

SURVEILLANCE OF RICKETTSIAL DISEASES IN UKRAINE

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Rickettsial diseases

continue to be an important problem for the public health in many countries of the world and recognized as important emerging vector-borne infections as well *Rickettsia* spp. could be utilized as biologic weapons

Ukrainian Center of rickettsial diseases was created in the beginning of 50th XX century as a center for typhus research

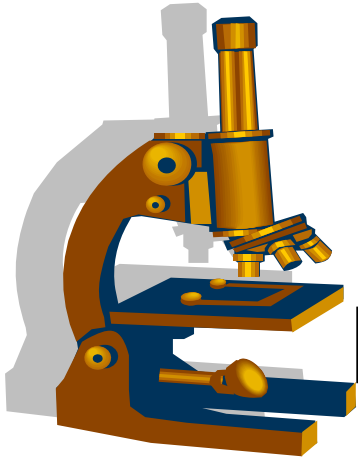
Currently such vector-borne rickettsial diseases are studying in Center



Louse-borne diseases – typhus, trench fever

Tick-borne diseases - Q-fever, spotted (mediterranean) fever





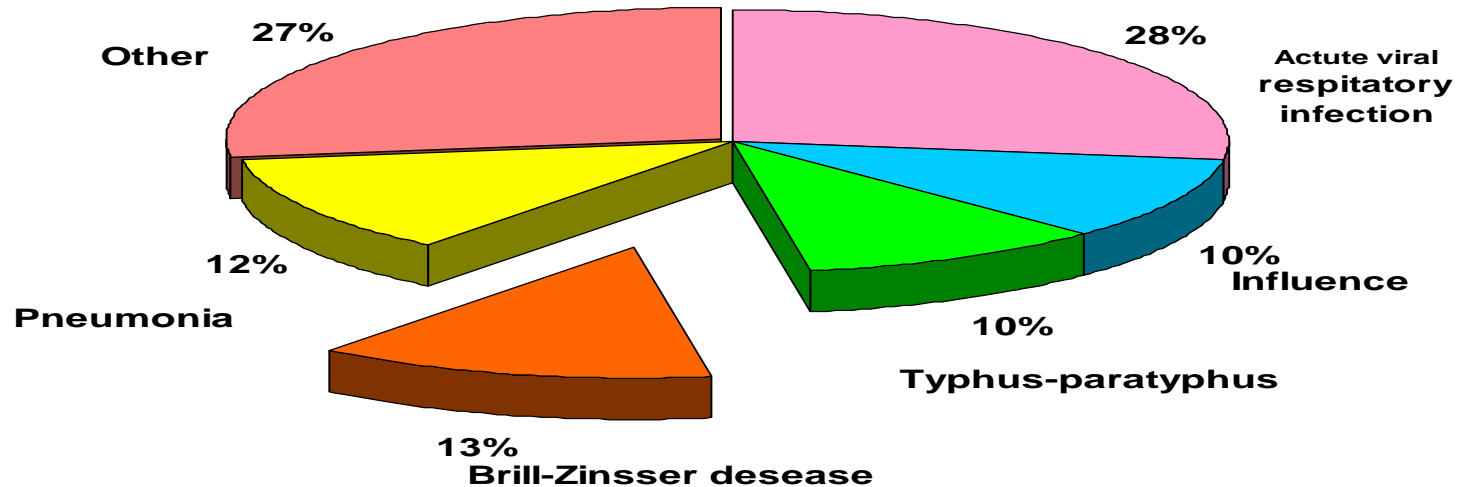
Now we are going to study spread of other arthropod-borne diseases caused with

**other spotted group *Rickettsia*,
Bartonella,
Anaplasma,
*Ehrlichia***

Clinical peculiarities of Brill-Zinsser disease (BZD) in Ukraine

- The prevalence of the **atypical** clinical cases of BZD occurred
- The duration of the **acute fever** period was less than 8 days
- 50 % of persons with BZD did not have a **skin rash**
- The presence of the **roseolous** rash on the skin was observed

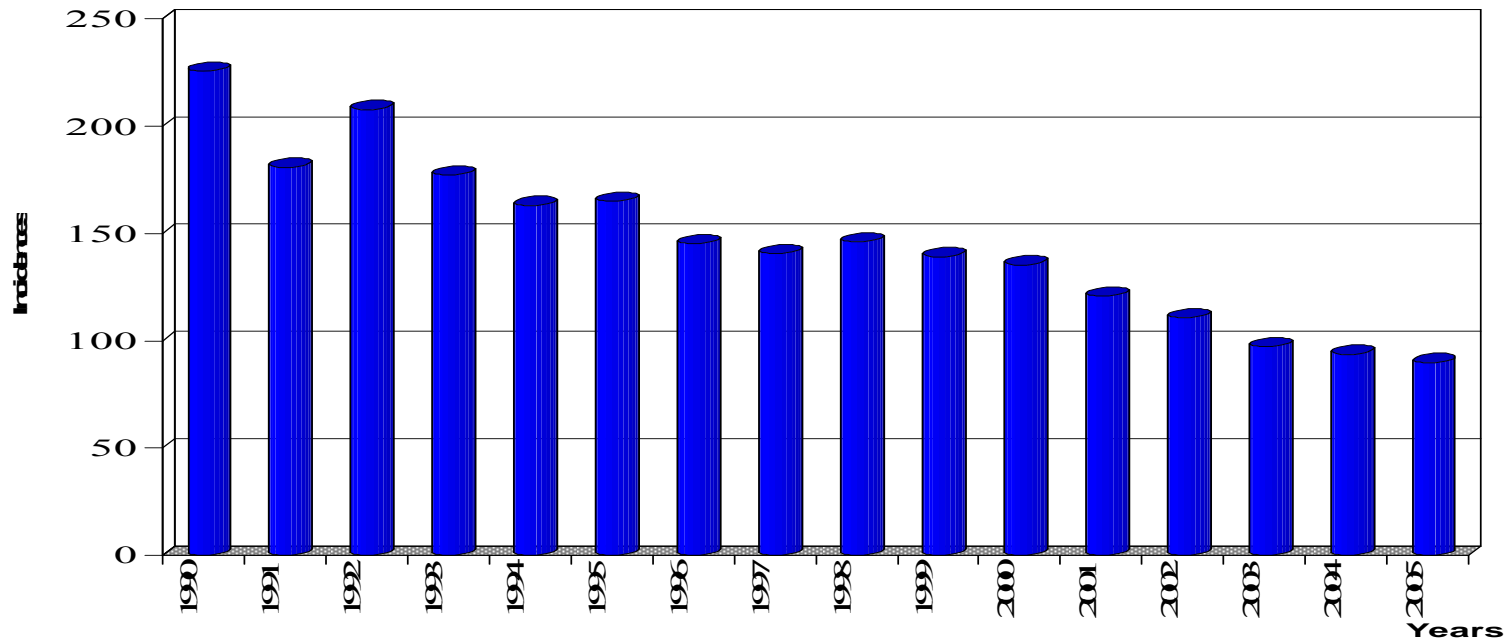
Preceding diagnoses of Brill-Zinsser disease in Ukraine



- Eased and atypical clinical cases of the BZD caused difficulties for preliminary clinical diagnostics.
- Only 13 % of persons with BZD came to the hospitals with correct diagnosis.

Spread of louse infestation among population in Ukraine (incidence 100 000, population)

in 1990-2005



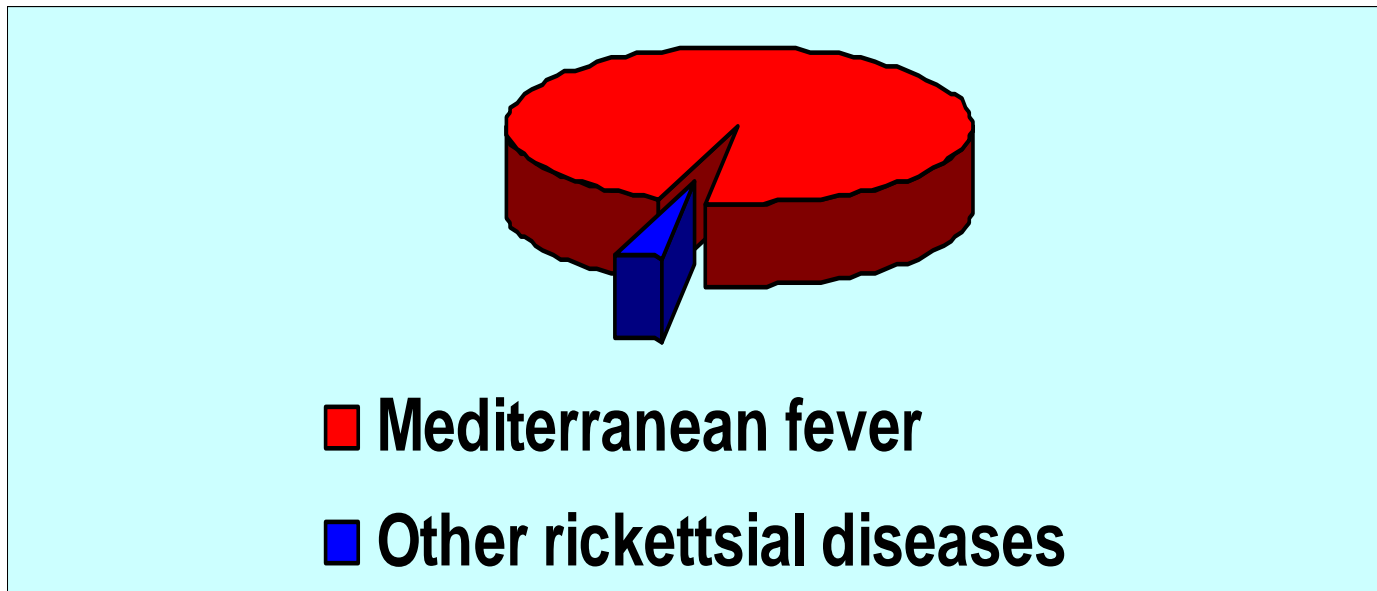
- **Increasing spread of louse infestation among population during 1990-2005 in Ukraine was observed**

Ecological and epidemiological characteristics of the lice infestation in Ukraine



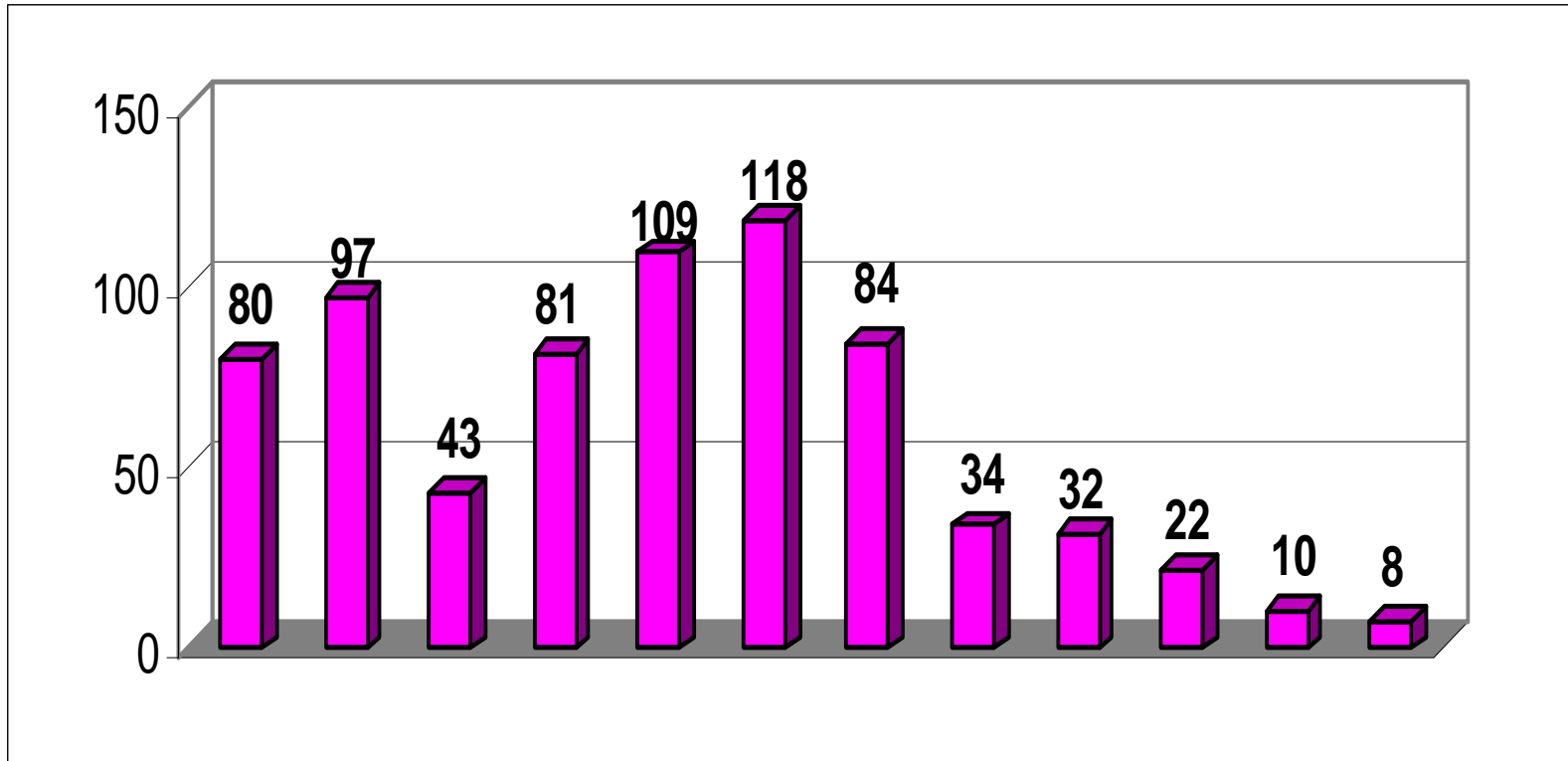
- The prevalence of head lice infestation occurred
- The tendency to the increasing of the body lice infestation appeared
- The prevalence the focuses with one lice infestation person occurred
- The low quality of chronic lice infestation person occurred
- The prevalence of the low density (less than 10 imago or nymphs) of lice infestation

The ratio of Mediterranean fever and other rickettsial diseases in Ukraine



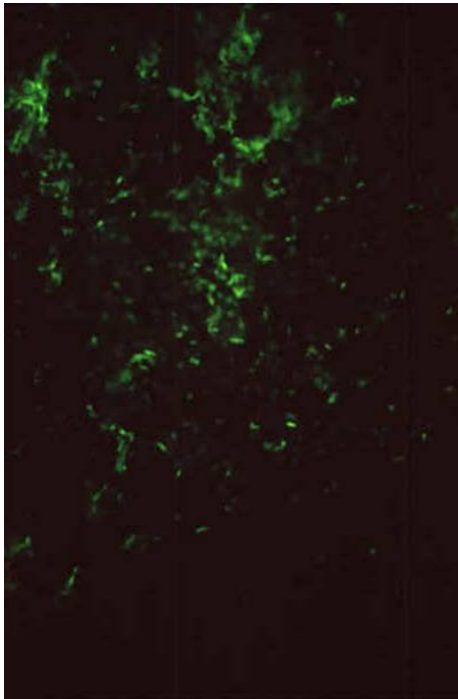
- In 1996-2007 96,95 % of all cases of rickettsial diseases consists Mediterranean fever

Spread of the cases of Mediterranean fever in Ukraine in 1996-2007

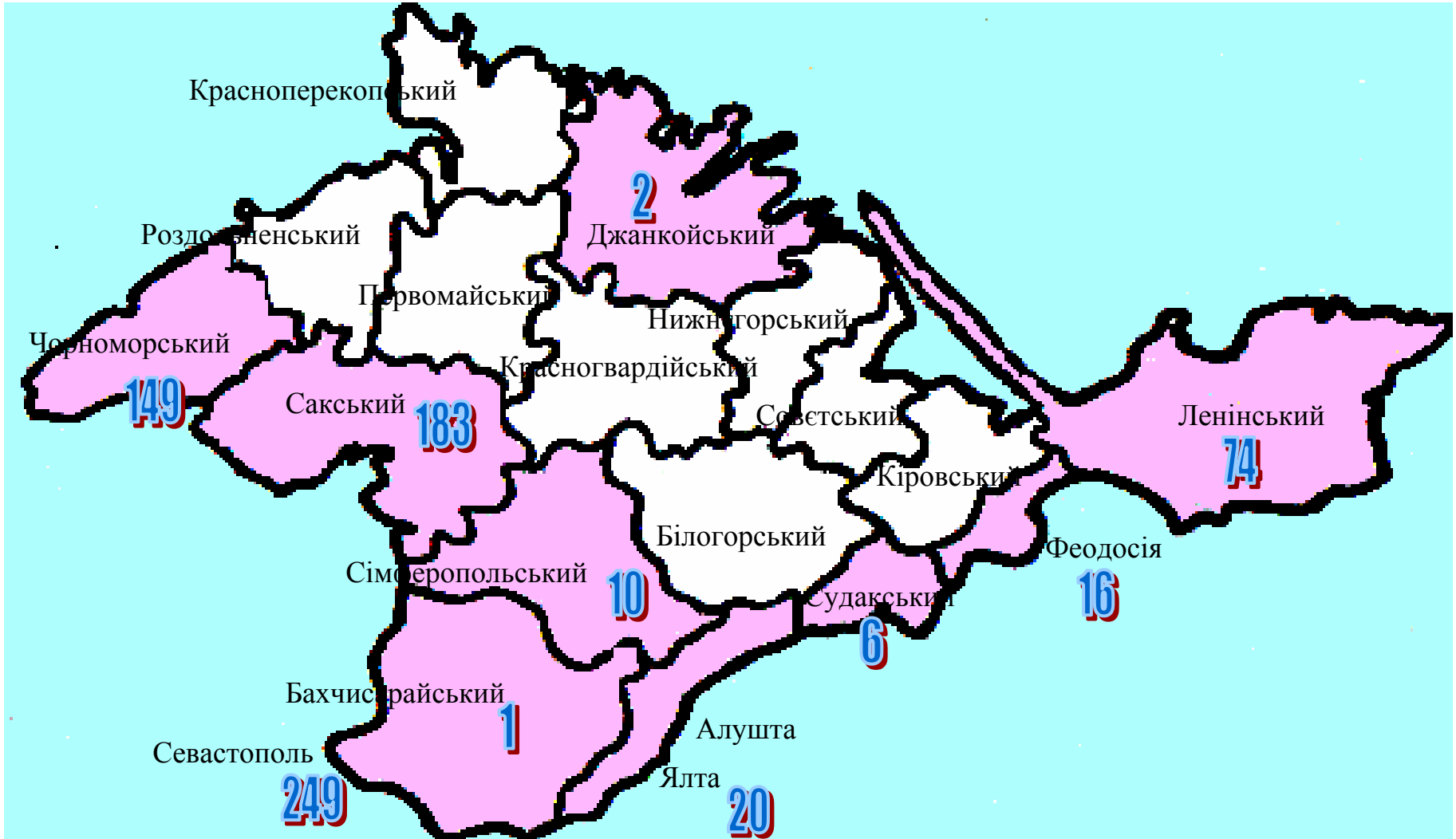


- Decreasing of morbidity during last years was observed

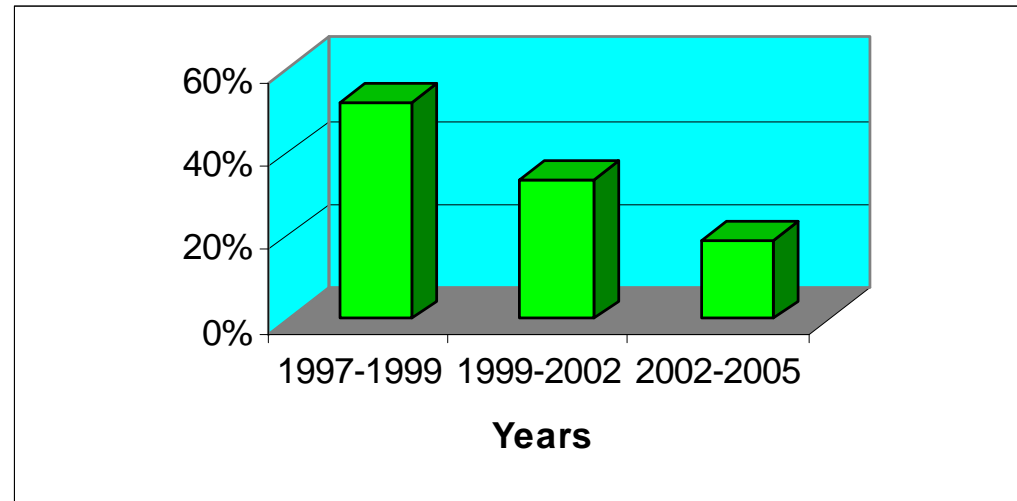
Spread of mediterranean fever among population depends of the spread of *Rickettsia conorii* in *Rhipicephalus sanguineu* and dogs.



Prevalence of mediterranean fever in Crimea in 1996-2007

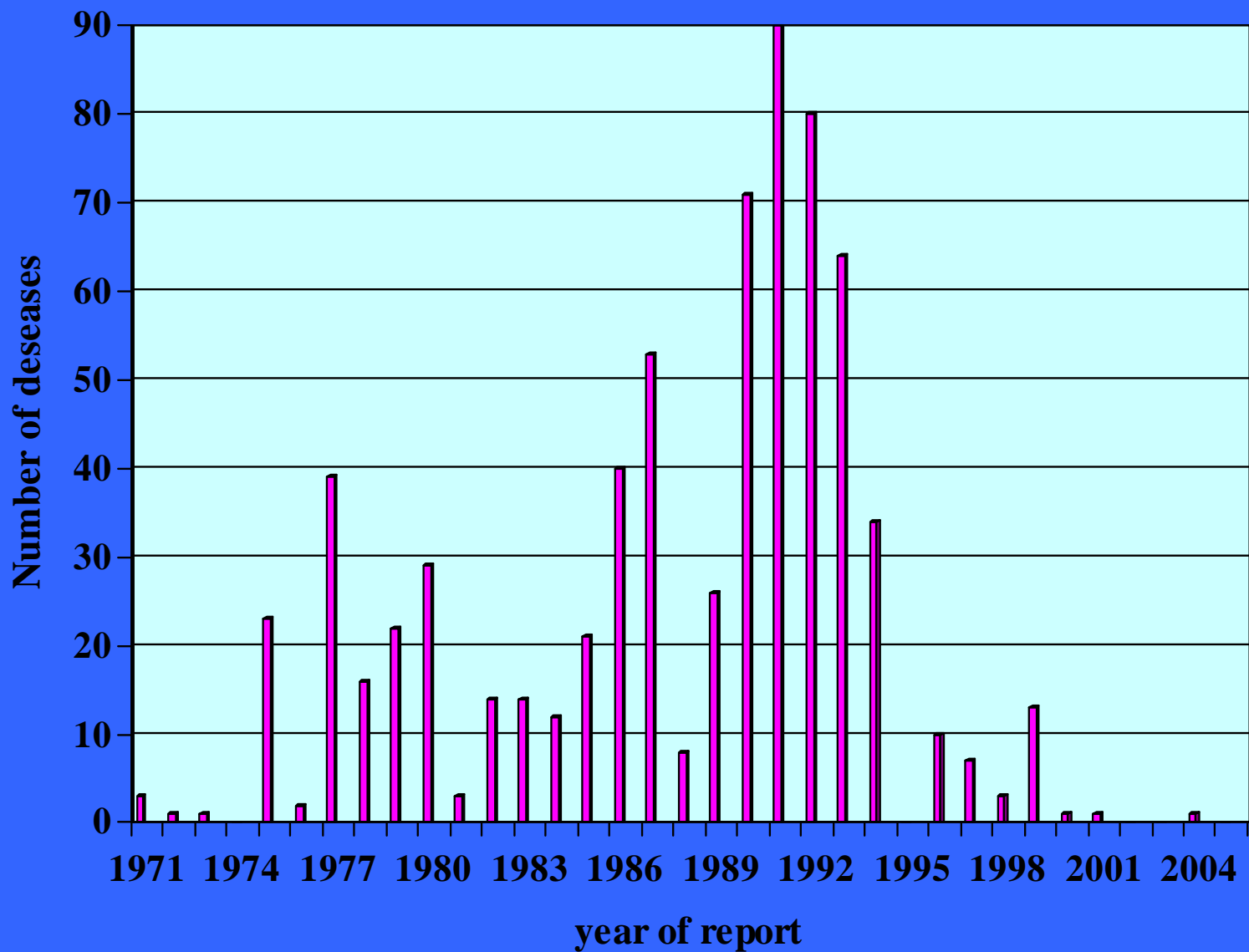


Rate of the on the infected with *R. conorii* vectors in 1997-2005

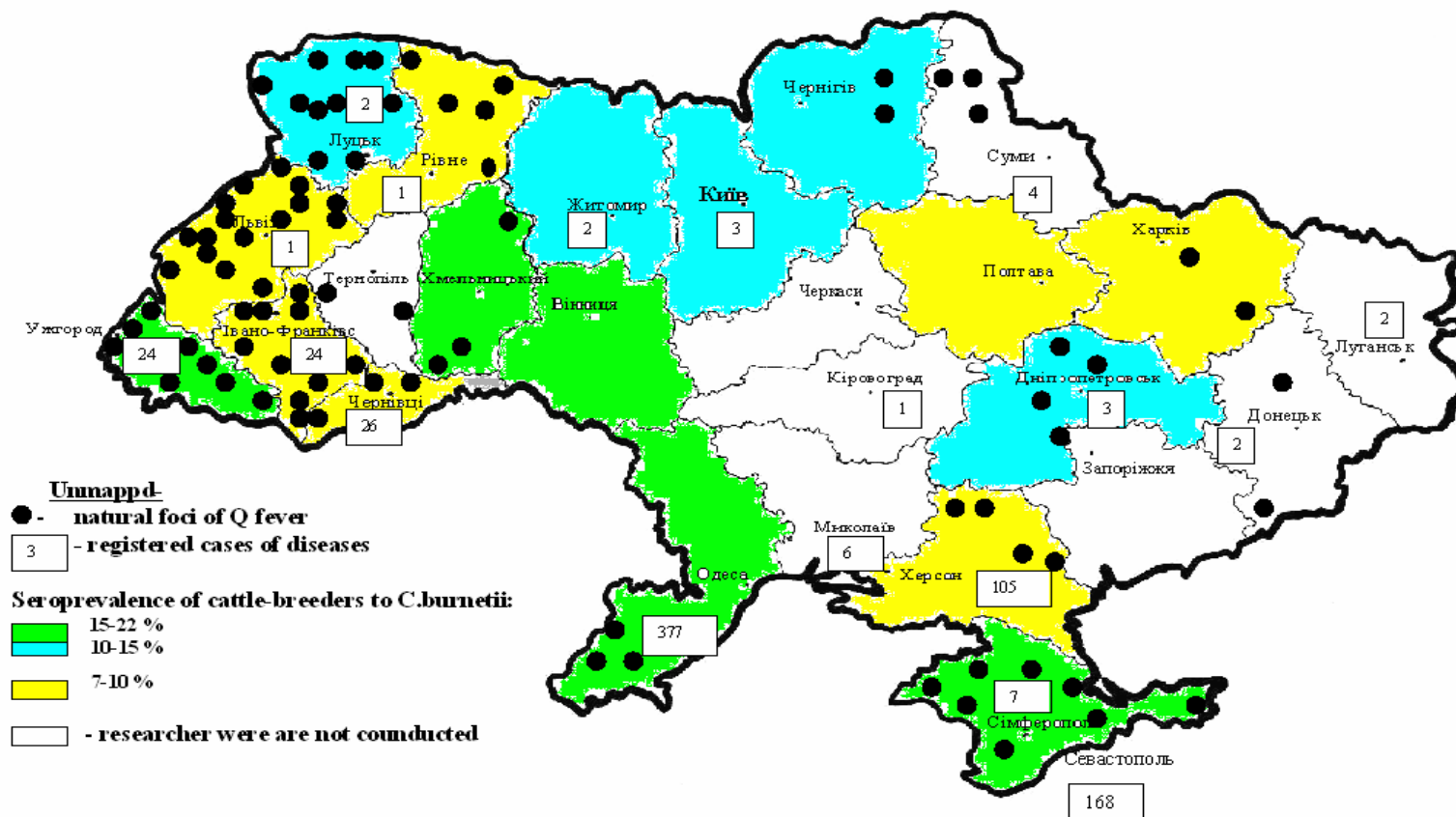


- **1997-1999 - 52,11 %**
- **1999-2002 - 33,56 %**
- **2002-2005 - 18,88 %**

Morbidity by Q fever in Ukraine (1971 - 2006)



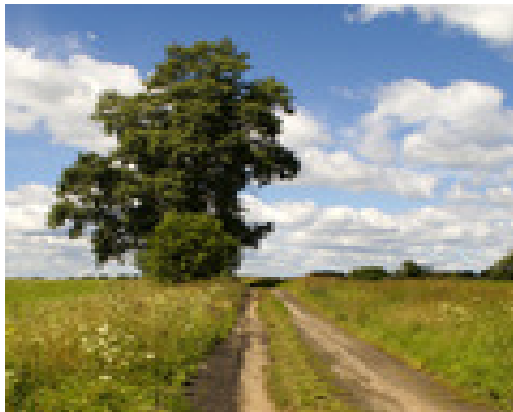
MAP-CHARD DISTRIBUTION OF Q FEVER IN UKRAINE (2006)



Endemic focuses of Q-fever in different regions of Ukraine are found.

Kinds of endemic focuses of Q fever in Ukraine

- **Natural**
- **Anthropoid**
- **Farms**



Summary



Further investigation into a wide variety of arthropod-borne infections, utilizing the expertise at the LRIEH will provide useful information for Ukrainian public health and medical personnel



Thank you

- **Questions**

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