

# Emergency response management

It takes a system and a strategy to save a life

# It takes a system to save a life ...



- 5 million inhabitants
- 324.000 km<sup>2</sup> (132.000 sq.miles)
- North – South 2400 km
- 5 trauma centers

# Emergency response management

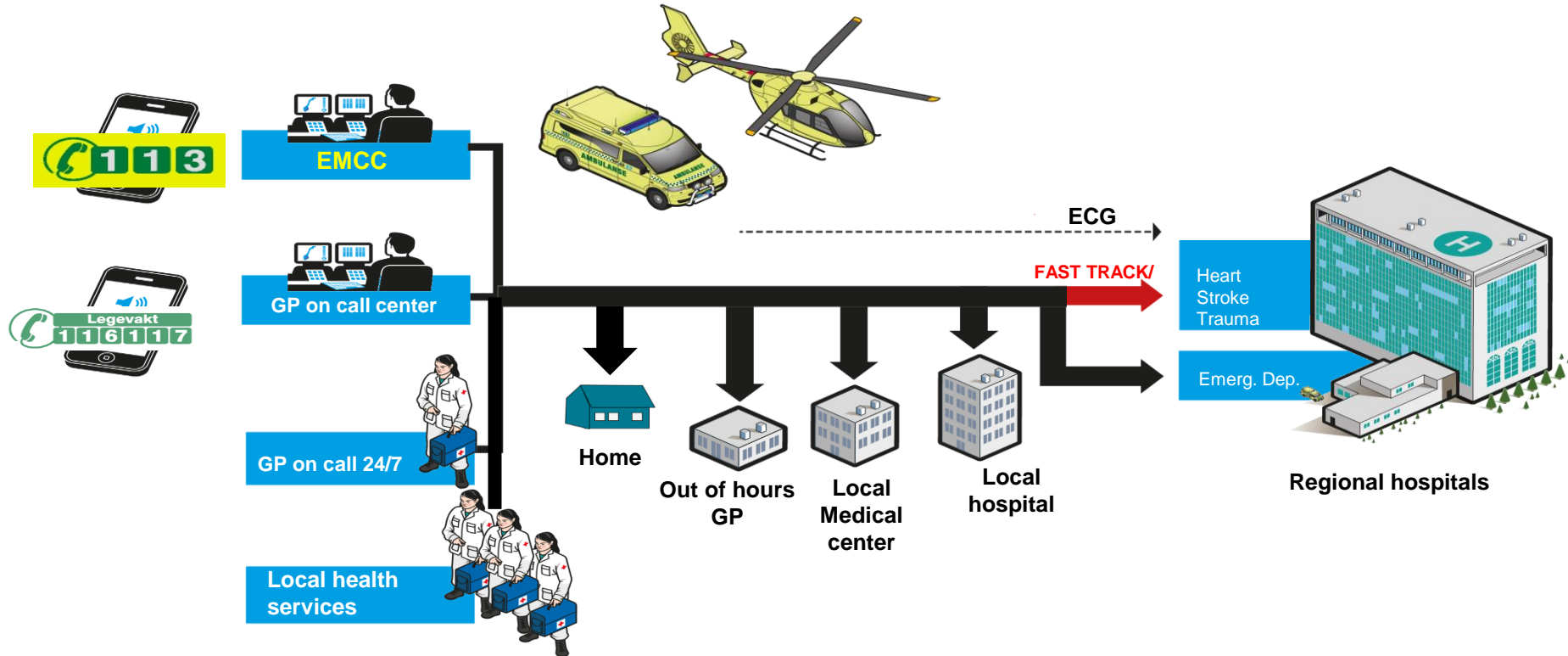
- «Multi agency» responsibility
  - Police:
    - Incident command
    - Safety and security
    - Investigation and complain
  - Fire and rescue:
    - Provided by the municipalities
  - Healthcare:
    - The municipalities - Emergency care / Psychosocial support
    - The hospital service – Ambulance service and trauma system

# Emergency response management

- Agency specific PSAP's
- The European emergency number 1-1-2 is handled by the police.
- In addition the public can call agency specific emergency number's.
  - 1-1-0 Fire
  - 1-1-3 Emergency Medical Control Center
- Each agency is legally and economically responsible for their services.



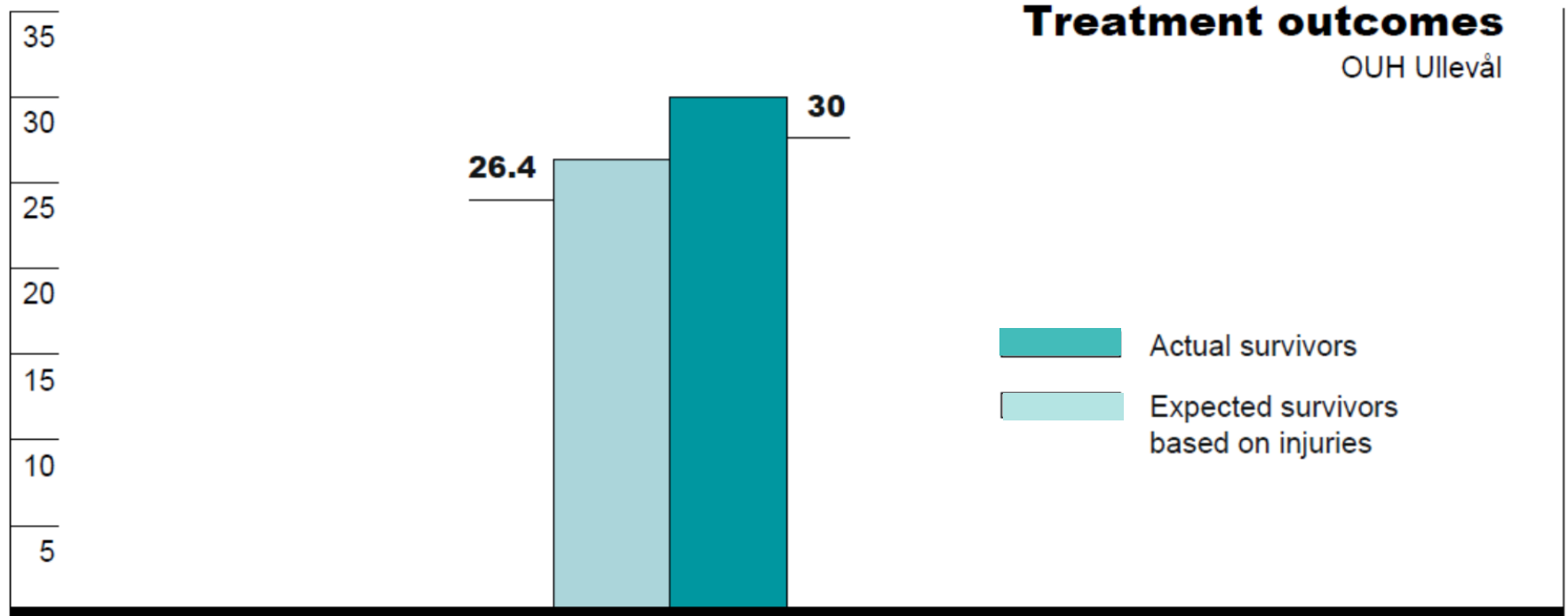
# The System - EMS in Norway



# 22<sup>nd</sup> July 2011



# Patient outcome was higher than expected



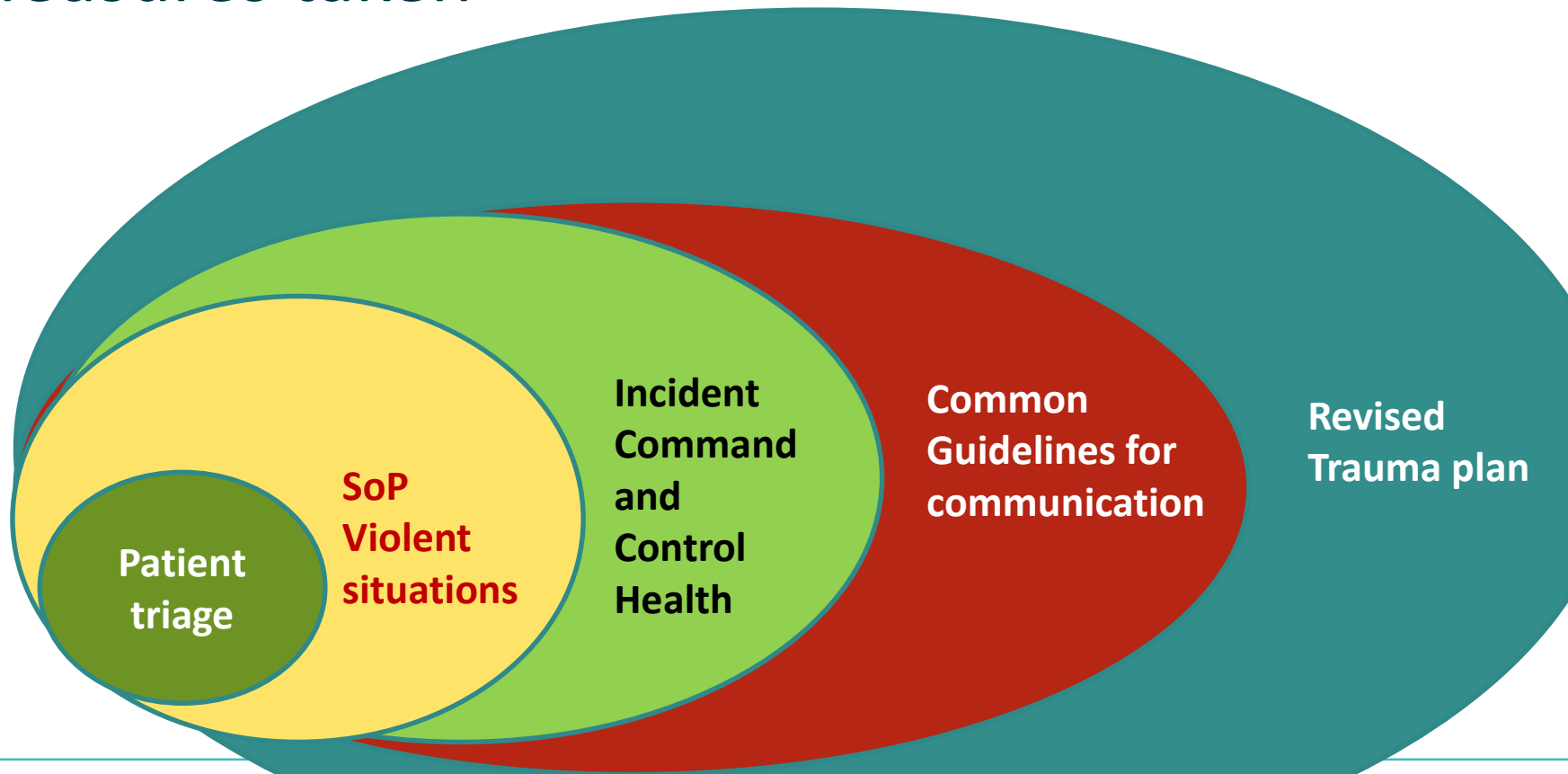
# But we can do better .....



- Revision of national plan's for emergency prep.
  - Operational procedures
  - Command and control
  - Communication
- Technical solutions in EMCC
- Training and education
- .....



# Measures taken



# The strategy – The national trauma plan

<http://traumeplan.no/>

- **National requirements**
- **Organization**
  - **Pre-hospital, hospital and post-hospital**
- **Infrastructure**
- **Competencies**
- **Education**

## Nasjonal traumeplan – Traumesystem i Norge 2015

Utarbeidet av en nasjonal faggruppe nedsatt av fagdirektorene i de regionale helseforetak under ledelse av Nasjonal Kompetansetjeneste for Traumatologi NKT-Traume

Planen er tilgjengelig på [www.traumeplan.no](http://www.traumeplan.no)



# The operational organization

- National requirements
- Organization
- Infrastructure
- Competencies
- Education



Nasjonalt Landbruk  
HelseDirektoratet

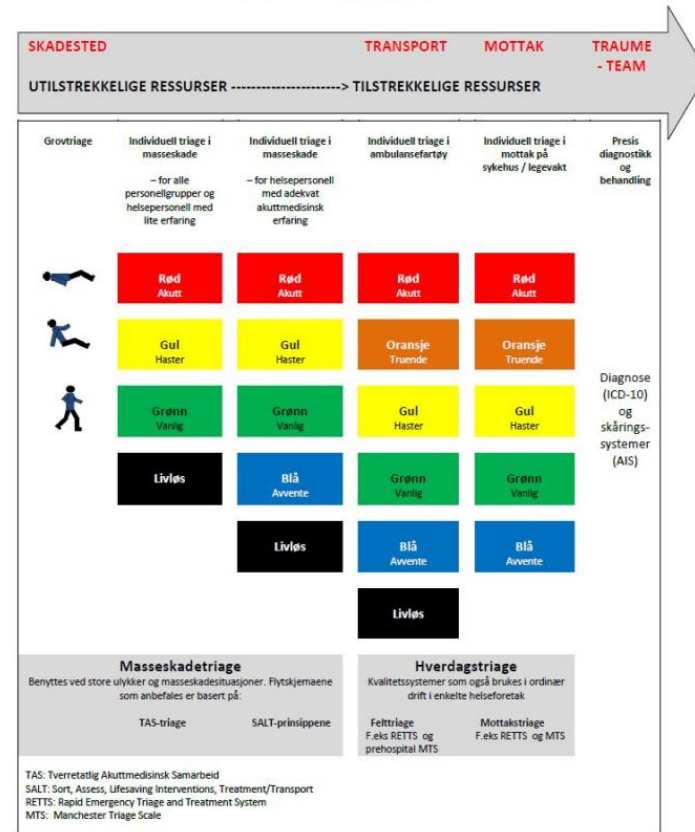
Nasjonal veileder for helsetjenestens  
organisering på skadested

# Tactics – National system for patient triage

<https://helsedirektoratet.no/Lists/Publikasjoner/Attachments/144/IS-0380-Nasjonale-veileder-for-masseskadetriage.pdf>

- Common principles' for all first responder agencies
- Simplicity
- Based on principles from “everyday situations”

Figur 1 – Taktisk triage



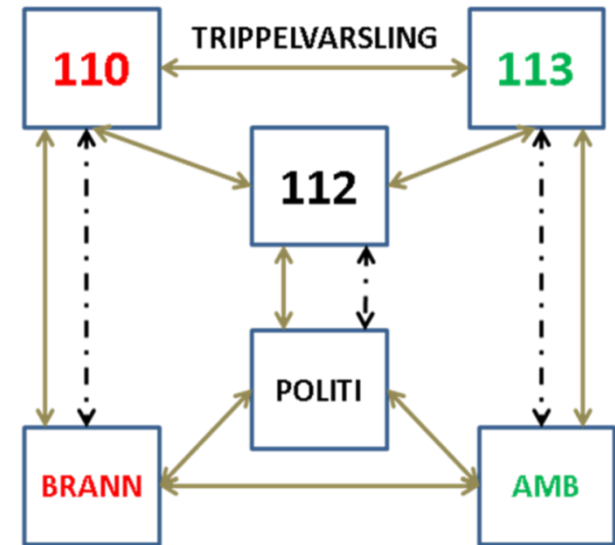
# Command and Control - Nation wide regulations on emergency communication

- National requirements
- Organization
- Infrastructure
- Competencies
- Education



# System challenges - 2017

- Call out – Unified rapid dispatch
  - 3 services – 3 C&C-systems – 3 Policies
- Delayed situational awareness
  - 3 services – 3 C&C-systems – 3 Policies
- Effect on patient outcome
  - Little research / lack of harmonized data
  - No evidence of higher patient outcome/ lower morbidity in other systems

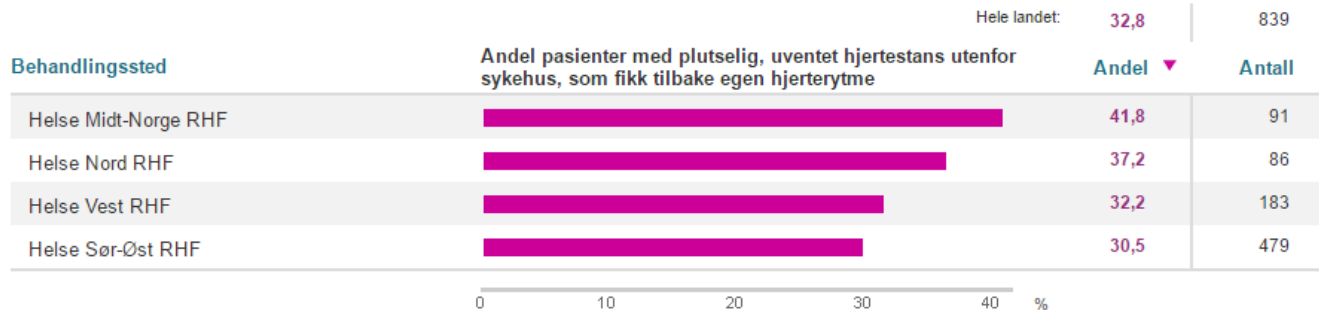


# Moving to the next level – EMS 2.0



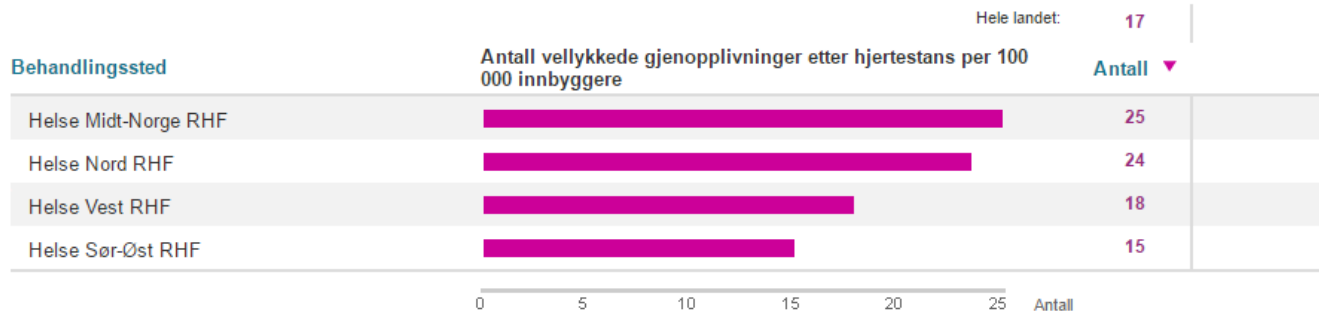
# How do we perform?

## Andel vellykede gjenopplivninger etter hjertestans



Data gjelder for perioden januar - april 2015

## Vellykket gjenopplivning per 100 000 innbyggere

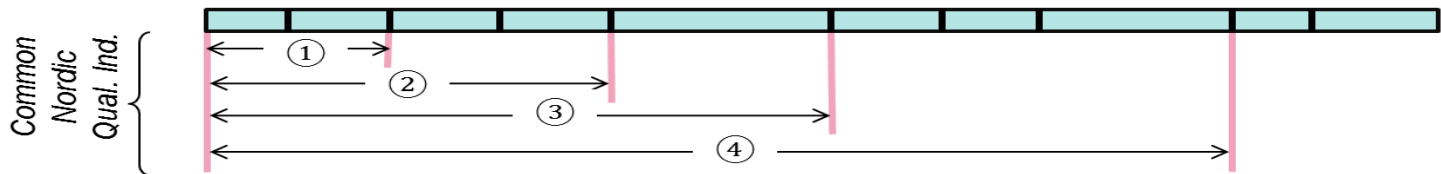
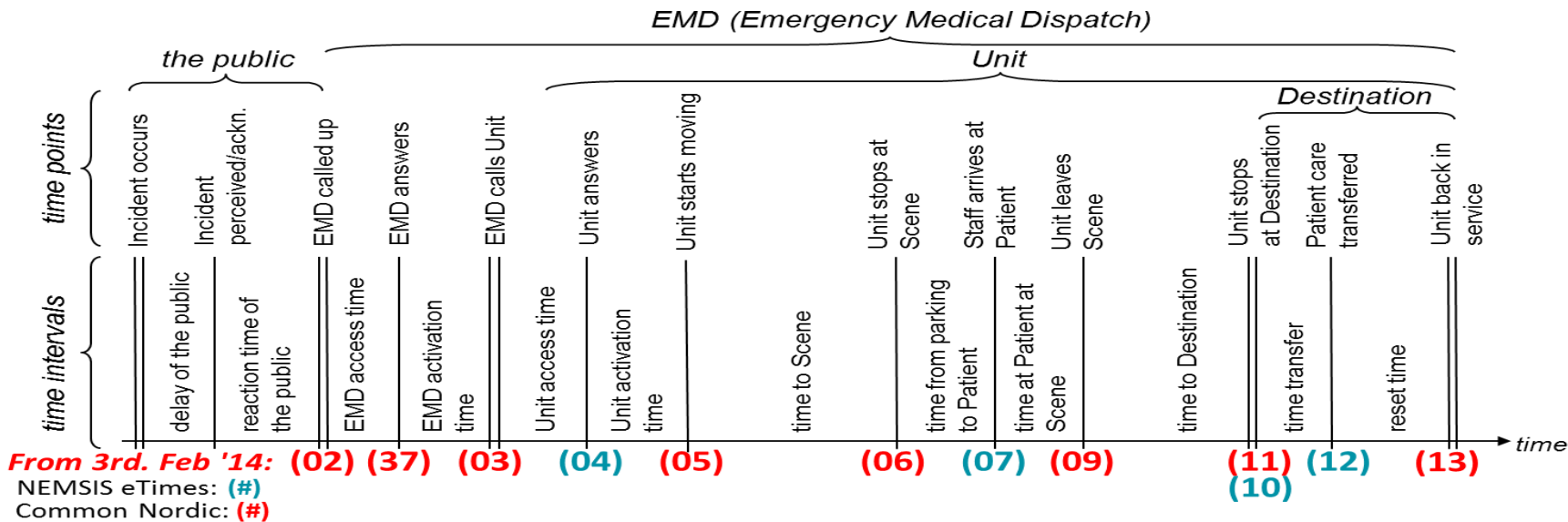




# International cooperation

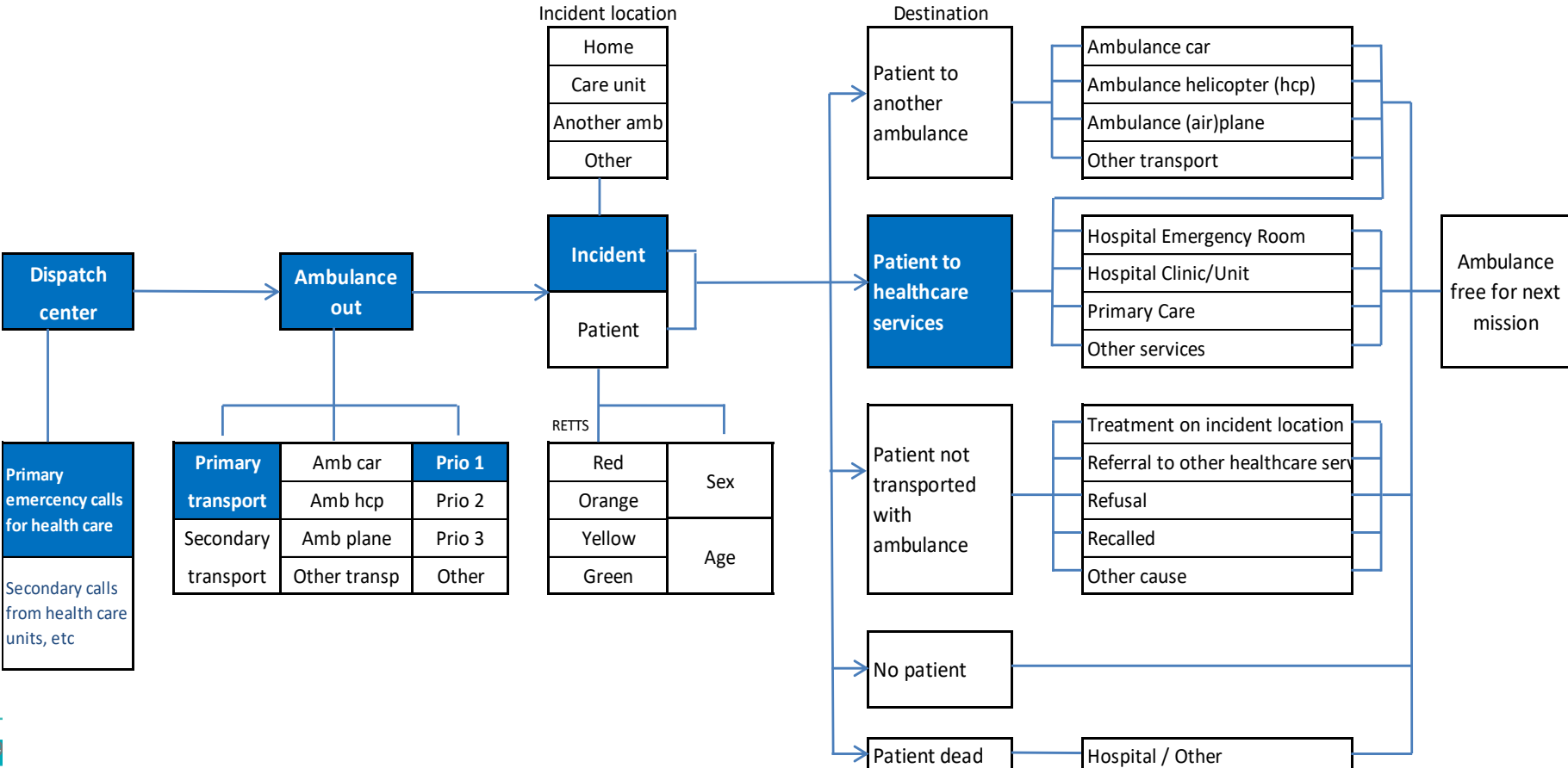


# Nordic time point's and QI's compliant with the NEMESIS codeset

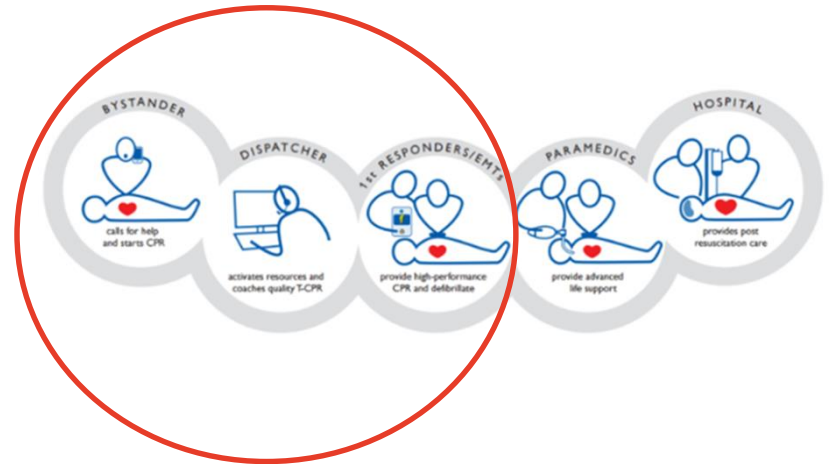
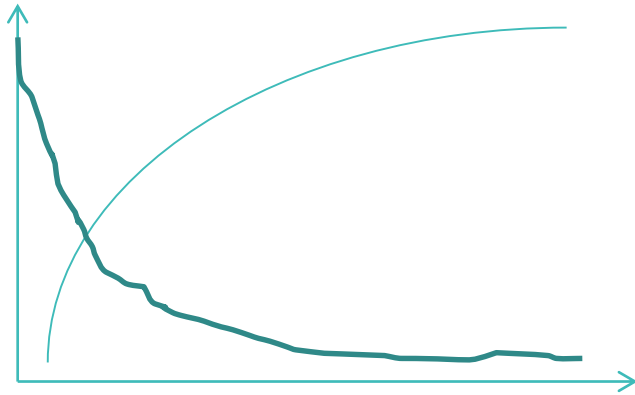


# Data structure for Key Indicators

## Datastructure ambulance perspective

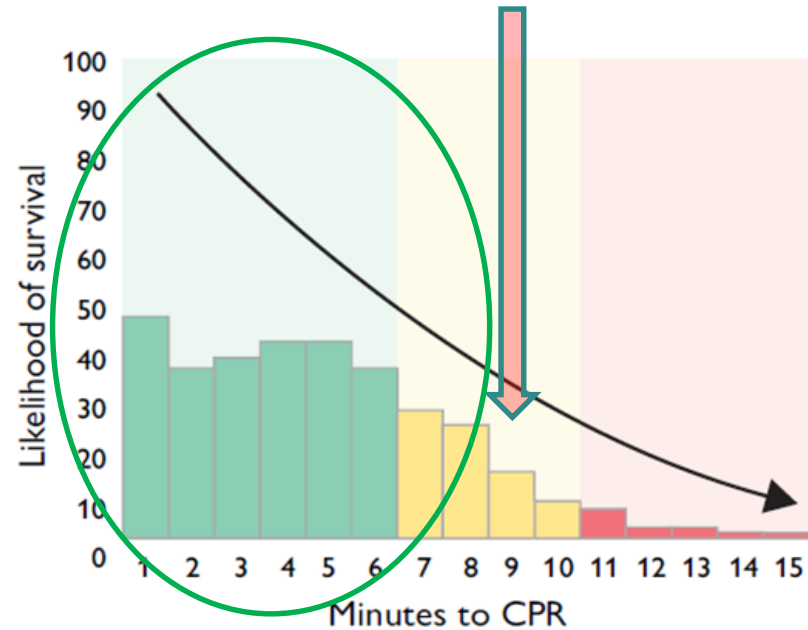


# EMS 2.0 – Mowing outside the «box»

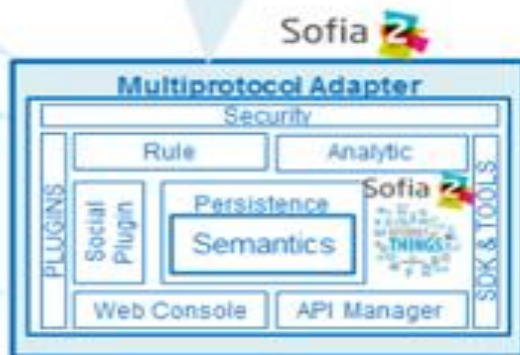


# System possibilities 2017

- Public awareness and rapid connection to EMS/Fire/Police
- Early detection and recognition
  - Location
  - Situation overview
- Early public intervention
  - Skiles
  - Motivation
  - Systematic telephone guidance/advise
- First responders where adequate



# SMART SPACE



# The future is knowledge based medicine

- EMS must adopt and take up a leading role
  - Actively move forward and enhance the service
- Meet the real need of the society
  - Knowledge based distribution of advanced mobile healthcare and care access.
- **Knowing what we do and how we perform is essential to reach our goal!**



# Predict and Prevent

