

# Integrated HPAI control in kampong chicken in Indonesia – an overview on ILRI's research and lessons learned

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A boy presenting his Kampong (village) chicken in a village in Java, Yogyakarta province. Unger 2010.

## Introduction

Highly pathogenic avian influenza (HPAI) caused by H5N1 was first detected in poultry in Indonesia in 2003. HPAI affected all production systems from parent stocks to village (kampong) chickens. The island of Java hosts 60% of the poultry population of the country. Avian influenza in poultry is considered to be endemic and fatal cases in humans are sporadic since its introduction. In an attempt to support the Indonesian government in making decisions to limit the spread of HPAI while minimizing its impact on different socio-economic groups, research by the International Livestock Research Institute (ILRI) has focused on two main areas: (a) village chicken vaccination and (b) risk reduction strategies suitable for pro-poor households with backyard chicken.

## Materials and methods

### Village chicken vaccination (Operational research, 2007-2009)

- Mass vaccination trials in Kampong chicken, 16 districts of Java, Indonesia
- Supporting targeted studies (all in Kampong chicken):
  - Effect of booster vs. non-booster vaccination (lab trial)
  - Community trials (to monitor Kampong chicken population dynamics, exit/entries)



### Risk reduction strategies suitable for pro-poor households with backyard chicken, District of Bogor (2008-2010)

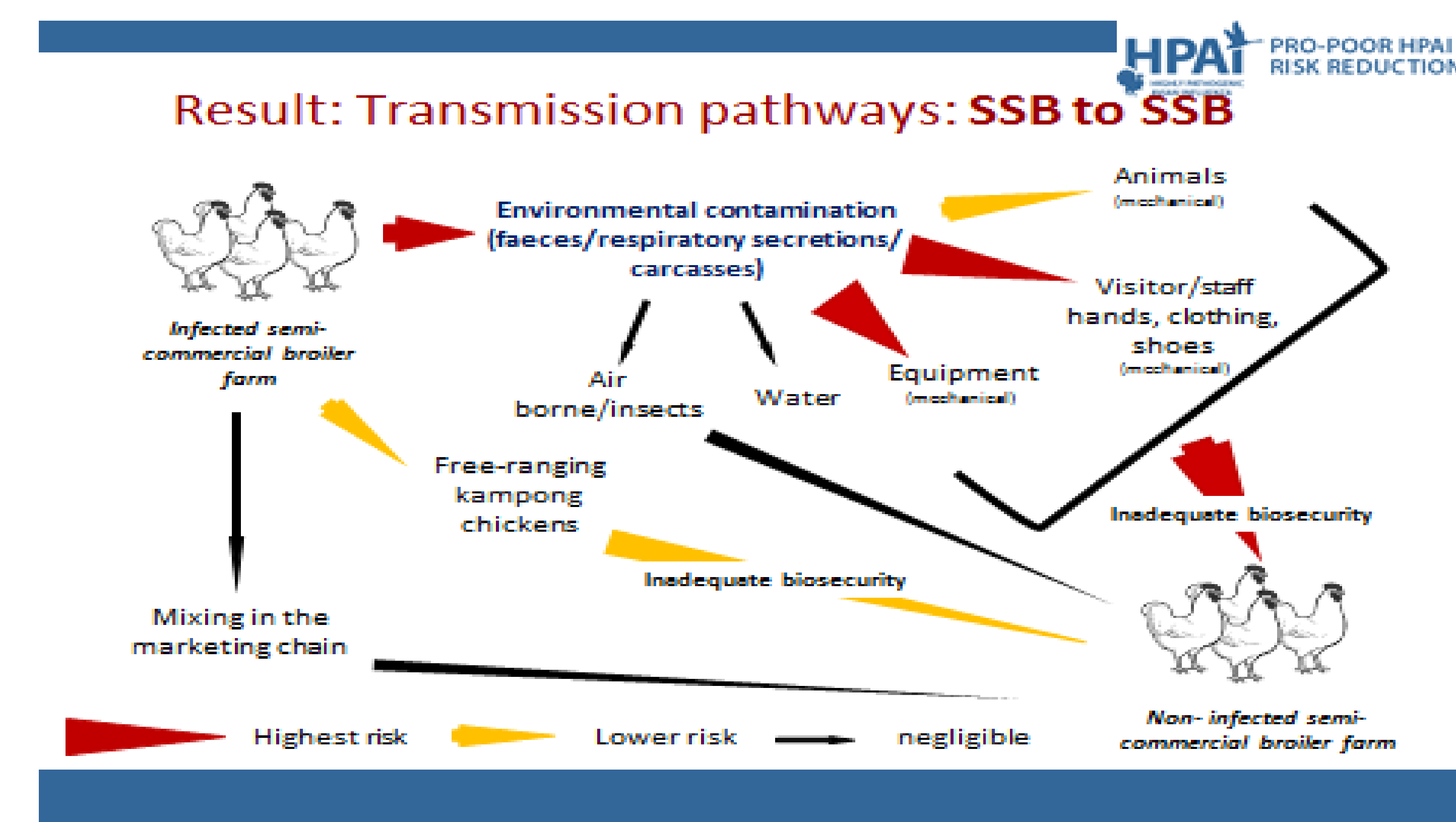
- Integrated research design with various components (e.g.):
  - Risk assessment (qualitative/quantitative)
  - Value chain analysis
  - Livelihood impacts (qualitative/quantitative)
  - Synthesis (risk mitigation analysis).

## Selected results

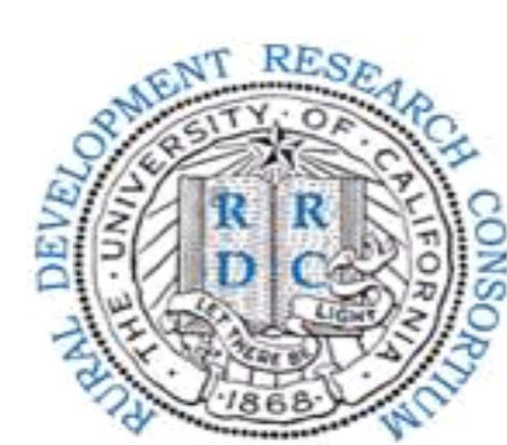
- Booster vaccination regimes with a quarterly re-vaccination achieved significant higher serological responses (HA titre)
- Results suggest day 14 of vaccination age in Kampong chicken achieved most promising serological responses
- Turnover rates in community trials indicate that 39-45% of Kampong chickens were consistently under 2 months of age

## Selected recommendations/ research into use

- Reflected in Government strategy
- Vaccination was most effective if applied with 14 days or older
- Due to high population turnover vaccination needs to be repeated at least every 3 months
- A booster regime is required



- Reflected in Government strategy
- Widespread evidence-based producer/collector/trader education on the importance and effectiveness of biosecurity and how to be effectively applied.
- Incentives for single rather than multiple harvesting (over time) from broiler flocks



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