

**October 2010**

**Veterinary Public Health Workshop in HK**

# **Prevention and Control of Zoonoses in Mainland China**

**Disease Prevention & Control Bureau, Ministry of Health //  
Department of Health of Tibet**

**Dr. Qing Hua HE**

# Contents

- ❁ **Epidemiological trend of communicable diseases**
- ❁ **Major zoonotic diseases**
- ❁ **Surveillance and control strategies**



# Statutory Notifiable Communicable Diseases

<b>A</b>	<b>plague, cholera</b>
<b>B 26</b>	<b>influenza A H1N1, atypical pneumonia, avian-human influenza, anthrax, scarlet fever, bacillary and amebic dysentery, typhoid and paratyphoid, rabies, haemorrhagic fever, dengue fever, brucellosis, leptospirosis, AIDS, viral hepatitis, poliomyelitis, measles, cerebrospinal meningitis, pertussis, diphtheria, encephalitis B, tetanus neonatorum, gonorrhoea, syphilis, schistosomiasis, malaria, tuberculosis,</b>
<b>C 11</b>	<b>influenza, conjunctivitis, infectious diarrhea, hand-foot-mouth disease, epidemic and endemic typhus, parotitis, rubella, leprosy, kala-azar, echinococcosis, filariasis</b>



# **Epidemic trend of Communicable diseases**

- ◆ **Report on Statutory Notifiable Communicable Diseases for 2009**
  - ◆ **5,898,415 cases**
  - ◆ **15,267 persons died**
  - ◆ **The incidence rate is 444.15 per 100,000 persons**
  - ◆ **The mortality rate is 1.15 per 100,000 persons**



# **Epidemic trend of Communicable diseases**

## **◆ Group A and Group B Communicable Diseases**

- ◆ 3,499,485 cases**  
incidence rate is 263.52 per 100,000 persons
- ◆ 14,848 persons died**  
mortality rate is 1.12 per 100,000 persons
- ◆ Incidence or death from these communicable diseases (except infectious atypical pneumonia, poliomyelitis and diphtheria) have been reported**

## **◆ Group C Communicable Diseases**

- ◆ 2,398,833 cases**  
incidence rate is 180.63 per 100,000 persons
- ◆ 416 persons died**  
mortality rate is 0.03 per 100,000 persons



# Epidemic trend of Communicable diseases

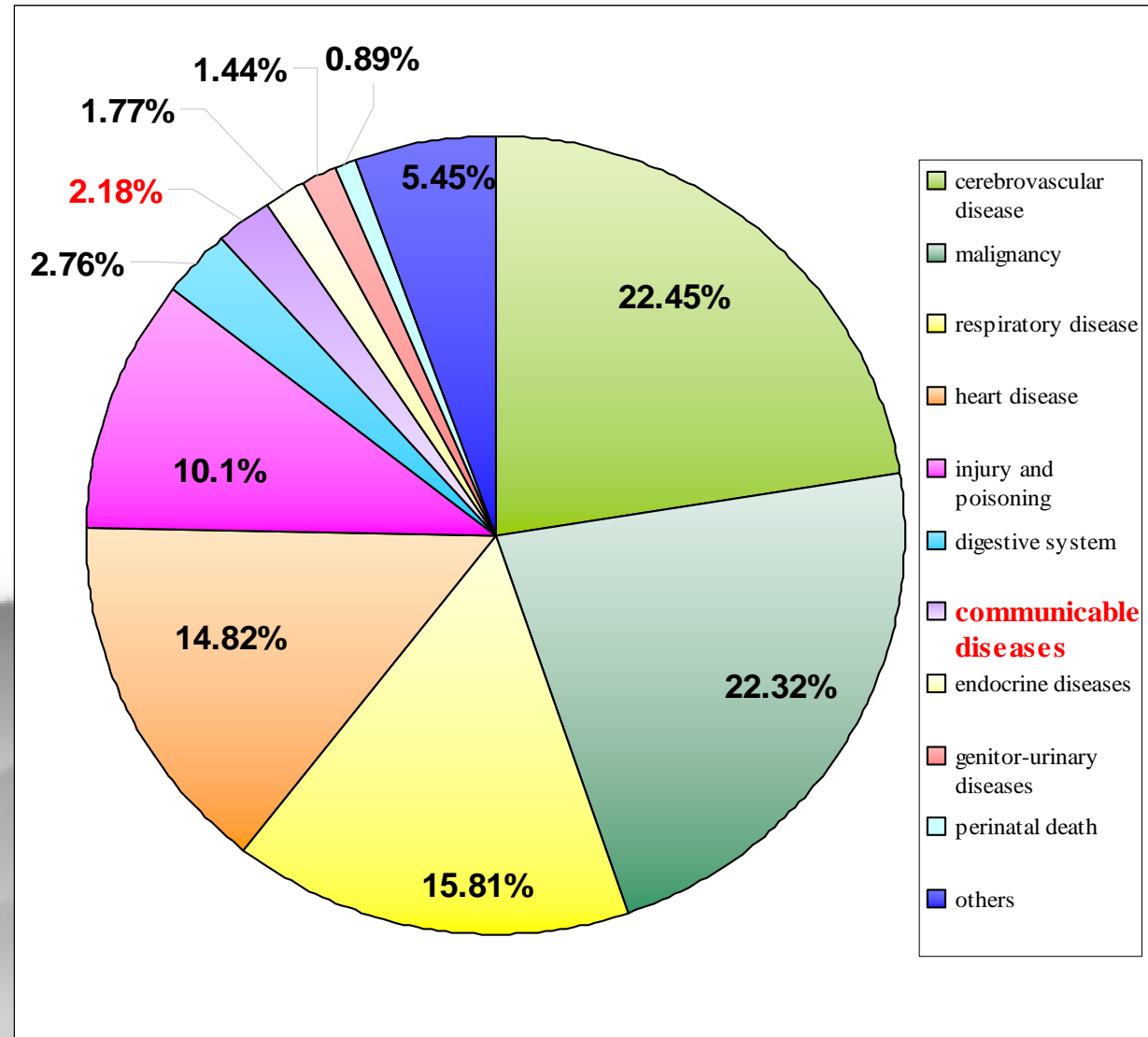
## ❁ 2009 vs. 2008

- ❁ The number of blood-borne and sexually transmitted diseases has increased by 3.92%.
- ❁ The number of communicable respiratory diseases has decreased by 13.83%.
- ❁ The number of communicable intestinal diseases has decreased by 12.64%
- ❁ The number of natural foci and vector-borne diseases has decreased by 5.17%.
- ❁ The number of Group C communicable diseases has increased by 38.63%, mainly due to the growing number of hand-foot-mouth disease cases (480 000 - 1.15 million cases)

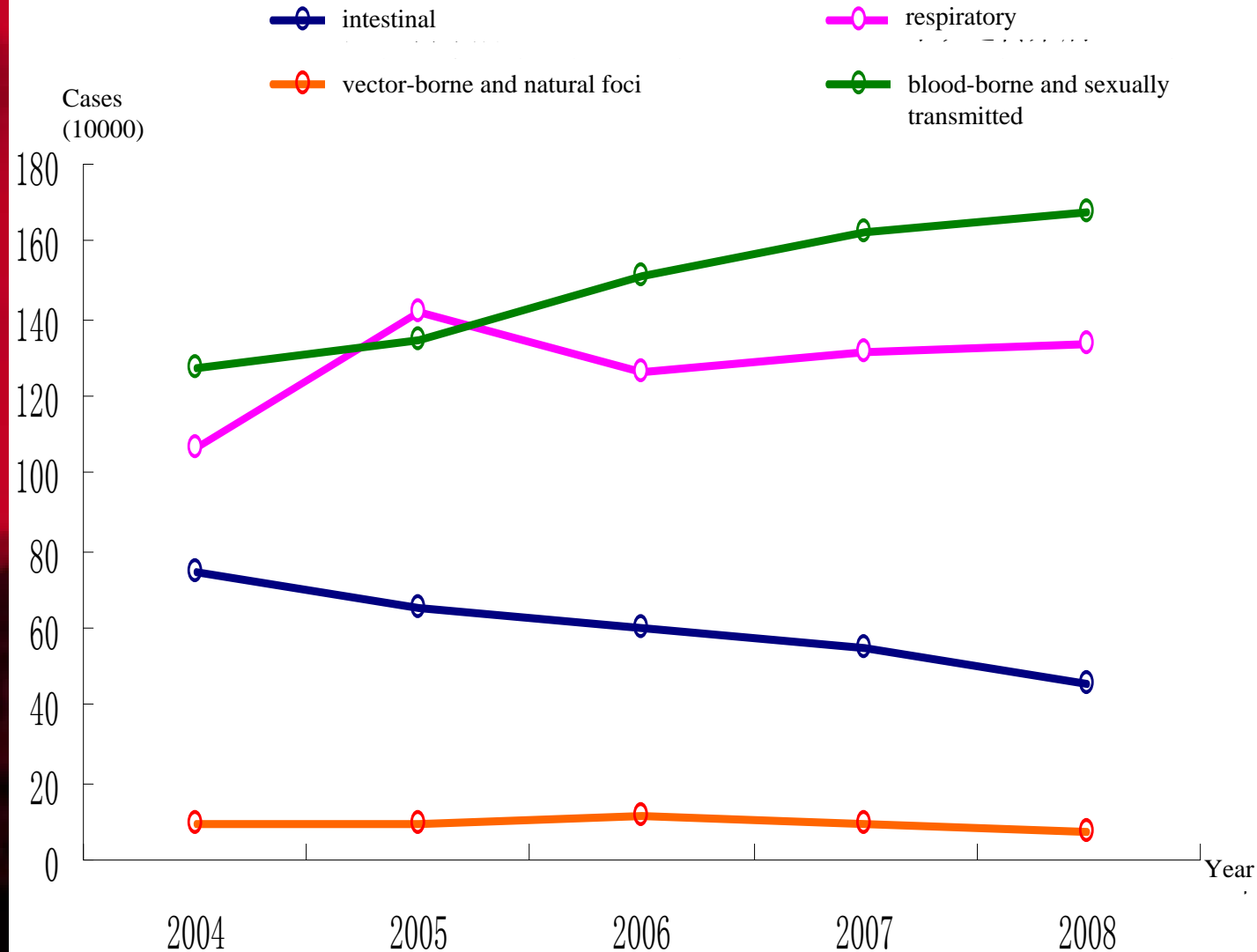


# Epidemic trend of Communicable diseases

A decreasing proportion of deaths caused by communicable diseases



# Morbidity Curve of Group A and Group B Communicable diseases by Transmission Route





# List of Zoonotic Diseases

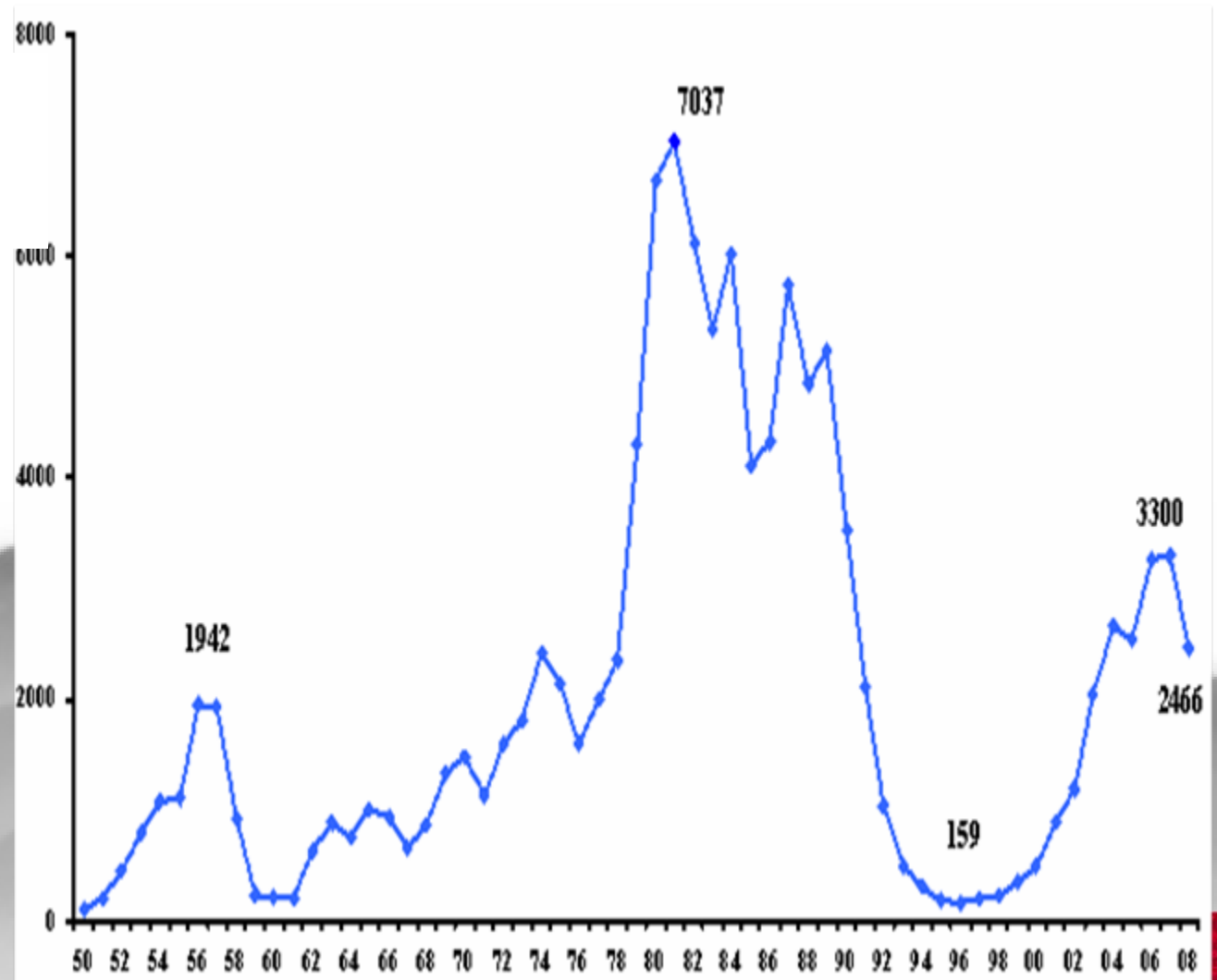
- ❁ **Announcement No. 1149 of the Ministry of Agriculture, 19 January 2009 (26 Types)**
- ❁ **Highly Pathogenic Avian Influenza, Rabies, Anthrax, Brucellosis, Leptospirosis, Bovine Tuberculosis, Japanese Schistosomiasis, Japanese Encephalitis, Streptococcus Suis Type II, Filariasis, Bovine Spongiform Encephalopathy, Toxoplasmosis, Echinococcosis, Salmonellosis, Trichinosis, Cysticercosis Cellulosae, Glanders, Tularemia, E. Coli (O157:H7), Listeriosis, Q Fever, Melioidosis, Actinomycosis, Clonorchiasis, Avian Tuberculosis, Leishmaniasis**



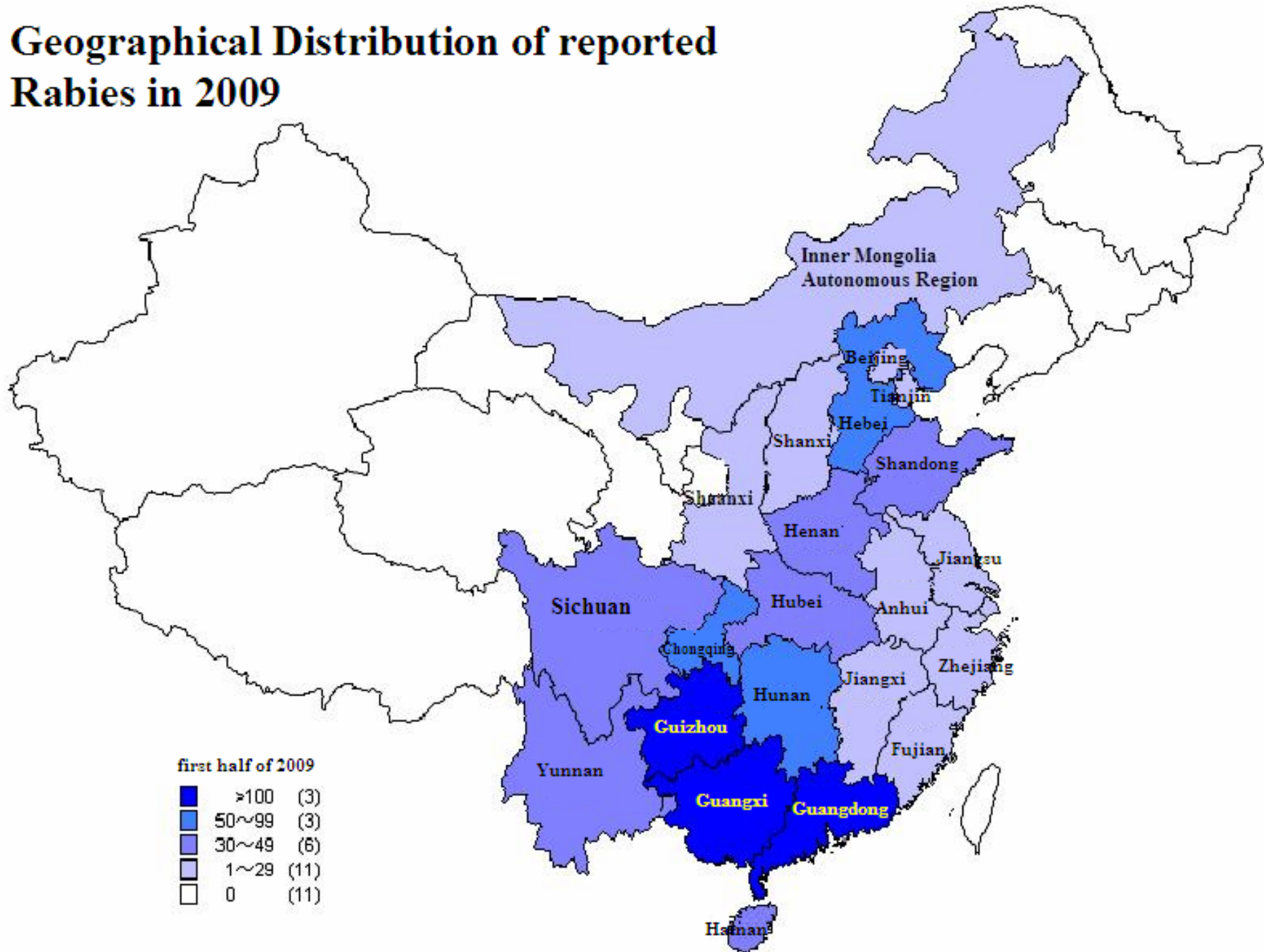
# List of Major Zoonotic Diseases

## 🌸 Rabies

( Cases )

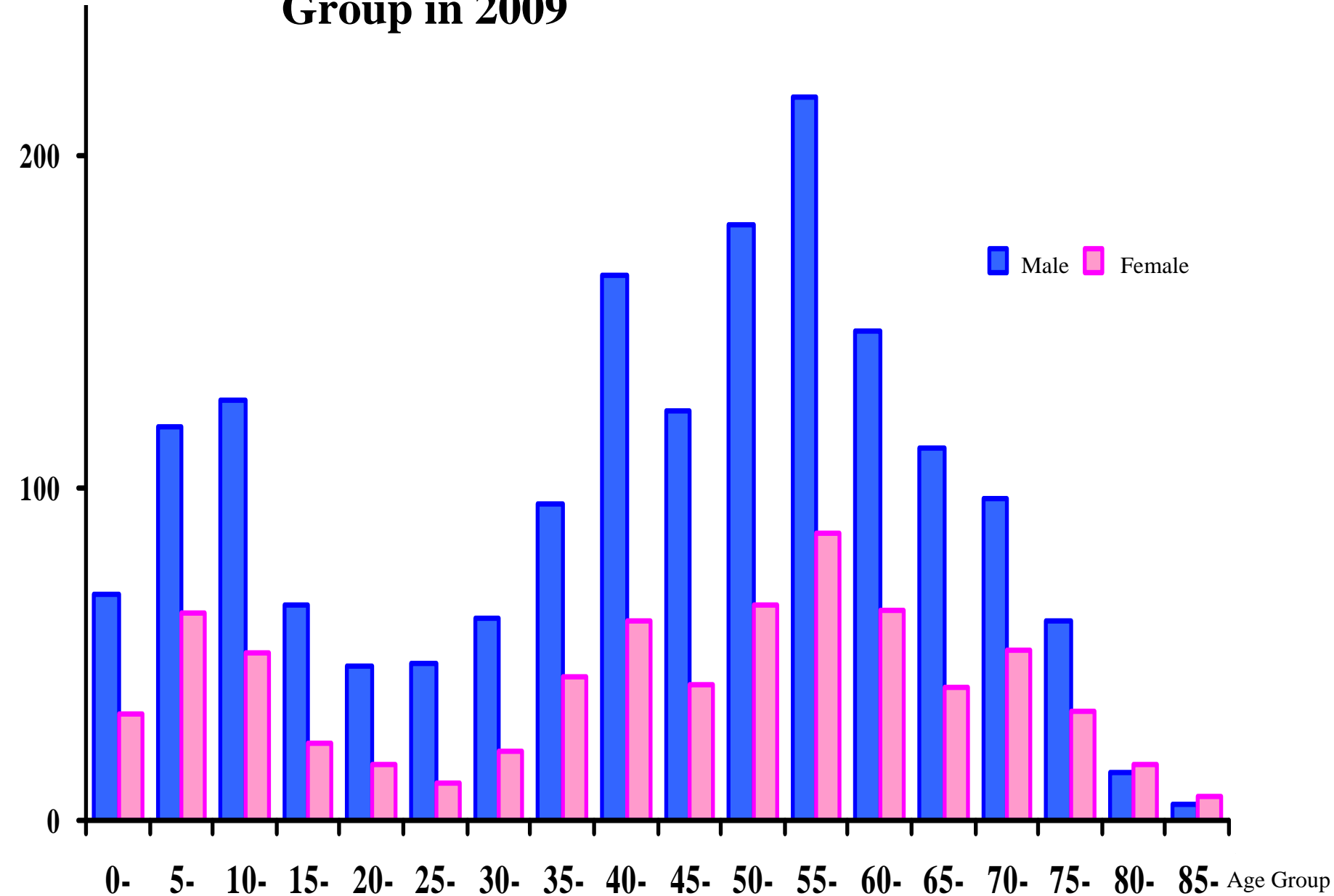


# Geographical Distribution of reported Rabies in 2009

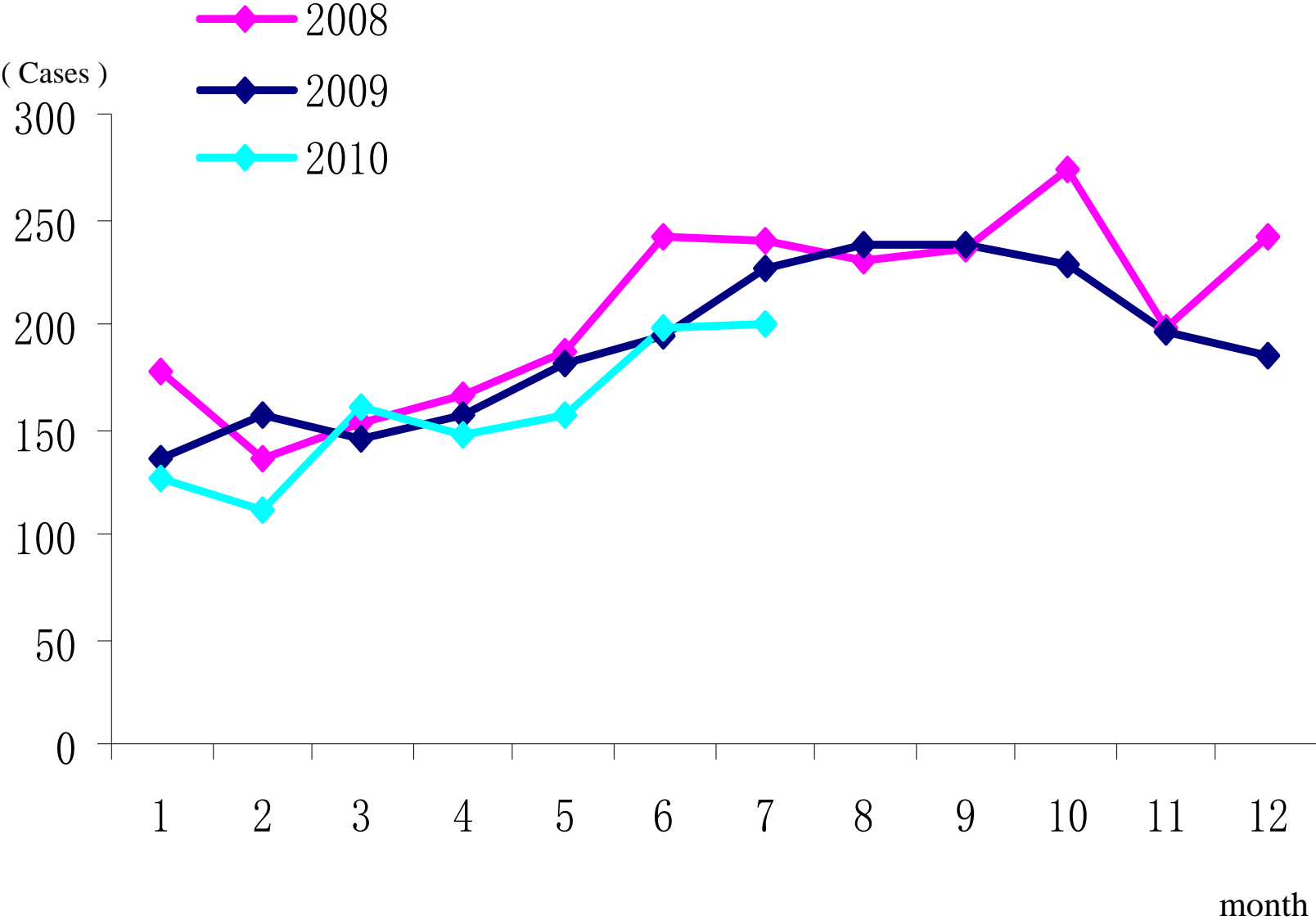


# Number of reported Rabies Cases by Age Group in 2009

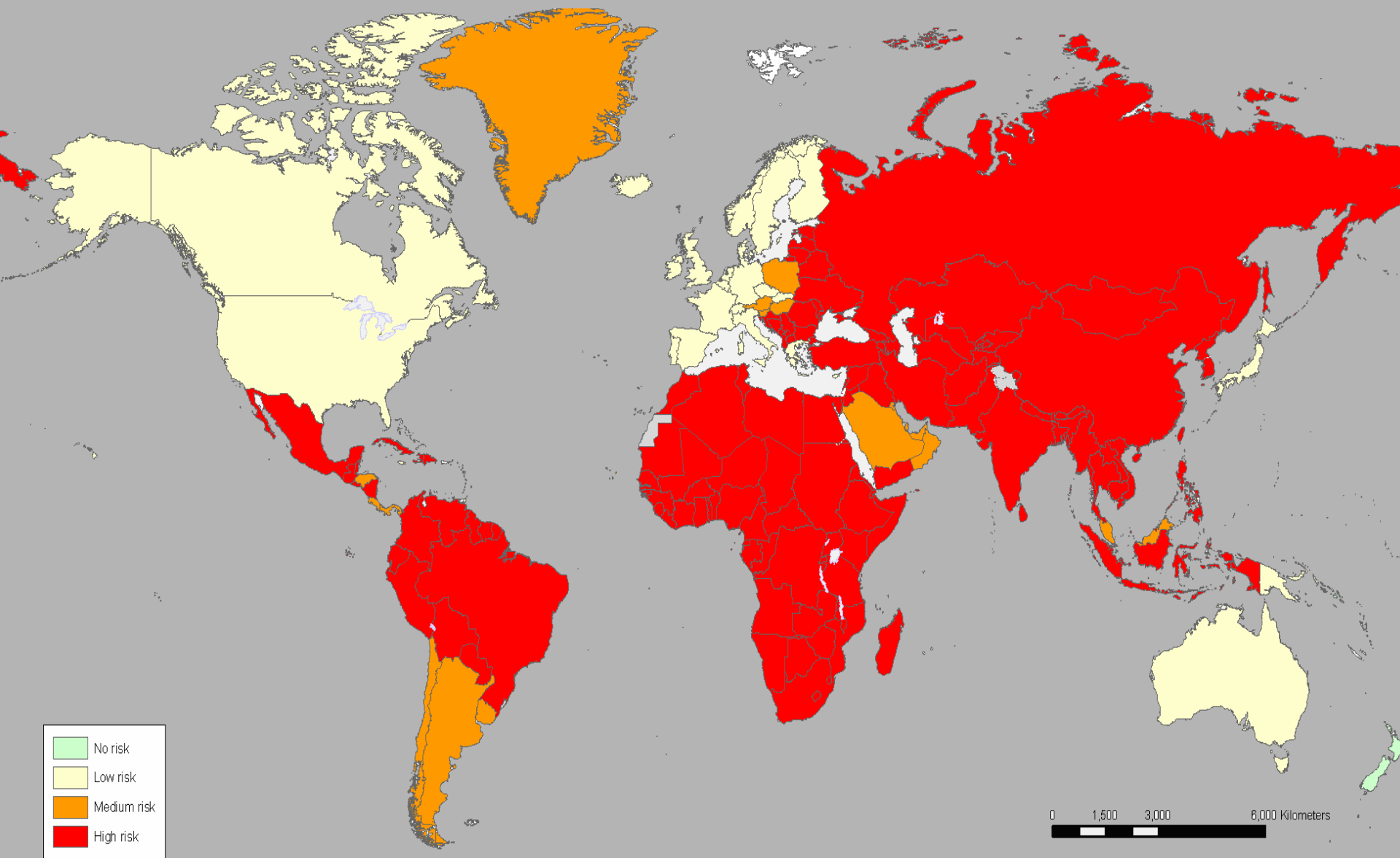
(Cases)



# Number of reported Rabies Cases in China by Month 2008 - July 2010



# Rabies, countries or areas at risk in 2008 (from WHO website)



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

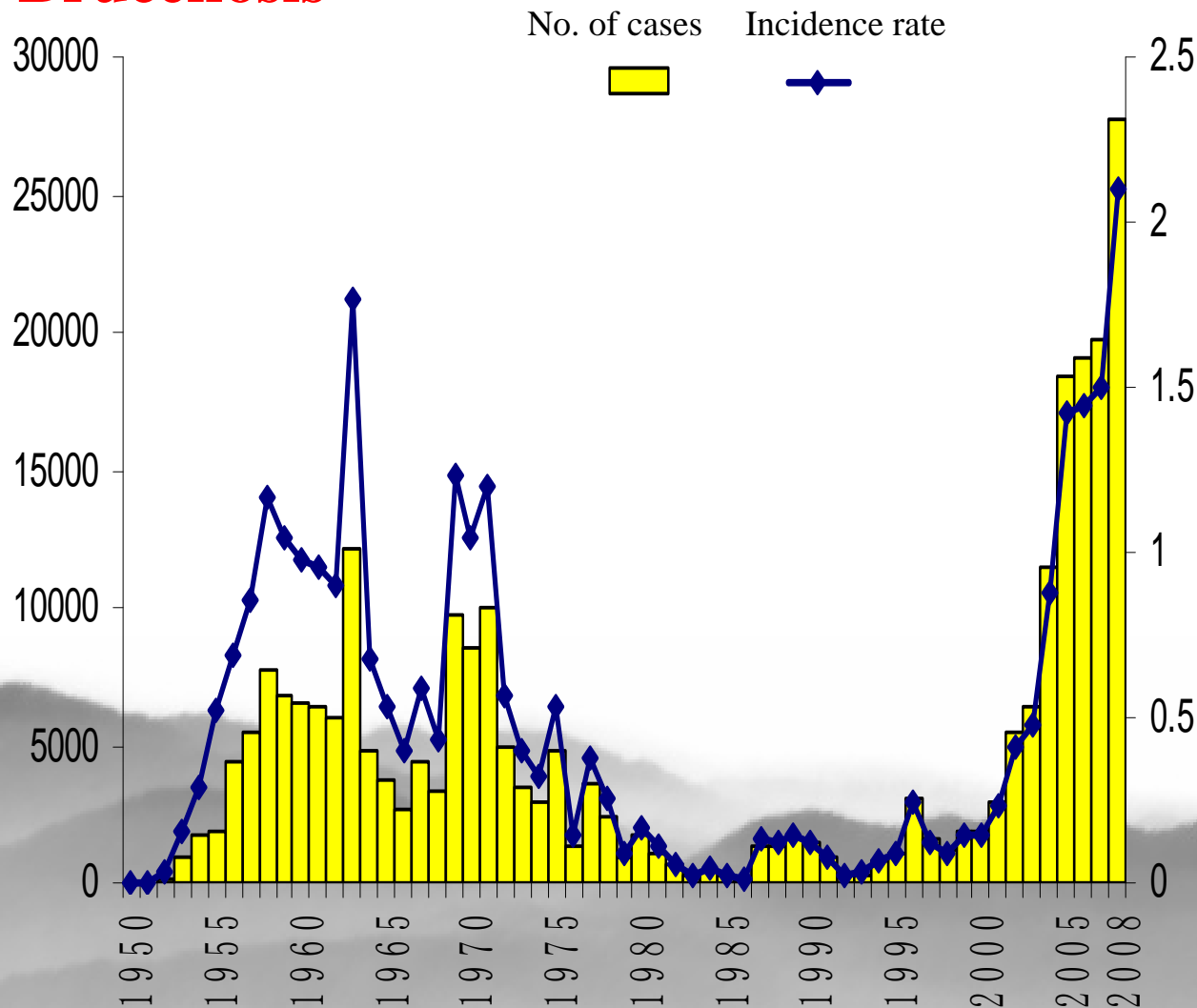
Data Source: WHO Rabnet/CDC  
Map Production: Public Health Information and Geographic Information Systems (GIS)  
World Health Organization



© WHO 2008. All rights reserved

# Major Zoonotic Diseases

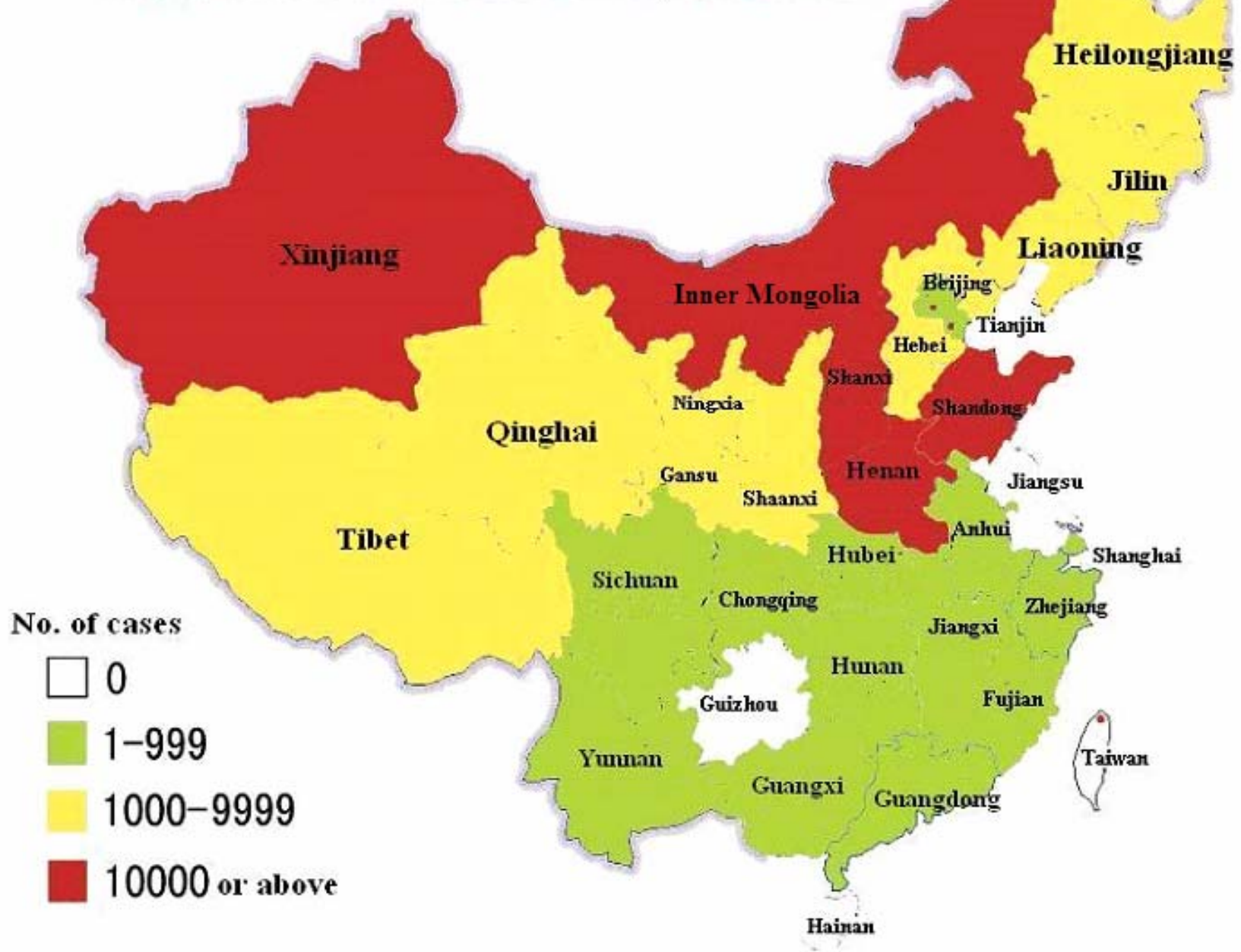
## Brucellosis



No. of reported cases and incidence rates, 1950-2009



# Brucellosis cases in China, 1951-2000

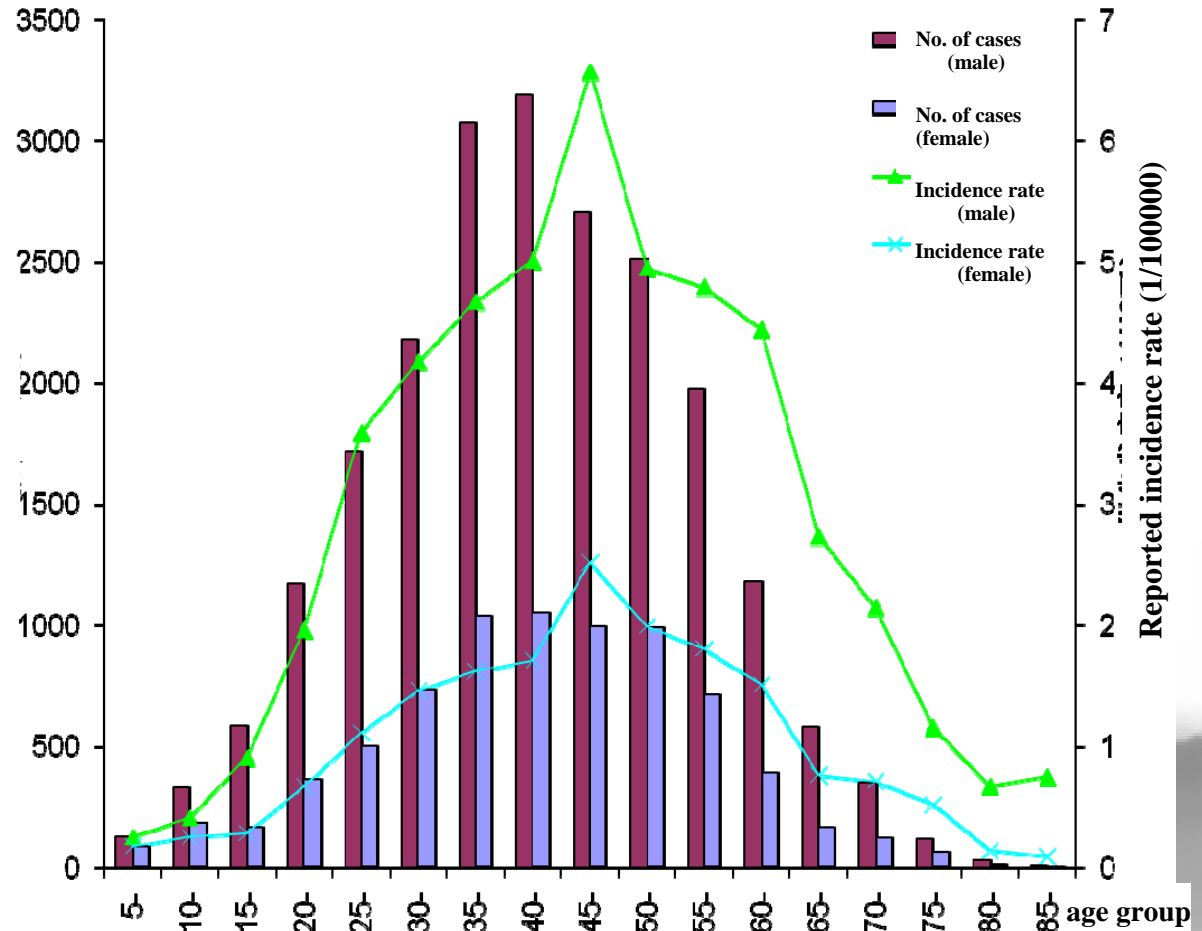




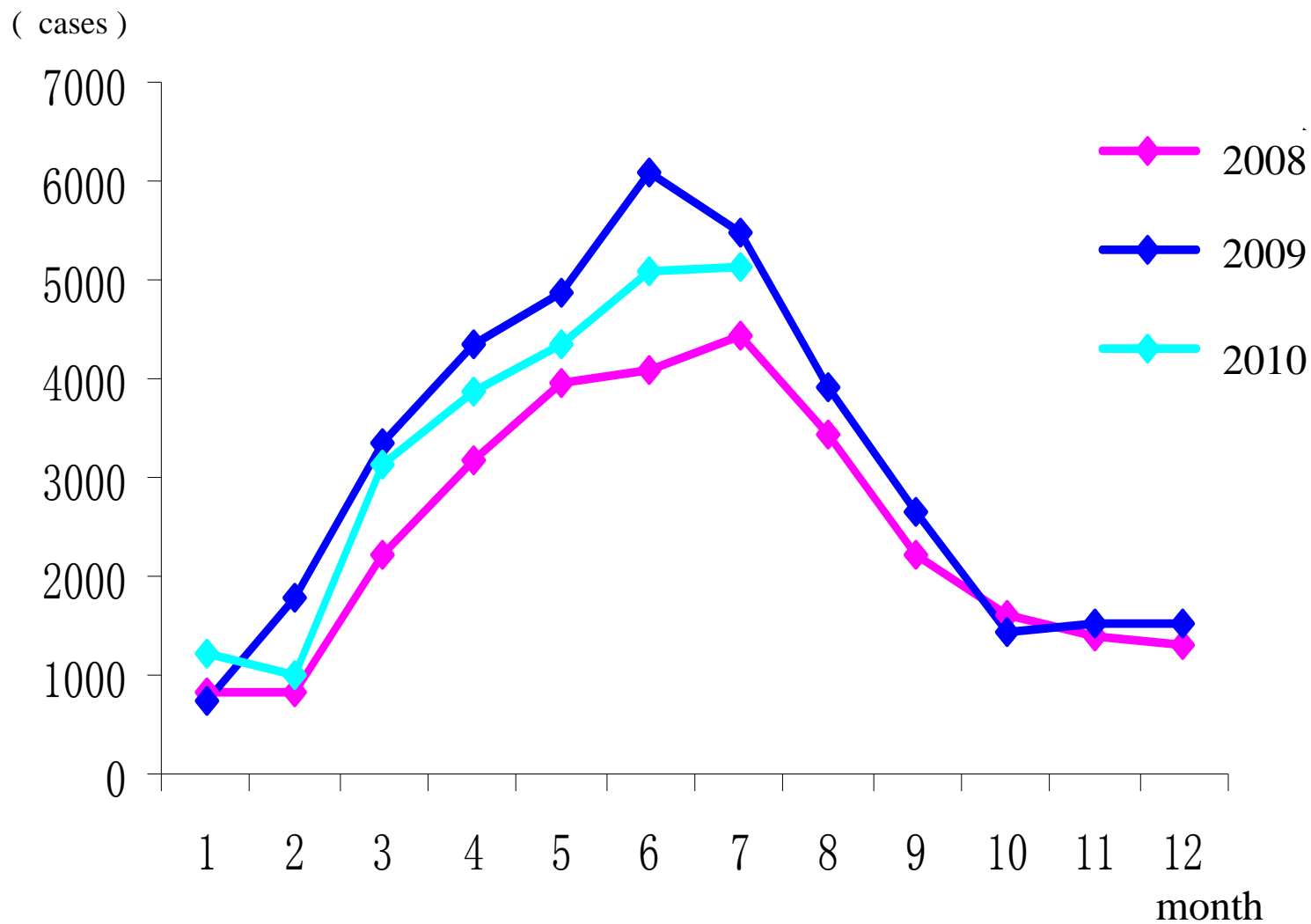


# Number of Reported Brucellosis cases by age group and gender in 2008

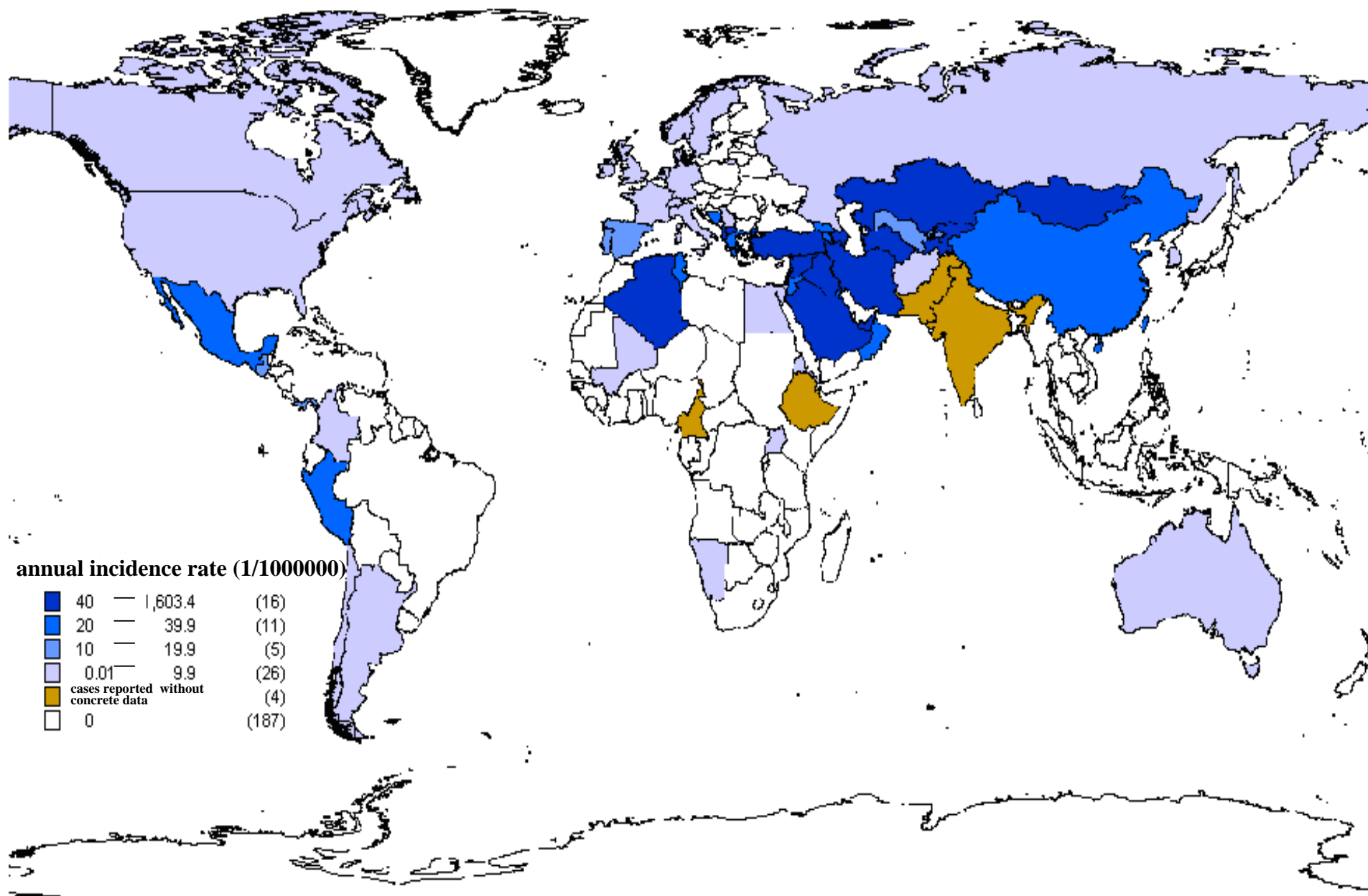
( cases )



# Number of reported brucellosis cases in China by month, 2008-July 2010

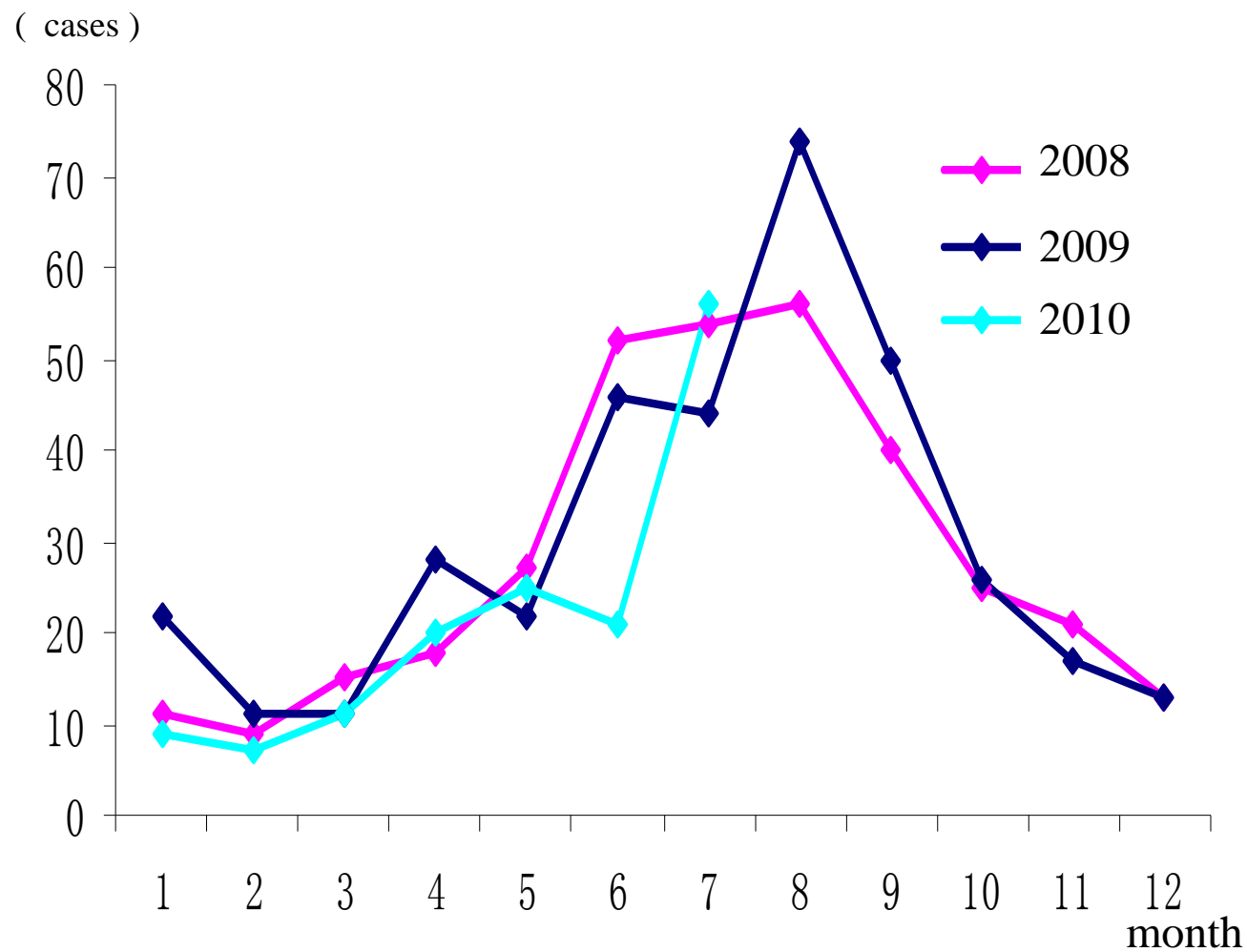


# Global distribution of brucellosis cases



# Major Zoonotic Diseases

## 🌸 Anthrax



# Major Zoonotic Diseases

## ❁ Human infection by *Streptococcus suis*

- ❁ In July 2010, only one case has been reported in China. As at the end of July, totally 9 cases have been reported in 2010, with zero mortality.

## ❁ Human avian influenza

- ❁ 7 cases of human infection by highly pathogenic avian influenza were reported in 2009, with 4 deaths. As compared with 2008, there were 3 more reported cases and the same number of death cases in 2009.
- ❁ As at the end of July 2010, only 1 case of human avian influenza was reported in China, with 1 death case.



# Surveillance and Control Strategies

- ❁ **Lawful and scientific approach for prevention and control**
  - ❁ **Enforcement of the Law of Infectious Diseases Control**
  - ❁ **Step up surveillance by establishing surveillance points and networks to gather information on the dynamic change of communicable diseases**
- ❁ **Roles of departments and regions**
  - ❁ **Set up collaborative prevention and control mechanism between departments**
  - ❁ **Set up collaborative prevention and control mechanism between departments and provinces**



# Surveillance and Control Strategies

- ❁ **Enhancement on systems, organization and capacity**
- ❁ **Implement the following three measures –**
  - ❁ **Funding:** to keep the basic public health service funding per capita at \$ 15 or above and secure funds for launching communicable disease prevention and control work
  - ❁ **County:** to enhance the capacity of centers for disease prevention and control at the county level in investigating and handling zoonotic disease cases
  - ❁ **System:** to improve policies, directives, regimes, standards, parameters and guidelines.
- ❁ **Perfect the working mechanism, protection mechanism and operation mechanism**





# Surveillance and Control Strategies

## ❁ Classified Management:

- ❁ **Mandatory management:** For group A diseases, mandatory isolation for treatment and mandatory quarantine will be enforced to control the epidemic.
- ❁ **Stringent management:** For group B diseases, prevention and control measures will be implemented to bring down the incident rates.
- ❁ **Surveillance:** For group C diseases, we will monitor the epidemic trends to prevent outbreak of diseases.

## ❁ Goals:

- ❁ **Routine goal:** Prevention, Control and Mitigation
- ❁ **Ultimate goal:** Eradication and Abatement



# Surveillance and Control Strategies

## ❁ Specific Measures

### 1、 Responsibilities of relevant departments

- ❁ Health departments at various levels shall duly identify, report and treat zoonotic disease cases.
- ❁ Agricultural departments at various levels shall implement comprehensive prevention and control measures on immunization and quarantine of livestock and culling of test-positive livestock; strengthen quarantine at slaughterhouses; keep a close watch of livestock circulation; and prohibit uninspected livestock and poultry products or products failed the quarantine inspection from entering the food market.



# Surveillance and Control Strategies

## 2、 Strengthen epidemic notification and cooperation in investigation

- ✿ Regional health and agricultural departments shall seriously implement the zoonotic disease notification system to ensure timely, proactive notification of epidemic situation and dissemination of information on prevention and control efforts.
- ✿ After receiving notification, relevant departments shall organize personnel to jointly conduct investigations and prevent the spread of epidemics.

## 3、 Step up supervision and inspection

- ✿ Health and agricultural departments at various levels shall strengthen enforcement of the Law on Prevention and Treatment of Infectious Diseases and the Animal Epidemic Prevention Law. Any unit or individual who fails to take prompt preventive and control measures in accordance with the laws shall be subject to administrative sanctions or legal liabilities.



#### 4、 Launching health education and publicity programmes to promote the prevention and control of zoonotic diseases



# 全国狂犬病防治知识竞赛 全国总决赛

主办单位：中国疾病预防控制中心

协办单位：23个省、自治区、直辖市预防医学会

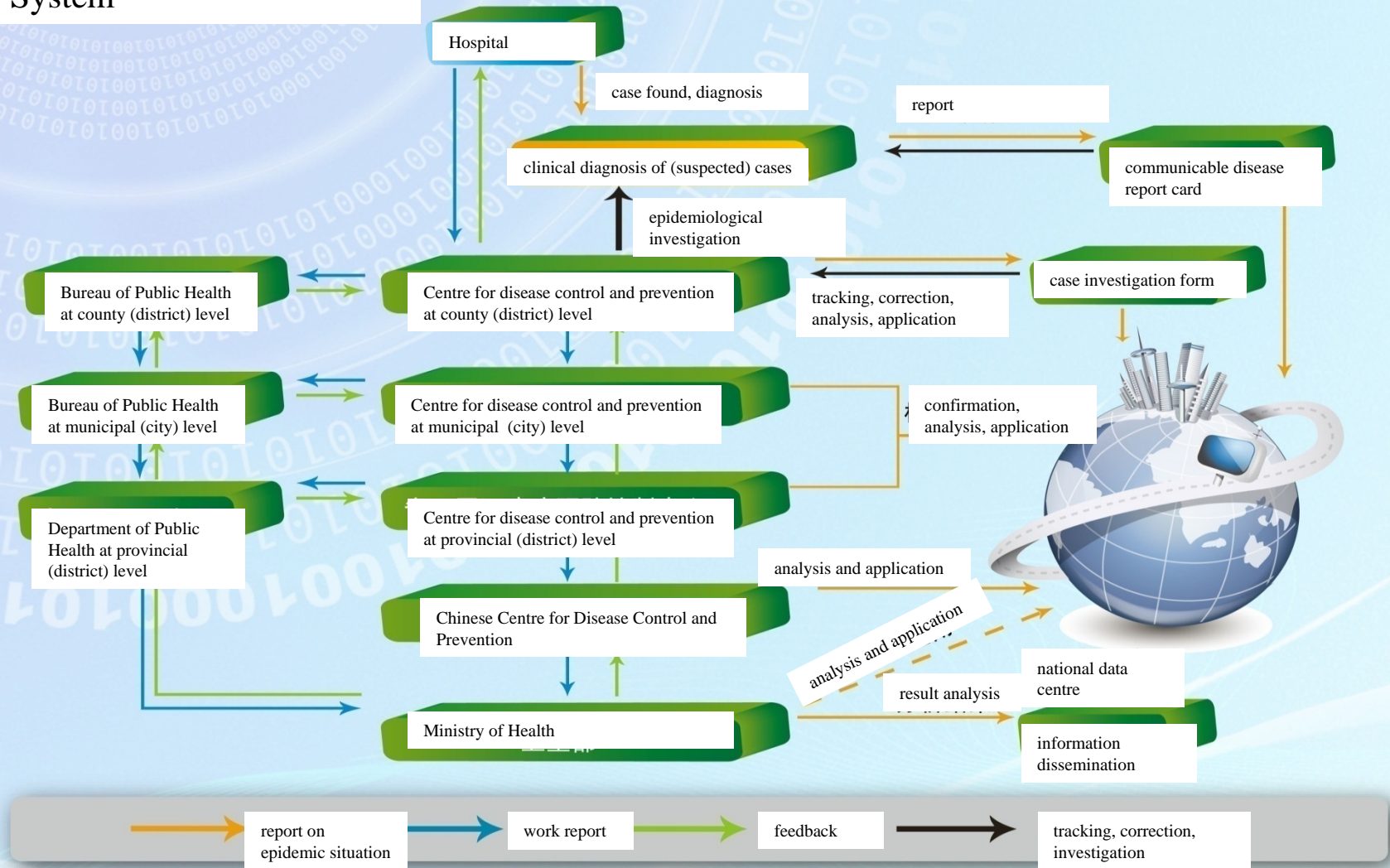
协办单位：延申生物

有限公司



# 5、 Direct Network Report on Communicable Diseases must be timely and accurate

## Direct Network Report System



Remark: Relevant units are authorised to access and use the information maintained by the national data centre

**Thank you very much!**



Welcome to visit Tibet

E: [heqh@moh.gov.cn](mailto:heqh@moh.gov.cn)

M:13989908226

T:0891-6830184

F:0891-6834945

