Strategies to Prevent (STOP) Spillover

Impact Brief

Bangladesh

App-based early event detection system for live bird markets (LBMs)

Activity 2.2.2.3: Support stakeholders in the development and use of an integrated and coordinated app-based system to report poultry workers' health status and mortality in poultry and wild birds in and around LBMs

INTRODUCTION

In alignment with and furtherance of the JEE Indicator: P5.2. Response to zoonotic diseases, Indicator: D2.1. Early warning surveillance function, and Indicator: R1.3. Management of health emergency response:

The Country Team developed a mobile phone-based reporting system (SMS and app) where the live bird market (LBM) workers, cleaners, market committee members and consumers are able to report influenza-like illness (ILI) among LBM workers and mortality of poultry and pet birds sold within and wild birds in and around LBMs. The Country Team conducted several discussions with the relevant government partners, One Health Secretariat (OHS), Department of Livestock Services (DLS), Institute of Epidemiology Disease Control and Research (IEDCR), Bangladesh Forest Department (BFD), and Dhaka North City Corporation (DNCC) to finalize the target population, design the early event detection system and secure endorsement to ensure system uptake.

Both the mobile app and SMS gateway are integrated with a web platform from where the Country Team will verify the reports and information on 'signal' with the source and check to confirm accuracy and notify the pertinent department during the project period. The Team will also make summaries of the report on a monthly basis and send it to the relevant authorities – poultry workers' illness to IEDCR, poultry mortality to DLS and pet bird and wild bird mortality to BFD. The plan is that the relevant departments will share the reports in the One Health Dashboard monthly, which will be accessible by all pertinent departments - IEDCR, DLS, BFD and City Corporation. The OHS will be the custodian of the data and the app-based system.

Expected Outcomes

- An app-based early warning system that is efficient, feasible and acceptable for LBM stakeholders to report poultry and/or crow mortality and poultry workers' flu-like illnesses through their mobile phones.
- LBM stakeholders who are able to use this app to map poultry and/or wild bird mortality, poultry worker's illness with flu-like symptoms, and report data.
- At least one national stakeholder (i.e., OHS) able to receive, manage, and utilize data.

Training Sessions on Early Event Reporting System

ACTIVITY AT A GLANCE

- Conducted training sessions for LBM workers and piloted the app at two selected LBMs, provided internet access for registered users to facilitate reporting, and continued to provide ongoing troubleshooting support within the LBMs.
- Consumer registration and training on early event reporting system in two selected LBMs are ongoing.
- Initiated verification of reports and collection of environmental samples for reported cases of poultry mortality from two selected LBMs
- Conducted a meeting with the Consultant of the Smart City program of Dhaka North City Corporation (DNCC), during which he expressed interest in collaborating on the early event detection system.

Consumer registration and training on Early Reporting System

Collection of cloacal and tracheal swab from dead poultry

Photos courtesy of STOP Spillover Bangladesh team

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