



REPUBLIC OF SLOVENIA
MINISTRY OF HEALTH

EMERGENCY MEDICAL SYSTEM IN SLOVENIA

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General information about the health system in Slovenia



- Patients have obligatory and additional medical insurance
- Funds for obligatory medical insurance are collected by the state insurance company
- Each year, an agreement regarding the payment of health programs between medical institutions and insurance is signed
- **Participation in the provision of emergency medical care is a legal obligation of general practitioners in Slovenia**
- The organized out of hospital EMS system has been established in 1996 by Act on the emergency medical service

EMS system regulative



- First Act on the emergency medical service 29.12.1996
- Second Act on the emergency medical service 11.11.2008
- Third Act on the emergency medical service 14.11.2015 – important changes
- Act on the conditions for the implementation of helicopter emergency medical service 16.12.2016
- Act on Medical dispatch service 20.10.2017

- The Acts are
 - Defining the organizational structure and network of EMS system
 - Defining the composition and training of staff in EMS units
 - Defining the equipment and vehicles
 - Defining the responsibilities and tasks
 - The basis for funding

The basics



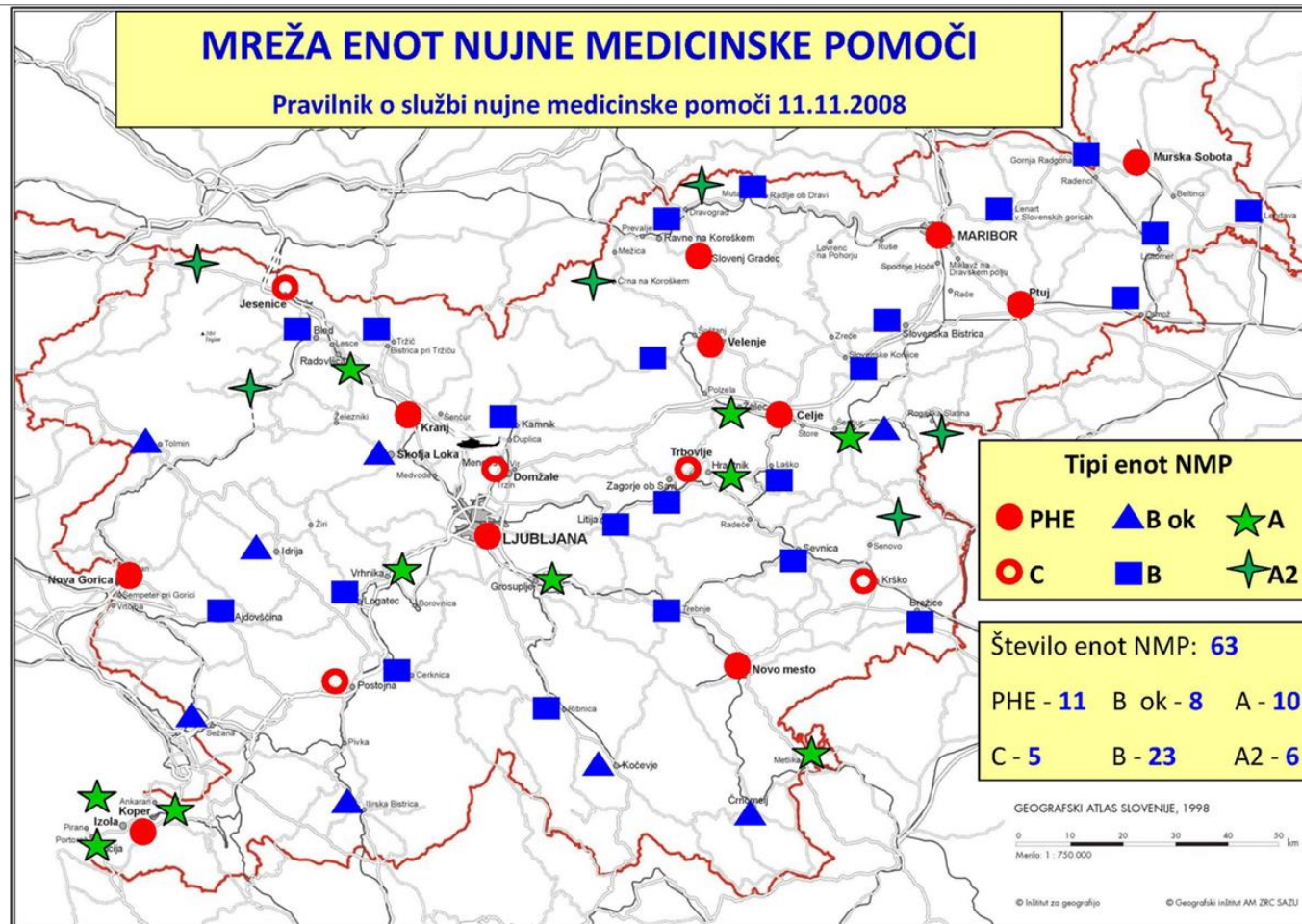
- Out of hospital EMS System was based on family physicians in community health centres, acting also as emergency doctors
- Same service / doctor is providing acute and emergency care for unsolicited and for urgent patients (OOHC and EMS)
- Majority of contact are OOHC visits – 633.000, only small fraction are EMS interventions – 33.000



The organizational structure of EMS

- There are 63 units of emergency medical service in the country
- Currently there is no single dispatching system, each of 63 units must dedicate a person to play a role of a medical dispatcher
- In 75% of units family physicians are called to emergency from their family medicine practice. They have to leave their patients in the waiting room, sit in the ambulance and rush to the scene
- Only 25% of units are dedicated for emergency service only, some of them at least partially staffed with emergency physicians
- In 75% of units they have one or more ambulances to carry out emergency service which includes also transport of a persons with life-threatening problems
- In 25% of units they have only emergency doctors vehicles (not for patient transport)

EMS network from 2008



Patients transport



–Act about patient transportation 24.12.2009

1. emergency transport of patients who are at risk (paid from compulsory insurance)

- Emergency rescue vehicle EN 1789:2007 tipe C (resuscitation vehicle) for physician staffed vehicles
- Emergency rescue vehicle EN 1789:2007 tipe B for rescuers staffed vehicles

2. non-emergency transport (paid from voluntary insurance)

- Non-emergency rescue vehicle EN 1789:2007 tipe A for a patient who, because of his/her health, needs an escort or medical care of a healthcare professional
- Medical vehicle for a patient, if the transport by means of a public transport vehicle or a personal vehicle could be harmful to his/her health

Patients transport



- Network of providers of emergency and non-emergency transport services:
- EMS system:
 - 52 resuscitation vehicles
 - 32,6 rescuers staffed vehicles
- Non-emergency providers
 - 104 Non-emergency rescue vehicles
 - 319 Medical vehicles

Criteria for EMS units network



- **the average access time of the EMS mobile unit, which may not exceed 15 minutes**
- number and demographic structure of the population,
- geographical and traffic conditions,
- territorial distance to the nearest A & E ED and
- the needs of the population
- data from the medical dispatching service on emergency interventions of EMS mobile units,
- reports by the EMS service providers,
- data of the ZZZS (national health insurance company),
- analysis of adverse events in the NMP service,
- findings of regular and exceptional controls in the field of NMP.



Criteria for transport services

- **providers of emergency transport units (ETU)** are complementary with EMS teams:
- for every 30 000 insured persons at least one ETU team is available, and
- one ETU team carries out 2,000 emergency transports annually

- **for non-emergency transport services:**
- according to the number and age structure of inhabitants
- number of kilometres travelled
- the presence of health and social institutions
- the distance to the central oncology hospital
- exceeding the realization of the planned transports

Education and additional training of medical personnel in EMS



1. Doctors specialists in emergency medicine and in family medicine with additional training:
 - ALS, APLS/EPLS, ATLS/ETC/ITLS, WINFOCUS, MRMI
2. Graduate nurses
 - ILS, EPLS, ITLS, MRMI
 - A safety driving course for ambulances - if he is also driving the ambulance
3. Medical rescuers
 - National Vocational Qualification
 - A safety driving course for ambulances



Maintenance of competence

- Act on the emergency medical service 14.11.2015 determines a curriculum for emergency healthcare professionals
- Each EMS unit organizes renewal training according to a specified content at least once a year
- The Ministry of Health organizes a test of knowledge and competence at the national level
- An individual healthcare professional participates in a knowledge test at least once every five years

How the EMS system works?



- A person in distress calls a European emergency call number, which is also national emergency number – 112 (calls are accepted by 13 regional notification centres)
- The call is then diverted to the nearest local EMS unit
- There, the person in charge of receiving urgent calls decides on the type of response
 - Activates an emergency team with a doctor (if life threat)
 - Sends a rescue vehicle without the doctor (no life threat, but needs transport)
 - Decide for home visit by the doctor (if the problem can be fixed at home)
 - Instructs the patient to go to the nearest health service (for minor problems, walking pts)
 - Or simply gives advice (a minor problem which a patient can deal by himself)
- on the way to the place of the event, emergency vehicles use emergency lighting and acoustic signaling

Road collisions



- In road accidents with major trauma or several injured persons emergency team with a doctor will be activated +/- additional ambulances
- With less serious injuries a rescue vehicle without the doctor will be sent
- Emergency vehicles use emergency lighting and acoustic signaling
- Vehicles on the way form a rescue corridor, and they move left and right along the edge of the road
- In the case of road accidents, firefighters and the police are usually simultaneously activated by regional notification centres, which coordinate the operation of all emergency services
- DARS, Motorway Company in the Republic of Slovenia also plays an important role
- patients receive appropriate medical care at the site of the accident and are taken to a hospital by ambulances

Plans for the future



- From 2008 there is new speciality of emergency medicine in Slovenia
- At the end of 2015, 10 new regional, hospital based A & E EDs were build and starting to work

NEW CONCEPT:

- Emergency physicians will provide medical EMS care prehospitally and in ED
- Mobile ambulance teams of graduate nurses and medical rescuers will provide EMS care for less urgent calls
- Rendezvous (RV) system as complementary system will be implemented
- Medical dispatch system will coordinate all EMS units

- Family physicians will provide OOHC service

Future model



- 12 large emergency centres (A&E) in the hospitals in every region - emergency physicians + family physicians for OOHC
- 19 small emergency centres in bigger community health centres - emergency physicians + family physicians for OOHC
- 32 OOHC primary health care in smaller community health centres - family physicians
- Mobile EMS units staffed with emergency physician in all 31 emergency centres,
- Mobile EMS units staffed with competent graduate nurses and medical rescuers in all OOHC locations and additional ones in most of emergency centres
- Central dispatching service is coordinating the work of all mobile units



Act on Medical dispatch service 20.10.2017

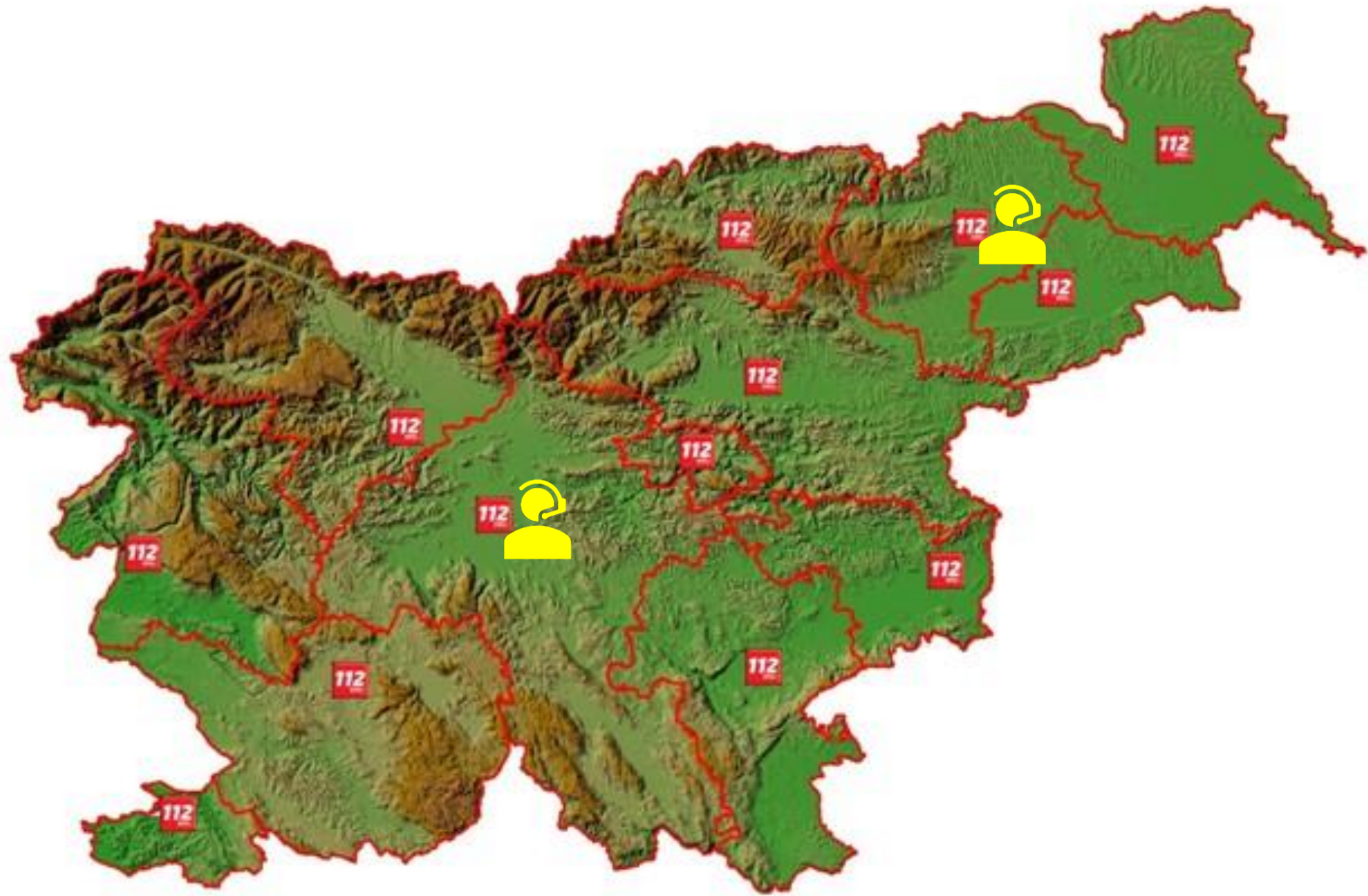
- National service
- 2 medical dispatch centres – Ljubljana and Maribor
- Standards for communication infrastructure and technology
- Protocols for communication with the emergency and transport personnel
- Computer based technology to support reception of calls/e-calls, alarming emergency staff, support of the operation, documentation...
- Slovenian Index for Emergency medical help (based on Norsk indeks for medisinsk nødhjelp, 3. utg)

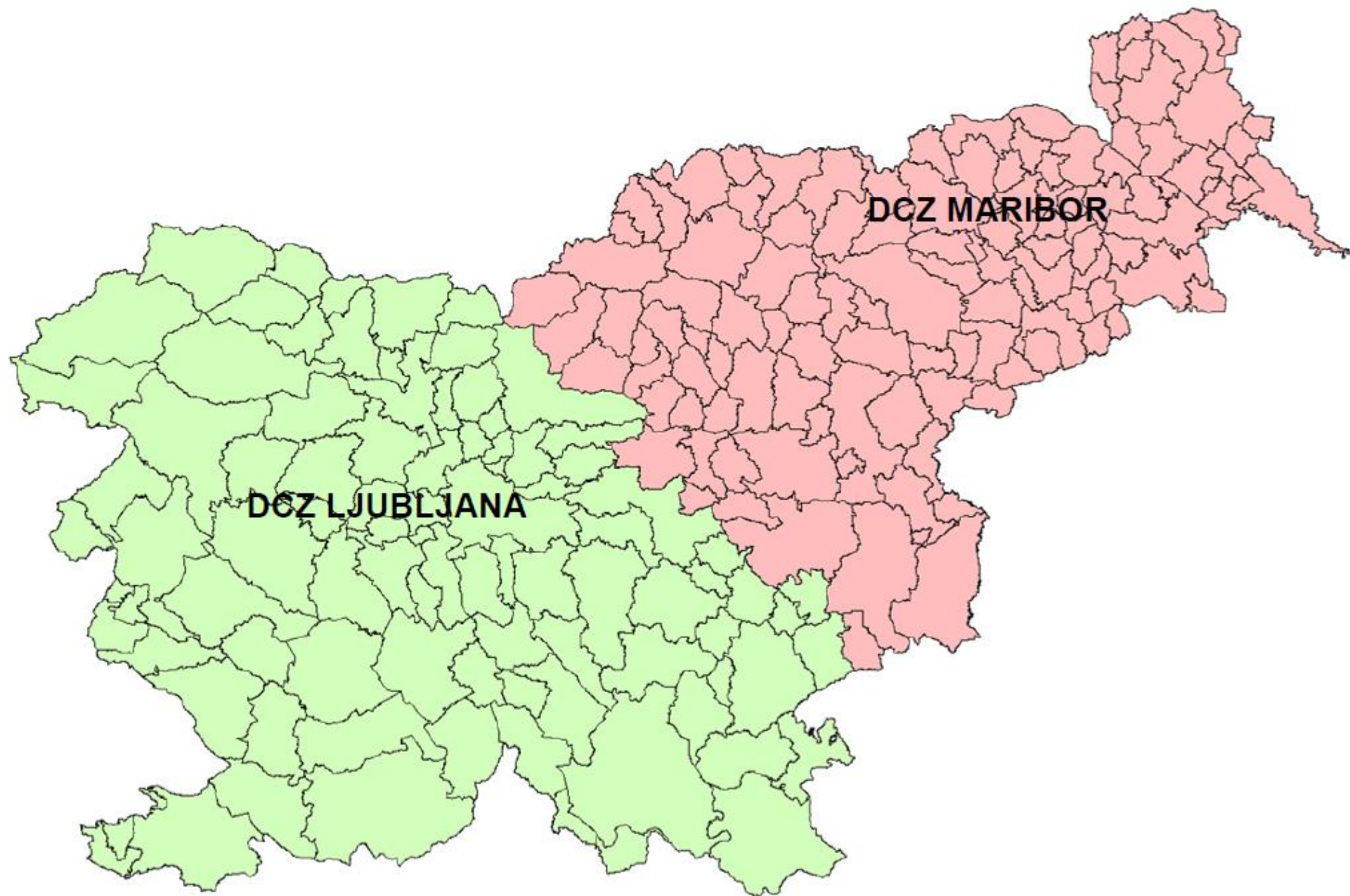


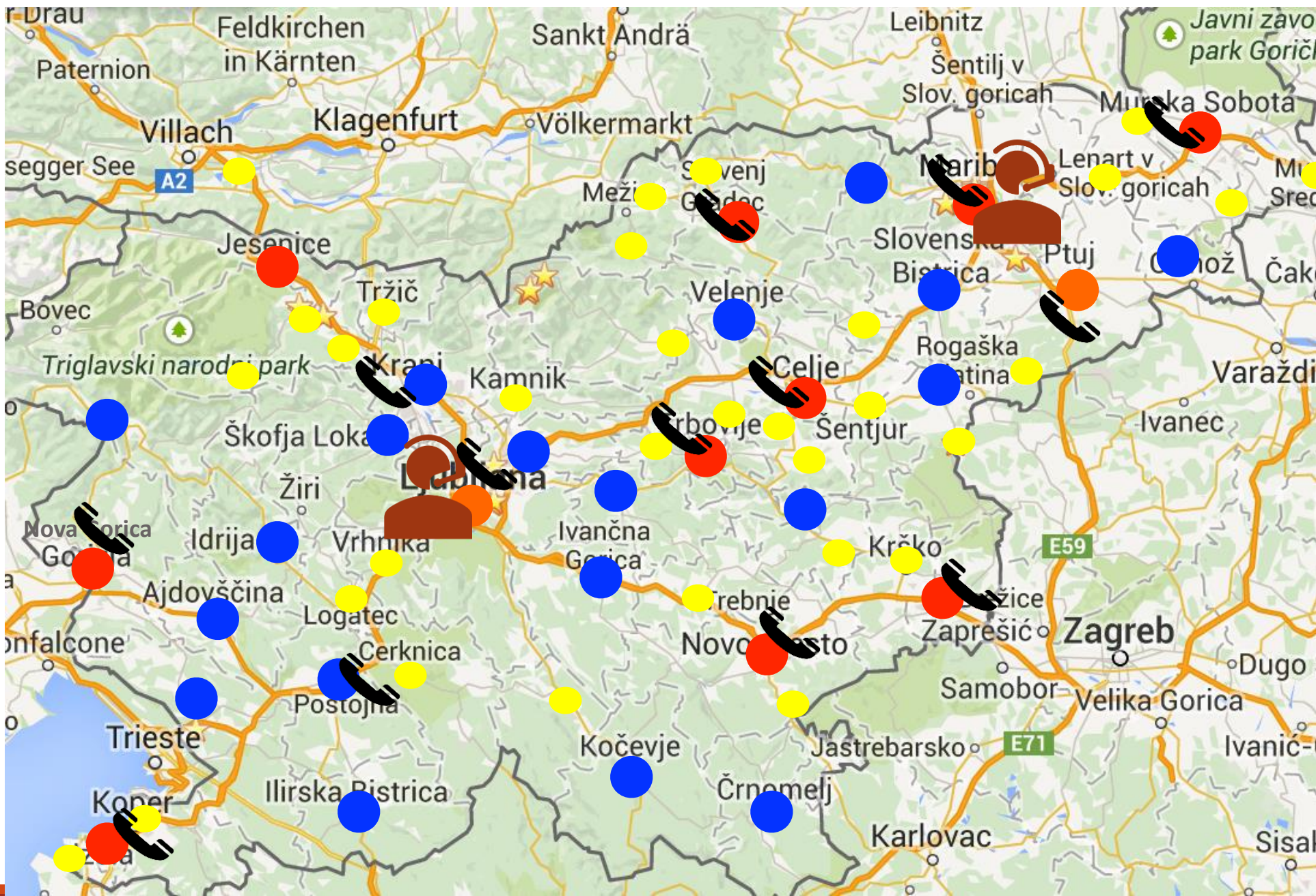
Medical dispatch service will:


- Receive calls through 13 regional notification centres for 112
- Dispatch mobile EMS units for a uniform and rational response to emergency calls
- Activate first responders
- Collect data about all components of the EMS system
- Perform statistical analyses, prepare suggestions for improving performance of the system


- Also improve the response of EMS in the event of road accidents







 regional notification center (13)

 medical dispatch center (2)

 Big A&E (10)

 Small A&E (19)

 Future A&E (2)

 OOHC (32, 27 with ETU)



Transitional period

- At the moment, due to lack of emergency doctors the family doctor remains a cornerstone of the EMS and OOHC concurrently
- We are adding competent graduate nurses in ambulances at OOHC
- They can independently carry out certain urgent intervention
- They will be activated by medical dispatch service
- New A&E centres integrate OOHC at night and weekends
- We will promote education of emergency physicians and all other health workers in the EMS system
- Gradually more and more emergency doctors will be included in the system
- Number of family doctors is also gradually increasing – each year, new family doctor programs are added in the system

Conclusion

- Slovenian EMS system started in 1996 and is still evolving
- In road accident, EMS, firefighters and the police are working together
- We have room to improve – guidelines, communication, coordination



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