

# PHAVIS

## Optimizing the Treatment of ST-Elevation

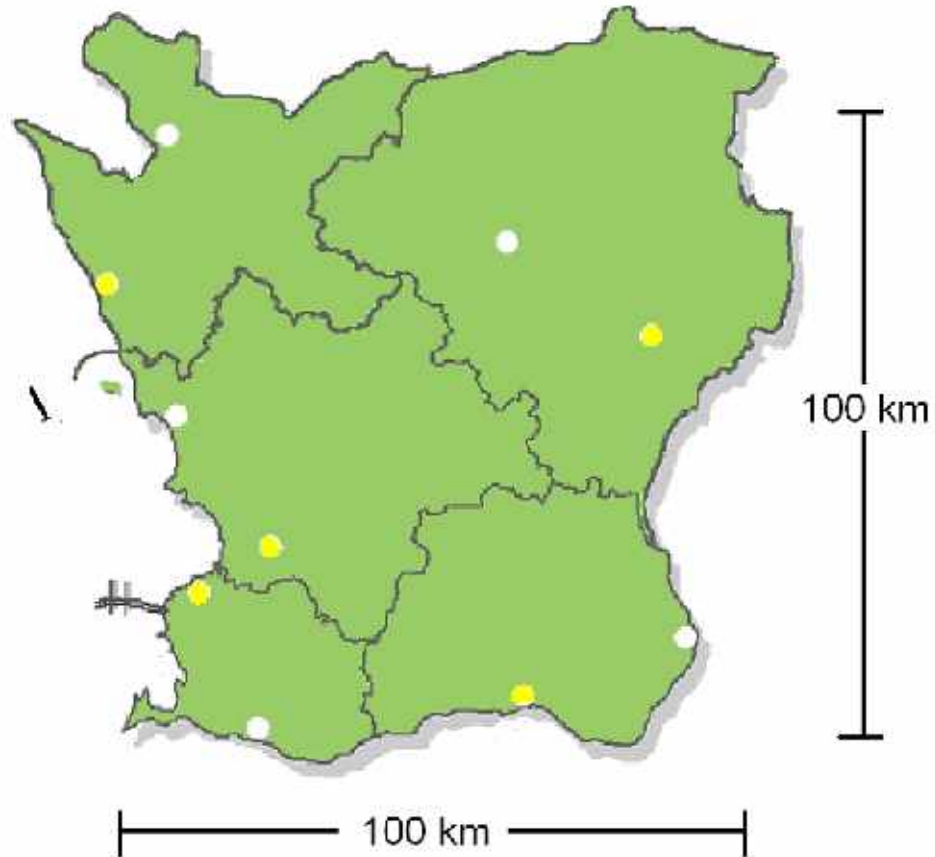
### Myocardial Infarction in a Regional Perspective

**Johan Silfverstolpe MD Consultant in Cardiology and Internal Medicine,  
Medical Officer KAMBER-Skåne**

**May 22, 2007**



# SKÅNE



Population aprox. 1.2 million

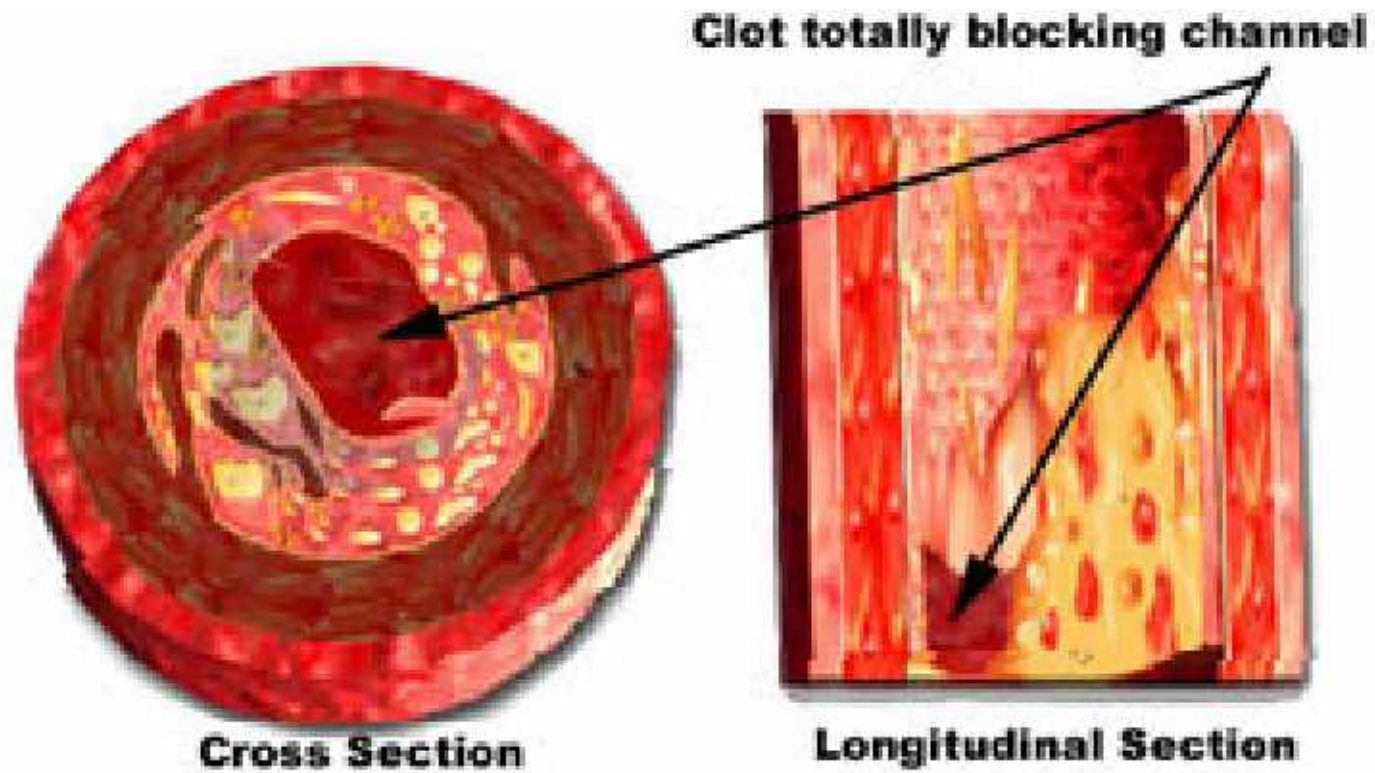


# **KAMBER-Skåne**

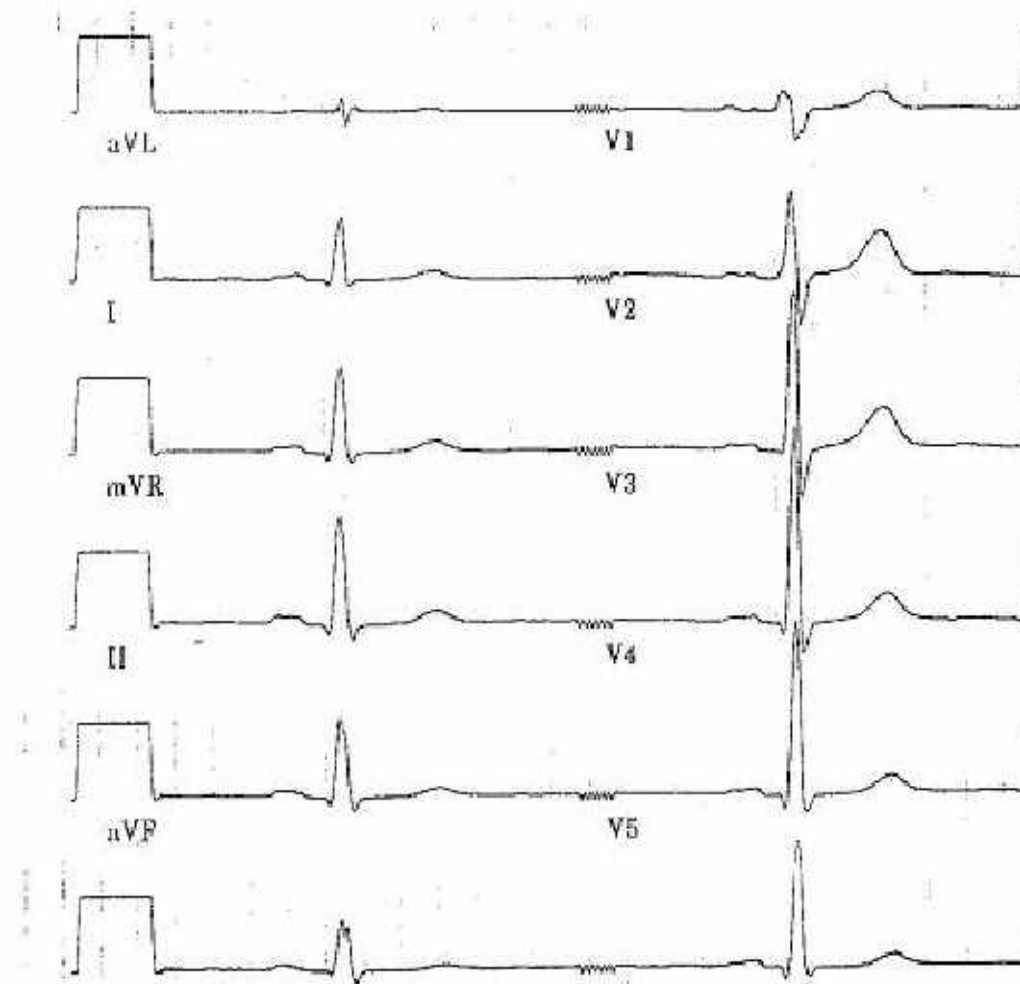
Office of the Ambulance Service,  
Crises and Emergency Planning  
Region of Skåne



# ST-Elevation Myocardial Infarction

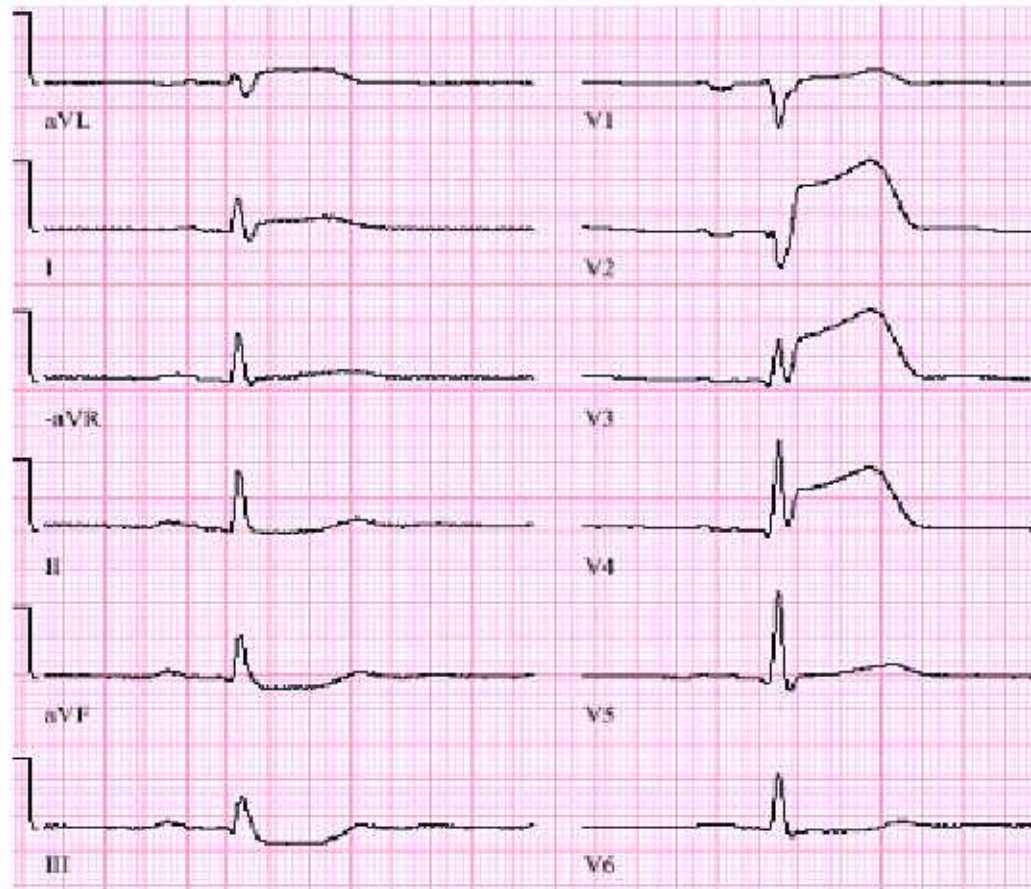


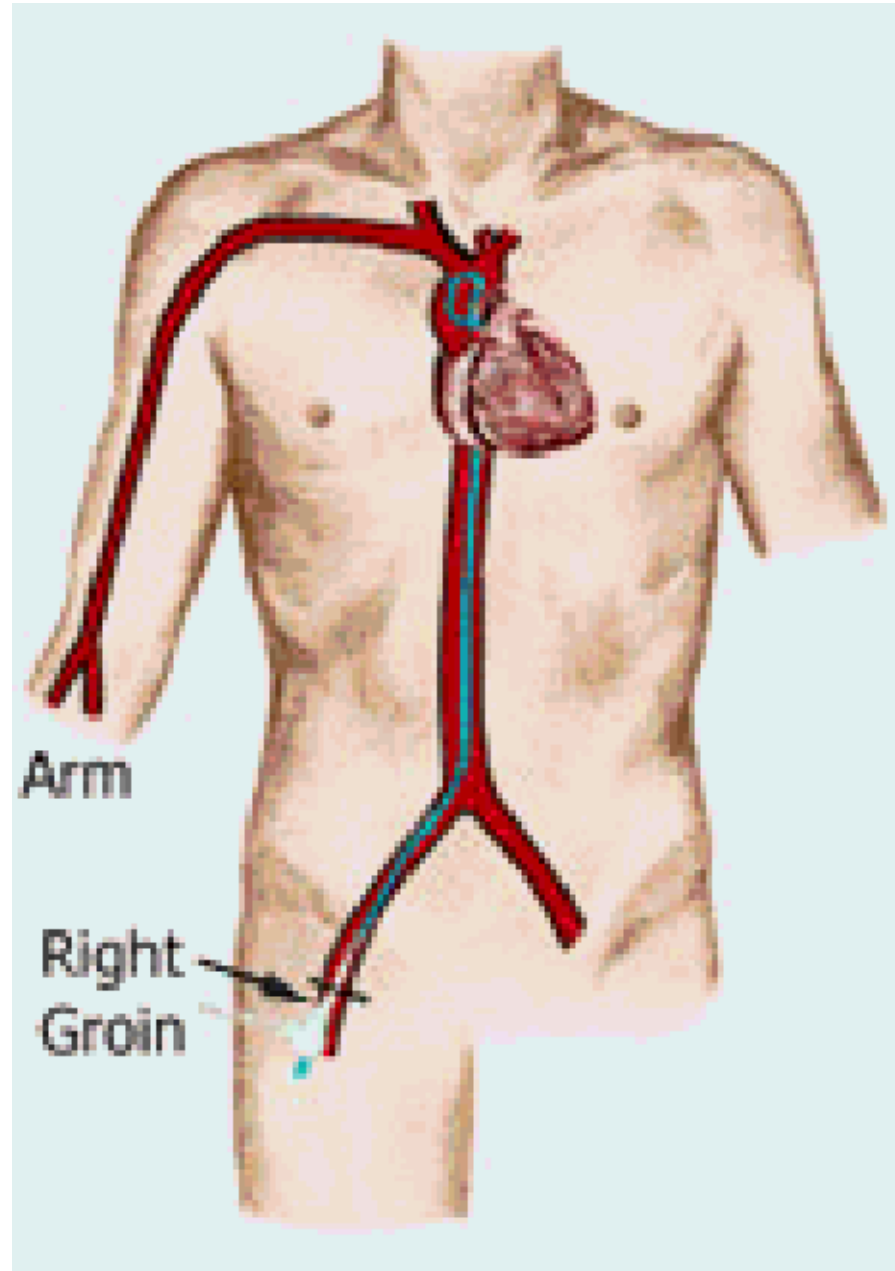
# Normal ECG



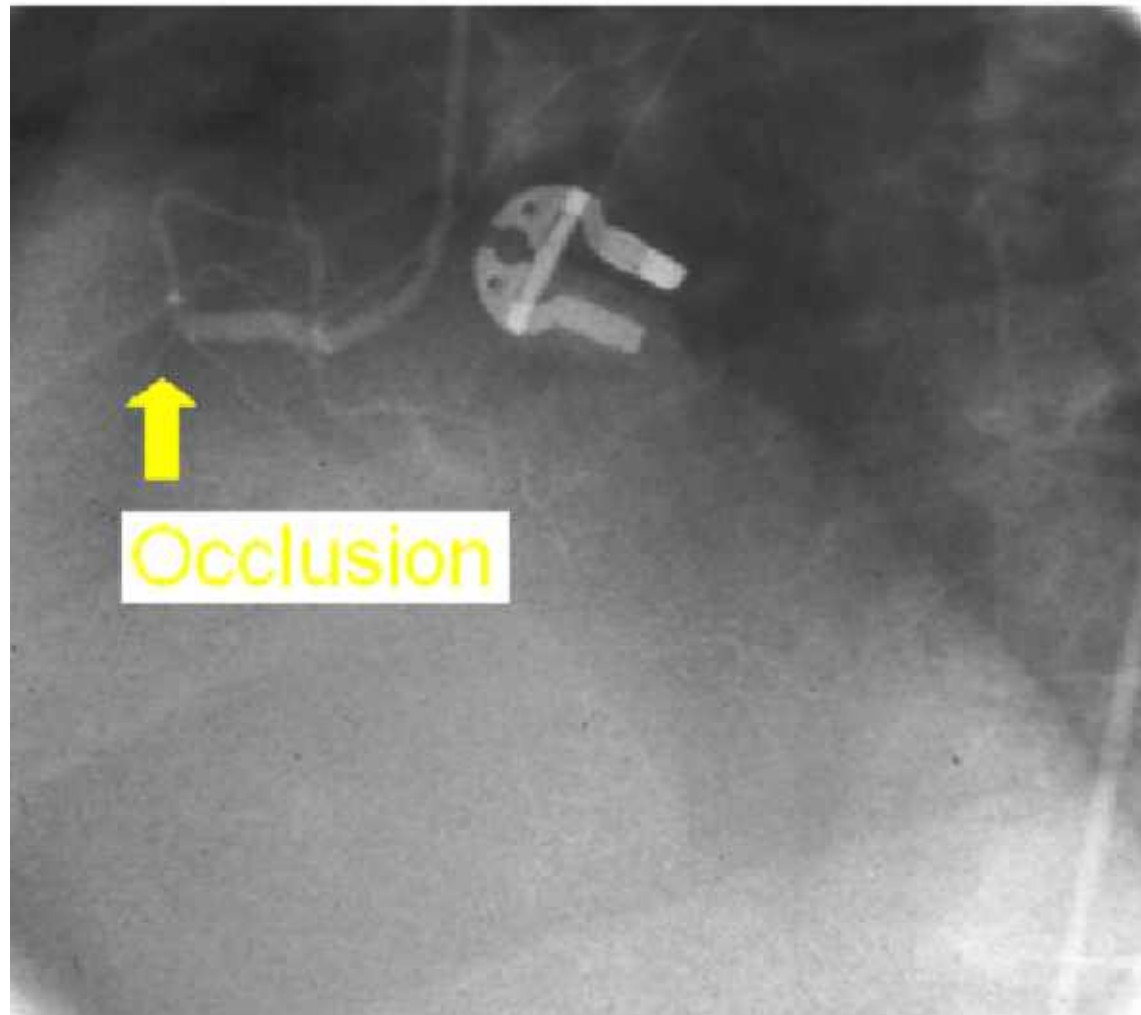
# ECG

## ST-Elevation Myocardial Infarction

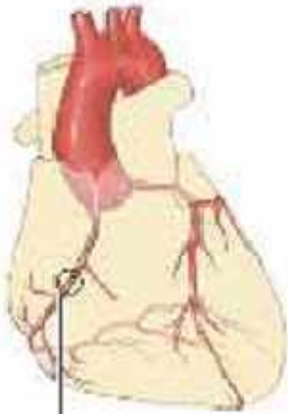




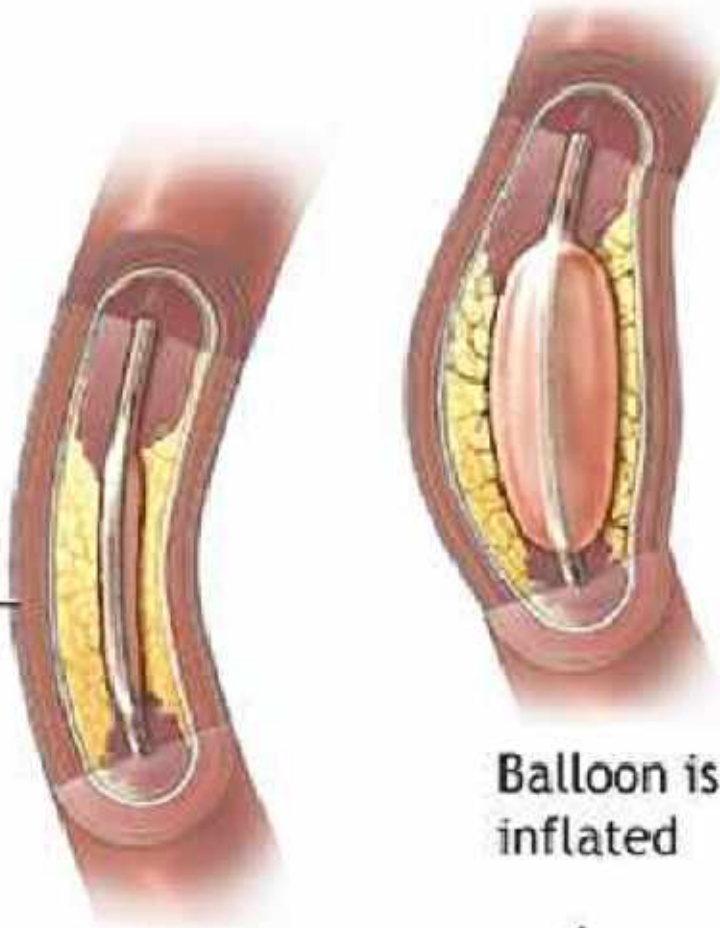
# Coronary Angiography



# PCI - Percutaneous Coronary Intervention

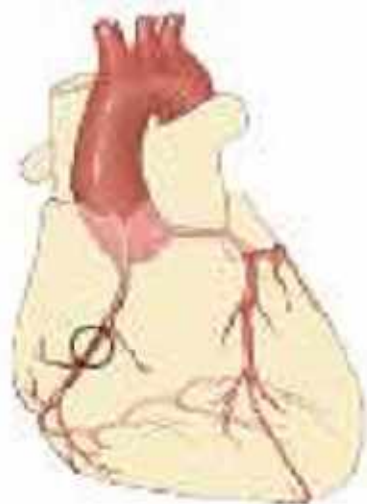


Balloon is inserted in coronary artery

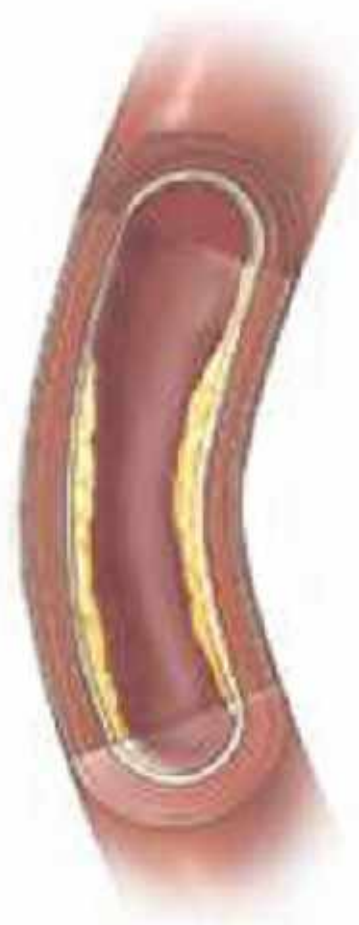


Balloon is inflated



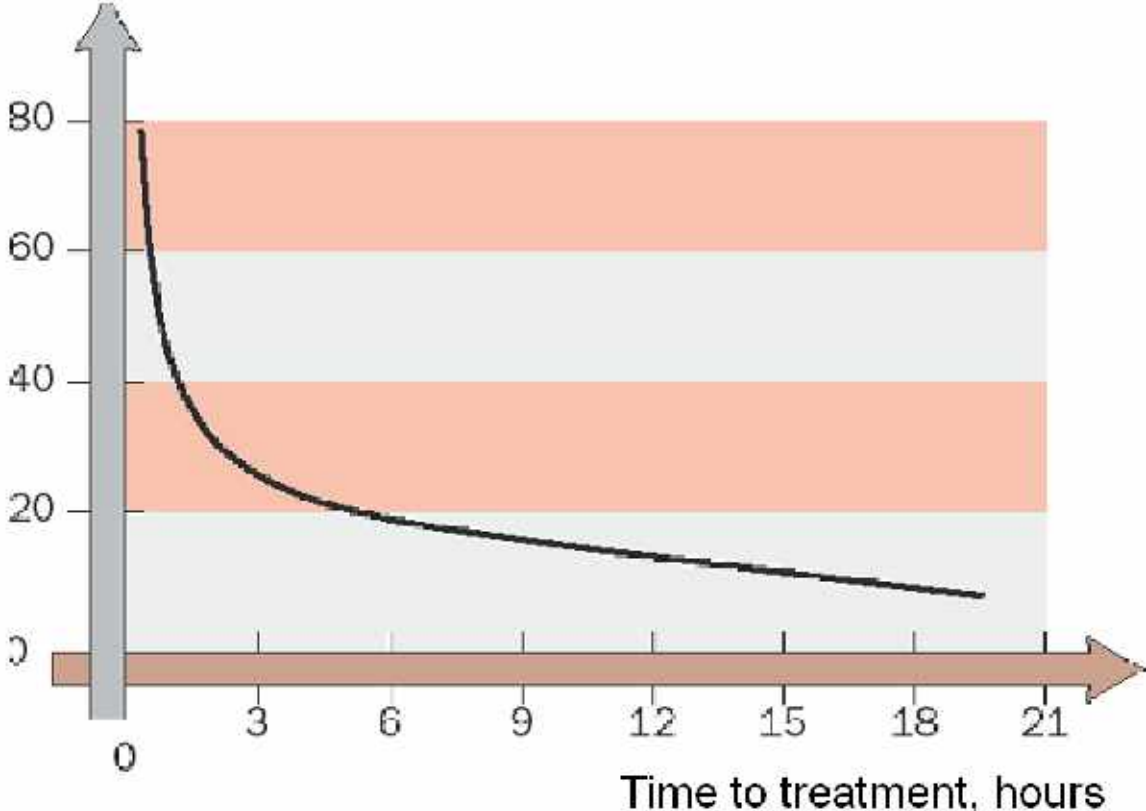


After



# Mortality vs Delay

Saved lives per 1000 treated with thrombolysis



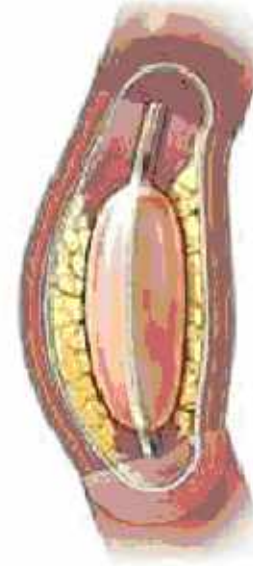
Boersma et al. Lancet 1996; 348



# TIME

# Is heart muscle





# Vårdprogram

PHAVIS

Prehospital HjärtAkutVård i Skåne

Akut Hjärt sjuk i Skåne ☞ Rätt Vård Direkt  
Ambulanssjukvården  
Region Skåne

# PHAVIS

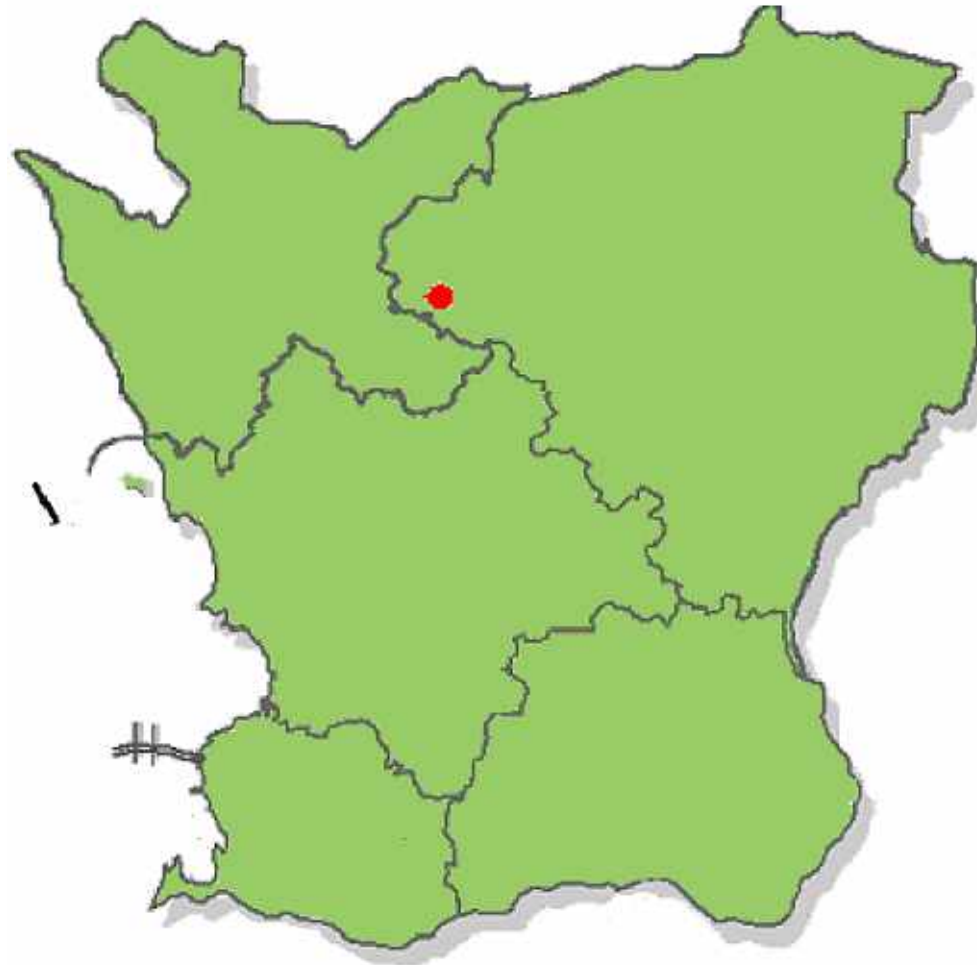
Prehospital **HjärtAkut Vård I Skåne**

Standing order prehospital acute coronary care

Deals with treatment, drugs, triage and logistics concerning patients with suspected acute coronary syndrome (unstable angina or myocardial infarction).



# Chest Pain Perstorp 9 a.m. Saturday



Ambulances

5 Districts

22 Stations

48 Ambulances

Specialist nurse

Medic

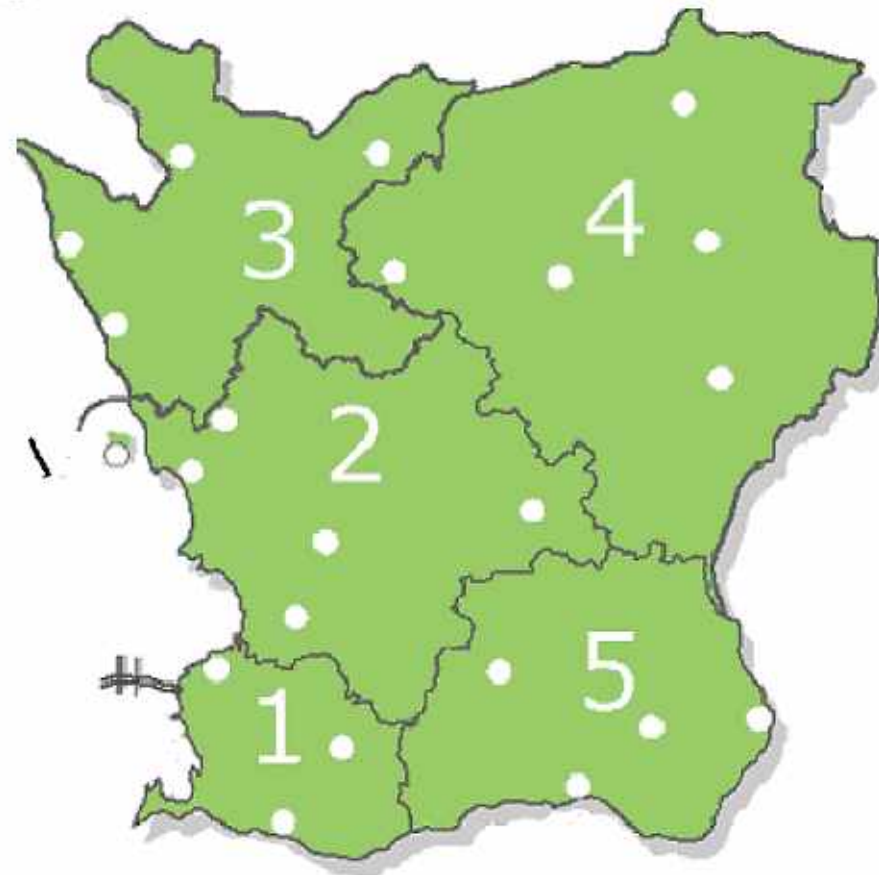
Drugs

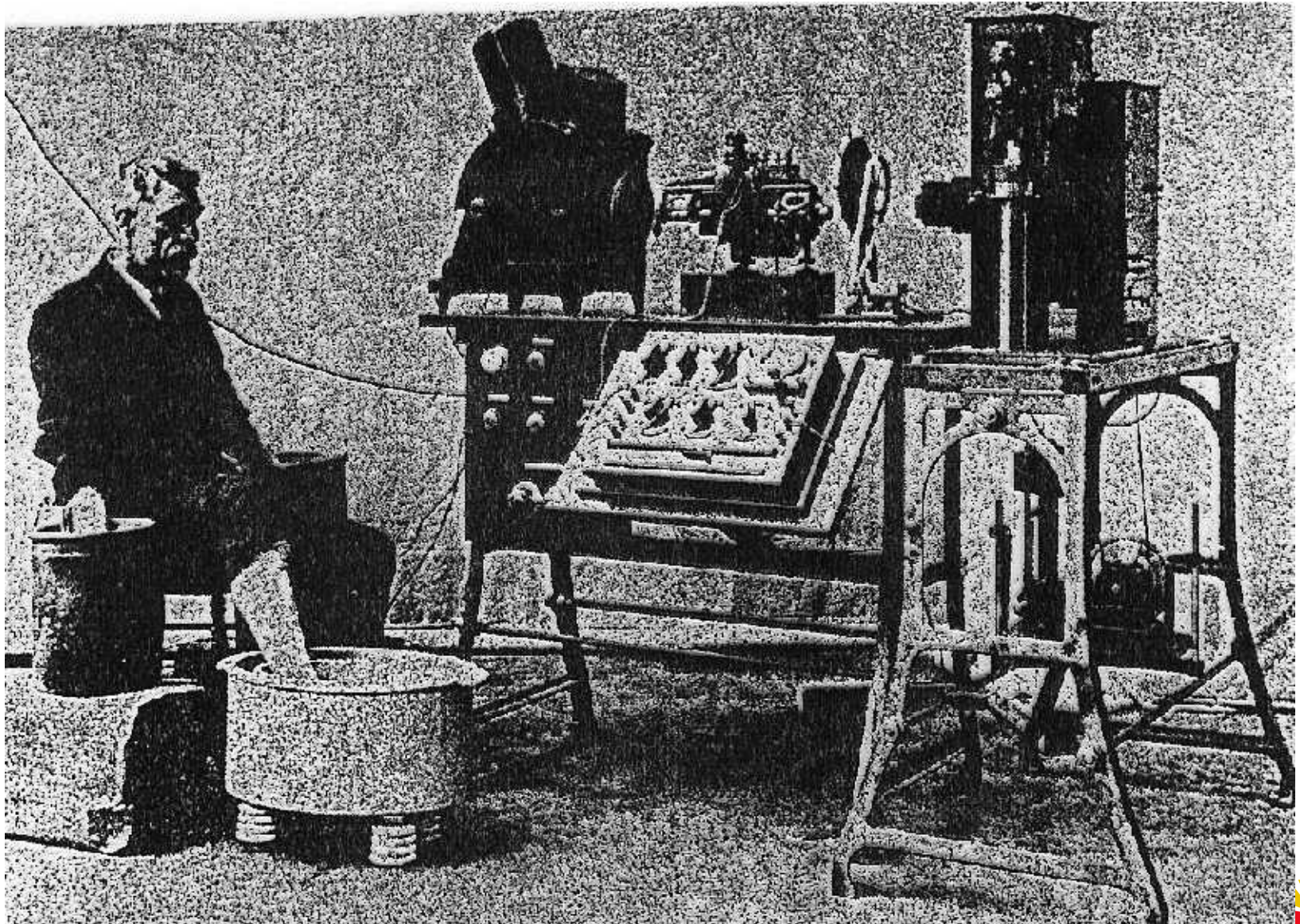
ALS

15 Transport Ambulances

2 Medics

BLS





KAMBER-Skåne, Johan Silfverstolpe MD, May 22, 2007, PHAV IS



KAMBER-Skåne, Johan Silfverstolpe MD, May 22, 2007, PHAV IS



KAMBER-Skåne, Johan Silfverstolpe MD, May 22, 2007, PHAV IS



**Mobimed PWS-1000**  
**- patient monitor and IT terminal**



Manufactured by Ortivus AB  
In Service in Skåne since 2000.

Monitors and displays vital signs data (ECG, SpO2, NIBP)

Trends for vital signs data.

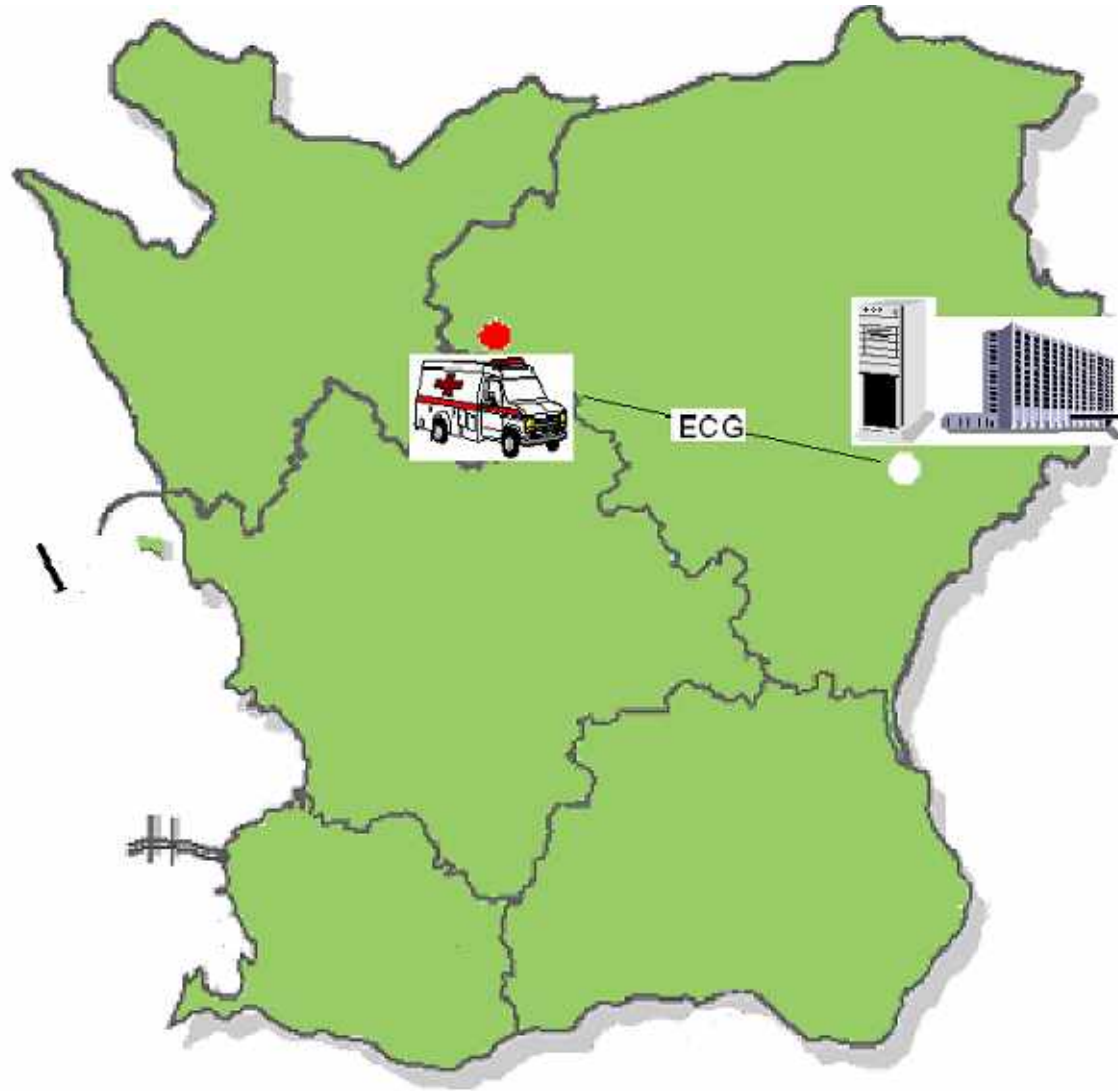
Checklists and forms.

Exports patient and vital signs data to main server.

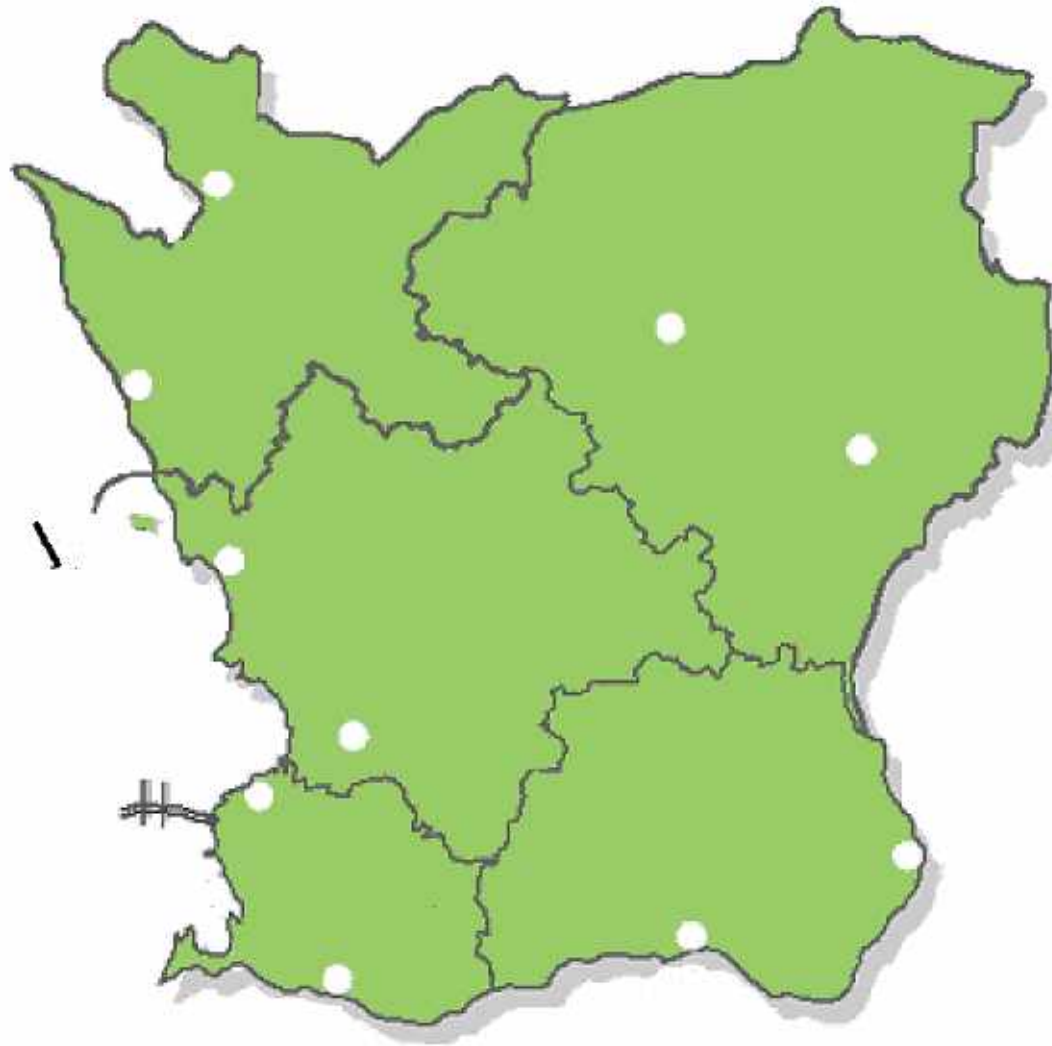
Message service

Two way communication with the hospital by Mobitex, GSM or the  
patients telephone

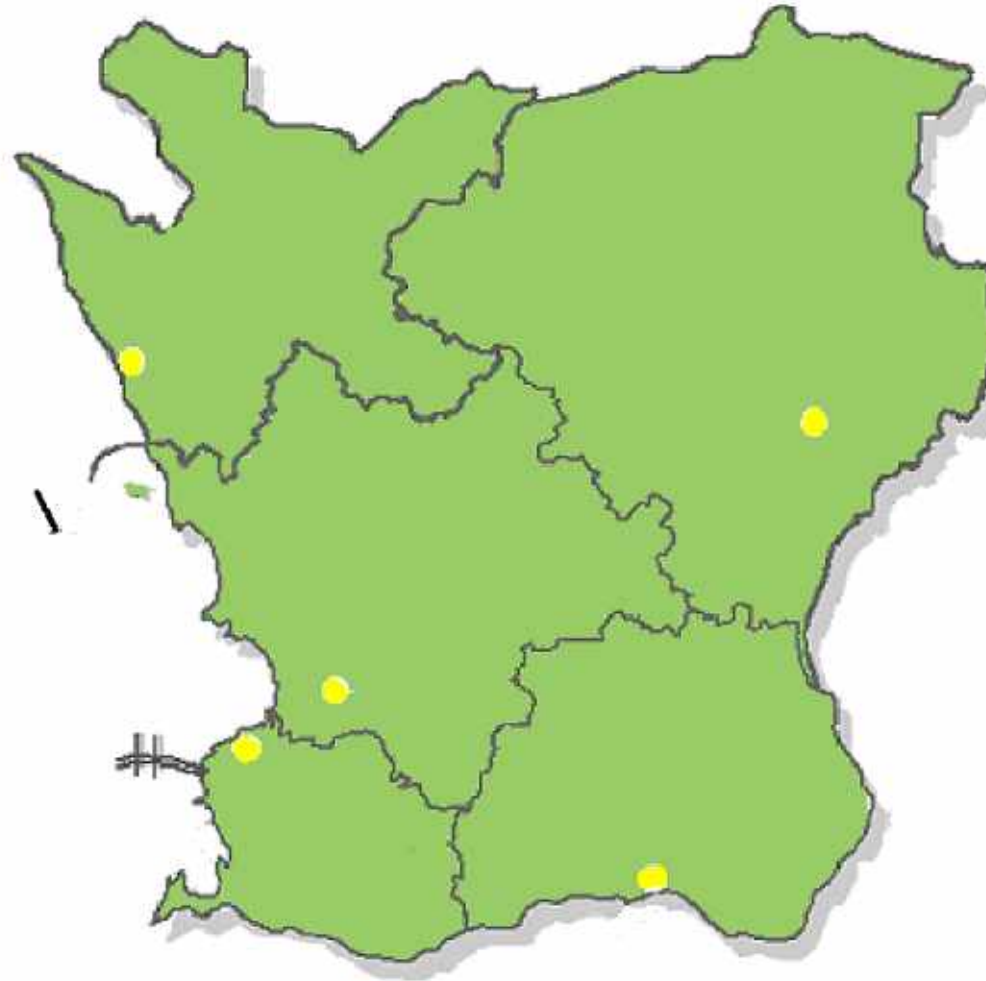


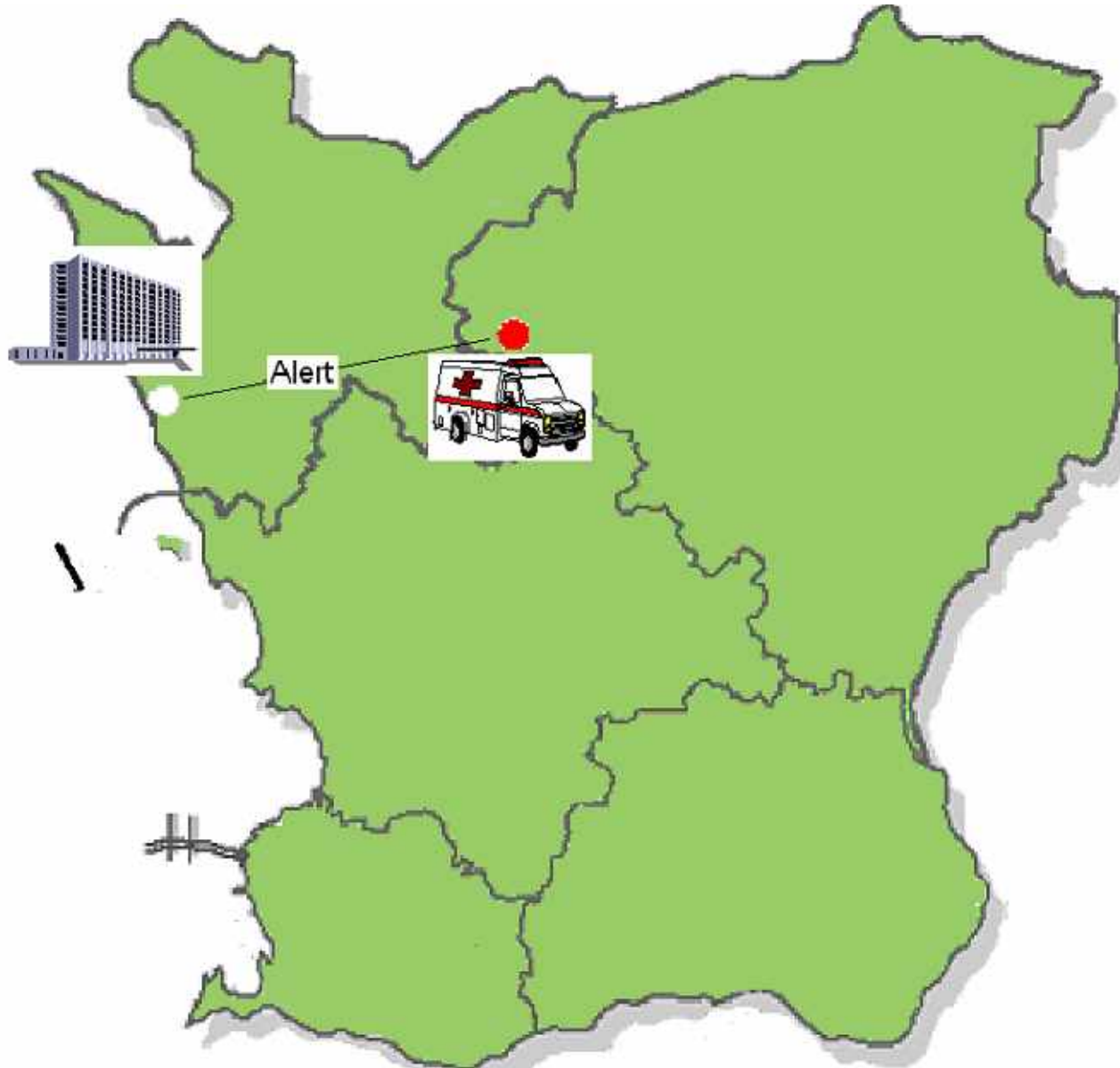


# Hospitals



## Hospitals with Intense Coronary Care Unit and 24h/d Prehospital ECG Triage Service



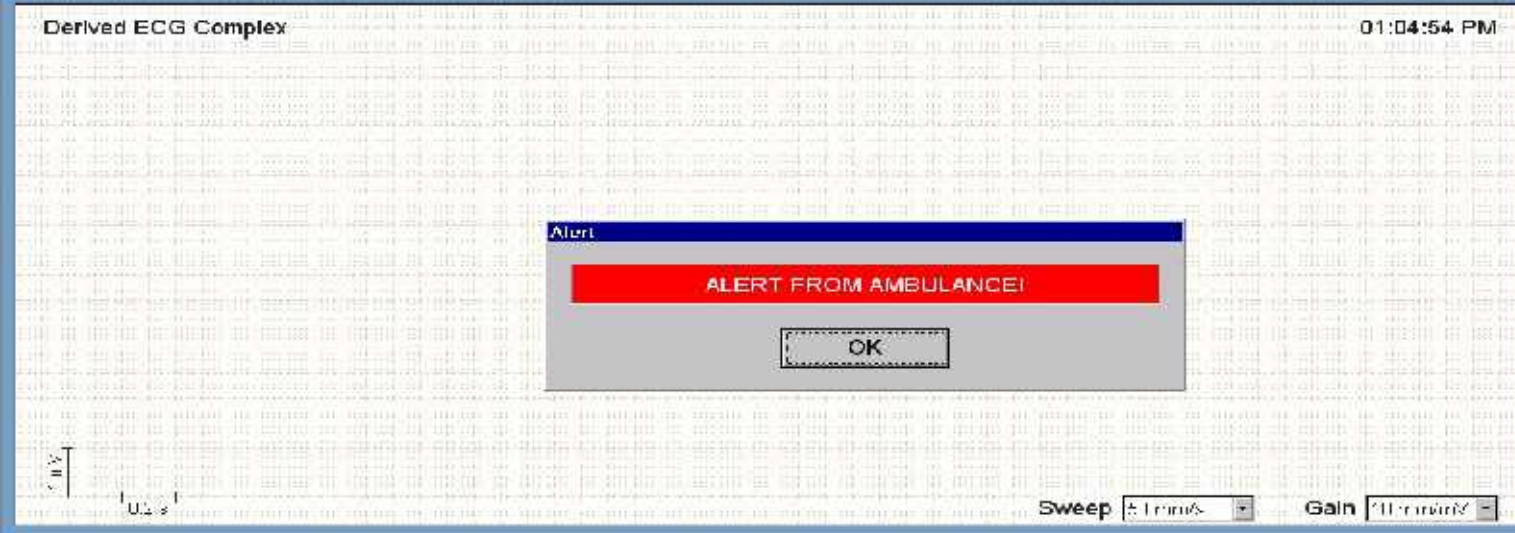




Rhythm Lead: x

Filter: (All)

← →

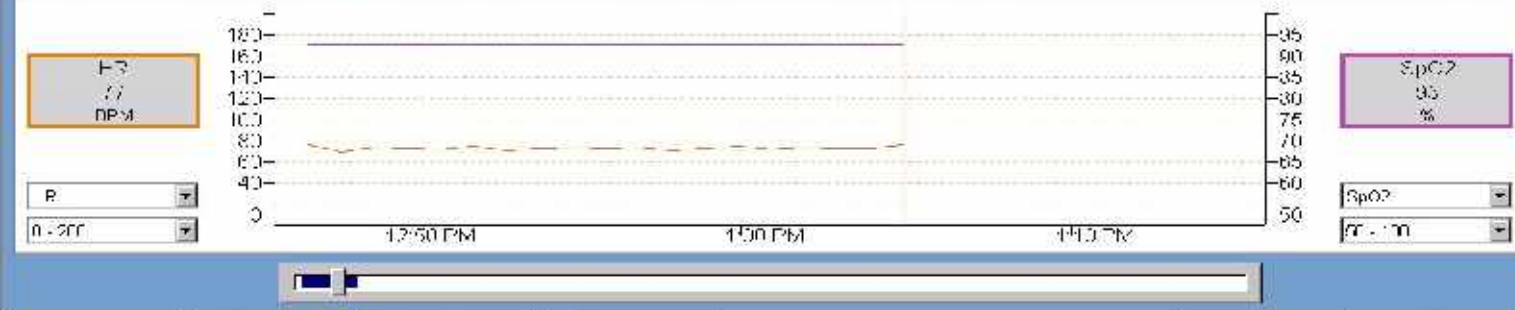


Magnify

Reference

Filter: ECG Complexes

← → →



Diagnosis

PR SpO2

Position

30 Minutes

Filter: ALL

← →

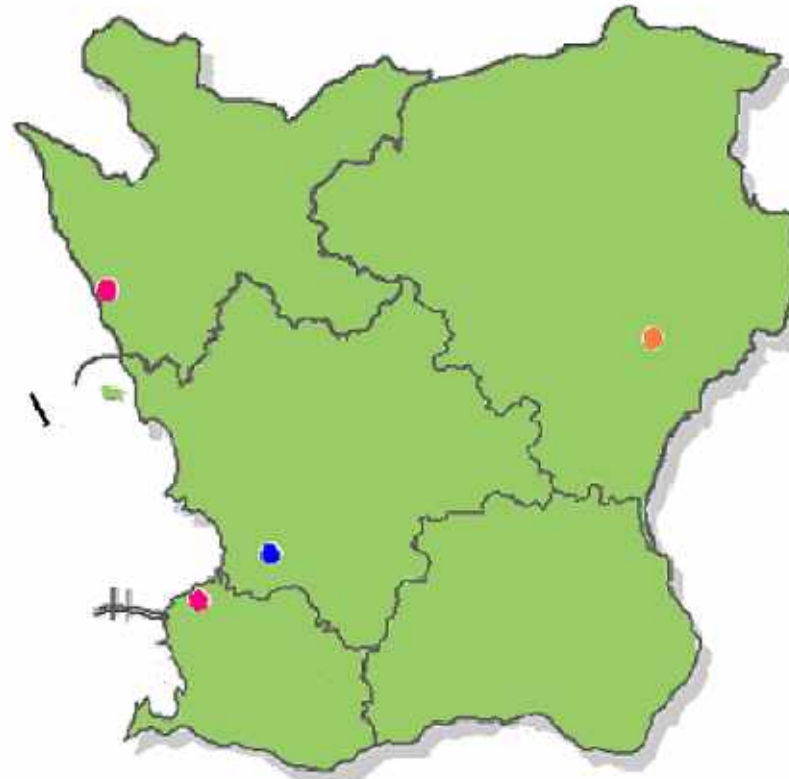
# Mobimed Hospital Workstation (HWS)

- Standard PC platform
- Windows NT
- Imports patient and vital signs data (ECG, SpO2, NIPB)
- Trends for vital signs data
- Could be configured as a stand alone unit or as a part of a network
- Stores 500 transmissions
- Can export ECGs to a Mega Care data base
- Can receive data from multiple units at the same time.
- Can use multiple means of communication, f.ex. Mobitex, GSM, telephone, etc., at the same time.



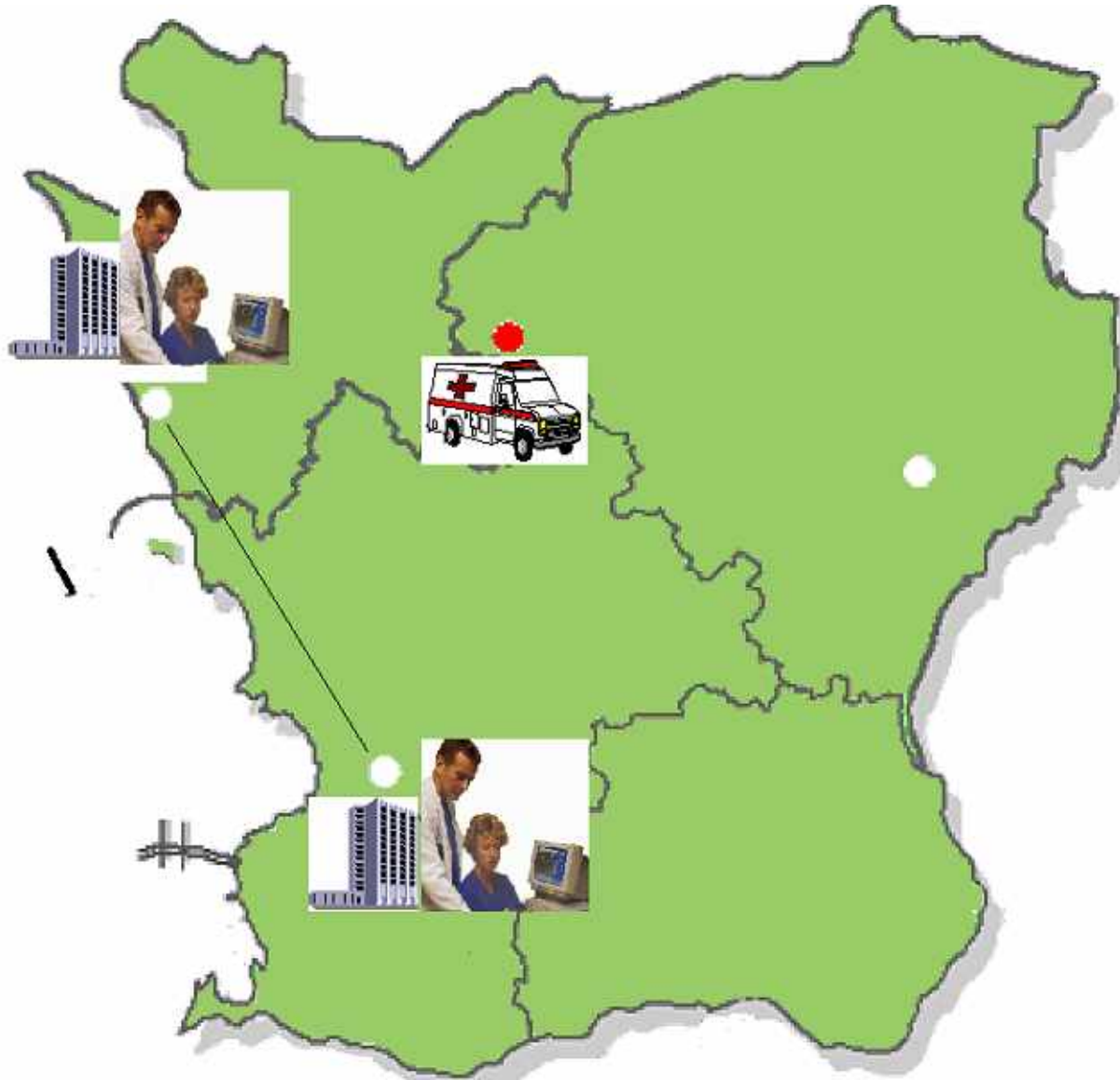


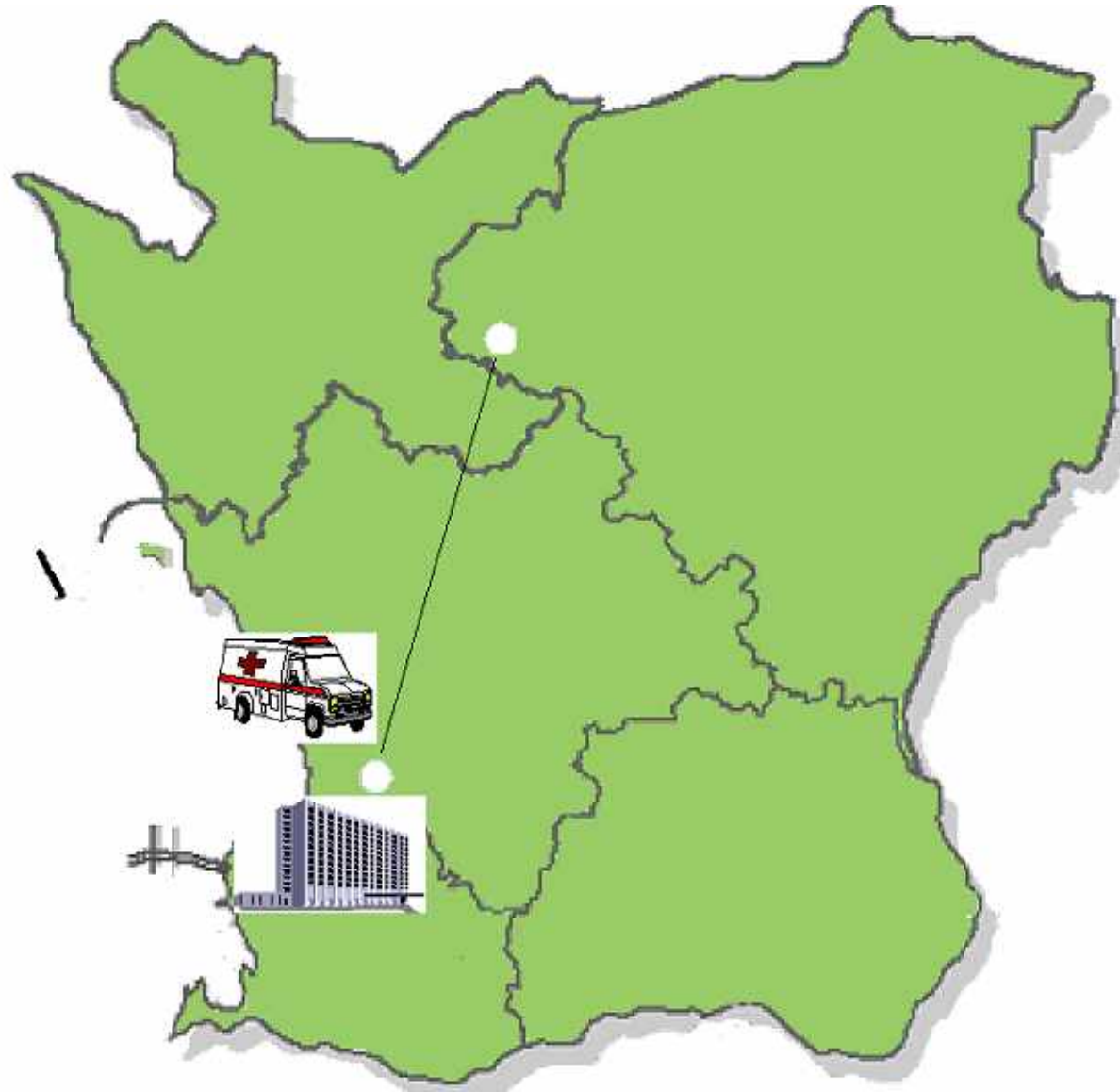
## Catheterization Laboratories

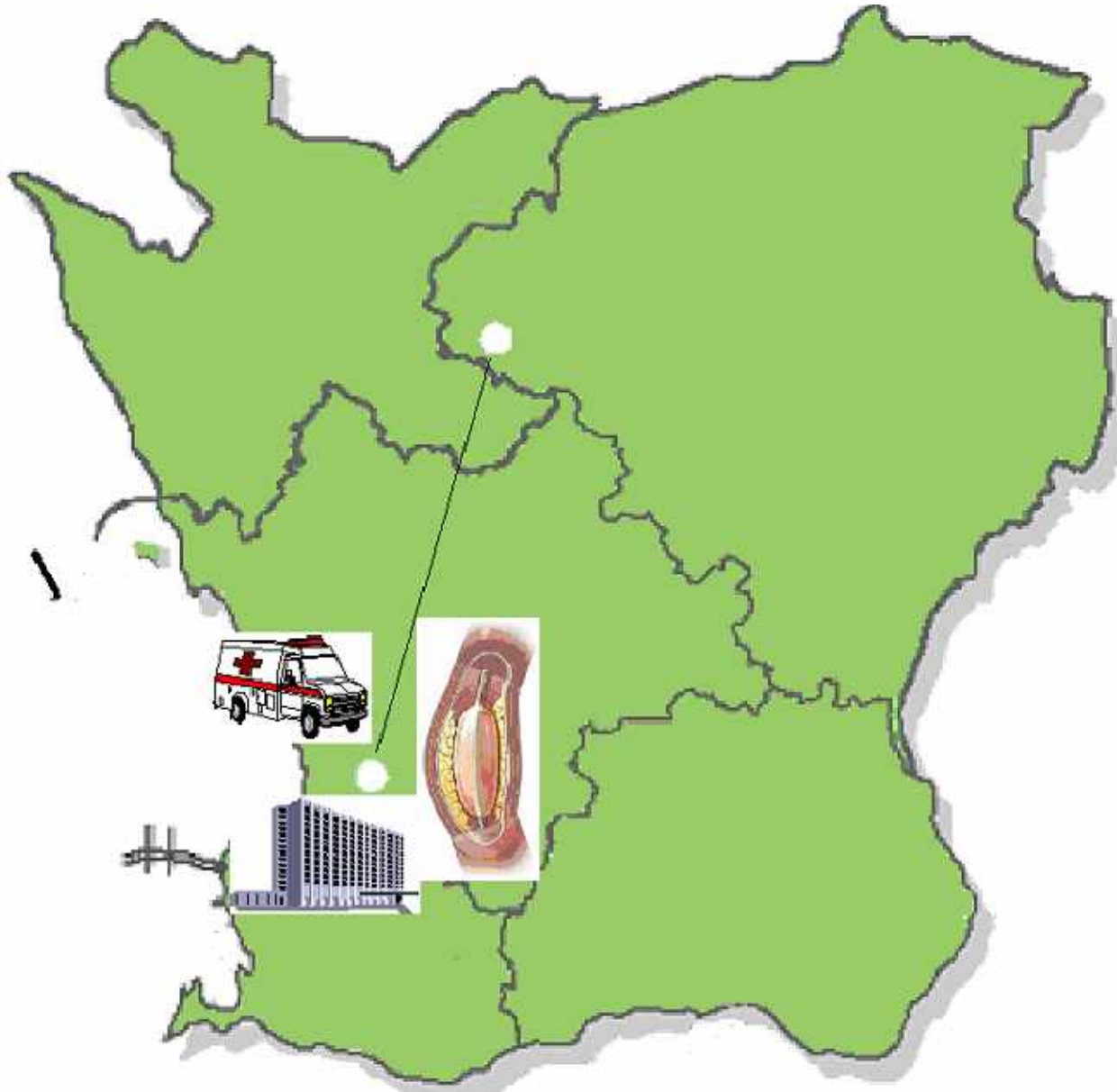


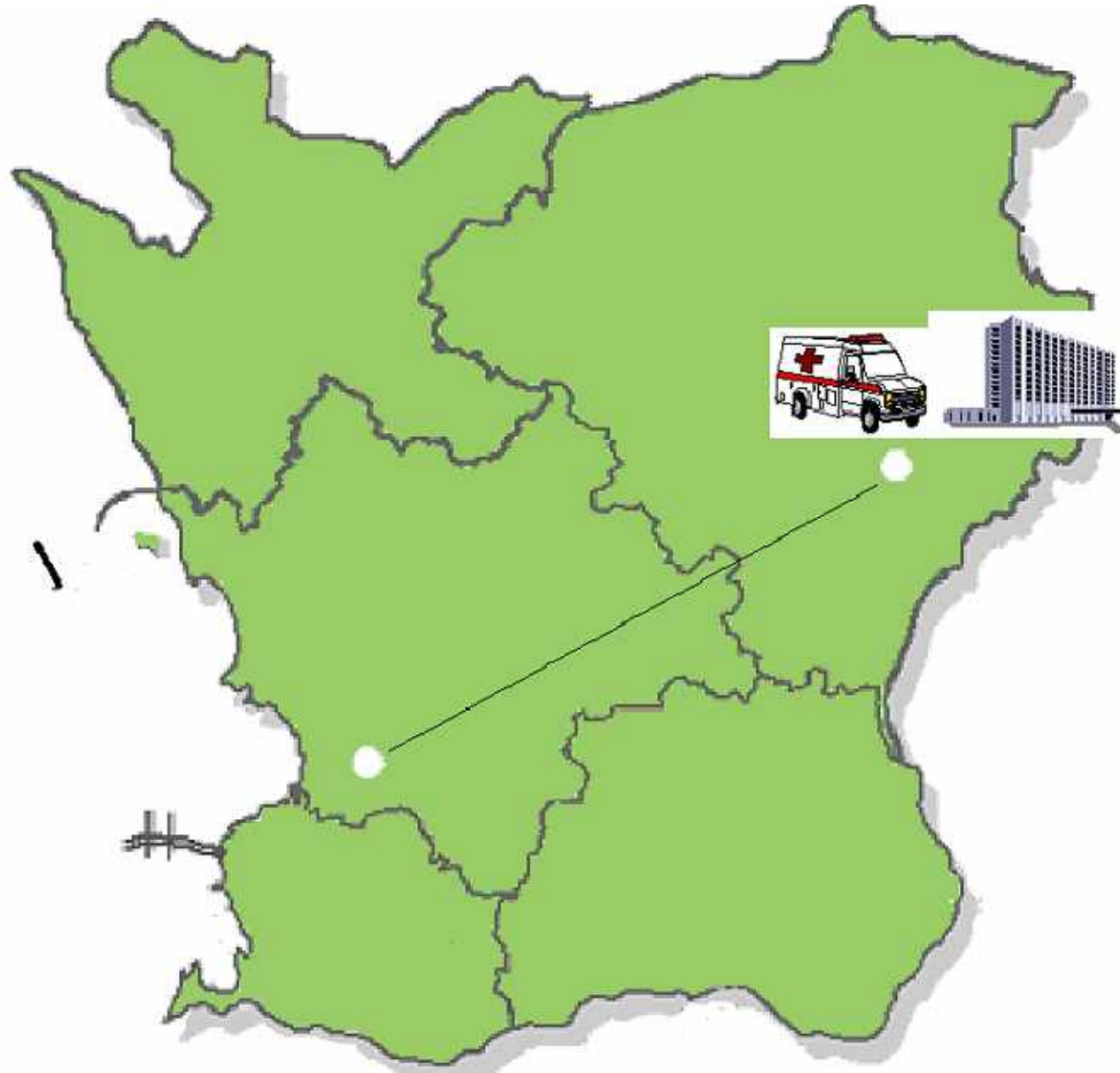
- Direct PCI 24h/day
- Direct PCI office hours
- Direct PCI ER patients office hours

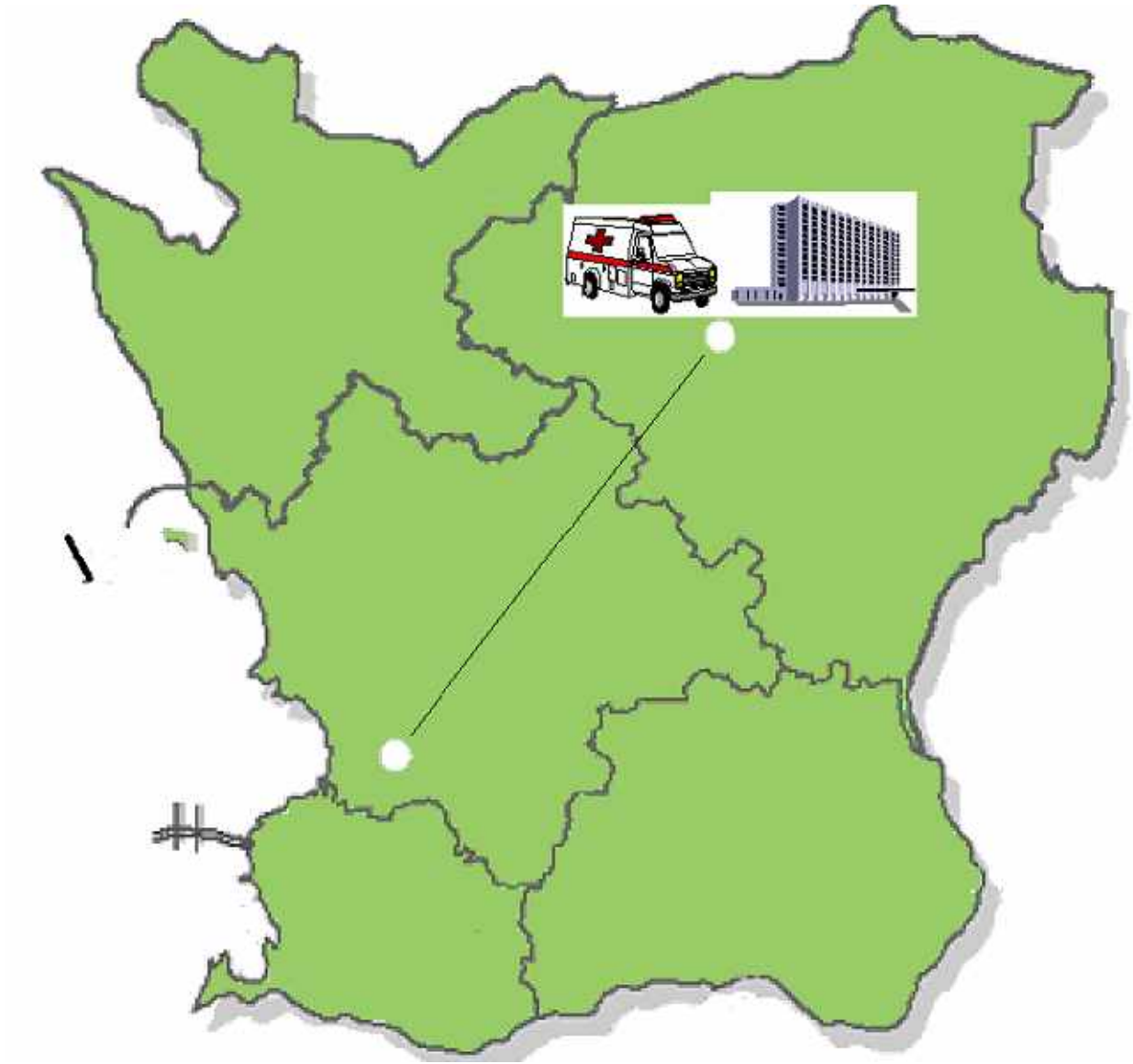


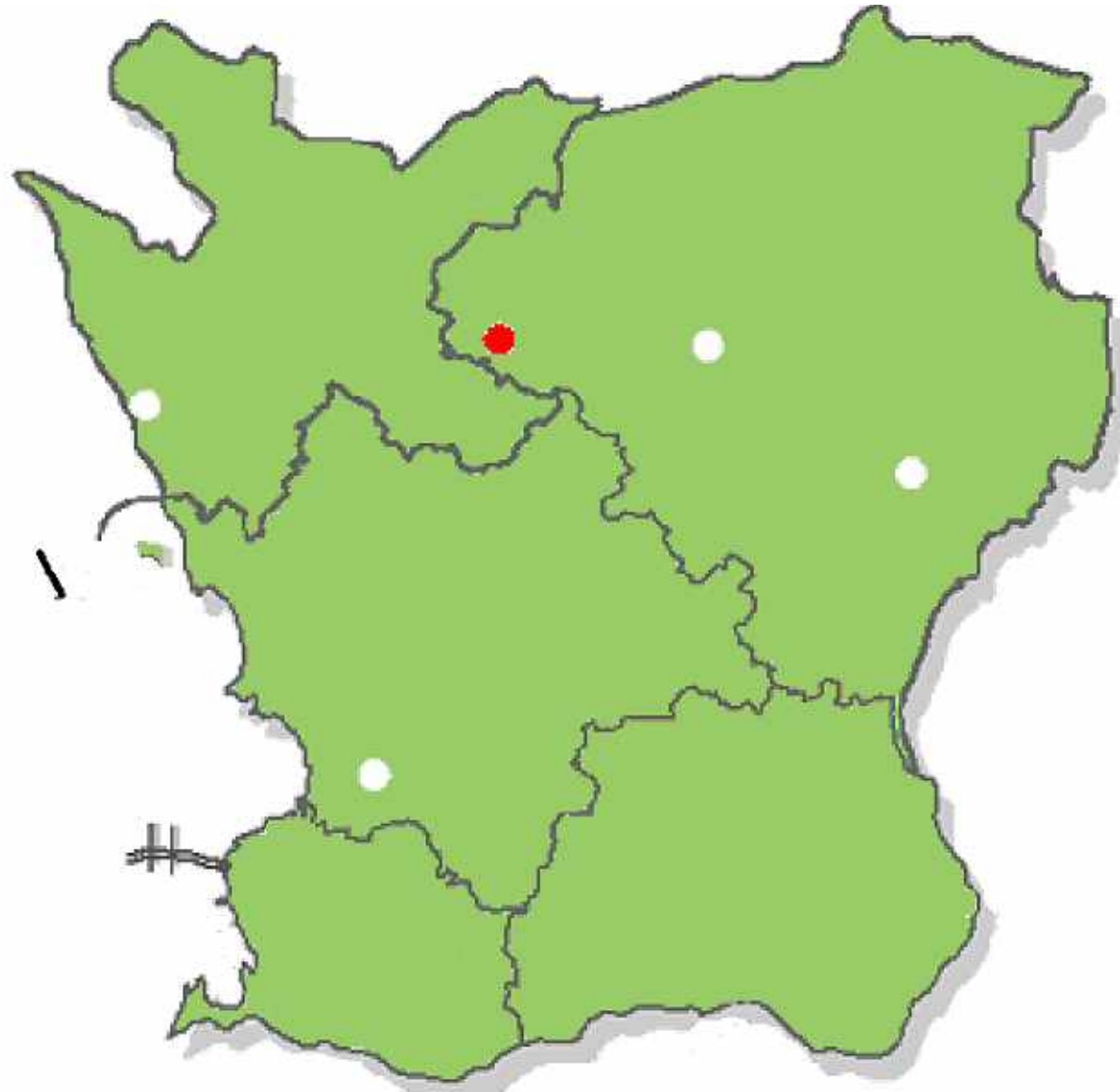












# The Ambulance

is not a way for the patient to get to the hospital,

but

a way for the hospital to get to the patient

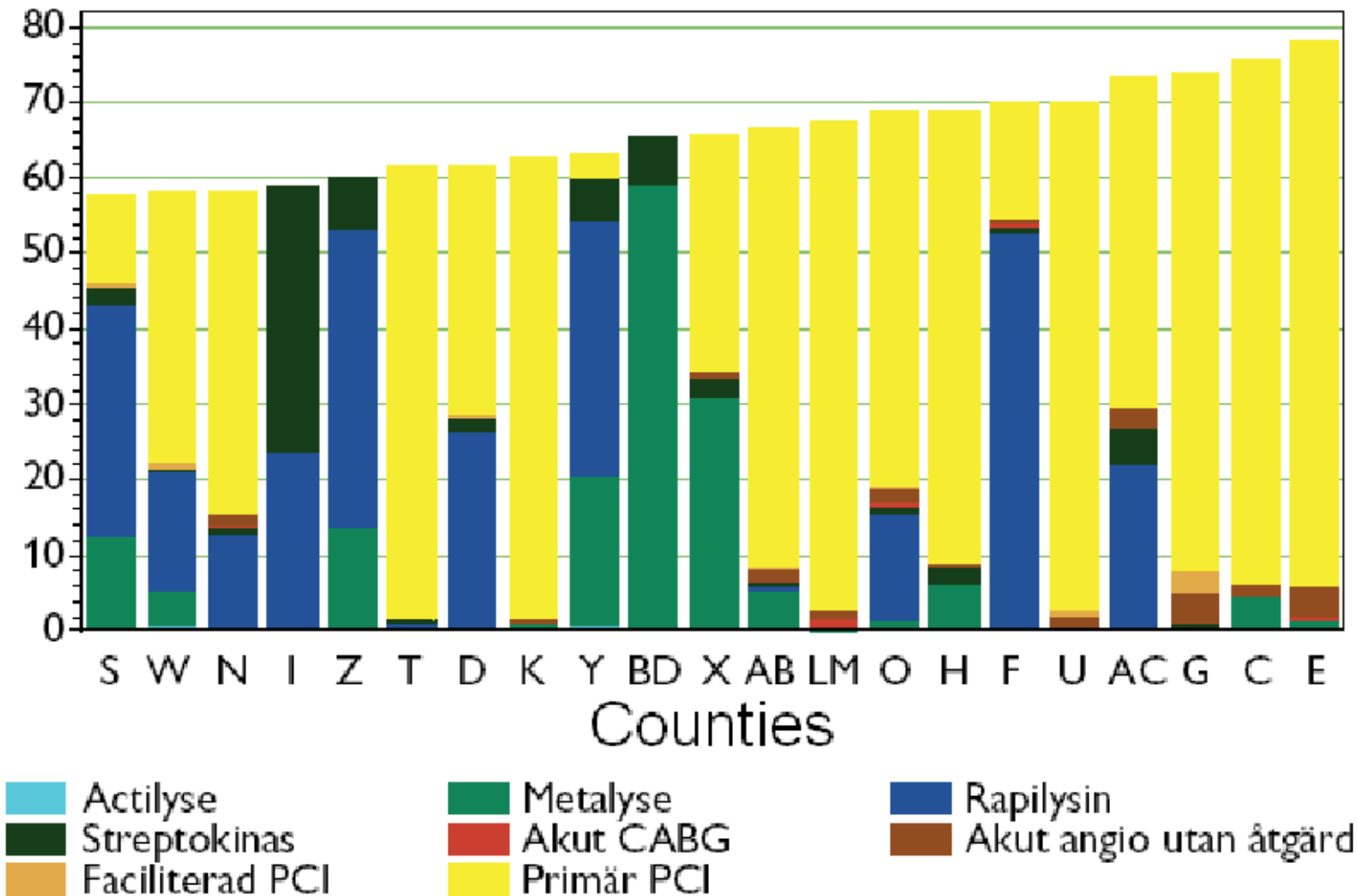


**[johan.silfverstolpe@skane.se](mailto:johan.silfverstolpe@skane.se)**

**[www.skane.se/kamber](http://www.skane.se/kamber)**



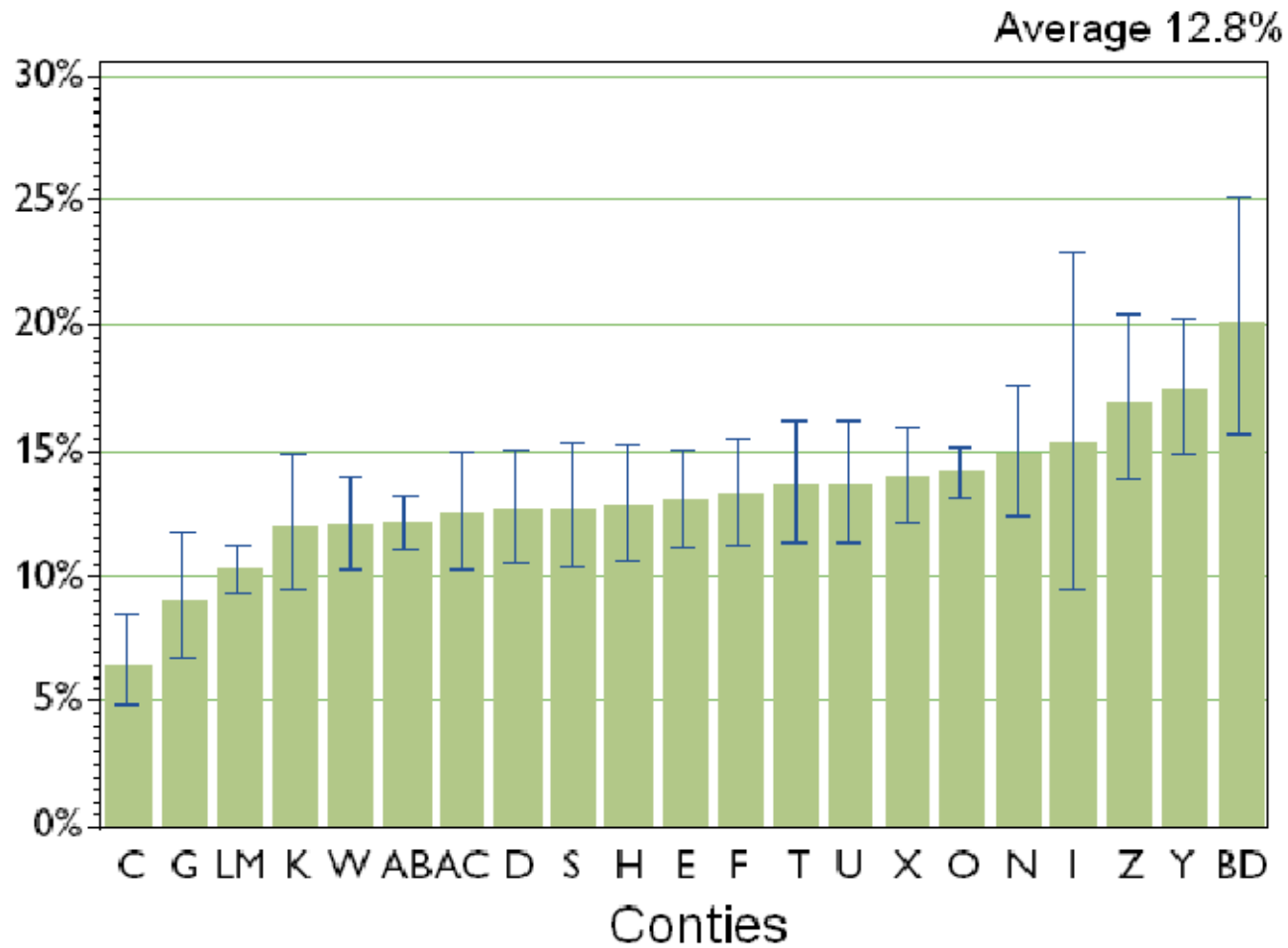
# Percentage Acute Reperfusion Treatment



RIKS-HIA year report 2005

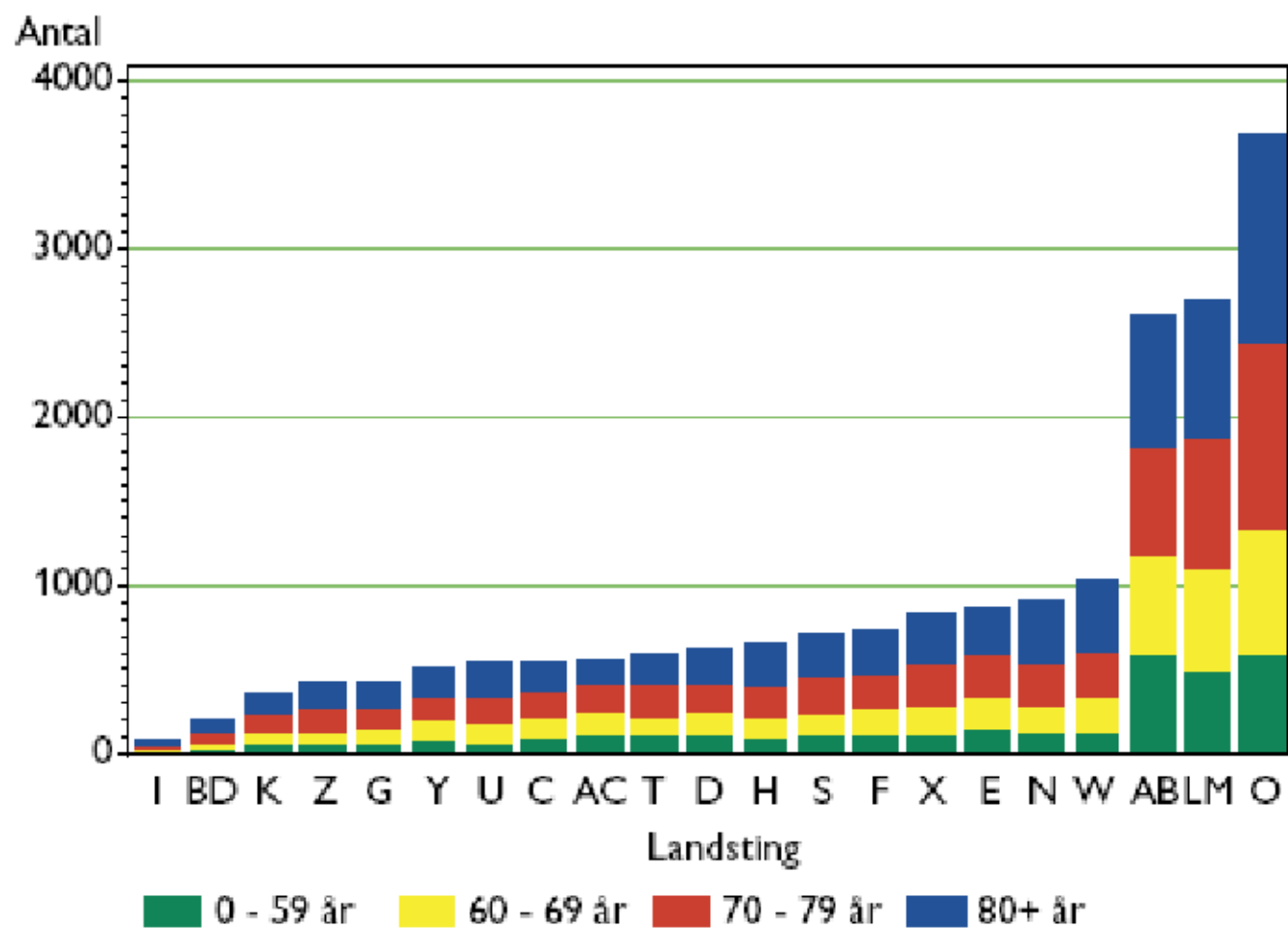


# Myocardial Infarction under the Age of 80 - One Year Mortality



RIKS-HIA year report 2005





Figur 6b. Landskapsfördelning av patientantal och åldrar vid akut hjärtinfarkt 2005.

