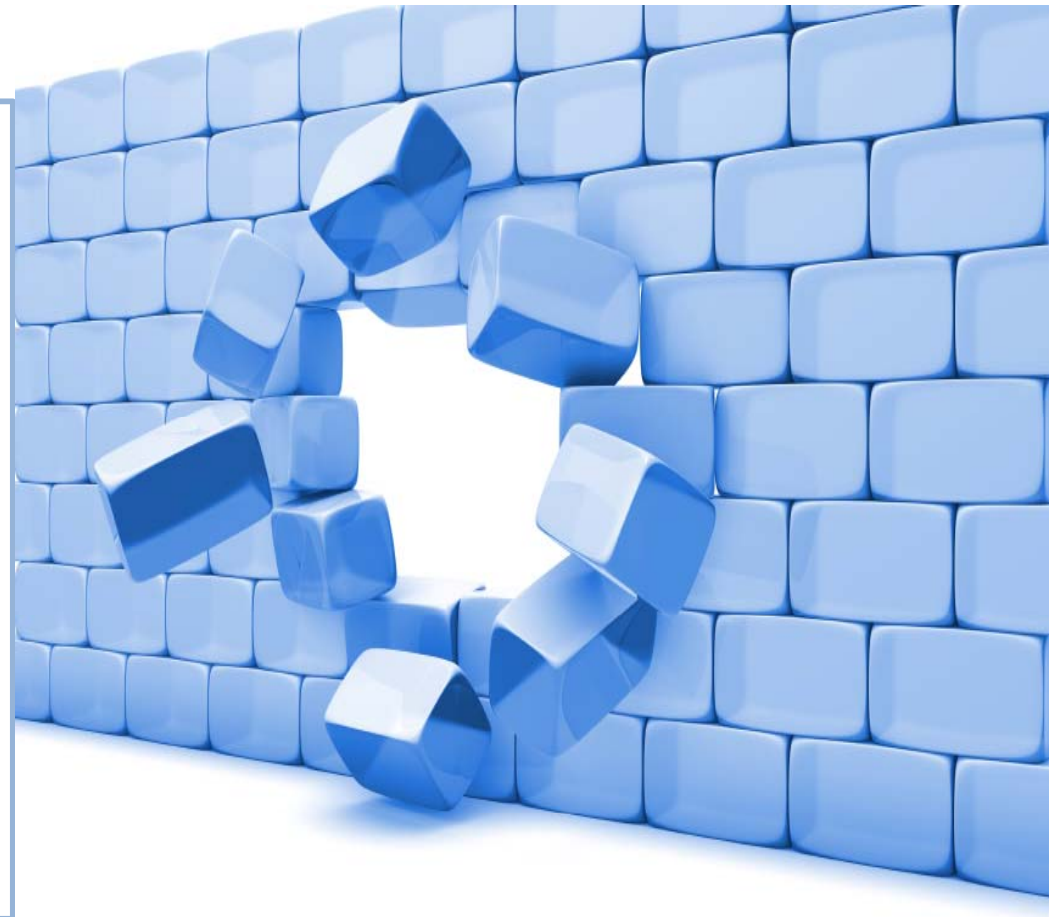
Improve  
awareness of  
farms owners  
and workers



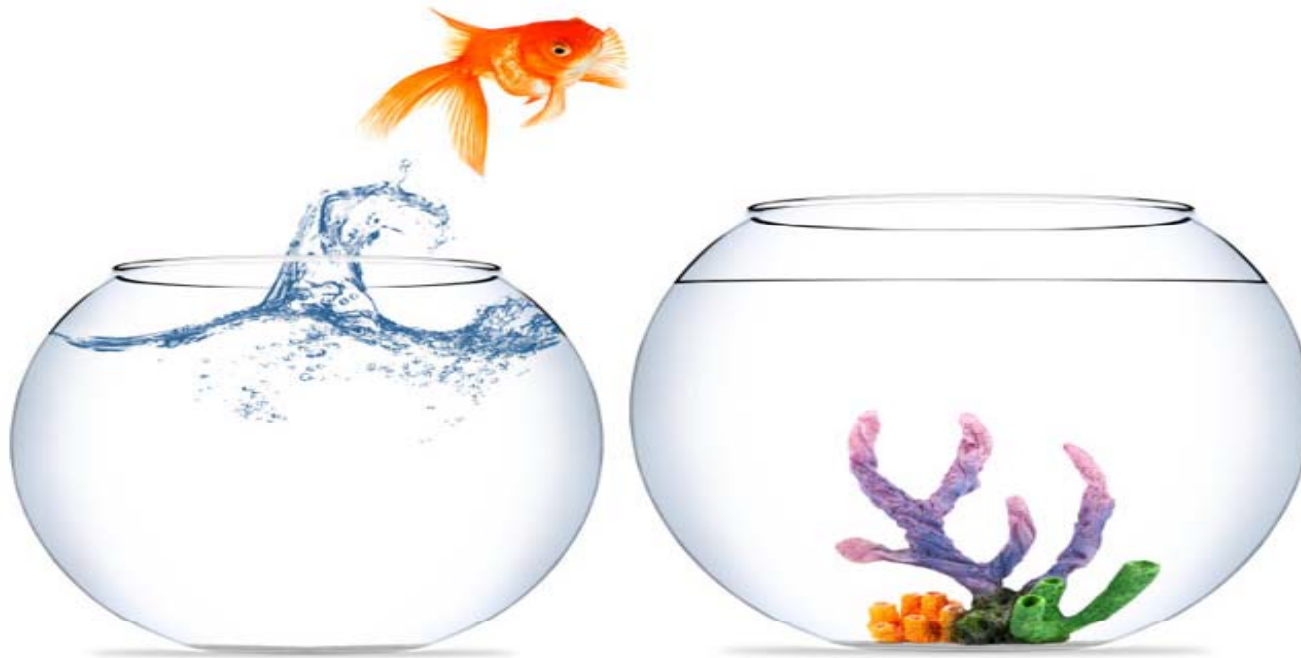
Applying the  
project to  
different AHRI  
branches

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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# Acknowledgements



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Benha Branch, Egypt



**Thank you for your kind attention**