

bioveta



Bioveta's Participation in Rabies Elimination in Central and Eastern Europe

Marek Vystavěl
Beograd 23 March, 2011

bioveta



Bioveta, a.s.

- Founded in 1918
- GMP and GLP certification
- Involved in rabies eradication programs in wildlife since 1992
- More than 113 million doses used since 1992
- 15 countries have used Bioveta's vaccine or rabies eradication program
- CZ and SK free of rabies

bioveta



Bioveta's Involvement

- Vaccine
- Logistics
- Distribution
- Qualified Personnel
- Training and Experience Sharing



Lysvulpen vaccine

- Attenuated MSV BIO 10 strain of minimum titre $1,8 \times 10^6$ TCID₅₀
- Suitable both for manual and air distribution
- European Pharmacopoeia compliance
- OIE compliance



Lysvulpen vaccine

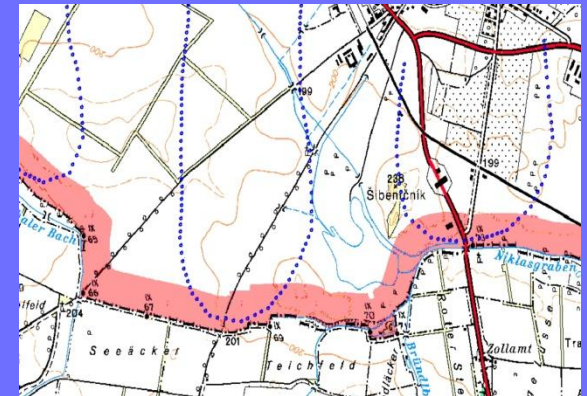
- Onset of immunity in 21 days
- Immunity lasts for at least 1 year
- Stable at 25°C for at least 7 days
- Safe both for target and non-target species
- Safe for non human primates





Distribution

- Manual and aerial distribution
- GPS planning and monitoring





Countries

- Czech Republic
- Slovakia
- Slovenia
- Hungary
- Lithuania
- Latvia
- Poland
- Serbia
- Bulgaria
- Croatia
- Georgia
- Russia
- Kazakhstan
- Byelorussia
- Moldova



Czech Republic

POZOR



ÚZEMÍ, KDE SE PROVÁDÍ OČKOVÁNÍ LIŠEK

**V této oblasti jsou položeny návnady s očkovací látkou
proti vzteklině lišek
v době od _____ do _____**

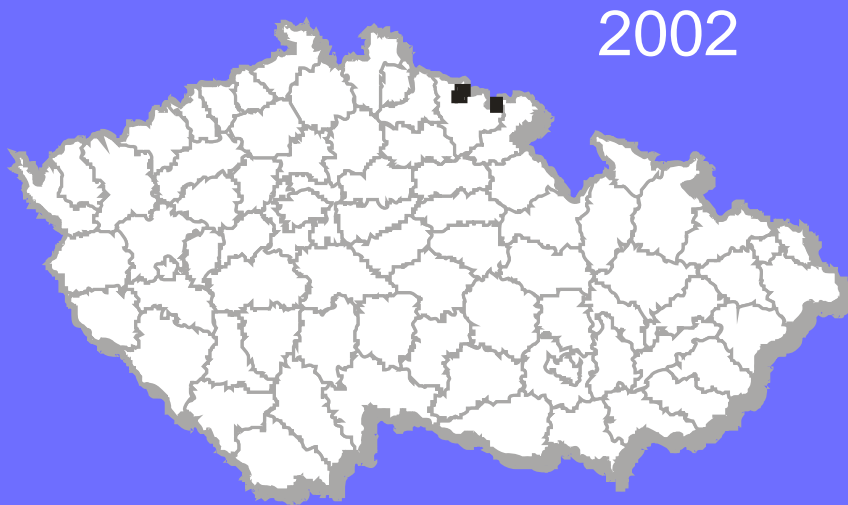
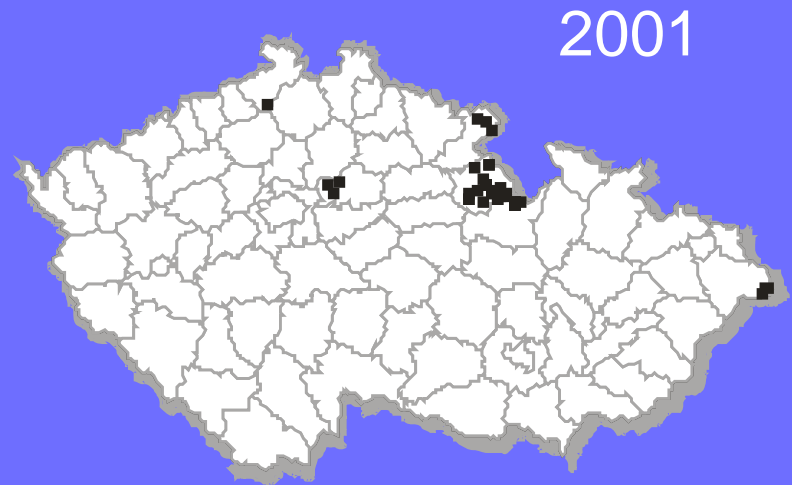
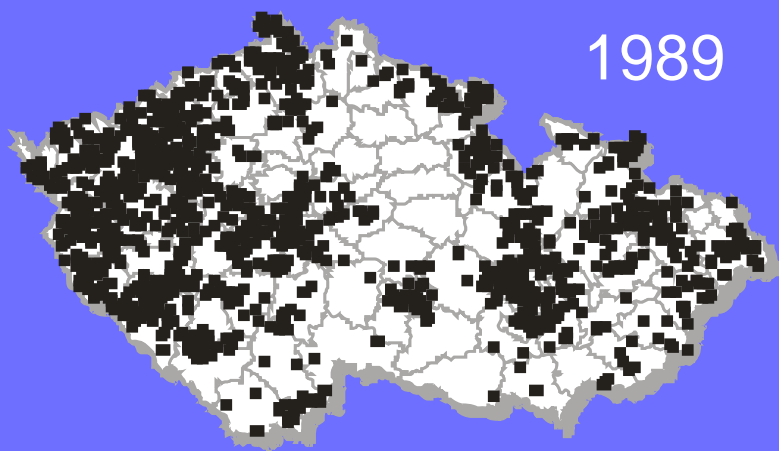
Dodržujte tyto pokyny:

- **nedotýkejte se návnad**
- **nepoužívejte k výkonu práva myslivosti lovecké psy**
- **v případě potřísnění očkovací látkou, která je v plastickém obalu uvnitř návnady; vyhledejte lékaře**
- **poučte své děti**

ÚVO 183/89

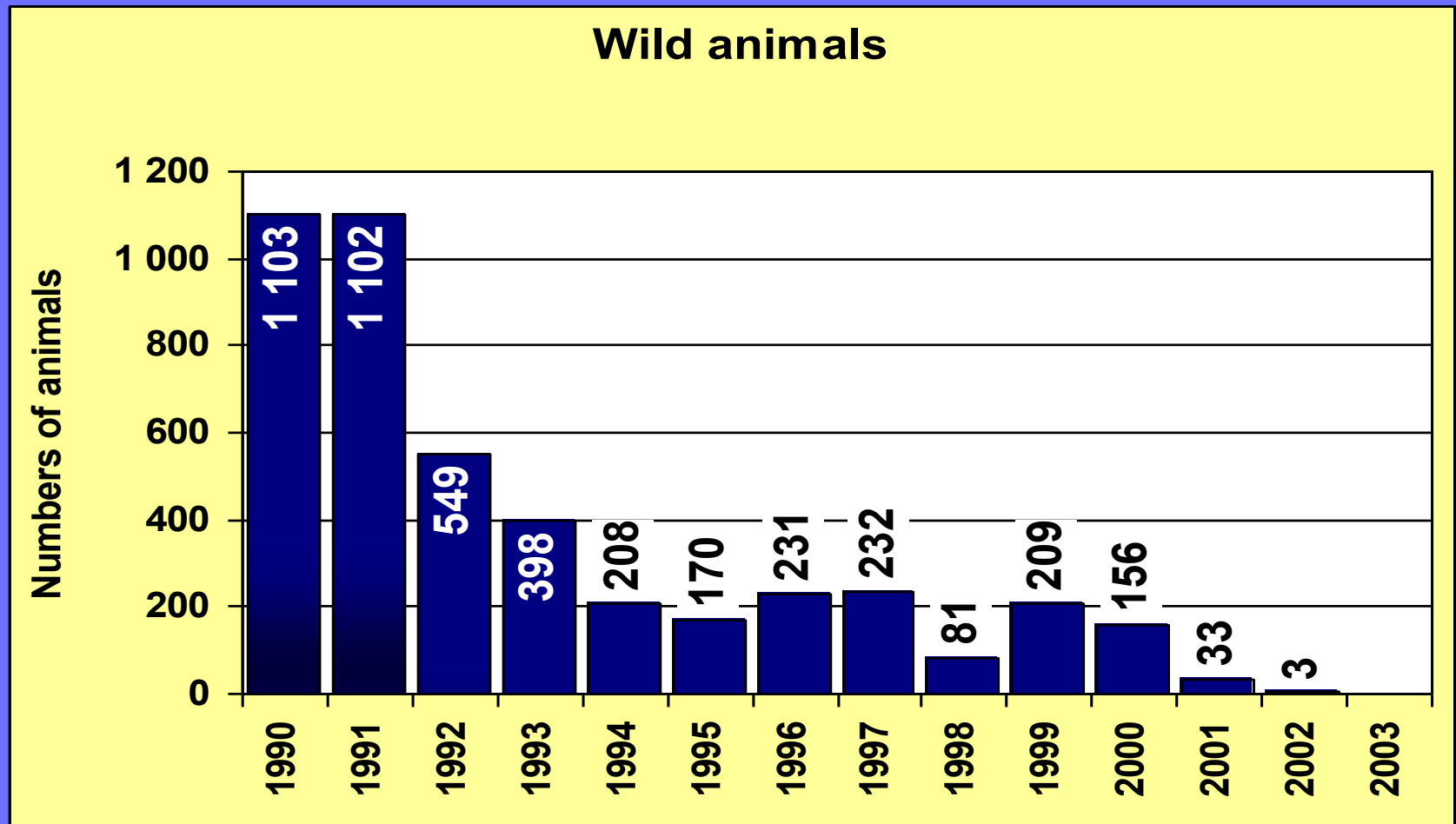


Czech Republic: geographical location of rabies cases



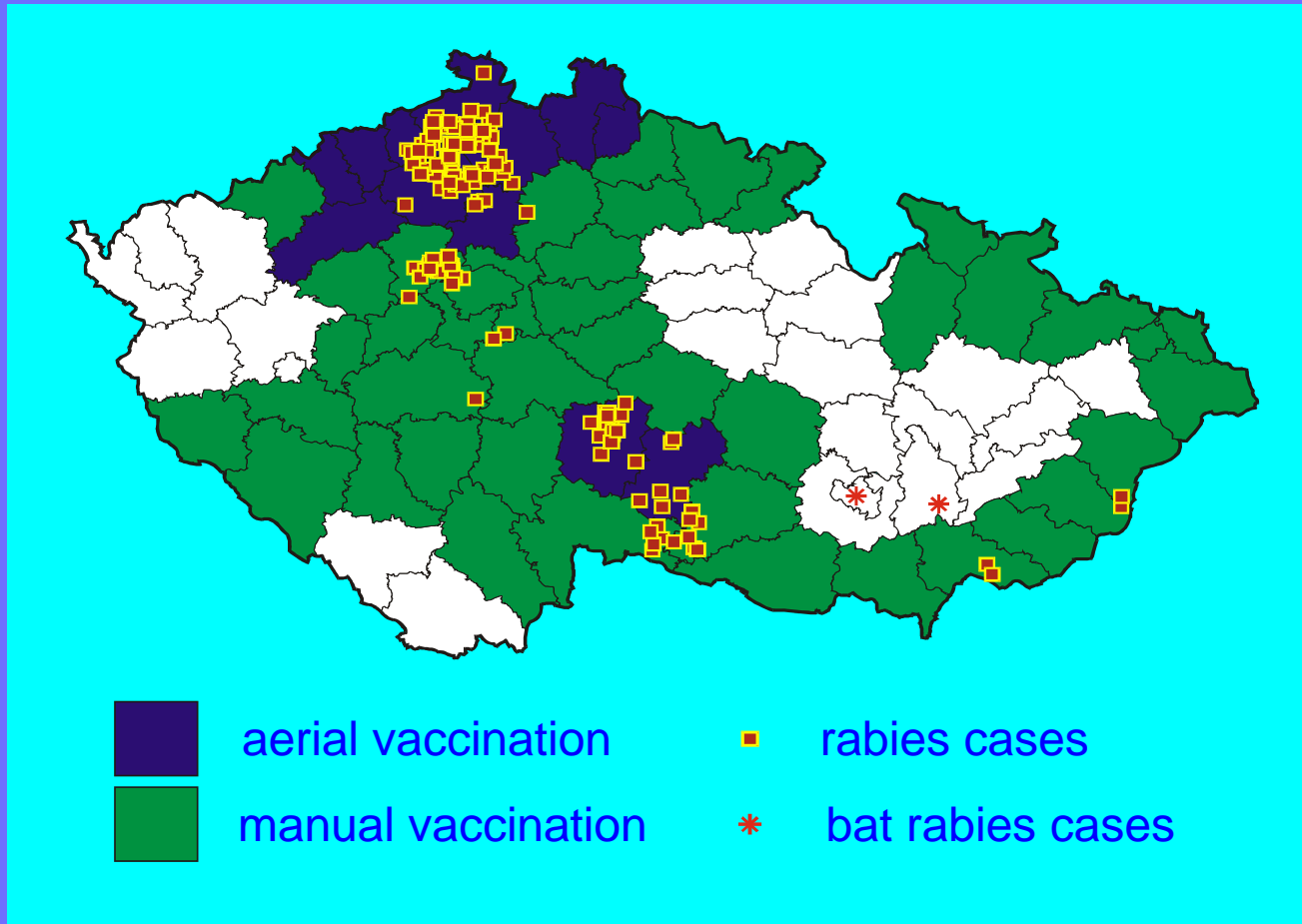


Rabies incidence



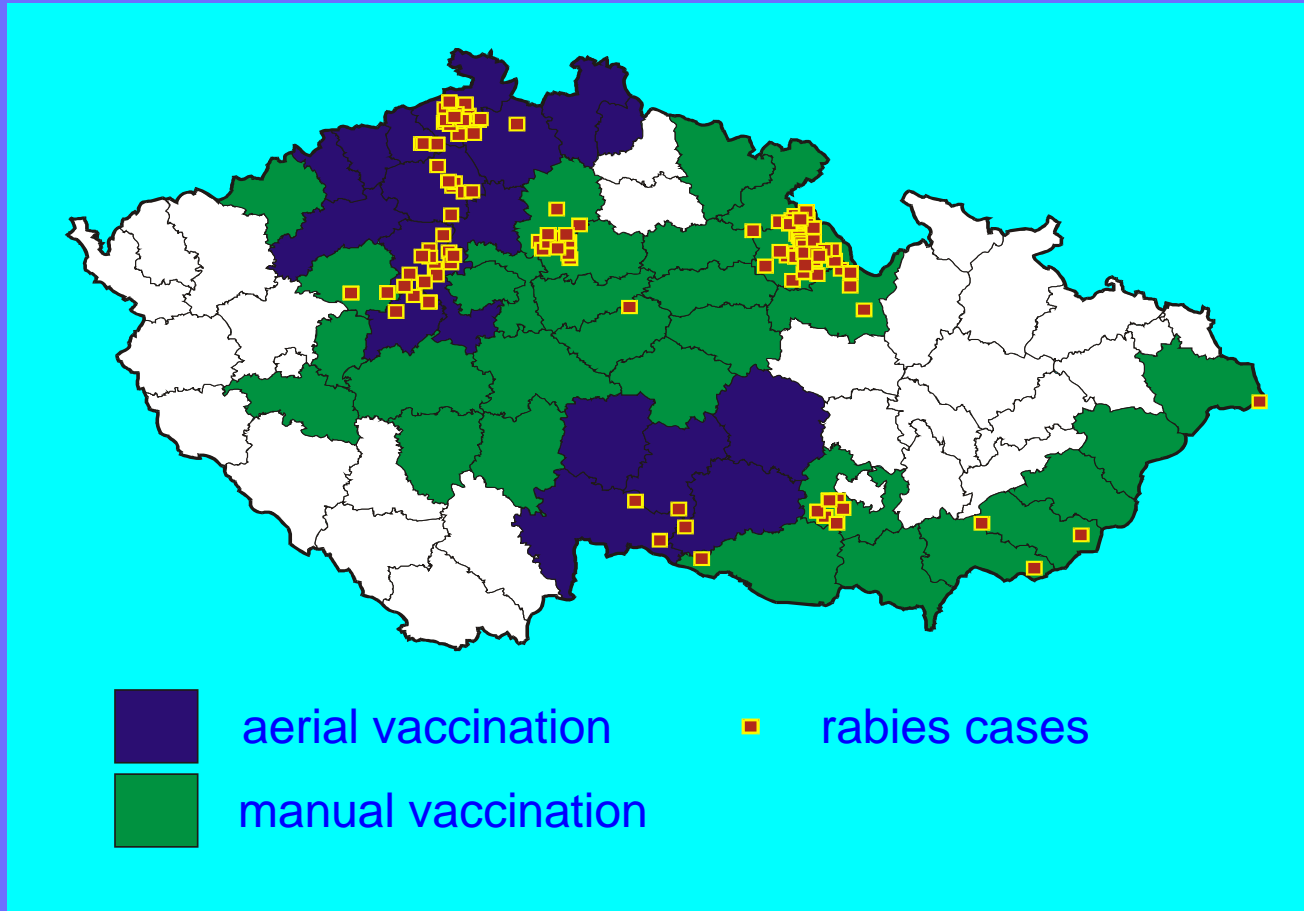


Distribution of rabies cases and area of oral vaccination 1999



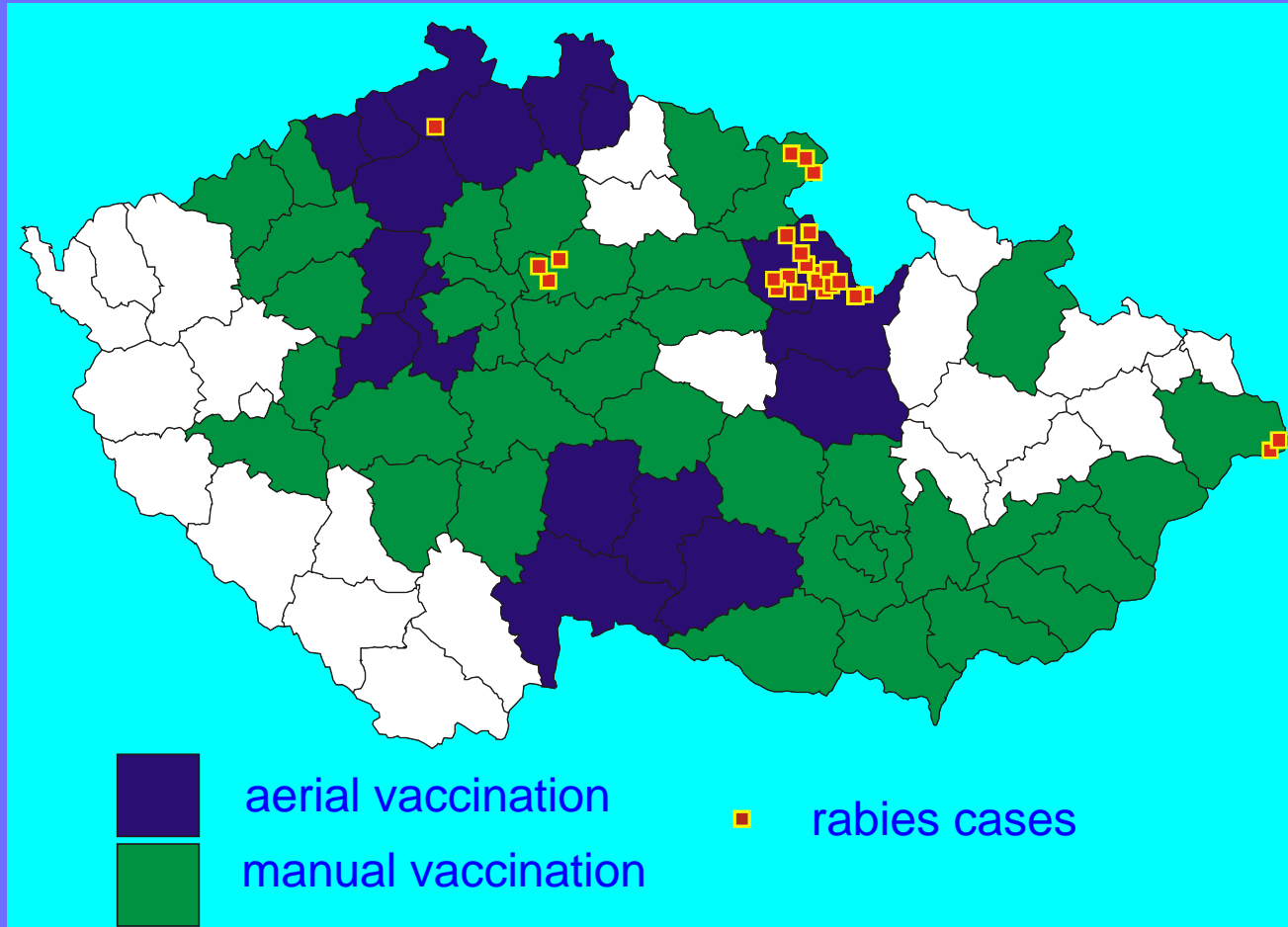


Distribution of rabies cases and area of oral vaccination 2000



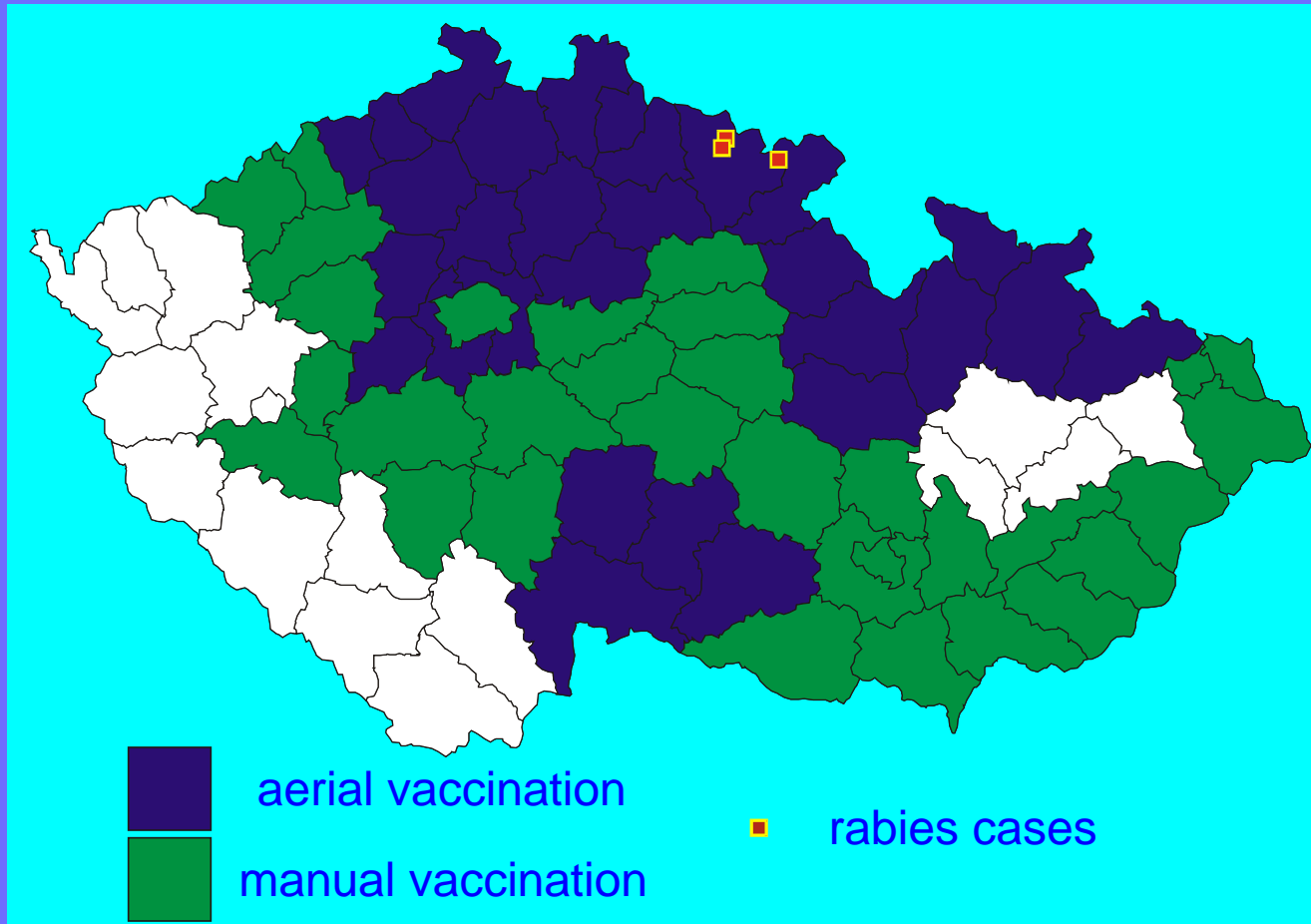


Distribution of rabies cases and area of oral vaccination 2001



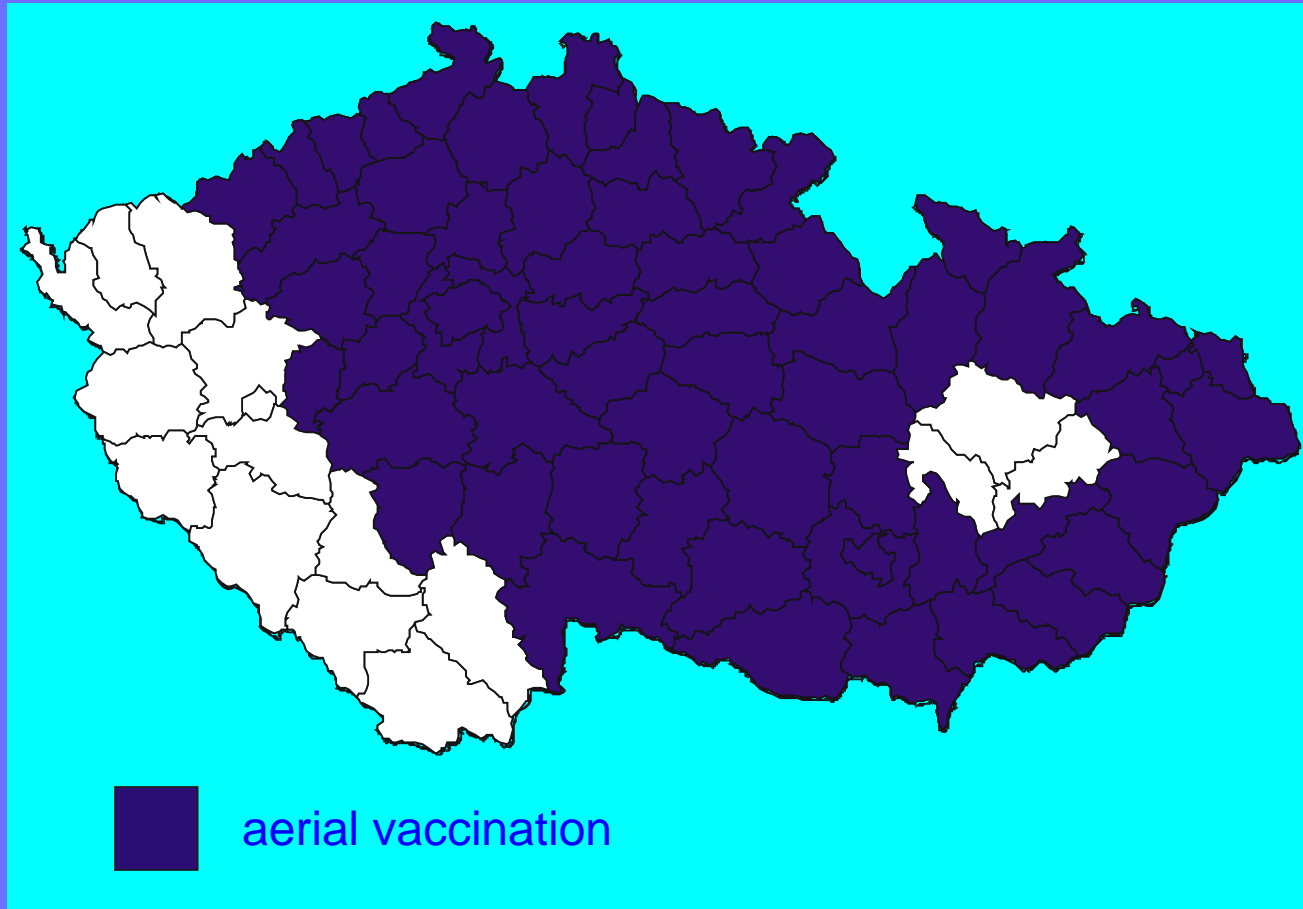


Distribution of rabies cases and area of oral vaccination 2002





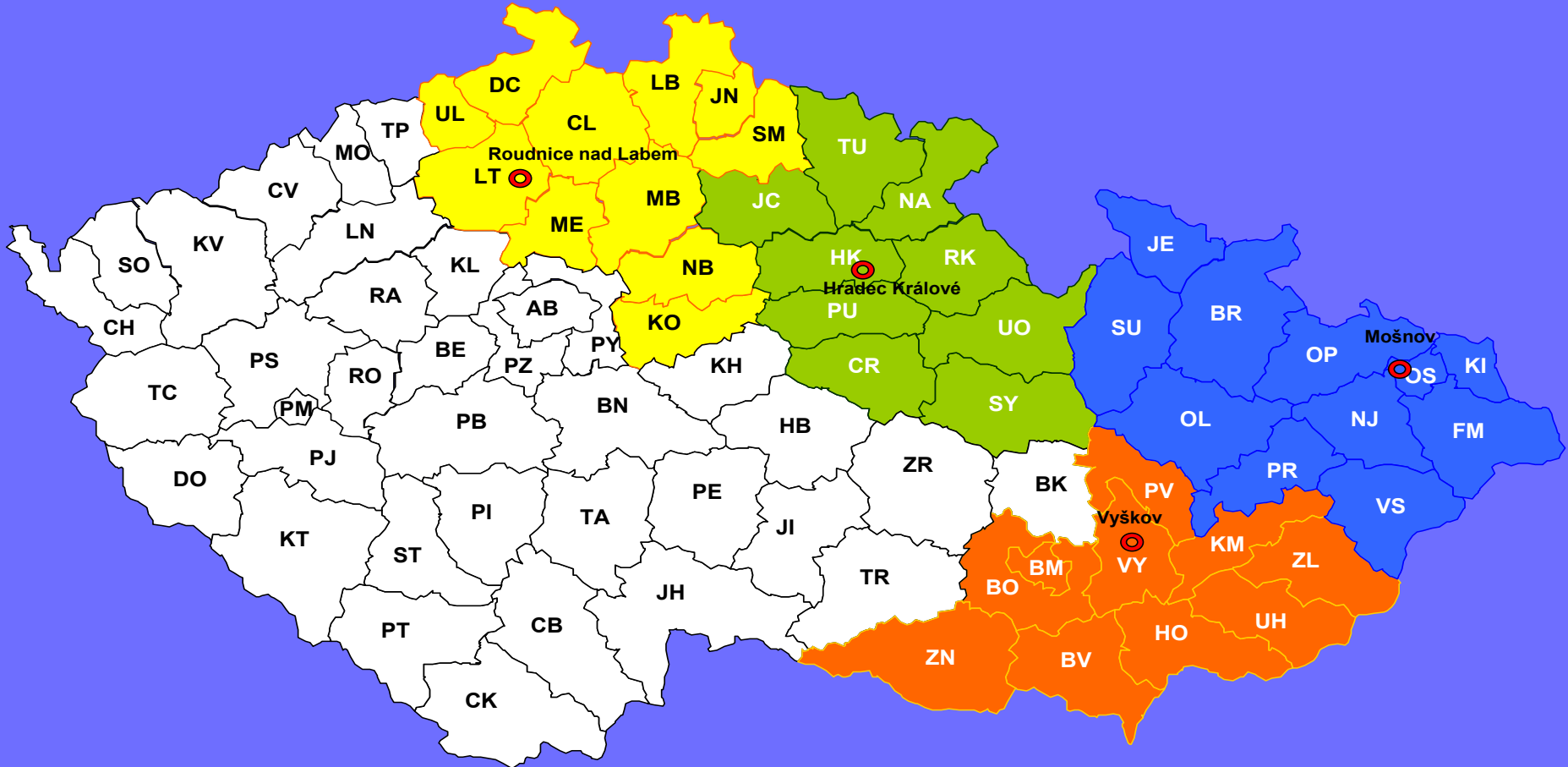
Distribution of rabies cases and area of oral vaccination 2003 and 2004





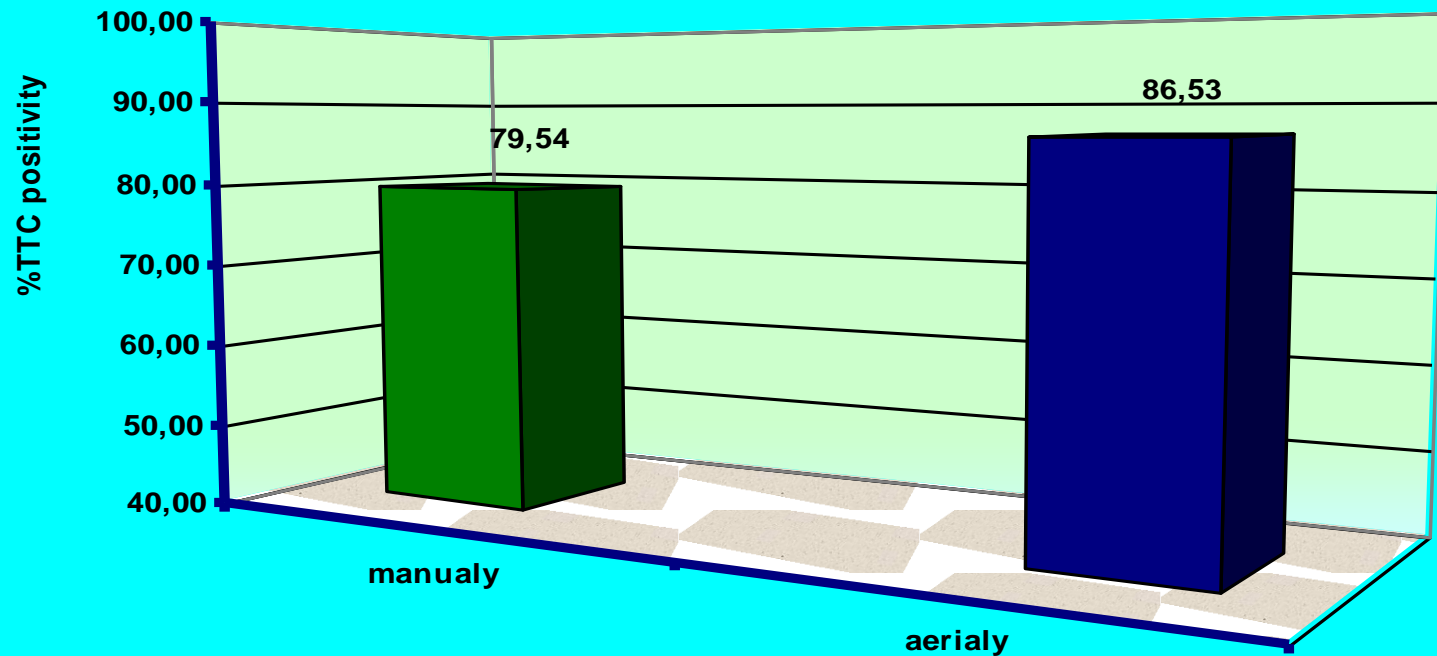
Oral vaccination of foxes in 2005 - 2009

Airports and treated area





Comparison of effectivity





Control examination 1989-2006

28 million doses distributed in the field

57 919 foxes tested for TTC marking

24 618 foxes tested for seroconversion

2 148 rabies strains tested by monoclonal antibodies

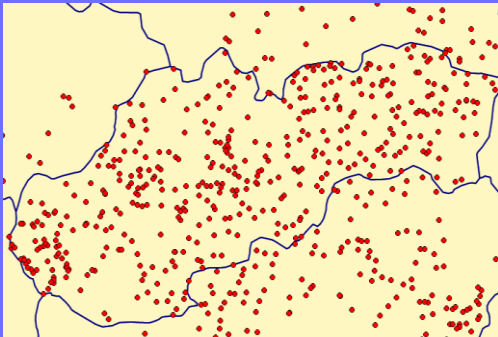
RESULTS

NO case of vaccine induced rabies!

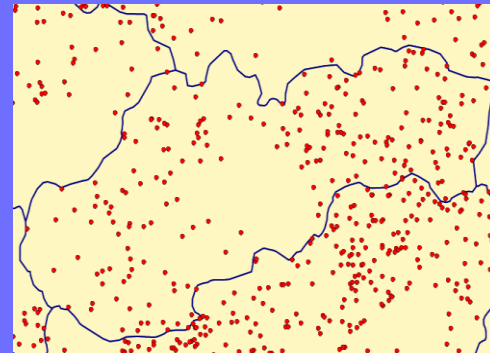
BAIT UPTAKE	87.8 %
TTC MARKING	75.5 %
ANTIBODY FORMATION	61.0 %



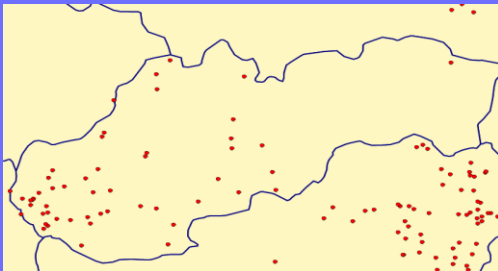
Slovakia – rabies cases



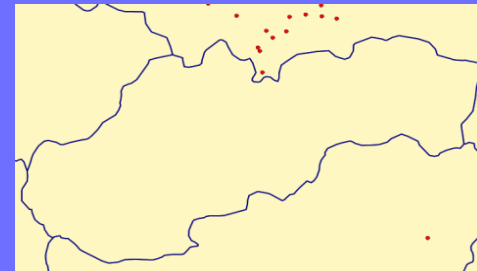
1999
Rabies cases: 420
Number of doses: 0



2000
Rabies cases: 280
Number of doses: 688 180



2005
Rabies cases: 46
Number of doses: 1 764 400

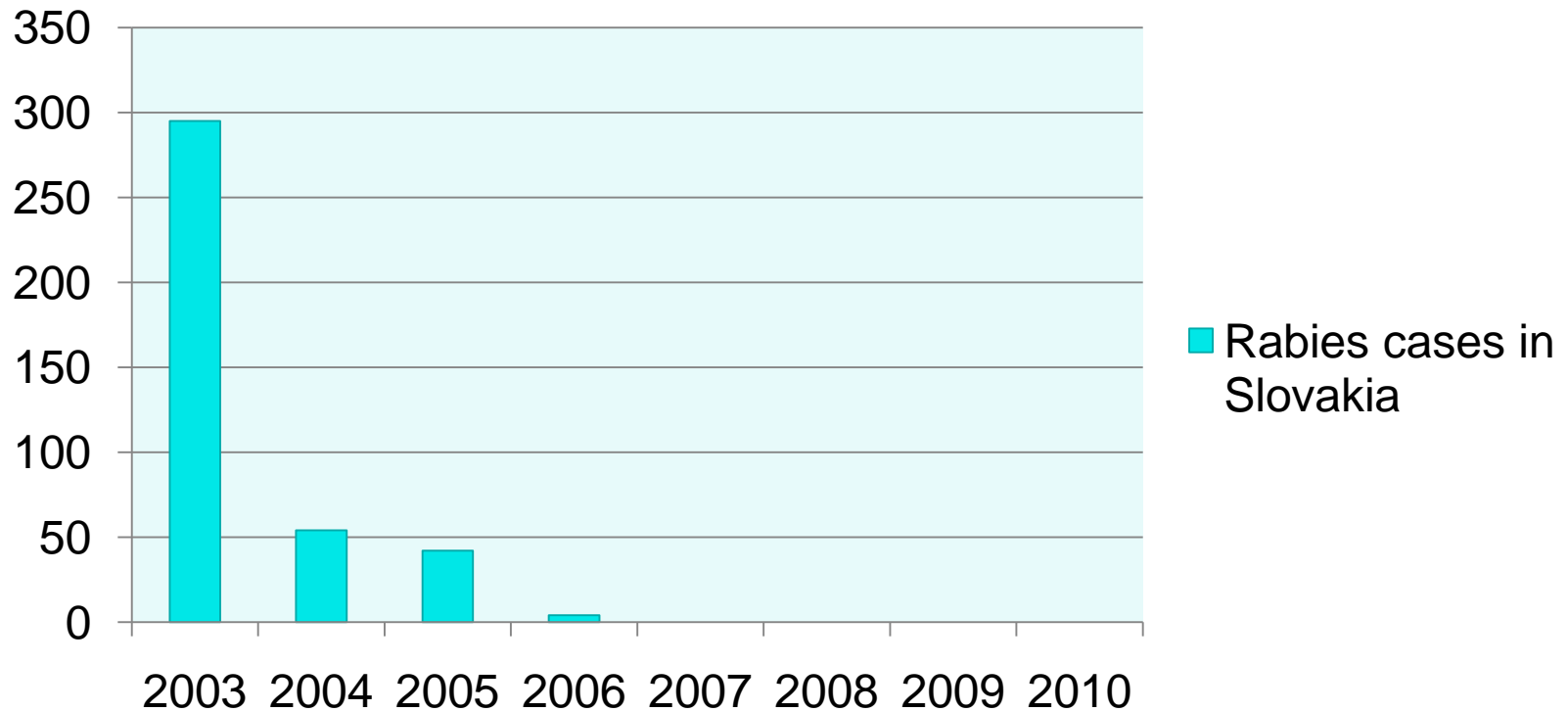


2010
Rabies cases: 0
Number of doses: 1 244 680



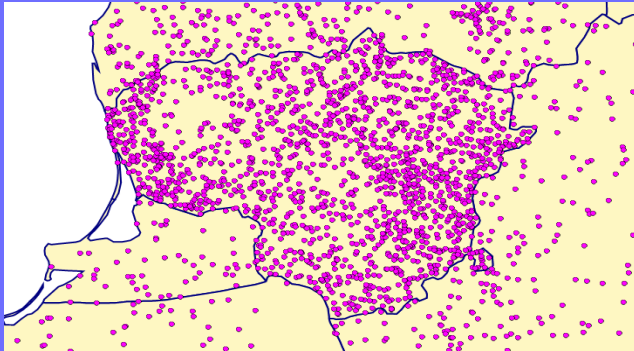
Slovakia

Rabies cases in Slovakia

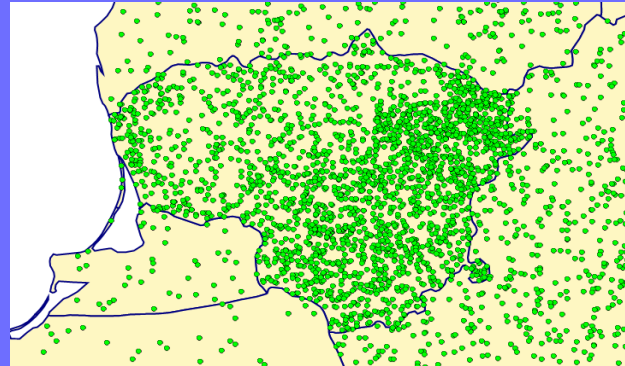




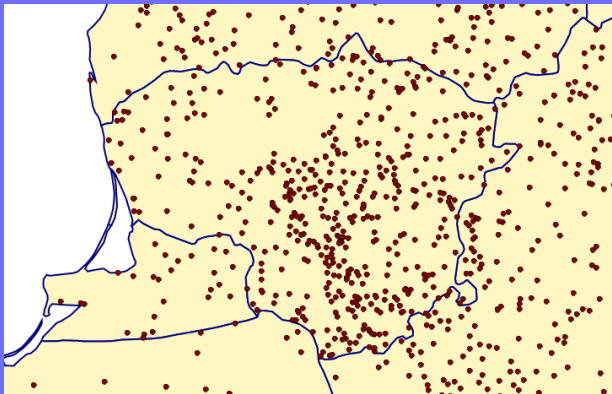
Lithuania – rabies cases



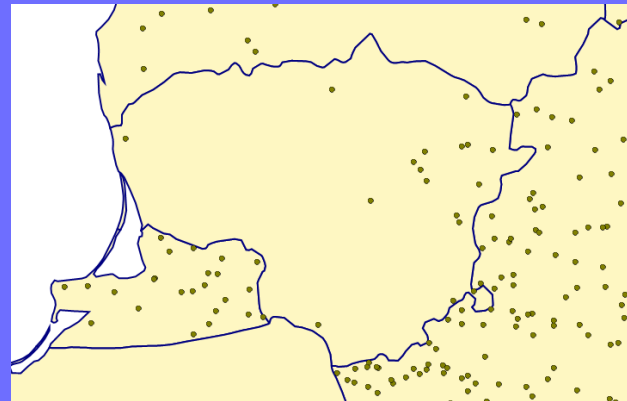
2005
Rabies cases: 1 312
Number of doses: 3 000



2006
Rabies cases: 1 883
Number of doses: 2 100 000



2007
Rabies cases: 313
Number of doses: 3 900 000

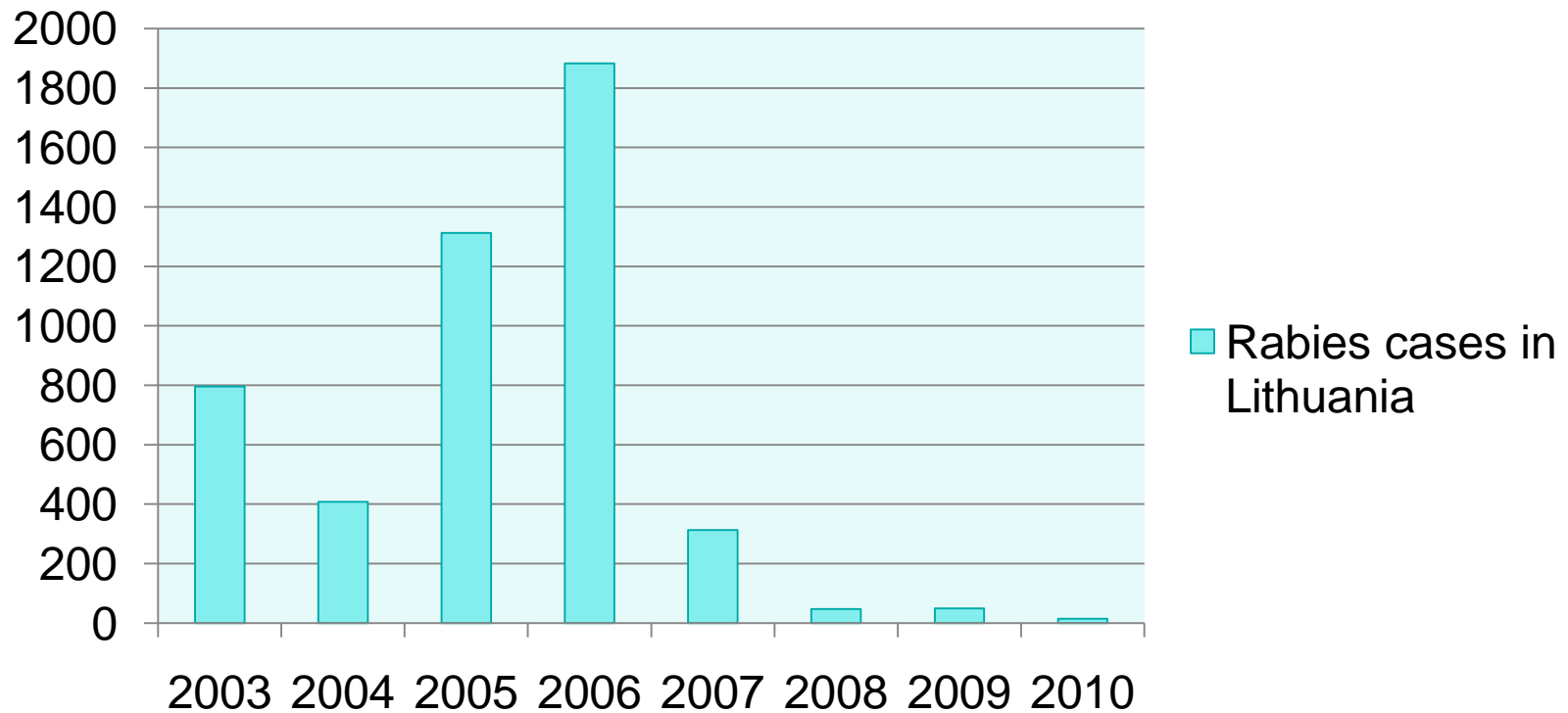


2010
Rabies cases: 20
Number of doses: 2 600 000



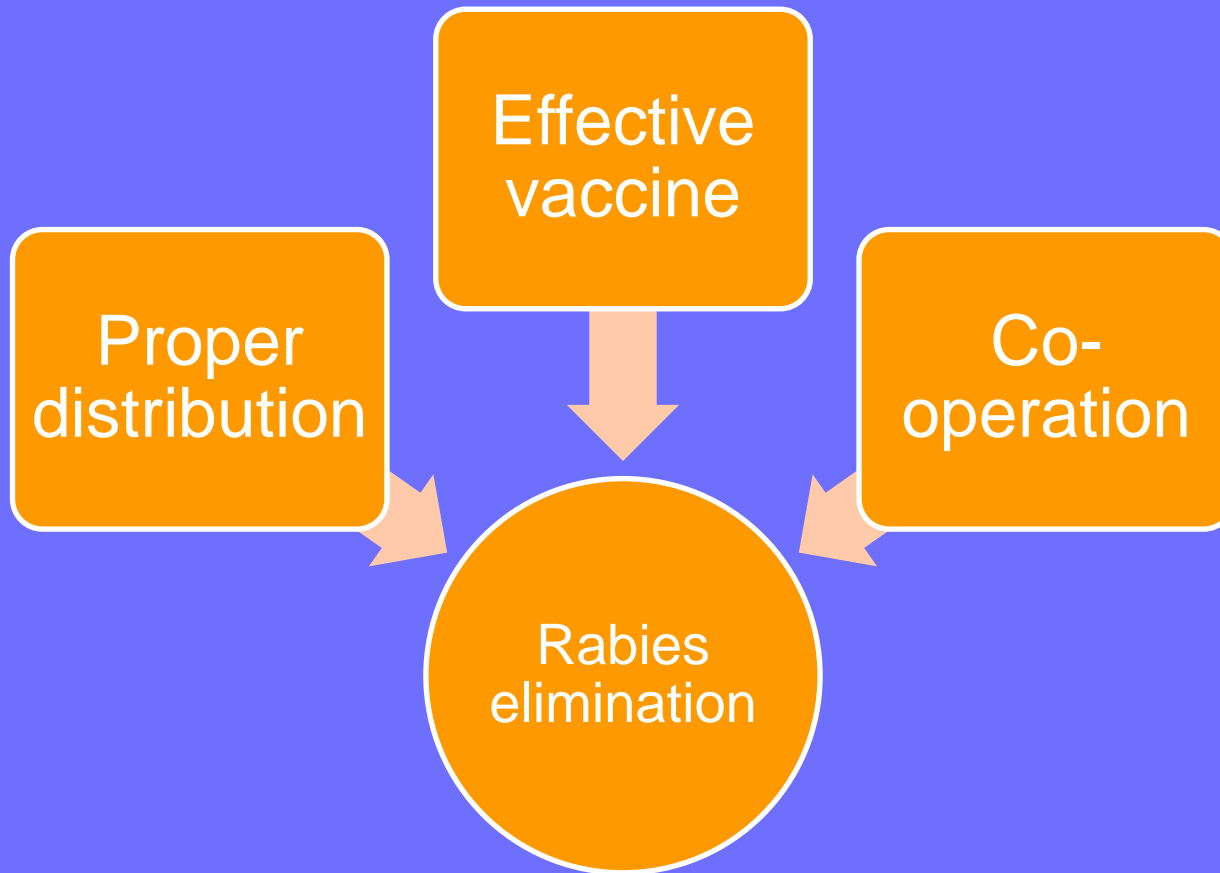
Lithuania

Rabies cases in Lithuania





Summary



bioveta



Thank you