

***Measures to control
Avian Influenza and
Pandemic Preparedness
in Vietnam***

**MEETING ON AVIAN INFLUENZA &
HUMAN PANDEMIC INFLUENZA
Geneva, 7-9 November 2005**

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Vice-Minister
Ministry of
Agriculture & Rural
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PRESENTATION OUTLINES

I. AI situation in Vietnam

- AI outbreaks in poultry
- Infection of H5N1 in human

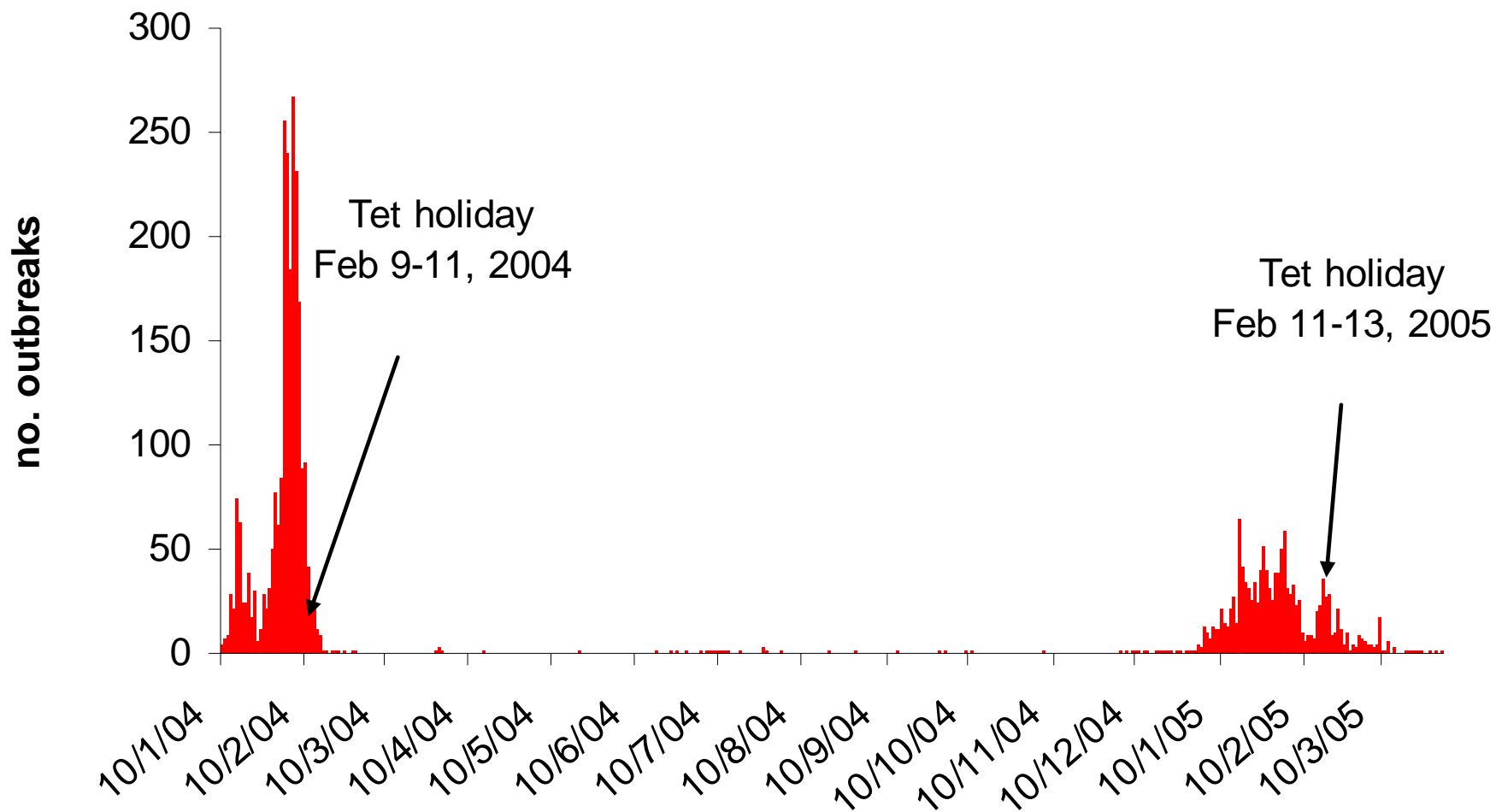
II. Response to AI outbreaks

- On-going measures controlling and preventing AI in poultry and infection of H5N1 in human
- Pandemic preparedness

III. Main issues

IV. International assistance needed and Coordination

Two peak outbreaks of AI in poultry coincides in winter season 2004 and 2005



First epidemic from Dec 2003 to August 2004:

-45 million poultry culled

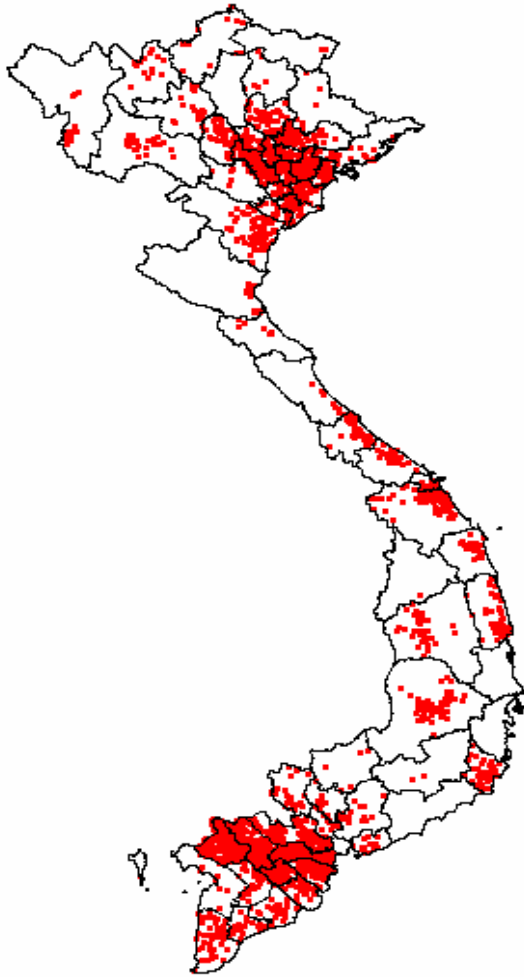
-27 human case infected: 16 died (at 16 provinces)

Second epidemic from Dec 2004 to July 2005:

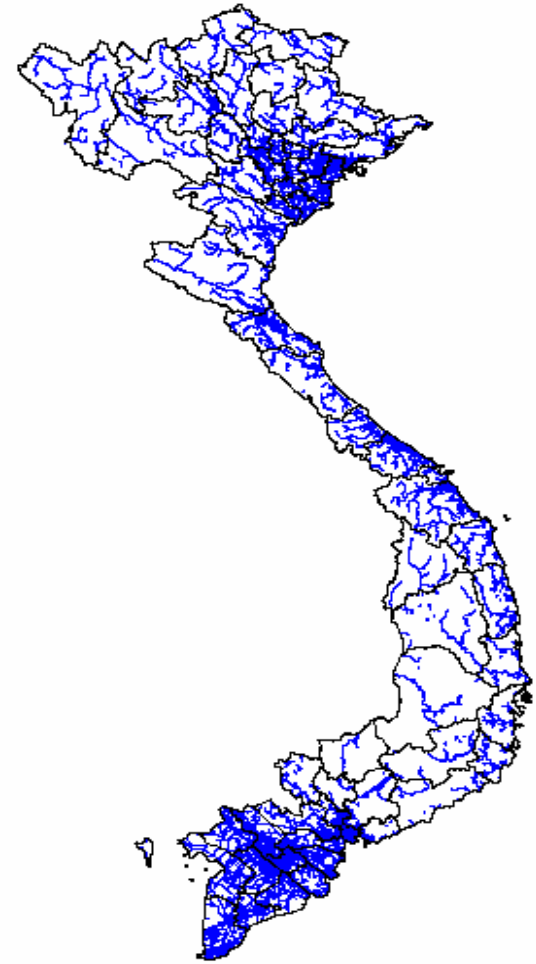
-2 million poultry culled

-64 human case infected: 21 died (at 21 provinces)

1st AI Epidemic: Communes affected

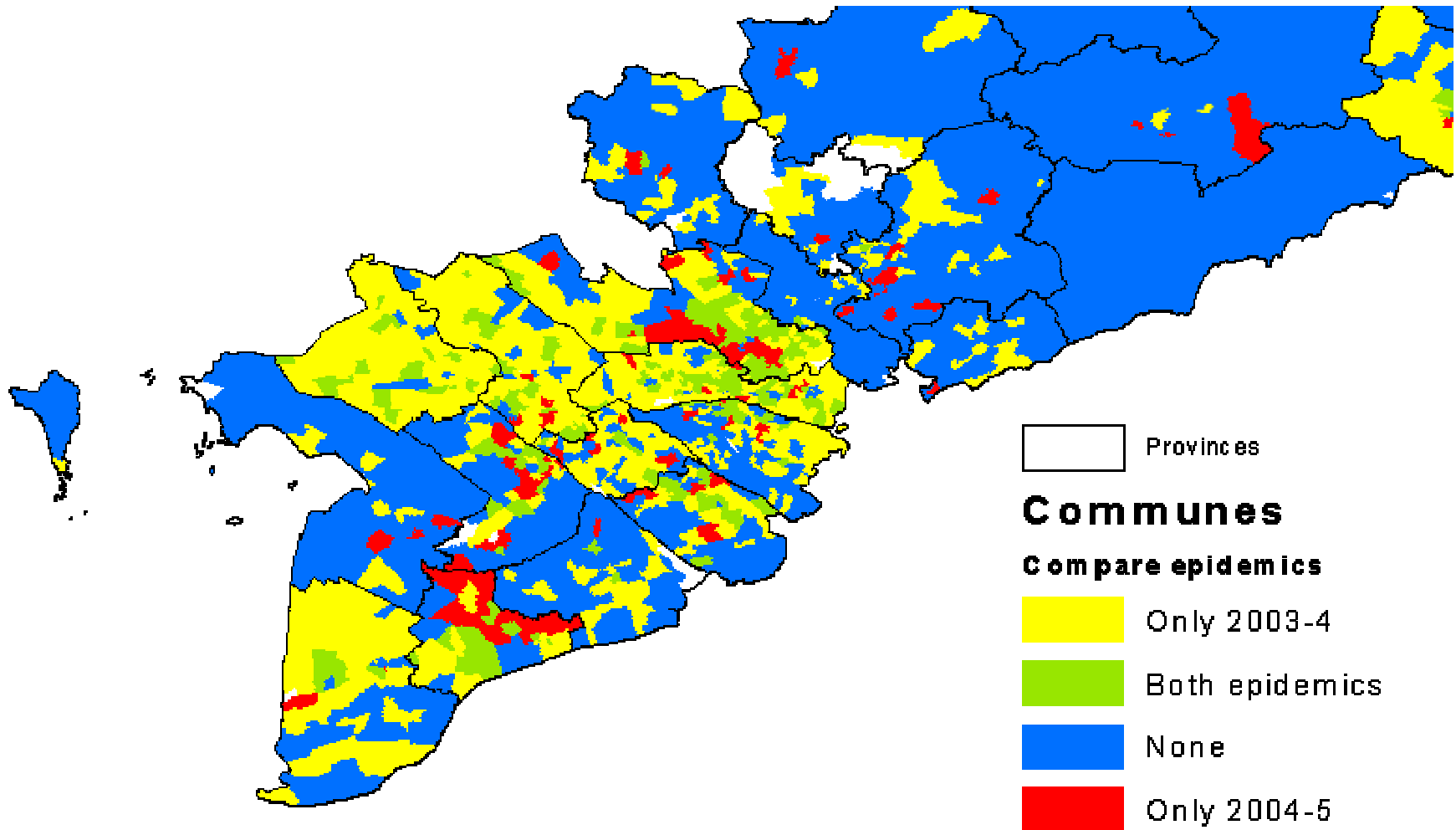


outbreaks

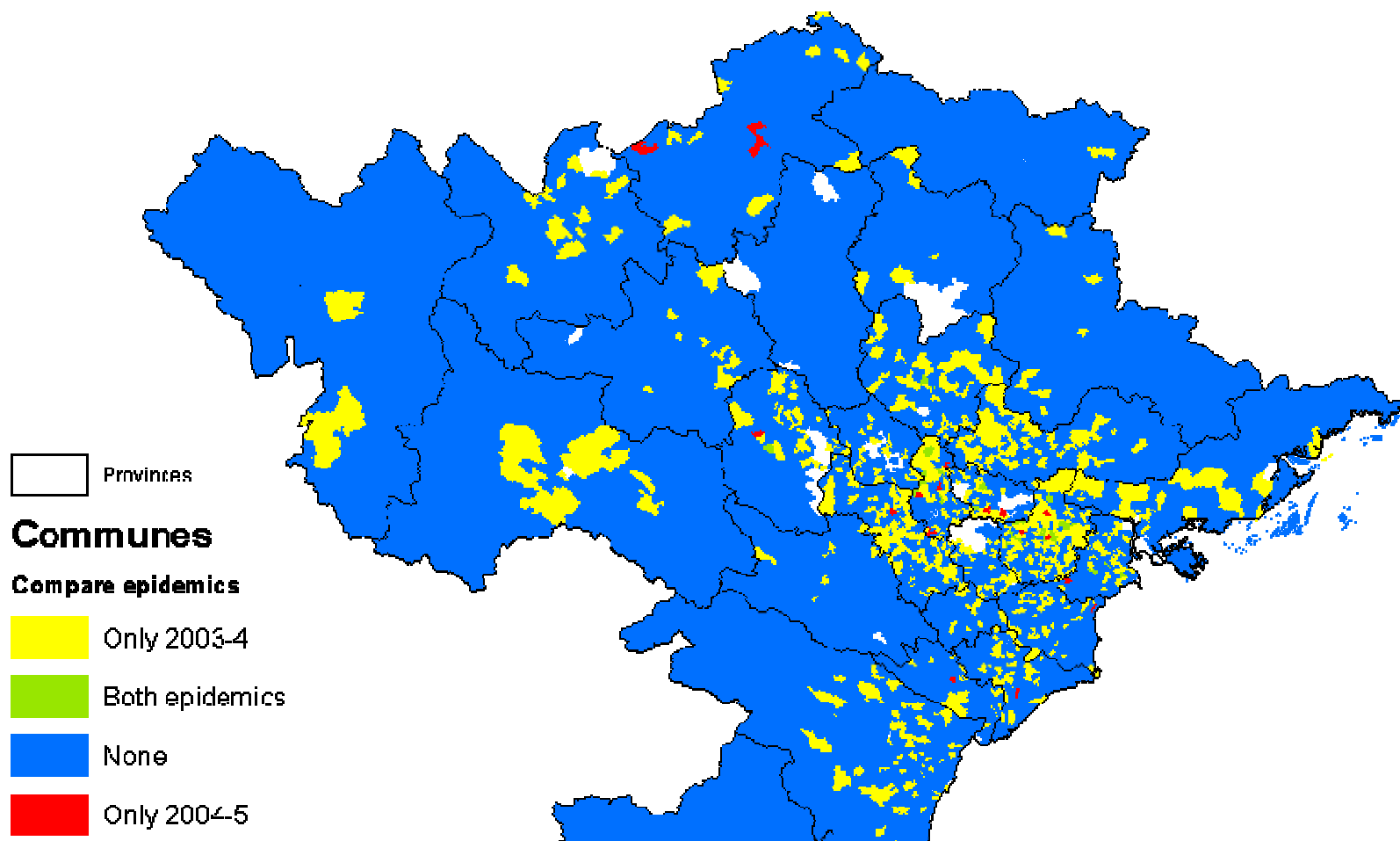


River density

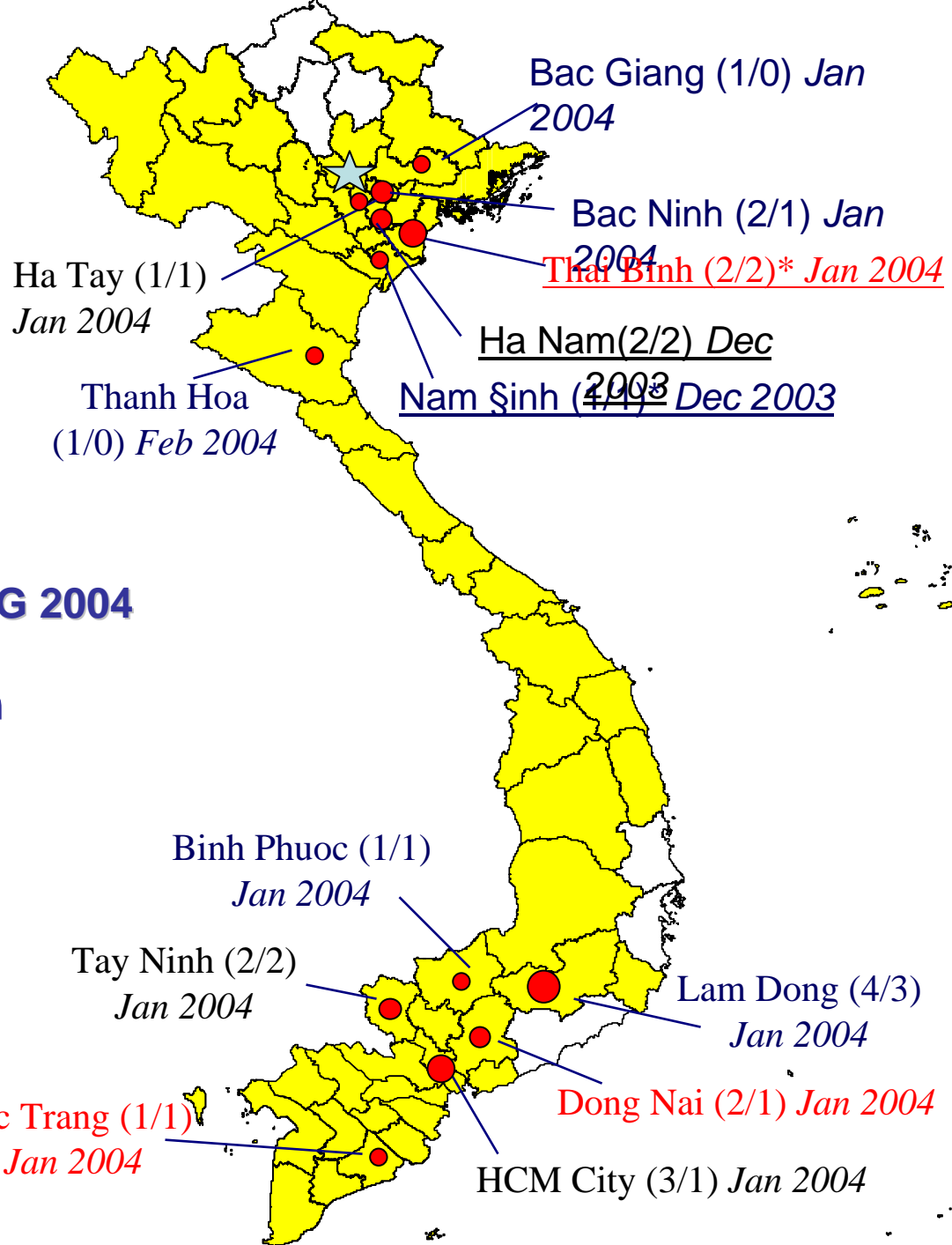
Comparing Affected Communes in Southern Vietnam between Epidemics



Comparing Affected Communes in Northern Vietnam between Epidemics



Timeline and Geographic distribution of h5n1 cases in Vietnam



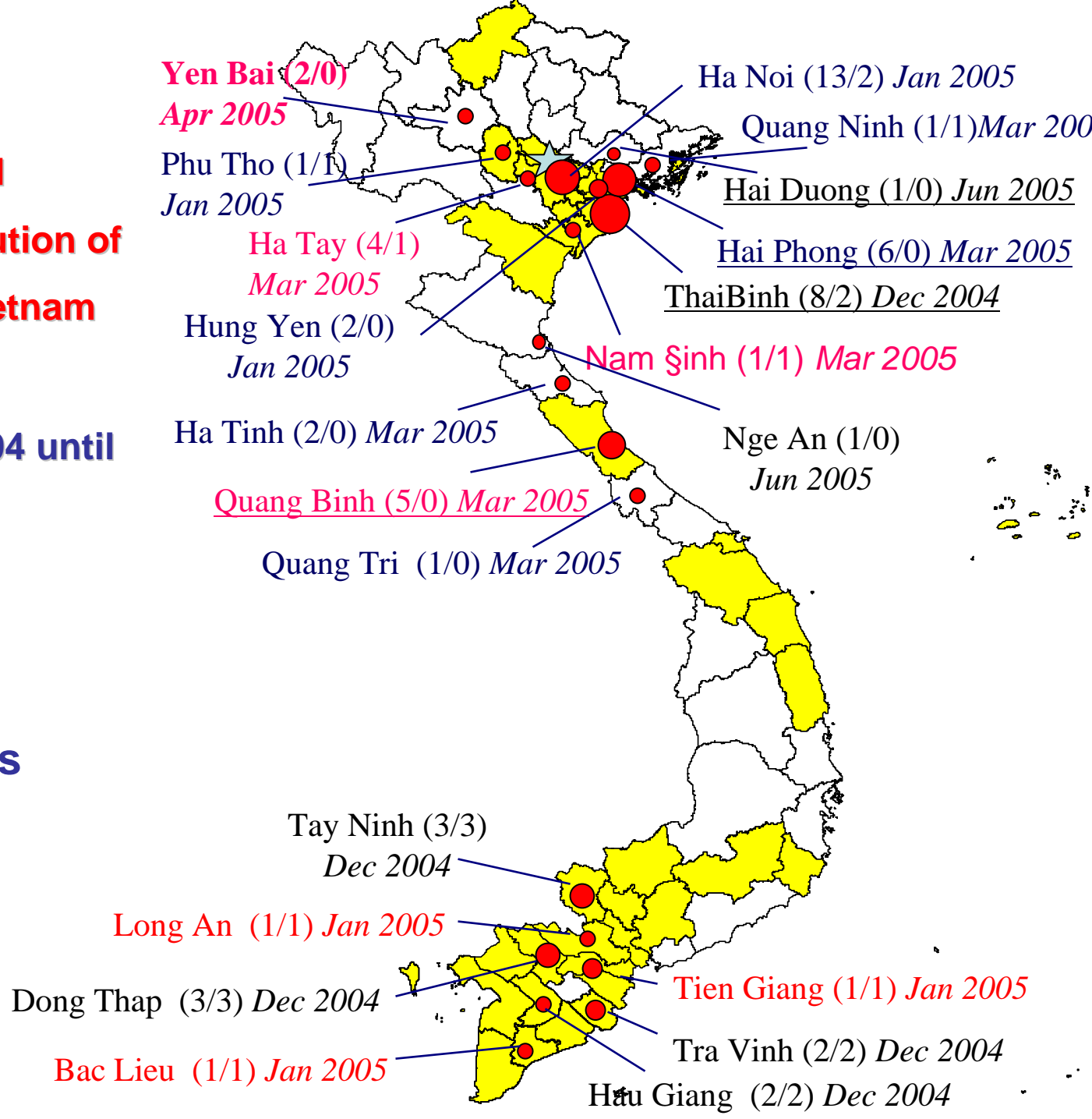
wave 1: from dec 2003 to AUG 2004

➤ 15 provinces have human outbreaks; 27 cases, 16 deaths

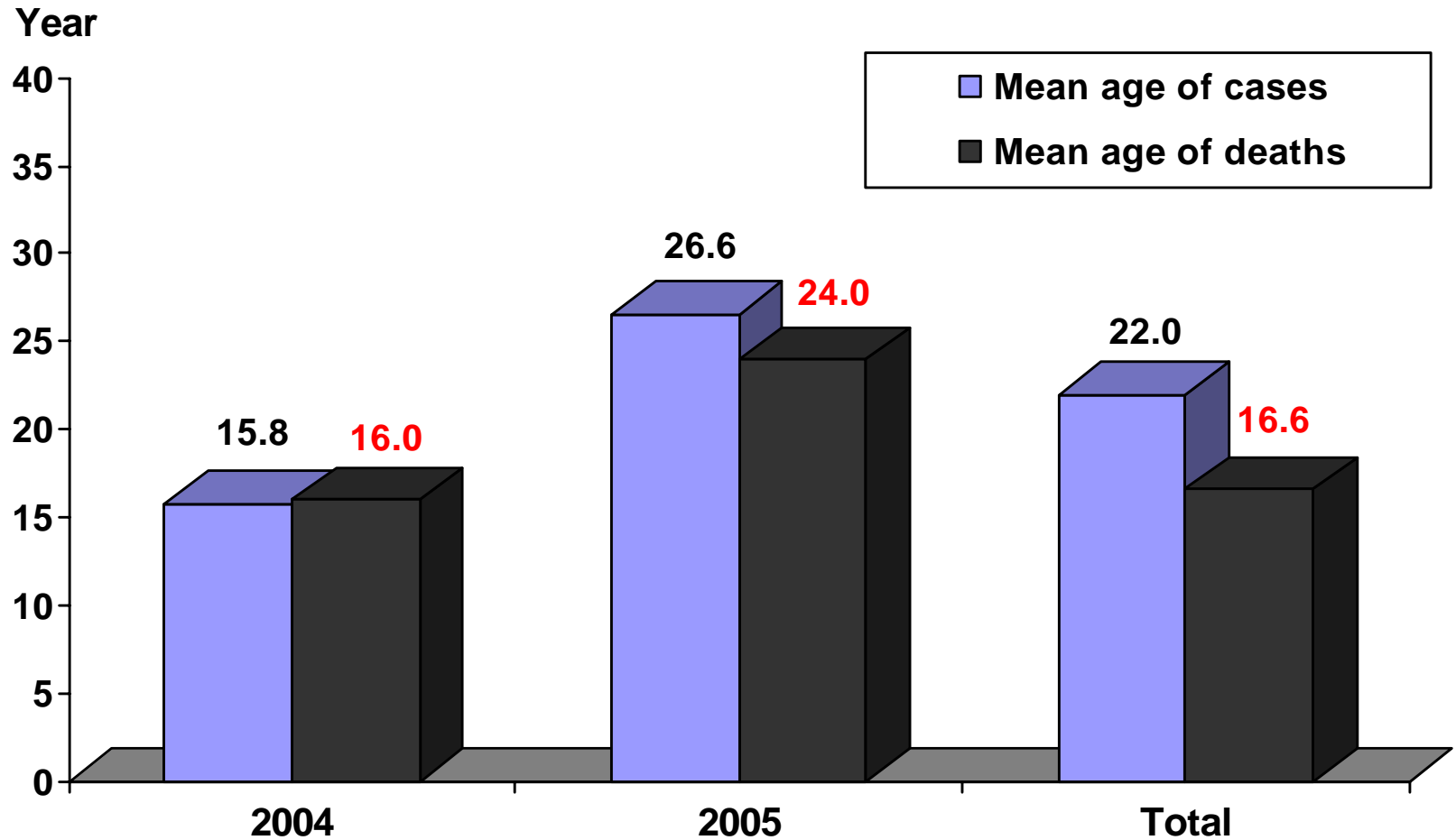
**Timeline and
geographic distribution of
h5n1 cases, in Vietnam**

**wave 2: from dec 2004 until
now**

➤ **22 provinces
have human
outbreaks; 60
cases, 18 deaths**



mean age of death cases by year



A summary of loss due to AI outbreaks

Poultry sector:

Reduced 0.5 GDP in 2004

Human:

**41 dead (out of 91 infected by
H5N1)**

Observations of AI epidemic: Poultry

- 1. Healthy duck is a reservoir of AI virus**
- 2. Seasonal outbreaks (in winter)**
- 3. Most affected regions: paddy land with dense network of rivers/canals, dense population of AI**
- 4. More outbreaks in backyard raising of poultry**

Observations of AI epidemic: Human

- 1. H5N1 viruses seem to be more infectious for people**
 - in 2005 less severe in poultry but more dead cases**
 - Human cases occurred in all age groups, with the increasing mean age**
- 2. Majority of human cases have exposed history to infected poultry**
- 3. Disease patterns is changing: Clinical symptoms become milder, more asymptomatic cases; case-fatality rate is decreased**
- 4. Human genetic factors may play an important role in susceptibility to the virus.**
- 5. No clear evidence of human to human transmission is available, but there were cases of family clusters infected**

On-going measures to control AI

Vietnam now is in phase 3 of WHO scale, the utmost objectives are:

- to prevent the repeated occurrence of AI outbreaks in poultry, preventing to spreading of virus infection in poultry to control basically AI
- to limit to minimum and prevent human infection of H5N1
- to prevent a possible pandemic

On-going measures to control AI (cont.)

A. Political commitments and transparency

- Priority for activities at all levels
- Priority for investment
- National Steering Committee on AI Prevention and Control and Local Committee (province, district levels)
- Multi-sector cooperation and operation, particularly agricultural sector and human health sector.
- Transparency: outbreak announcement, human case announcement, international exchange information and report, full cooperation with international organizations and experts and with press

On-going measures to control AI (cont.)

B. Measures to control AI in poultry

1. Surveillance and reporting of disease

- Establishing HPAI Surveillance Taskforces from central to grassroots levels
- Increasing patrols to villages and farms
- Enhancing information system from central to grassroots levels
- Regularly monitoring live bird markets
- Increasing border controls
- Monitoring of wild and immigrating birds

2. Improving AI diagnostic capability

- Upgrading AI diagnostic capability for national, regional and provincial laboratories
- Establishing National Reference Laboratory for AI

On-going measures to control AI (cont.)

3. Culling of infected birds and birds in the high risk areas

- Compensation to farmers

4. Disinfection of infected areas

- Carrying out weekly cleaning and disinfection of poultry premises in the lower risk areas and three times per week for farms in the high risk areas

5. Control of poultry movement

- Strengthening the system of animal quarantine and inspection stations at borders
- Establishing domestic inspection check-points at main roads

On-going efforts to control AI (cont.)

6 Vaccination

- **Approved the Plan of Using Vaccination to Control and Eradicate HPAI for the period 2005-2006 (US\$15,3 million)**
- **Starting vaccination in September 2005. To 5 November 2005, 80 million poultry vaccinated, 70 million more will be vaccinated till the end of November 2005 before winter.**
- **Vaccination will continue in 2006**

On-going efforts to control AI (cont.)

7. Re-structuring poultry production

- Ban on raising poultry, hatching establishments in urban areas
- Poultry in small holders must be kept separate from human's houses and be kept in sheds or confined in fenced areas
- Ban of free-ranging of waterfowls, ban of mix-raising chickens with waterfowls

On-going efforts to control AI (cont.)

8. Re-structuring the poultry slaughtering and marketing systems

- **Ban of slaughter-points in the cities**
- **Building up standardized slaughter factories**
- **Ban sale of live birds in markets in the cities.**
- **Poultry and poultry products must be inspected by veterinary authority before permitted to circulate in the market**
- **Poultry is only allowed to transport with proper vehicles.**

On-going efforts to control AI (cont.)

B. Measures to control AI infection in human

- 1. Improved surveillance and detection for preventive medicine**
 - 2. Improved diagnosis capability**
 - 3. Quarantine newly-infected cases**
 - 4. Divisions of communicable diseases in provincial hospitals to be ready for patient admission, quarantine and treatment**
 - 5. Building of prevention teams to boost prevention, particularly in households with infected patients**
 - 6. Preparedness of medicine, chemicals and specialized facilities, esp. protection equipment for health workers and poultry breeders.**
 - 7. Training for health workers at all levels on influenza**
- A prevention and treatment**

On-going efforts to control AI (cont.)

C. Public awareness and education

- Approved the Public Awareness Plan
- Making use of all means of media: TV, radio, newspapers, leaflets, posters, etc

D. International cooperation

- FAO, OIE, WHO, WB, etc.
- Liaison with donor countries
- Cooperation with neighboring countries

NATIONAL PREPAREDNESS PLAN IN RESPONSE TO AVIAN FLU EPIDEMIC H5N1 AND HUMAN INFLUENZA PANDEMIC

The National AI Pandemic Preparedness Plan has been jointly developed by relating Ministries in collaboration with international organizations (UNDP, FAO, OIE, WB...). The plan was approved by the Government in mid-October 2005

OBJECTIVES

- 1. To be well prepared for responding effectively to flu pandemic**
- 2. To prevent the emergence of flu pandemic in the country**
- 3. To limit flu incidence rate and mortality rate in human**
- 4. To prevent the emergence of flu on the global scale**

**PRESENT
STATUS:
ENDEMIC**

PANDEMIC PREPAREDNESS

Scale 6

Scale 5

Scale 4

Scale 3

URGENT NEEDS:

-Laboratories (BSL 3): 3 labs for animal health sector and 3 labs for human health sector

-2 million protective cloth sets

-500 tons of disinfection chemicals

-1 million antivirus doses (Tamilflu)

-1,000 aspiration machines

Cost: 30 million USD

MAIN ISSUES

A. Controlling AI in poultry

- Backyard practices of poultry farming, mixing raising animals in households
- Wandering ducks/ high duck population/ virus remains in duck
- Backward slaughter & market systems
- Vaccination issues: Household poultry vaccination, manpower (need 2,000 vaccination staff/province: a total of 100,000 staff, poultry vaccines imported, surveillance after vaccination), payment for vaccinators
- Restructure of poultry sector (financial support to farmers, to encourage industrialization of poultry sector)
- Weak veterinary infrastructure: labs for diagnosis, qualified staff, surveillance and reporting systems at district/province levels. Weak early reporting system
- Public awareness (still a big gap)

MAIN ISSUES (Cont.)

B. Prevention of human infection

- Close contact of human-poultry
- Weak human health infrastructure
 - Lack of laboratories facilities (level 3) for diagnosis and study of virus
 - Lack of facilities in centers for treatment, quarantine and transportation
- No preventive vaccines, lack of antiviral medicine

C. Issues in Pandemic Preparedness

- Lack of stockpile of antiviral drugs
- Lack of hospital facilities (at central and local levels)
- Difficulties in early detection/isolation and control of human movement (crowded population)



Chicken-Duck mixed raising in opened backyard

**Free movement of duck - canal/
rivers - floating market**



Live poultry market/on-site slaughter



2004 1 21

ASSISTANCE REQUESTED FROM INTERNATIONAL COMMUNITY

A. Controlling AI in poultry

- Strengthening disease surveillance including post-vaccination surveillance, diagnosis capability (lab facilities), reporting systems and HPAI research (virus change, transmission)**
- Poultry sector restructure (production, slaughter, market, consumption)**
- Development/production of poultry vaccines**
- Manpower training (at central level and local levels)**

ASSISTANCE REQUESTED FROM INTERNATIONAL COMMUNITY (cont.)

B. Prevention of human infection

- Health care infrastructure (labs for diagnosis)
- Production of human vaccines, antiviral drugs
- Research
- Manpower training

C. Pandemic Preparedness

- Equipments, bio-security protection and chemicals
- Stockpile of antiviral drugs, human vaccines
- Hospital facilities
- Simulation exercises of pandemic
- Information network

ASSISTANCE REQUESTED FROM INTERNATIONAL COMMUNITY : FUNDING

- **2006-2005: 50 Million USD**
- **2007-2010: 100 Million USD**

ASSISTANCE REQUESTED FROM INTERNATIONAL COMMUNITY : COORDINATION

- **Multilateral: UN (UNDP) Coordinator - Govt of Vietnam - Ministry**
- **Bilateral: Donor- Govt. of Vietnam – Ministry**

