IDP HPAI
Indonesian-Dutch Partnership Program on Highly Pathogenic Avian Influenza Control
Ministry of Agriculture | Directorate General of Livestock Services
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HPAI Surveillance in Poultry Collecting Facilities (PCFs) in Jakarta, Indonesia

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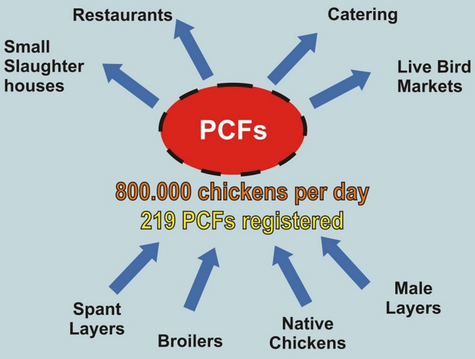
Introduction

One of the possible sources for virus persistence is trading with infected poultry (Hall, 2004; Morris et al., 2005; Kilpatrick et al., 2006). This trading often occurs via live bird market (LBM). In Indonesia, this is an esseential element of the market system for marketing poultry. LBM and Poultry Collecting Facility (PCF) are a preferred place for many people to purchase poultry for consumption (Cardona et al., 2009)



Objective

- To detect the presence of HPAI in PCFs
- To determine what proportion of PCFs are contaminated with HPAI
- To measure the frequency of HPAI infected poultry batches
- To identify hotspots of HPAI in the country
- To collect virus strains circulating in commercial poultry

Material and Methods

- Sentinel birds free of antibodies against AI were placed on the PCF
- Trachea and cloaca swabs were collected from incoming poultry batches
- All swabs and samples of dead sentinel birds were tested in the influenza Matrix and H5 PCR

Result

Table 1. Results using sentinel birds

Total	No PCFs H5 PCR positive (%)
38	32 (84.2)

Sentinels bird died and tested positive on 32 of 38 PCF involved in the surveillance programme (table 1). Samples of collected from incoming poultry were frequently positive in the M and H5 PCR. 2008 (1.4 %) and in period 2009-2010of the sampled batches were positive in the M PCR (3.2%). In 2008 positive samples were detected at 3 of 12 PCFs and in 2009-2010 12 of the 40 PCFs that were sampled (Table 2). Mainly broilers and native chicken batches were positive.

Table 2. PCR results of samples collected from in incoming poultry batches

Result	2008	2009-2010
	No. positive/tot. (%)	No. positive/tot. (%)
(+) Poultry Batch	8/381 (1.4)	50/1549 (3.2)
PCFs with (+) batches	3 /12 (25.0)	12/40 (30.0)

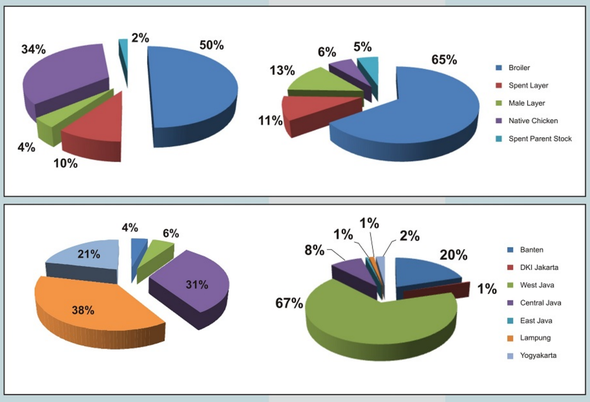


Figure 2. Distribution of incoming batches related to poultry type (upper panel) and region (lower panel)

Conclusions

- ✓ 1.4% (2008) and 3.2% (2009/2010) of incoming batches was HPAI M and H5 positive
- ✓ 25% (3/12) of PCFs (2008) and 30% (12/40) of PCFs in 2009-2010 were infected by H5
- ✓ Percentage of infected batches differed between different areas
- ✓ Virus was detected in all types of poultry

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