



CHALLENGE of NATURAL FOCI EDP in UKRAINE in MODERN TIME

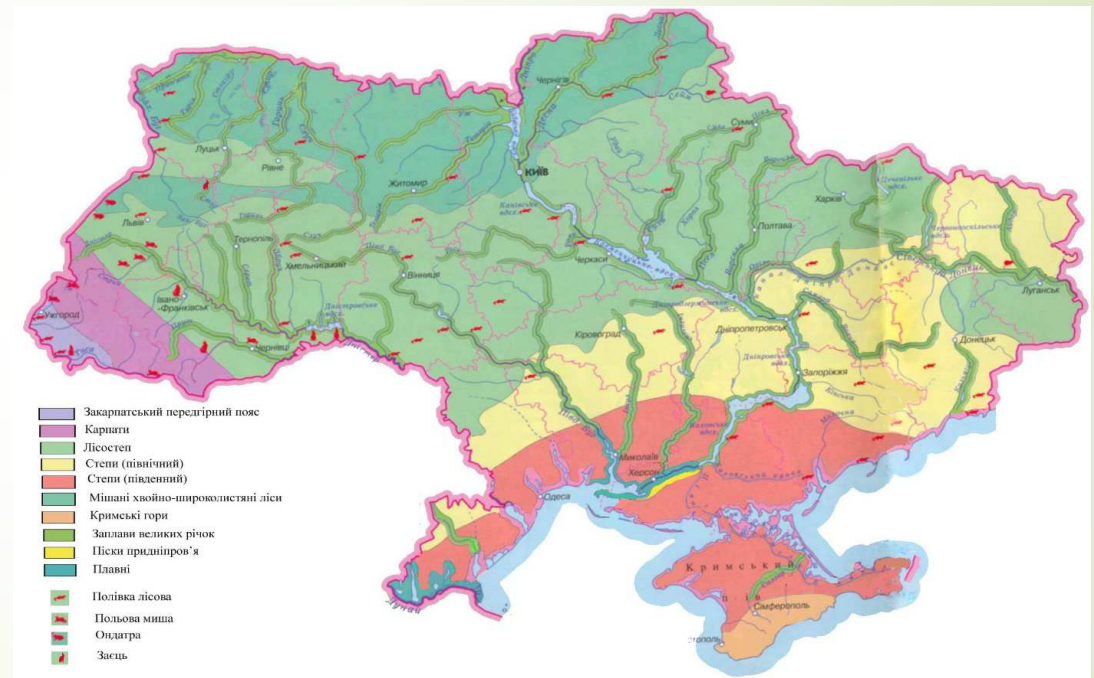
Vynograd Nataliya

**Danylo Halytskji Lviv National Medical University,
Lviv, Ukraine**

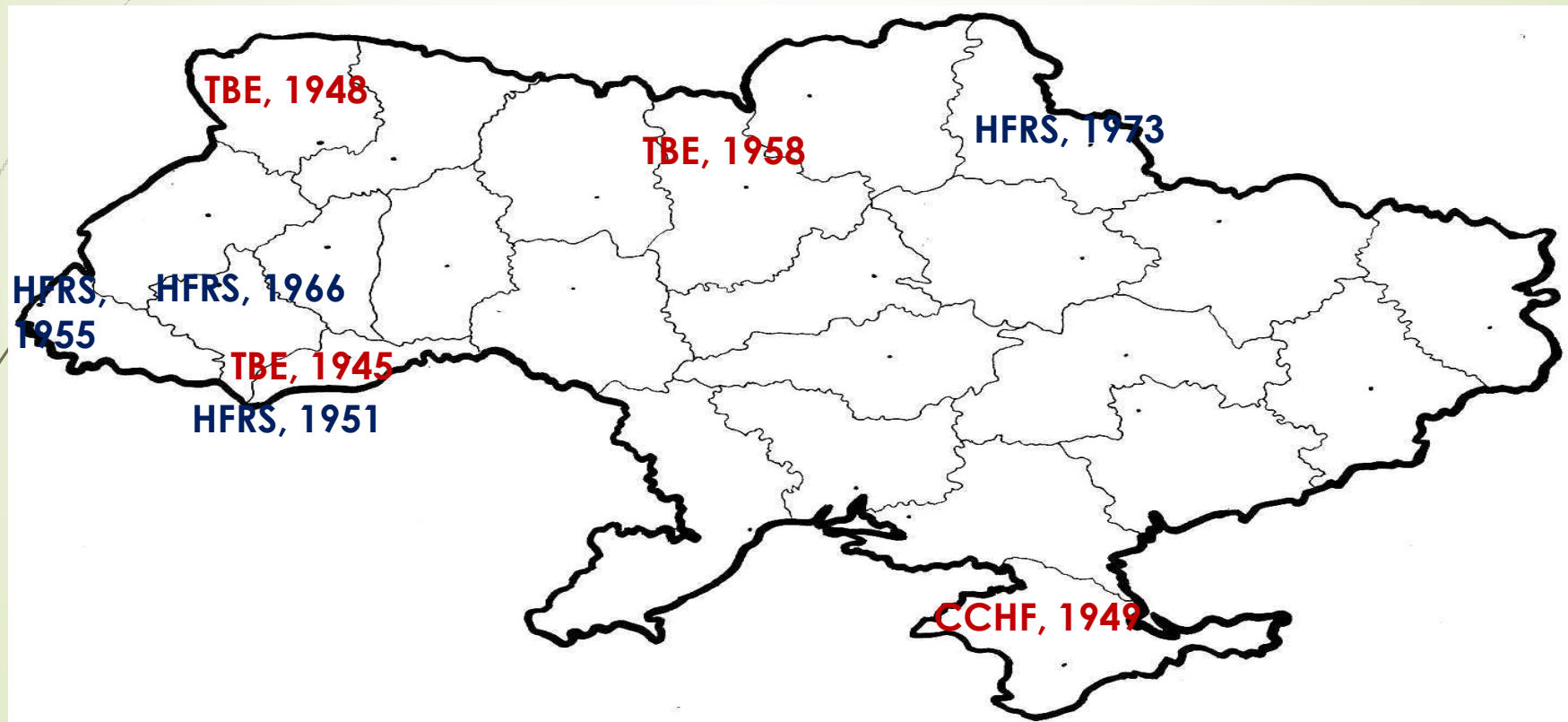
ISTC-STCU-INSERM Seminar in Emerging Diseases,
September 14-15, Annecy, France

REASONS of OCCURRING of the NATURAL FOCI in UKRAINE

- Landscape features
- Climate & geographic conditions
- Reservoirs (Animals / Birds)
- Vectors
- Polyhostile agents
- Risk factors



FIRST EVIDENCE of CCHF, HFRS, TBE in UKRAINE



ESTIMATION of ACTIVITY of the EPIDEMIC PROCESS in NATURAL FOCI

- Hospital-based surveillance
- Cohort study
- Zoological and entomological study
- Virological investigation (isolation, identification)



SUBGROUPS of DISEASES CAUSED by EDP

- **Tick-borne (transmissible)**
 - TBE, CCHF, Uukuniemi, Lyme disease, Q-fever, Tularemia, Rickettsiosis
- **Mosquitoes-borne (transmissible)** – WNF, Sindbis fever, Tahinja, Inko
- **Fly-borne (transmissible)** – Neapolitan, Sicilian, Toscana fever
- **Non transmissible** – HFRS, Leptospirosis, Brucellosis



ZOONOTIC CYCLE of EDP: ANIMALS and VECTORS

- Birds – 239 species
- Mammals – over 400: 29 Rodents species; Fosses, Hares, Hedgehogs...
- Ticks – 7-10 species
- Mosquitoes, other gnats - 21-24 species





VECTORS of TBE



- Ixodes ricinus is the main vector of TBE virus in Ukraine (0,5-19,5%)
- In Ukrainian Polissya vectors TBE is Dermacentor reticulatus
- In active natural focus in Crimea - Hyalomma plumbeum, D. reticulatus, D. marginatus and H. marginatum

FACTORS PRESURED to ECOSYSTEMS in MODERN TIME

- Social,
- Economic,
- Environmental



DEFORESTATION



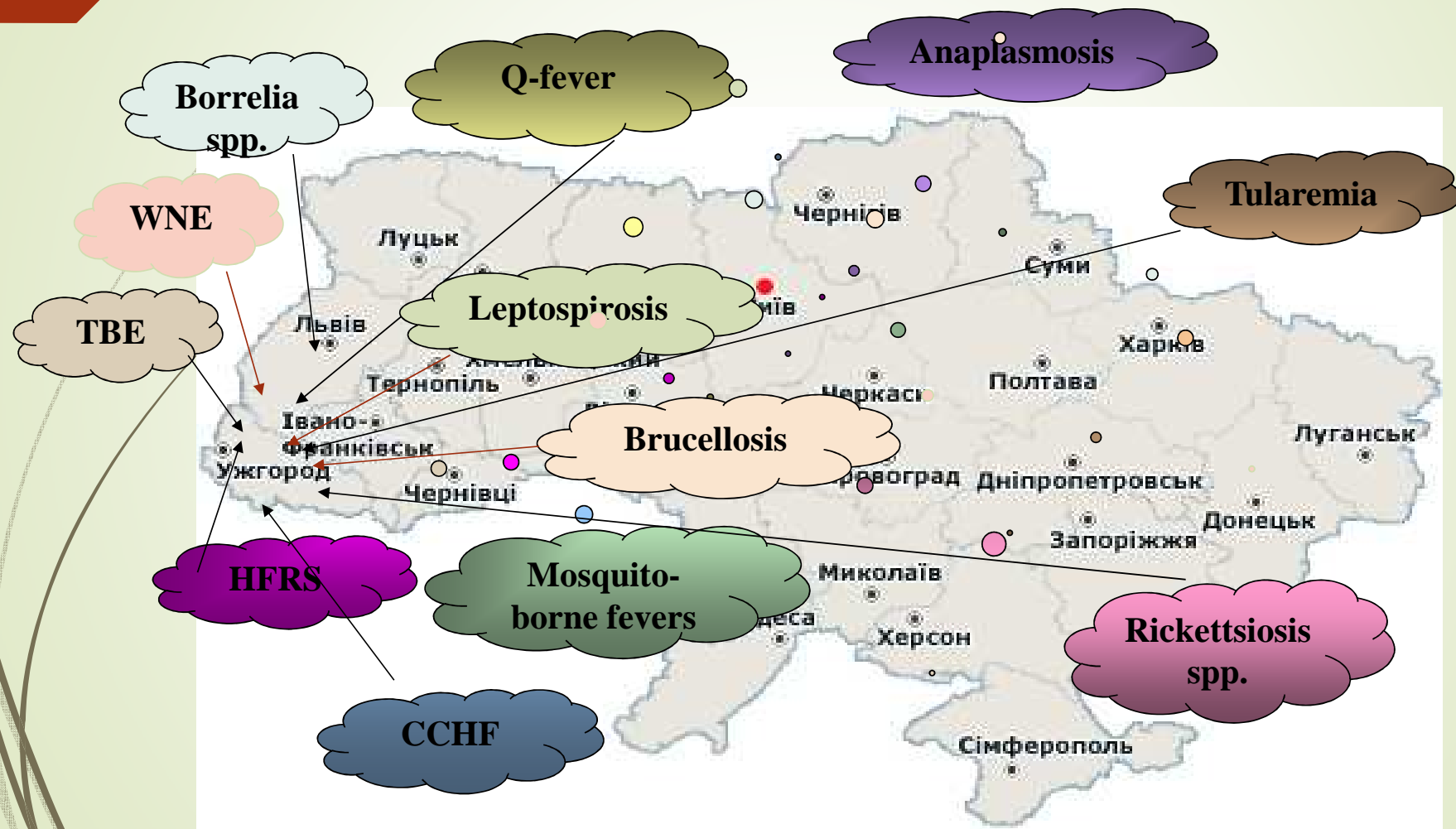
FIRES (forests, steppes, peats)



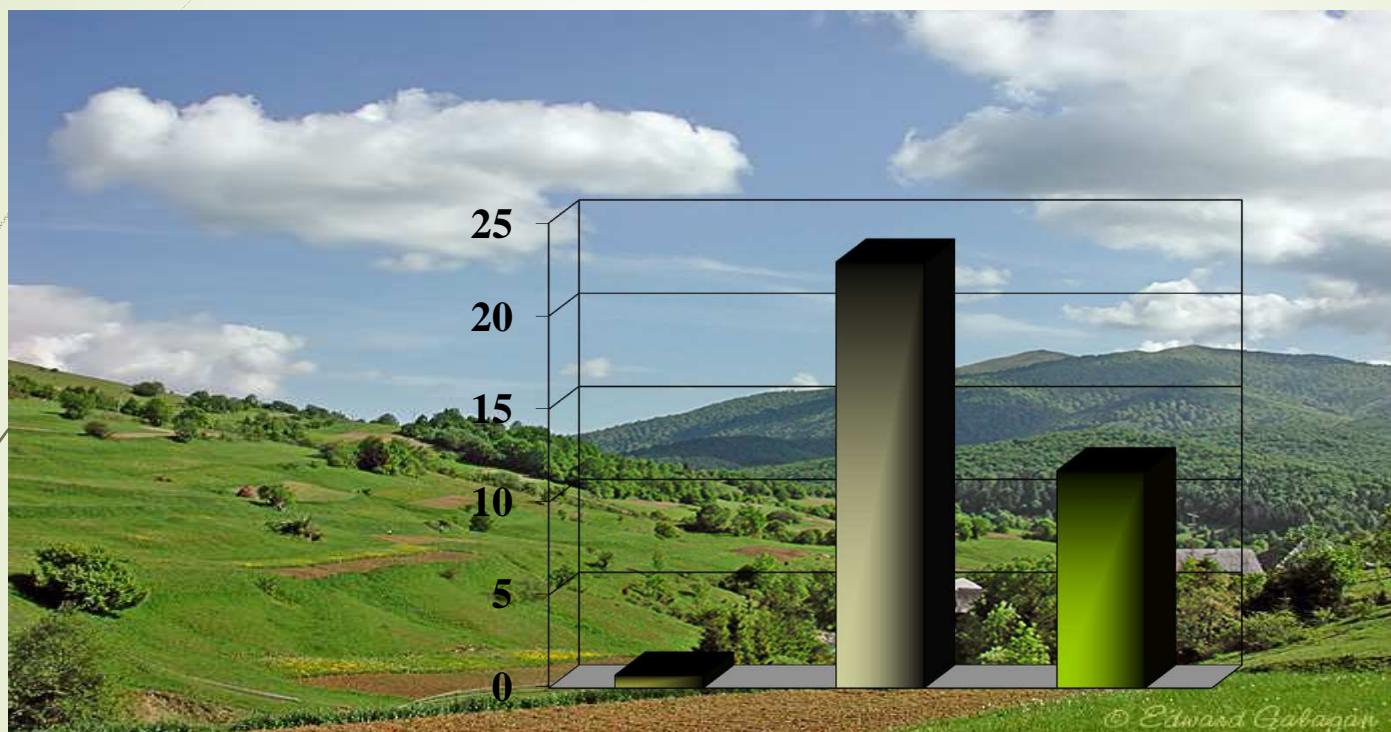
FACTORS PRESURED to ECOSYSTEMS in MODERN TIME



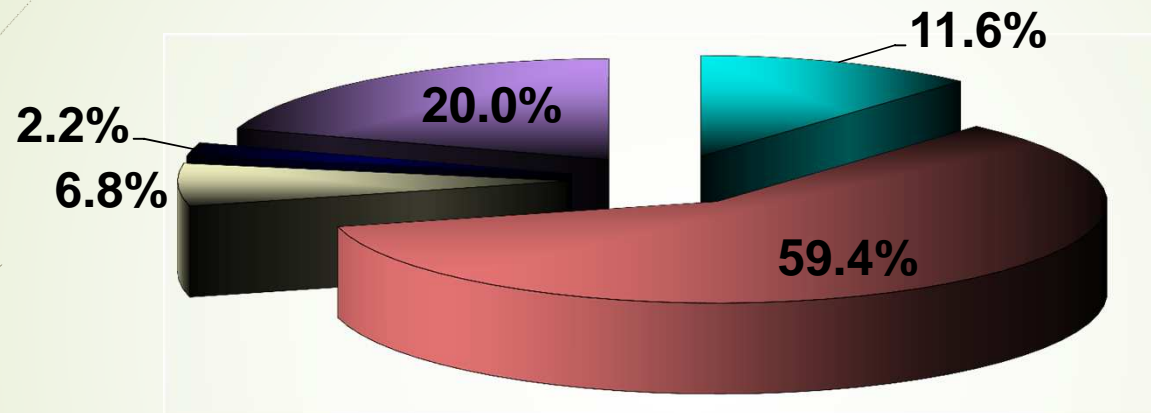
SPECTRUM of ZOOANTROPONOSIS in the WESTERN REGIONS OF UKRAINE



SEROEPIDEMIOLOGICAL MONITORING of POPULATION at TBE

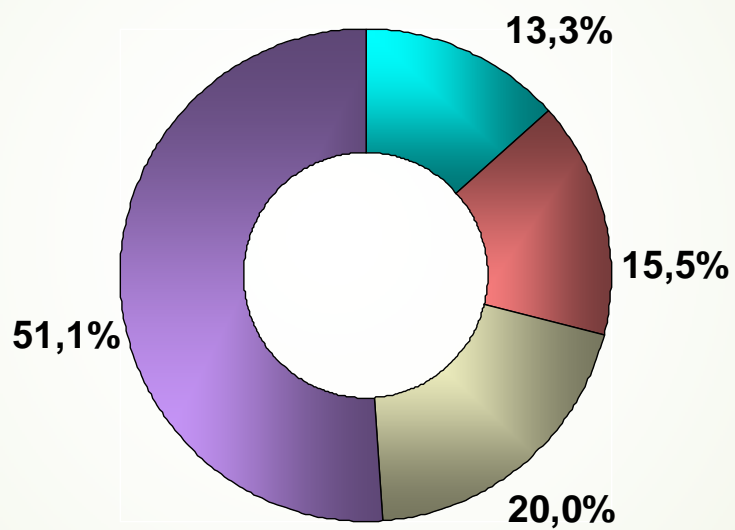


ETIOLOGY of the DEFEAT of NERVOUS SYSTEM



■ TBE ■ LD ■ WNE ■ Sindbis ■ others

CLINICAL MANIFESTATION of TBE (n=45)



■ encephalitis ■ menigitis ■ neurotoxicosis ■ ARVI



NATURAL FOCI: Peculiarities of modern stage

- Changing the boundaries of nozological areas
- Modification of the structure of EDP natural foci
- The “mosaic” of natural foci
- The combined foci by presents of pathogens
- Detection of distribution of new agents
- No natural “wild” foci so far as mixed and urban foci of EDP

THANK YOU FOR ATTENTION!

