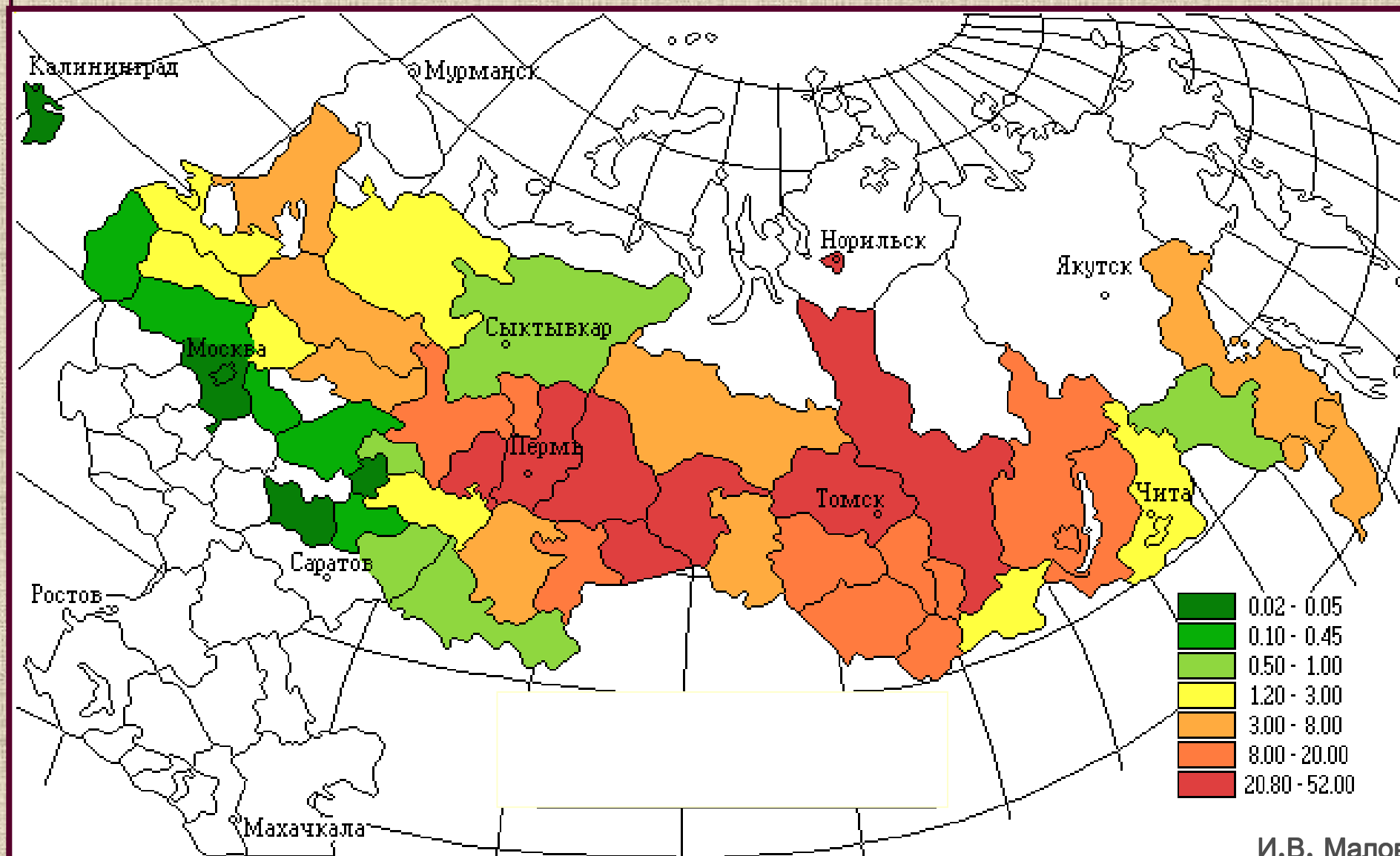


**IRKUTSK STATE MEDICAL  
UNIVERSITY**

**Igor Malov**

***Tick-borne encephalitis  
in Siberia***

# Case rate Tick-borne encephalitis (TBE) in Russian Federation

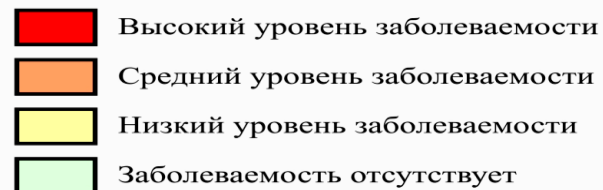
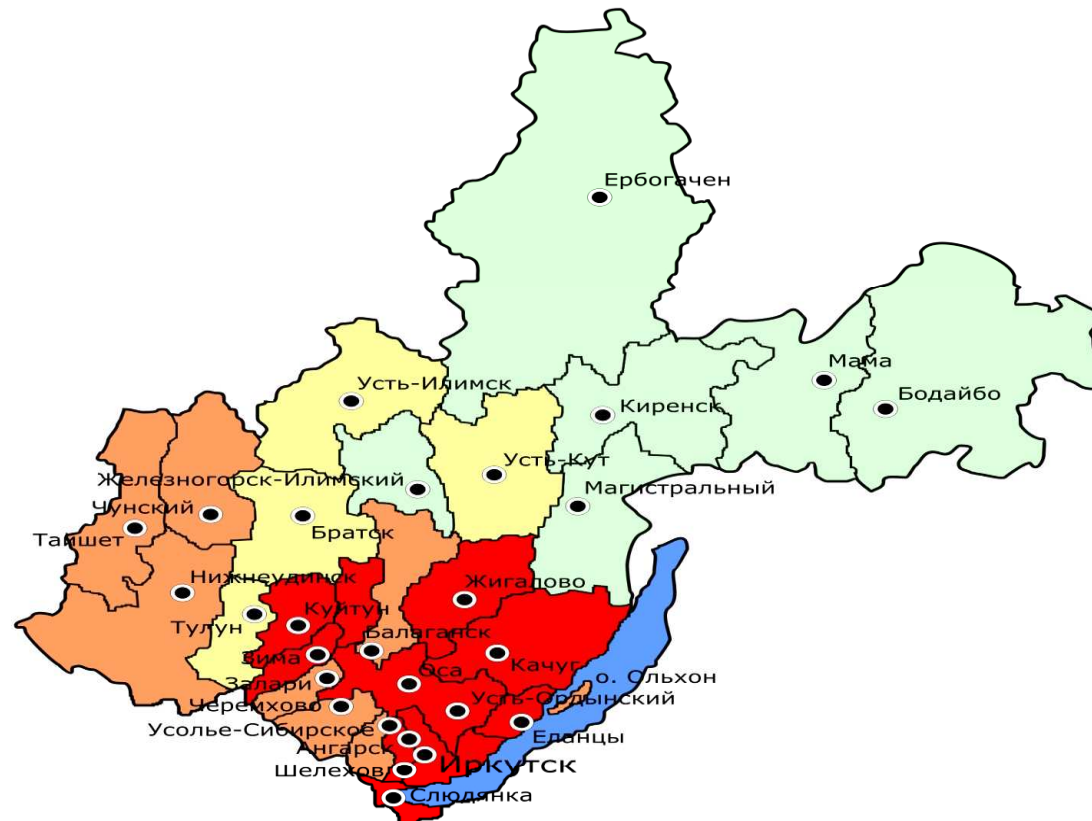


# Case rate TBE on separate locales of Siberia (1999-2000 гг.)

# Area a *Ixodes Persulcatus* (1) and *I. ricinus* (2)

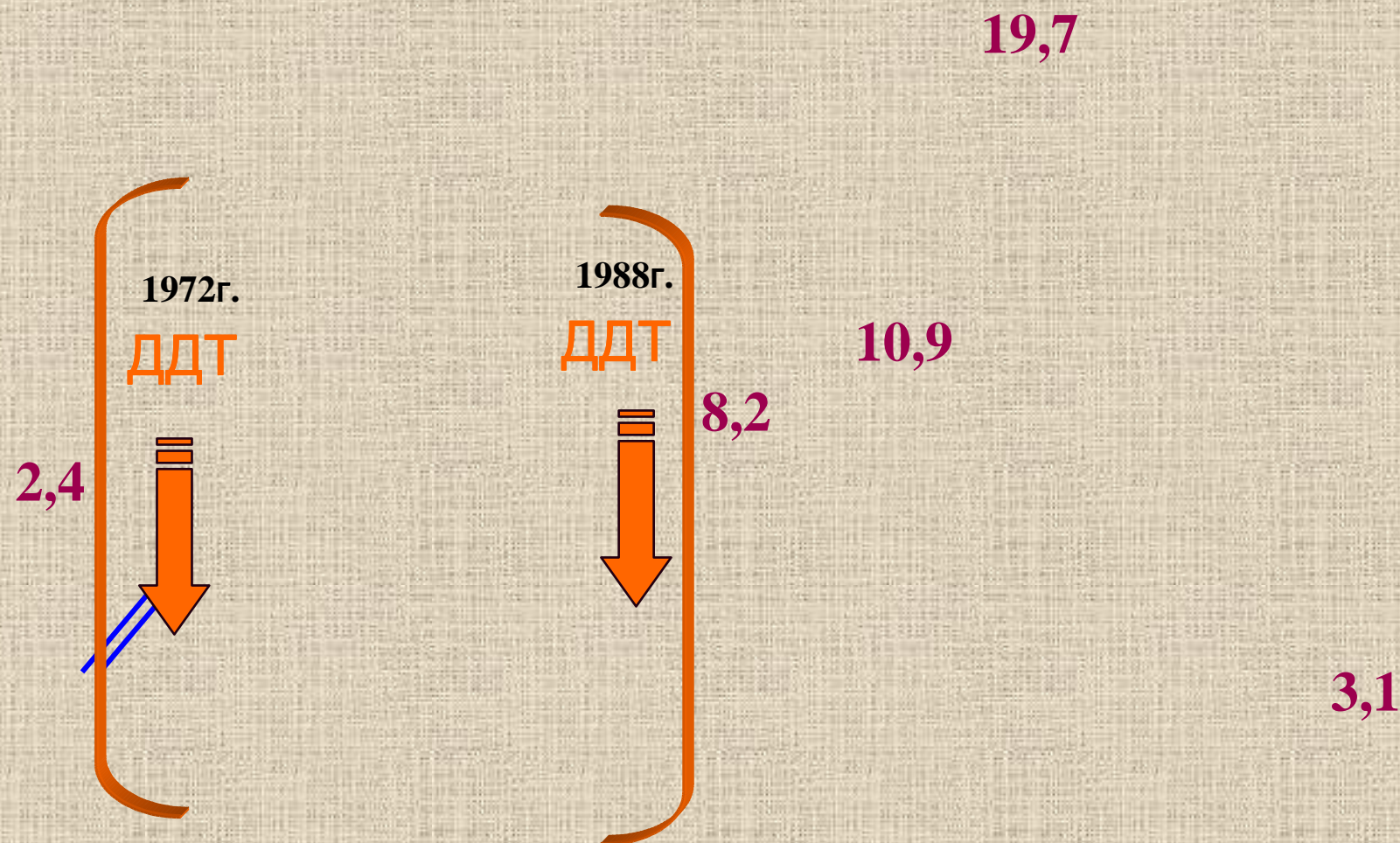


# Abundance TBE in Irkutsk area





# Dynamics(changes) TBE on Irkutsk area (index in 100 thousand population)



# Factors influence on sickness rate TBE

- Numbers of vertebrate hosts (ticks sustenance);
- Number of tick in natural foci;
- Contamination of ticks;
- Frequency ticks bites (activity of ticks);
- Immunoglobulin prevention;
- Level of people vaccination.

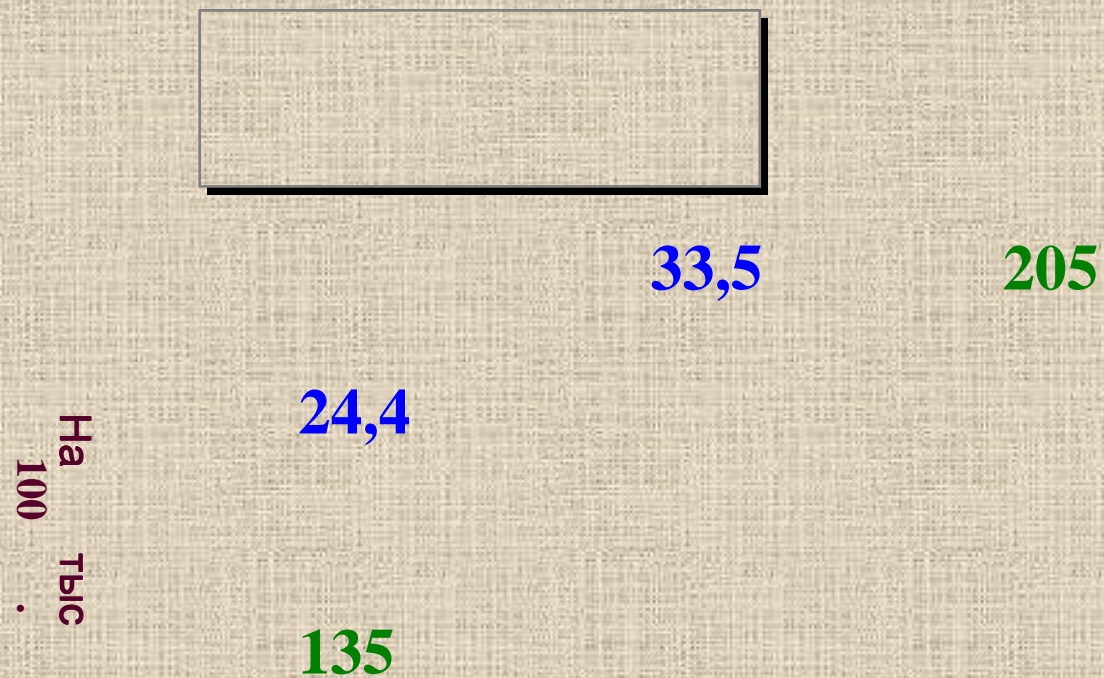
# Dynamics(changes) TBE on Irkutsk area and to Irkutsk for 23 years

На  
100  
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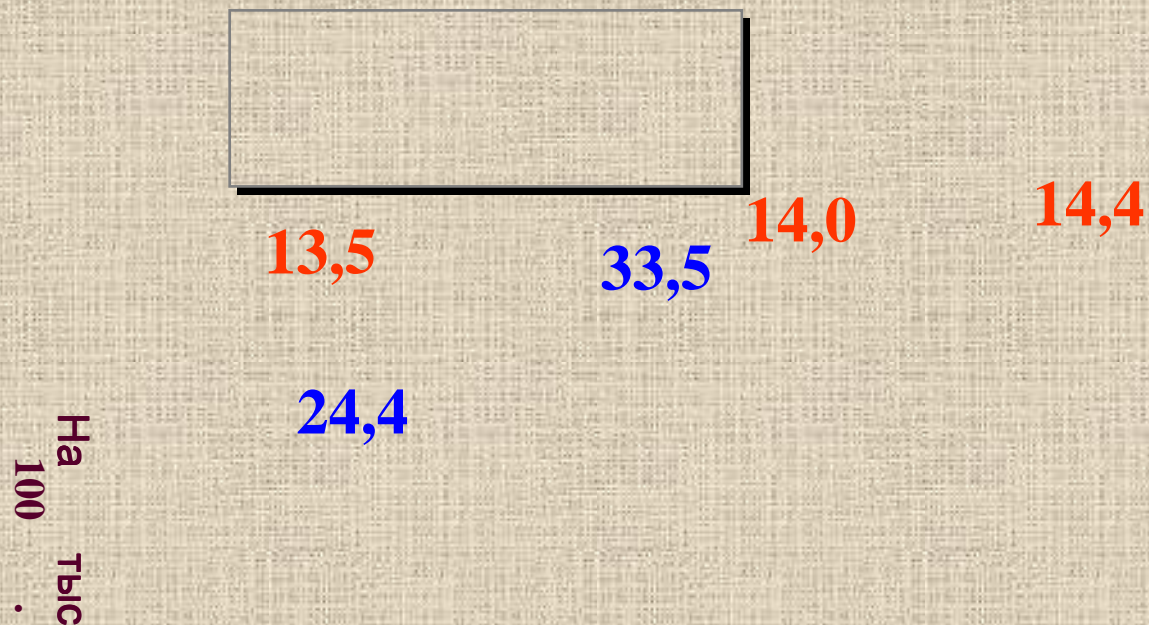




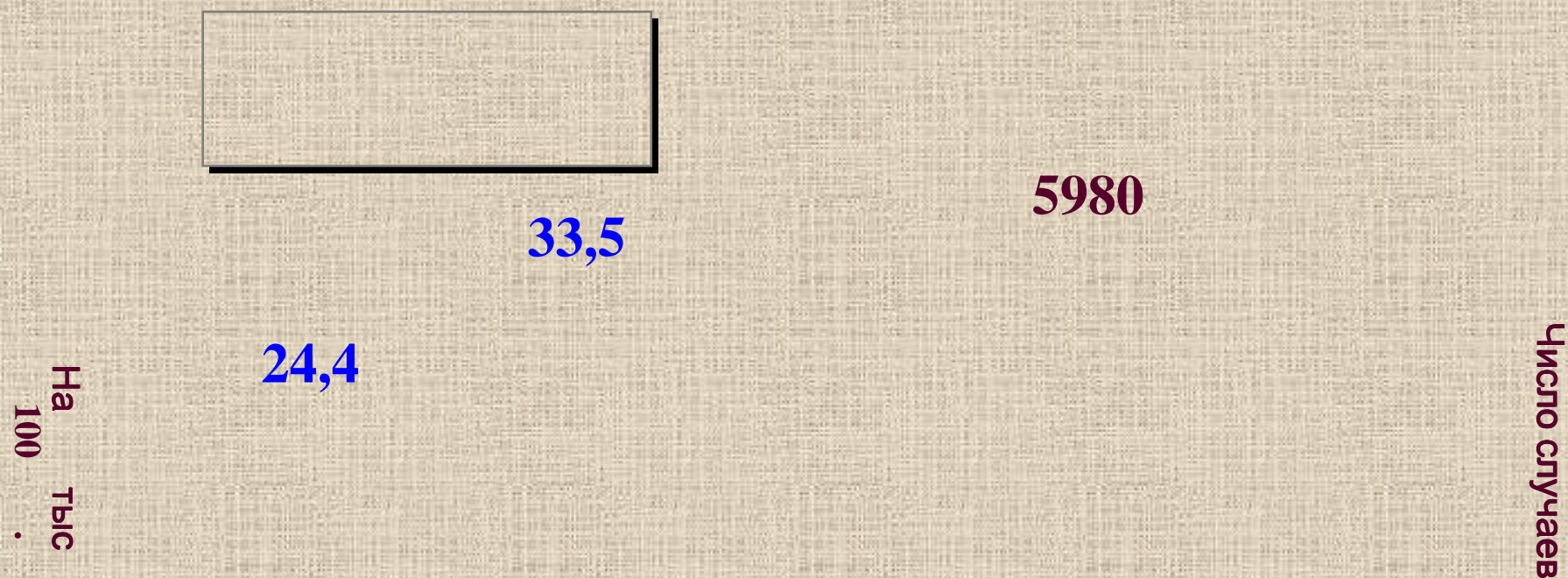
# Case rate TBE and numbers of ticks, collected by 1 km of route



# Case rate TBE and viral contamination of ticks (%)



# Case rate TBE and frequency sick calls after tick bite



# Case rate TBE and frequency immunoglobulin prevention



# Doctor's consult frequency after tick-bites in summer period

Число случаев



# Case rate TBE in Irkutsk and weather condition

# Average year summer temperature (may-august)

t, C°

# **TBE - virus genotypes, circulating on territory of Russia**

- ❑ Genotype Far East (Sofin);**
- ❑ Genotype Western (Najdorf, Absettarov);**
- ❑ Genotype Ural-Siberian (strain Ajna/1449)**

# Geographical distribution TBE - virus genotypes (by V.Zlobin et al. 2007)



- Genotype Western
- ▲ Genotype Ural-Siberian
- Genotype Far East



# **TBE-virus dominant genotype and peculiarities of clinical developing**



# **TBE-virus dominant genotype and clinical forms**

# TBE-virus genotypes, isolated from TBE-patients in Irkutsk region

/	а аИ	о в л	М о в л	о в л .	о а а ол ва	о-
1	а/1448	во	И а о ла	1963 о	, ог а	3
2	215-79	о а	И а о ла	1979	, го ал а	3
3	1 -98	г о ов	И а о ла	1998	о а о а о а	2
4	3869-03	во о а ов	И а о ла	2003	И а а а а о а	3
5	413-04	во о а ов	И а о ла	2004 г	ал а о а, 2- вол ово	3
6	2517-05	г о ов	И а о ла	2005 о	, ог а	1
7	210-79	во о а ов	И а о ла	1979	в а	3

# Evolution of TBE-virus in Sverdlovsk region (by V.Pogodina, 2007)

# Evolution of TBE-virus in Kemerovo's region (by V.Pogodina, 2007)

# Evolution of TBE-virus in Irkutsk region (by V.Zlobin, 2008)



# Evolution of TBE-virus (genotype Ural-Siberian)

# Change of clinical pictures - I



%

1966г.-1983г. – о В. . а , 1990-2007г. – о В. . о ов

# Change of clinical pictures - II



%

1966г.-1983г. – о В. . а , 1990-2007г. – о В. . о ов

лаго а а  
в а