

November 2017

Nurses as paramedics?

The Swedish experiences with professionalisation of ambulance workers

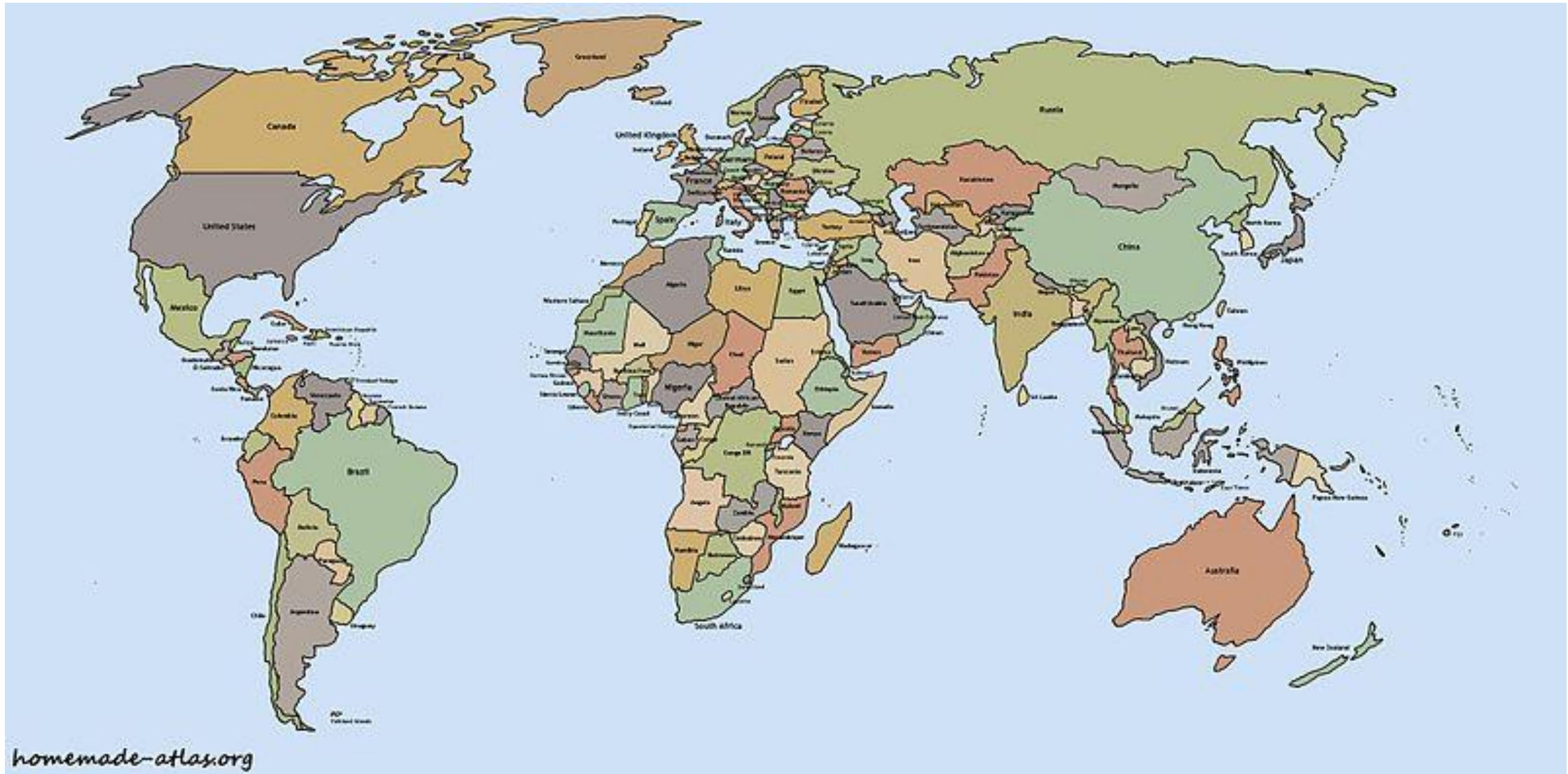
This speech is presented by Kenneth Kronohage, MSc, CRNA, BSc, RN, EMT-P

Global Strategic Consultant & Leader (Healthcare & Emergency Medical Services)

President, Swedish Ambulance Forum

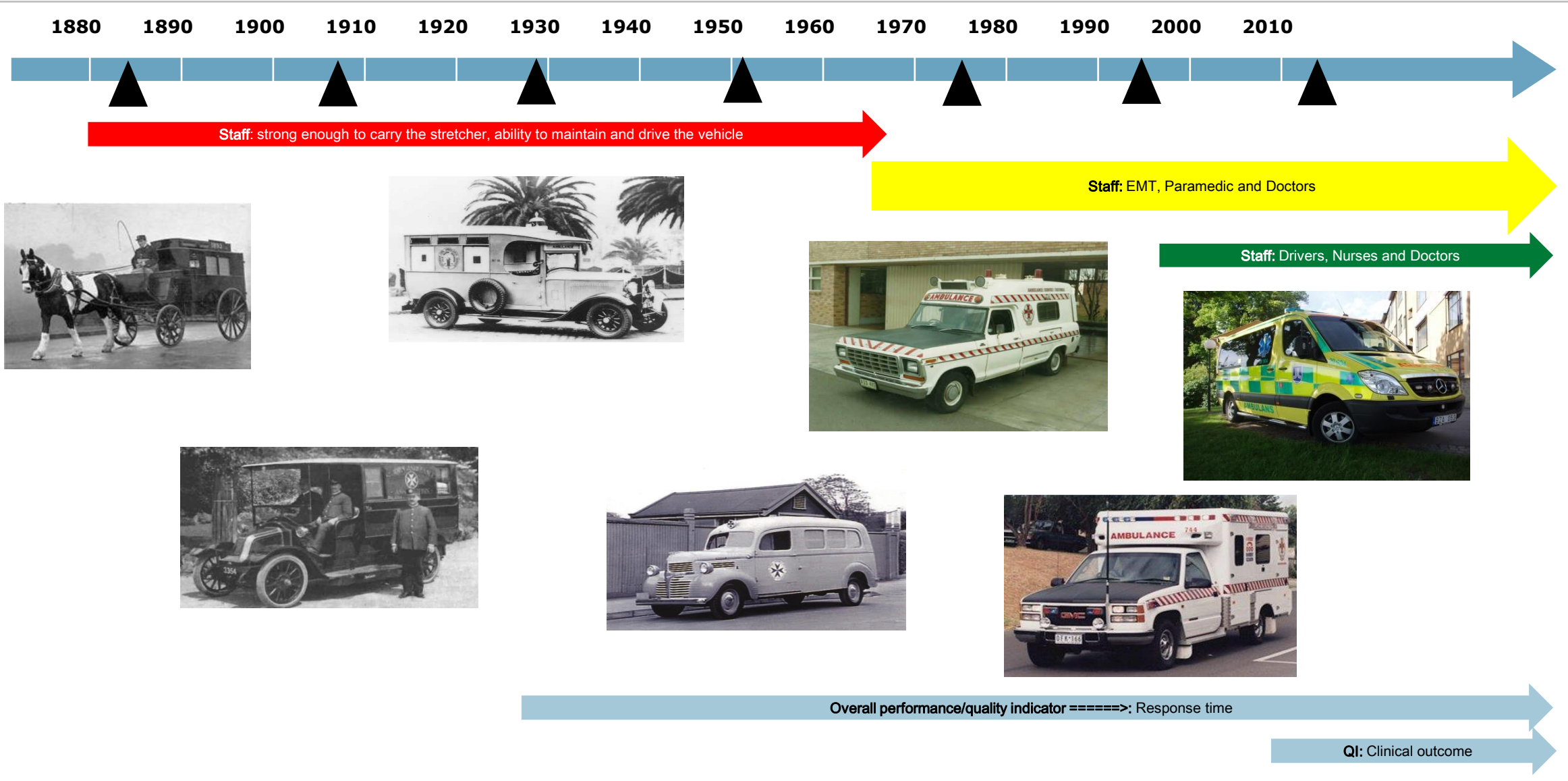


Which country has the best ambulance service?

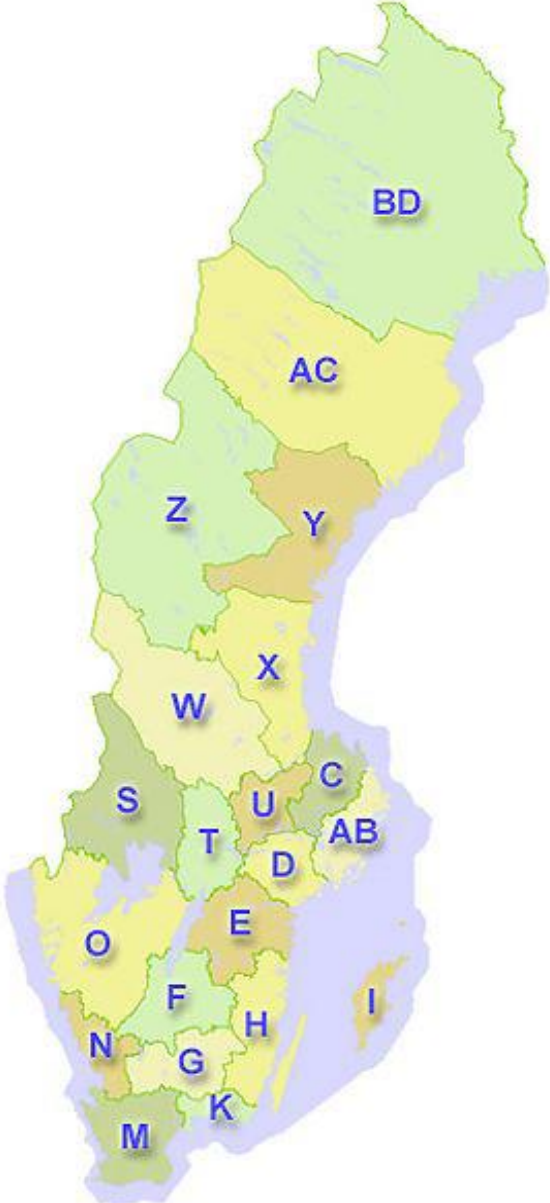
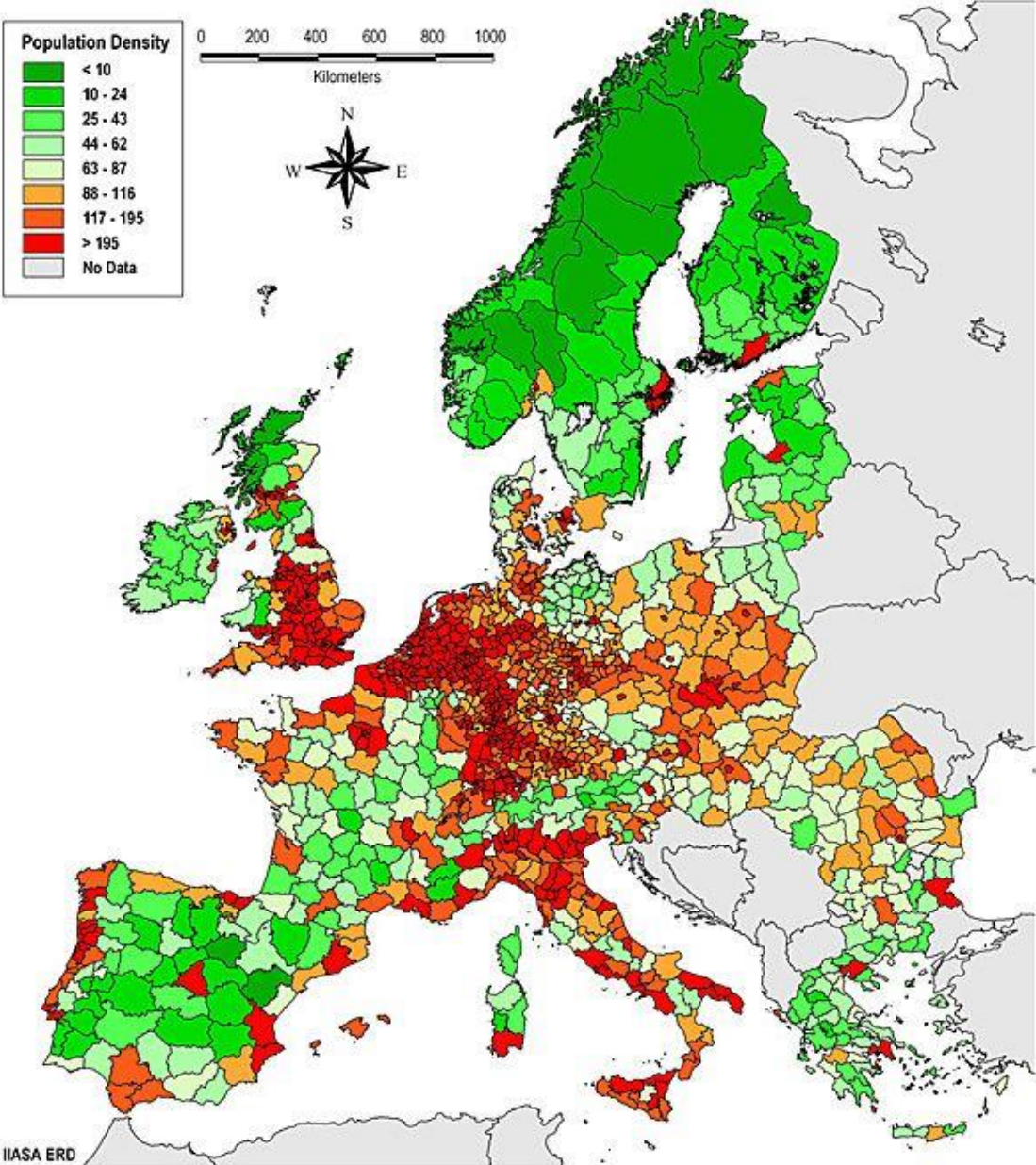


Probably everyone has the best ambulance service!

EMS history in the Western world



Sweden – population density and counties



Sweden in the 1950s



Equipped with:



Sweden in the 1960s



Still only equipped with:



In 1964 County Councils received the responsibility for commissioning and/or providing Ambulance Service

Sweden in the beginning of 1970s



Chevrolet Impala 1977–78. Foto GE. 1985.



Chevrolet 10 Custom 1978 i Göteborg. Foto SA.



Mercedes Benz i Södertälje, omkr 1970.



Mercedes Benz 230 1975 i Tranås.

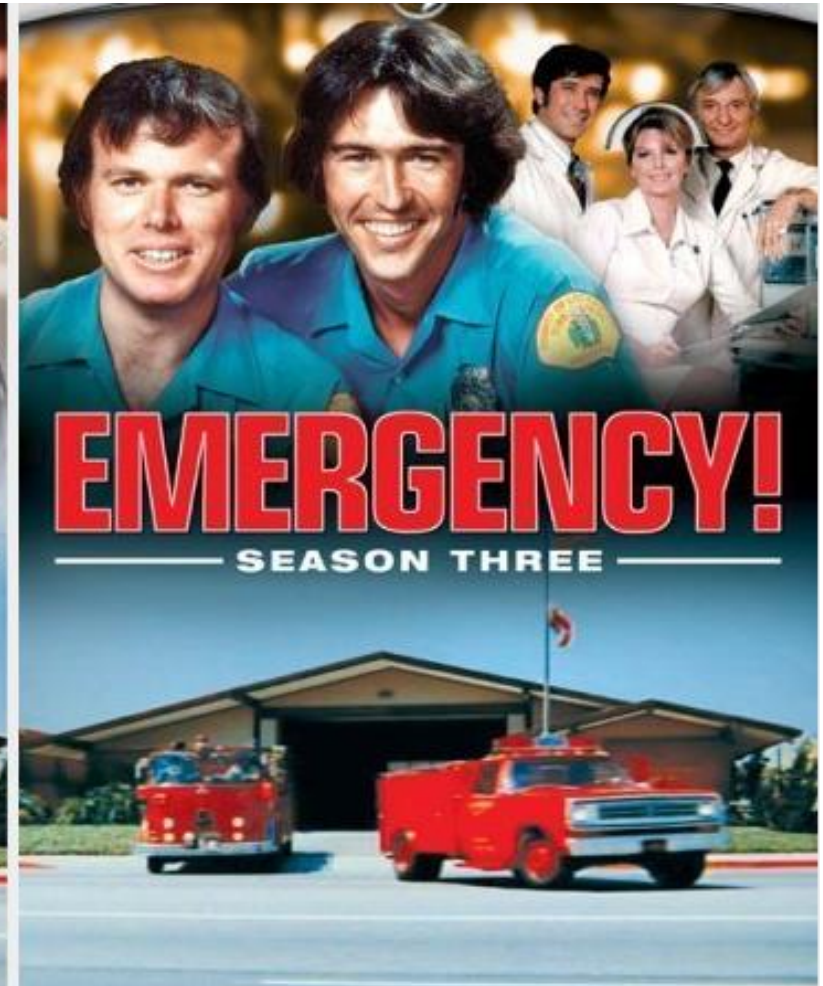
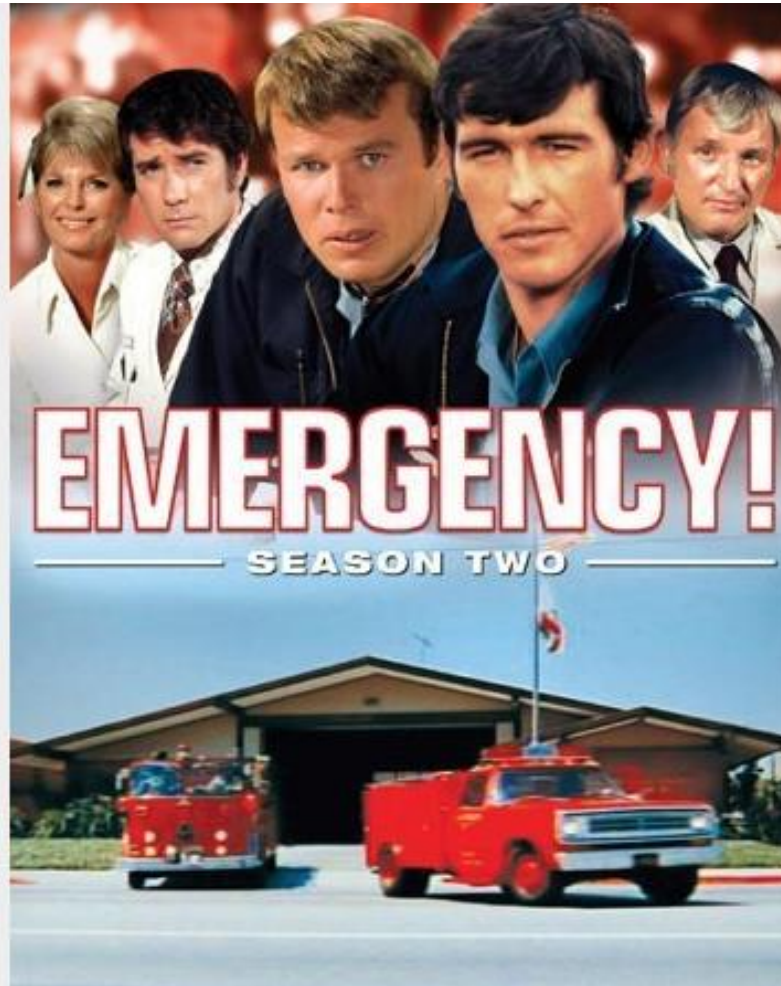
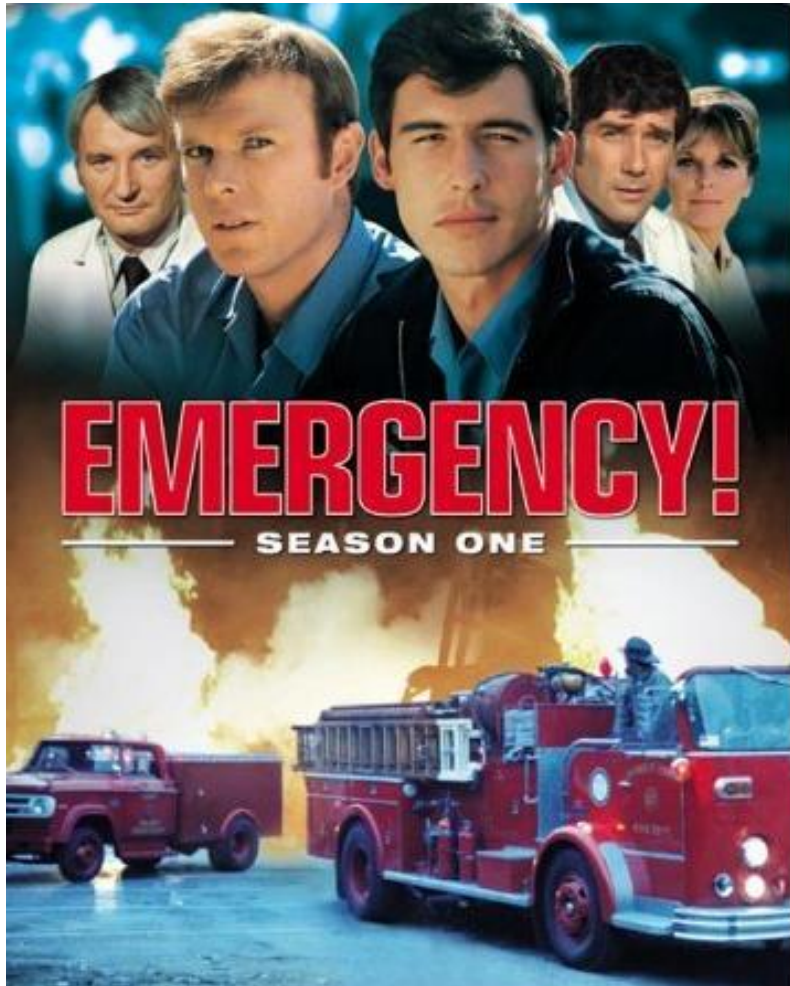
Still only equipped with:



... but the revolution starts in this decade

Sweden 1976

In June 1976 "Emergency" starts on one of Swedish Television's 2 channels



"The crew of Los Angeles County Fire Dept. Station 51, particularly the paramedic team, and Rampart Hospital respond to emergencies in their operating area."

In 1978 education and training of Emergency Care Assistants begins

Sweden in the beginning of the 1980s



Equipped with:




In 1984 training of Emergency Medical Technicians begins

Sweden 1984



- **Military Medic Training**
- Similar to Emergency Care Assistants training but in a military context.
- **but it did not match any job requirement in the Ambulance Service**
- Emergency Care Assistant in a civilian context was mandatory in Swedish Ambulances from 1978 and onwards. All employed staff had highest priority to get this training
- The admission to the Emergency Medical Technician education introduced this year required that the applicant was educated civilian Emergency Care Assistant on beforehand
- A catch-22 situation for those who were not employed, but when you know what you want, and you want it very much, you will find a way to get it!

Sweden 1985


SVENSKA RÖDA KORSET
MALMÖ RÖDAKORSKÅR


Härmed intygas att
630804-4335 Karlsson Kenneth
genomgått av Malmö rödakorskår anordnad kurs i olycksfalls-
vård, tiden 84-12-04 -- 85-02-05, omfattande 21 timmar.
Kursens mål är att deltagarna efter genomförd kurs skall
kunna:

- principerna för hur man handlar på en olycksplats
- utföra åtgärder som syftar till att åstadkomma fri luftväg
- utföra konstgjord andning enligt inblåsningemetoden
- vidtaga blottillande åtgärder
- vidtaga förebyggande åtgärder mot skadechock
- utföra lyft och transport av skadad
- placera skadad med hänsyn till den skadades tillstånd och
skadans art
- utföra första hjälpenåtgärder vid
sår- bränn- och kylskador
ben- led- och muskelskador
ryggskador
förgiftningar
hastigt insjuknande

▼ förstå och känna till psykiska reaktioner vid olycksfall
och sjukdom

Malmö 1985-09-25
MALMÖ RÖDAKORSKÅR
L. Andersson
L. Andersson
u/ordf.

ADRESS: Husie Kyrkväg 74 Box: 14016 Telefon: Postgiro:
212 38 Malmö 200 24 Malmö 040-492009 38001-4

SVENSKA RÖDA KORSET 
Malmöhusdistriktet

Er referens _____
Vår referens K_U_R_S_I_N_I_Y_G
Datum _____

KENNETH KARLSSON

HAR GENOMGÅTT SVENSKA RÖDA KORSETS
KURS I OLYCKSFALLSBEREDSKAPSTJÄNST

KURSEN HAR ARRANGERATS AV SVENSKA RÖDA KORSETS
MALMÖHUSDISTRIKT I SAMVERKAN MED MALMÖ RÖDAKORSKÅR
OCH MALMÖ BRANDFÖRSVAR OCH OMFATTAT 80 TIMMAR. KURSEN
HAR PÅGÅTT TIDEN 12 FEBRUARI -- 28 MAJ 1985.

KURSENS MÅL HAR VARIT ATT GE DELTAGARNA, UTÖVER
REDAN INHÄMTADE KUNSKAPER I OLYCKSFALLSVÅRD
- KUNSKAPER OM HUR SAMHÄLLETS RÄDDNINGSTJÄNST ÄR
ORGANISERAD, HUR DEN FUNGERAR, DEN UTRUSTNING
SOM FINNS OCH HUR DEN ANVÄNDS
- KÄNNEDOM OM ARBETARSKYDD I SAMBAND MED RÄDDNINGSTJÄNST
- KUNSKAP OM SÄKERHETSBESTÄMMELSER INOM IDROTT OCH SPORT
- KÄNNEDOM OM SAMVERKAN MED SJUKVÅRDEN, BRANDKÅR OCH POLIS
- VETSKAP OM HUR MAN SKALL UPPTRÄDA PÅ EN SKADEPLATS OCH
VAD TYSTNADSPLIKT INNEBÄR.

SVENSKA RÖDA KORSETS MALMÖ RÖDAKORSKÅR MALMÖ BRANDFÖRSVAR
MALMÖHUSDISTRIKT
Bo Löfvist *Lars-Erik Andersson* *Bengt Lindell*
BO LÖFVIST LARS-ERIK ANDERSSON BENGT LINDELL
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- Red Cross Education
- Emergency response volunteer
- Event first aid volunteer
- Red Cross gave a great assistance with admission to the program to be Emergency Care Assistant.

Sweden 1986 – trained and employed as Emergency Care Assistant



Sweden in the end of the 1980s



Volvo 855



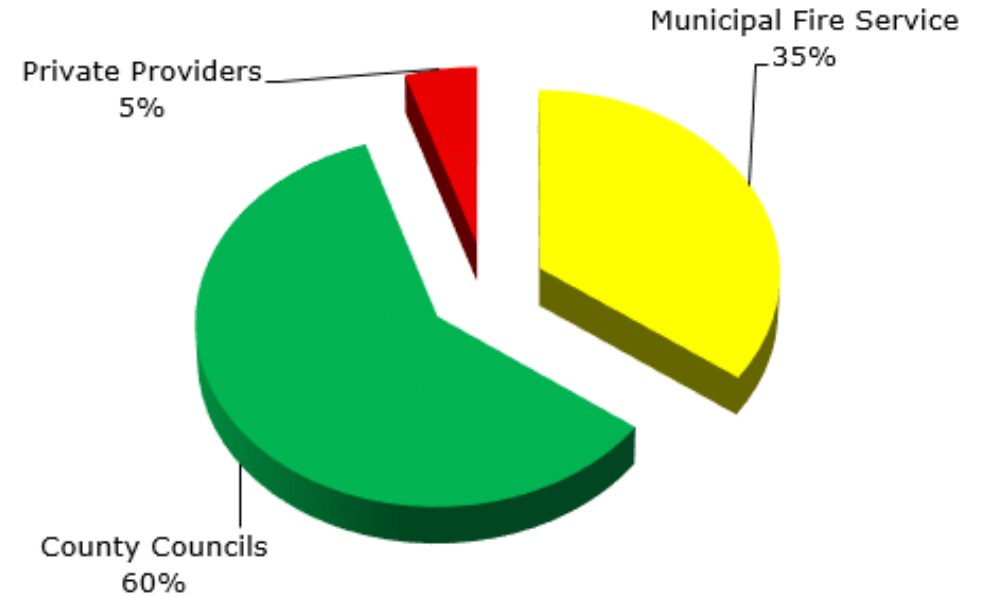
Chevrolet Blazer S 10 CT1



Mercedes-Benz 200 E/W 124



Volvo 745



- Nurse Anesthetists in Emergency Response Vehicles in various parts of the country
- Doctors in Emergency Response Vehicles limited to very few areas
- Fire Services start to divide its staff into three categories Ambulance, Fire Service and Mixed
- However a majority of Sweden is covered by Ambulances with EMT-P/ECA or EMT/ECA or ECA/ECA

Sweden 1989



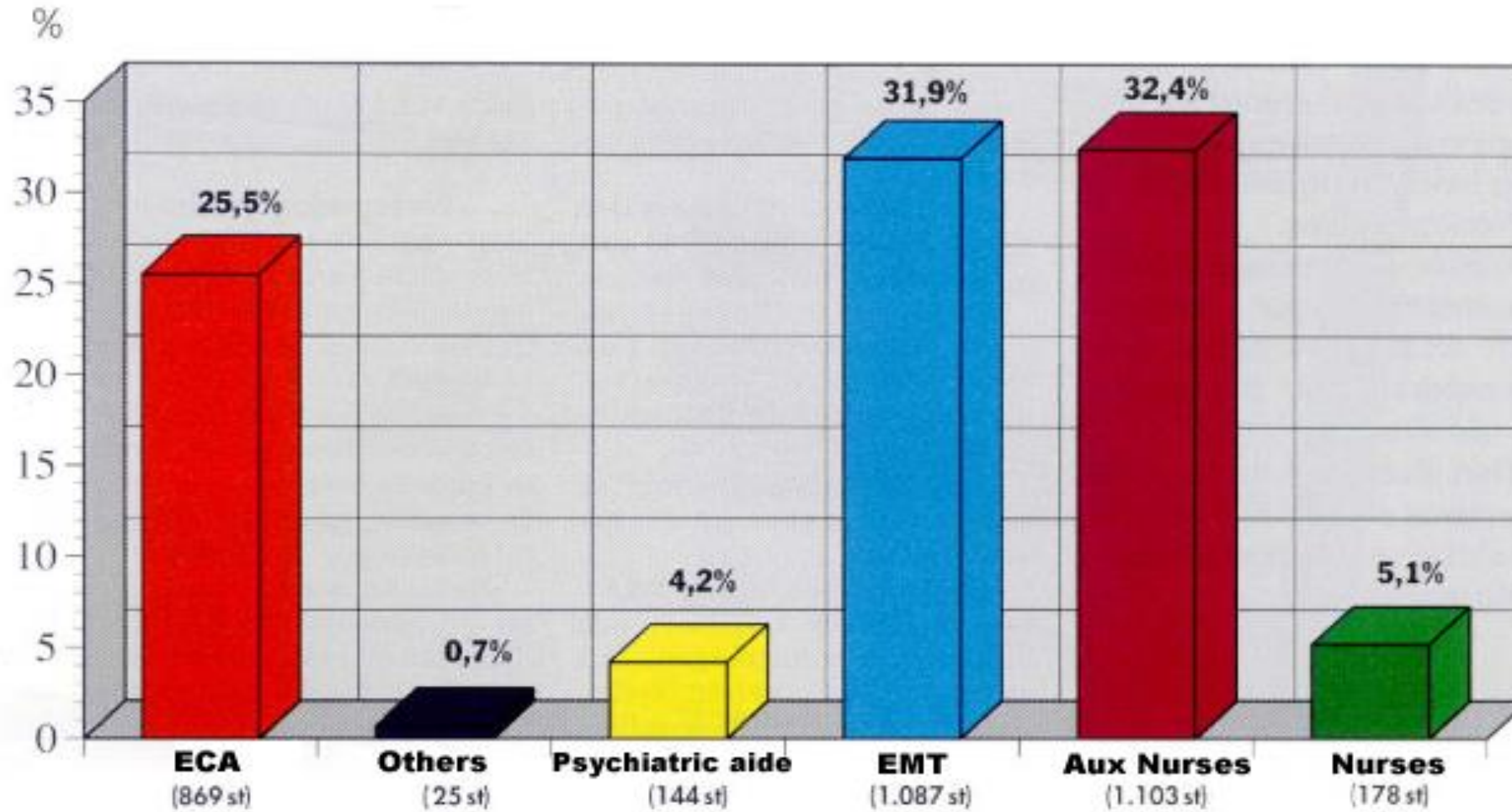
• GP Doctor

Sweden in the beginning of the 1990s



- Fire fighters had to respond to Category A calls since Ambulances were busy with Category C and D calls

Sweden 1991 – educational levels



- EMTs with empowerment to administer drugs and perform advanced medical interventions were called “Paramedics”
- Auxiliary Nurses and Nurses were not considered to have “Paramedic” level

Sweden 1993 – privatisation starts



● Ambulanserna i Lund, Eslöv, Hörby och Burlöv kanske blir privata i framtiden. Här är gänget som vågar ta ansvar för ambulanssjukvården, Leslie Raie, Kenneth Karlsson, Åsa Engblom, Kenneth Fredriksson och Ulf Tabjerg. Foto: STIG-ÅKE JÖNSSON

De vill ta över ambulanserna

■ Här är gänget som vill ta över ambulanserna i Lund, Eslöv, Hörby och Burlöv. Alla fem sysslar redan i dag med ambulanssjukvård eller liknande akutvård.
■ Förslaget har väckt ont blod bland de anställda, men gruppen hävdar att de kan göra en privat ambulanssjukvård

som är både bättre och säkrare än dagens. Fler liv ska kunna räddas med bättre utrustning och utbildad personal.
■ Personal utan vidareutbildning kan inte räkna med att bli anställd av gruppen, om deras anbud antas av Malmöhus läns landsting.

SIDAN 5

BURLÖV • TRELLEBORG • LOMMA • SVEDALA SYDSVEVENSKAN • Torsdagen den 5 november 1992

Ovisst för ambulansförarna

”Äntligen gränslöst!”

BURLÖV. – Äntligen får vi en gränslös ambulans! Det har jag kämpat länge för.

Torsten Engvall, socialdemokratisk ledamot av landstingsstyrelsen, är nöjd och glad. Avtalet med Malmö kommer att ge inte bara Burlövsborna utan också invånarna i Svedala och Bara ökad service. Den ambulans som stationeras i Arlöv kommer att kunna röra sig helt fritt i regionen dygnet runt, menar han.

Ambulansservice i Burlöv är en hjärtefråga för Torsten Engvall. Det var han som under sin tid som kommunalråd lyckades övertala landstinget att placera en bil i Arlöv. Det var den första externa ambulansen utanför Lund.

Sedan han förvisat sig om att Malmö anbud betydde fortsatt stationering av ambulans i Arlöv hade han ingenting emot att stödja förslaget från den borgerliga majoriteten i landstingsstyrelsen att låta Malmö ta över Burlövsbornas ambulansservice som med det här utökas till att täcka dygnets alla timmar.

Men sedan var det slut med stödet. Att ge resten av anbudspaketet till danska Falcks motatte sig socialdemokraterna.

– Det här är en bra lösning för Burlöv men inte för övriga inblandade kommuner, konstaterar Torsten Engvall. CG

För de sex ambulansmän som hittills haft Burlövs kommun som arbetsgivare är framtiden ovisst. De är uppsagda till den 15 november. Vad som skall hända därefter, vet de inte. Villkoren för Malmö övertagande är inte kända. Om de innefattar ett ansvar för personalen, framgår inte av den knapphändige information som hittills getts. Först sedan avtalet mellan landstinget och Malmö undertecknats hävs sekretessen och detaljerna i anbudet blir offentliga.

Inte ens de politiker som hade att fatta beslut om entreprenaden har fått se några detaljerade anbud. De har fått förflita sig på tjänstemannatrender.

Lång väntan

För personalen i Burlöv kan det bli en lång väntan. Rykesspridningen är stor, många befäror det värsta.

– Med Malmö som entreprenör är vi rädda att vi spökas. Vi hade hellre sett att Burlövs kommun fått entreprenaden. Då hade våra jobb varit säkrade, säger Kenneth Karlsson, ambulansformän i Burlöv.

Han är ytterst skeptisk till Malmöns motiv att utvidga sitt revir och misstänker en dold rationalisering.

Man har visserligen sagt att en bil skall vara stationerad i Arlöv också i fortsättningen. då har landstinget köpt grisen i säcken.

Försämrings

Risken är stor att ambulansen i Arlöv huvudsakligen kommer att användas i Malmö, menar Kenneth Karlsson. Om han har rätt, får invånarna i Burlöv, Lomma och Staffanörp en kraftigt försämrad ambulansservice.

– Malmö är den stora vinnaren. Kommunen får landstingets miljoner mot en garageupptätningsplats i Arlöv. Kort sagt betalar landstinget Malmö för att avveckla en ambulans i regionen, fastslår Kenneth Karlsson. CHRISTINA GUSTAFSON

Kenneth Karlsson och hans arbetskamrat Björn Ohlsson befäror att deras bil, en Chevrolet Suburban, av 1990 års modell, ambulansernas Rolls-Royce, inte längre kommer att forsa sjuka Burlövsbor.

FOTO: LINNART GULLBERG

- Sweden in a deep financial crisis
- Massive debate on how ambulance service should be developed
- National Board of Health and Welfare ratifies 13 different emergency drugs to be delegated to non-registered staff
- Many argued for a real "Paramedic" track where drug administration was part of the basic education
- ... but the National Board of Health and Welfare had other plans for involving Nurses in Ambulances

Sweden 1993 – 1996 Nursing school



Florence Nightingale (1820-1910)



- known as the **Lady with the Lamp**, providing care to wounded and ill soldiers during the Crimean War
- considered the **founder of educated and scientific nursing**
- wrote the first **nursing notes** "Notes on Nursing: What it is, What is not" (1860) that became the basis of nursing practice and research.



- From Fire Service to Nursing School (from 100% male environment to 95% female environment)
- Mainly a theoretical education with focus on generic Health Care and Life Sciences
- No emergency care education except manual CPR
- Scientific Theory and Scientific Methods were emphasised in all courses

Sweden 1993 – 1996 Nursing syllabus

- **FIRST YEAR OF STUDIES**

The first year comprises 83% theoretical education and 17% clinical training

Theme: The Profession of Nurse based on Health Care Sciences and Health Care Ethics, 50%

Courses: The Profession of Nurse, Theoretical Foundation and Nursing, 16%, Scientific Theory and Scientific Method, 17%

Clinical Training, Basic Nursing, 17%

- **SECOND YEAR OF STUDIES**

The second year comprises 75% theoretical education and 25% clinical training

Theme: Humankind, Ill-Health and Nursing

Courses: Human Nursing Needs when Health and Bodily Functions Fail, 40%, Human Needs of Palliative Care, 12%, the Nurse's Instructional and Managerial Function with Responsibility for Systematic Improvement, 13%, the Home as the Care Venue, 10%,

Clinical Training, Somatic Care, 25%

- **THIRD YEAR OF STUDIES**

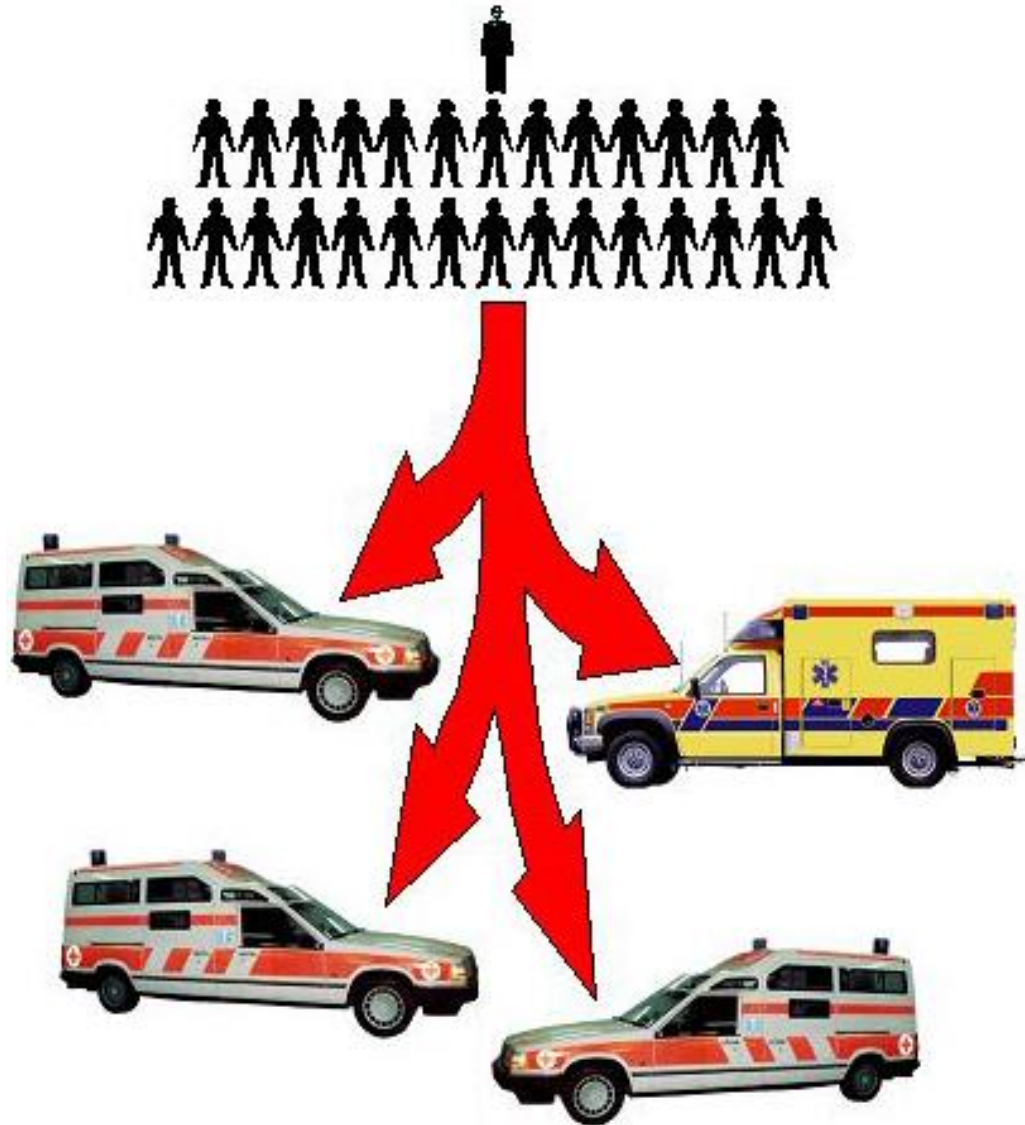
The third year comprises 55% theoretical education and 45% clinical training.

Theme: Project or Dissertation, 37%

Courses: Public Health in a Global Perspective, 5%, Health Care Ethics 13%

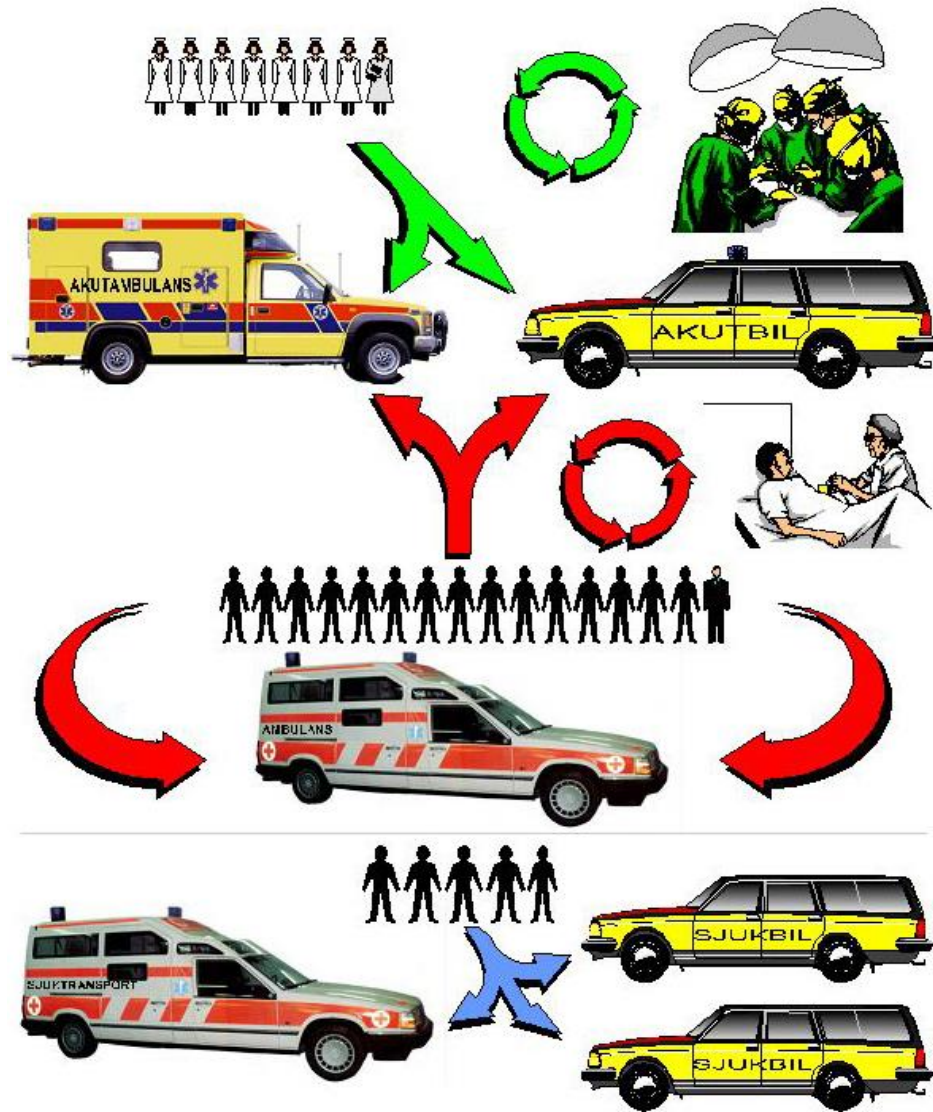
Clinical Training in Primary Care, Psychiatric Care, Geriatric and Palliative Care, 45%

Sweden 1994 – Ambulance organisation



- Everyone should do everything

Sweden 1994 – Proposal for differentiated organisation



- In a prehospital context, rotation with hospital duty was considered essential for maintenance of medical skills

Sweden 1995 – Milestones



- The National Board of Health and Welfare restricted delegating of the right to administer drugs to non-registered staff
- NBHW also stated that there should be two types of educational levels in Swedish Ambulances; Nurses and Auxiliary Nurses with EMT education
- 12% of all ambulance staff are registered Nurses
- Education in ambulance care for already educated Specialist Nurses starts at one Nursing School

Sweden 1996 – Bachelor study



8 EXPRESSEN

MÅNDAG 14 OKTOBER 1996

Patienter dör i onödan?

**Kenneth
slår larm om
ambulans-
personalen**



- “Empowerment in the prehospital environment – responsibility, scope, methods and monitoring”

Sweden 1997 to 1998 – Nurse Anesthetist



- Nurse Anaesthetist – independently induces, maintains and concludes general anaesthesia, with some support from the anaesthesiologist and works in several countries, including Sweden, Norway, Denmark, the United States and Switzerland
- Workplace for a Nurse Anaesthetist is usually a surgical ward, but also on pre- and post- surgical wards, wards for treatment of pain, accident and emergency departments, prehospital care, accident and disaster sites, international humanitarian aid organisations, United Nations projects, or elsewhere
- Common with 50% in an operating theatre and 50% in Rapid Response Vehicle (RRV) to support ambulances
- National Board of Health and Welfare put in time limitation to 2005 in delegating use of drugs to non-registered staff
- 17% of all ambulance staff are registered Nurses
- First government approved education to become Specialist Nurse in Ambulance Care starts

Sweden 1999 to 2004 – RRVs with Nurse Anesthetist or Physician



Volvo V70



Volvo XC70



Saab 9-5 Kombi



Audi A6 Avant 2,5 TDI Quattro

- RRV to support ambulances in the transition period for Nurses
- In 2001 32% of all ambulance staff are registered Nurses

Sweden 2005 – Master Study



ORIGINAL ARTICLE

The future role of nurse anaesthetists in Swedish prehospital emergency care

Kenneth Kronohage¹, Karin Linder²

Scand J Trauma Resusc Emerg Med 2005; **13**: 25-30

¹ Ulfabgruppen AB, Sweden

² Lund University, Faculty of Medicine, Department of Nursing,
Sweden

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- RRV with Nurse Anaesthetists are replaced by physicians or terminated
- More than 50% of all ambulance staff are registered Nurses

Sweden 2008 – Doctors Cars terminated

- Evaluation has shown that the decision base for the introduction of Prehospital Doctor's cars were shortcomings in the description of the quality-enhancing effects that could be expected.
- These shortcomings have both impeded communication regarding what benefits would come out of the service and additionally made it difficult to assess or measure whether the desired effects are actually achieved
- Bringing doctors' competences into the prehospital environment is not an automatic guarantee of increased quality
- If the doctors' resource is not used sufficiently, it is by definition not cost-effective; the reasons for this lack of use are various, generally it is an overestimation of the need in relation to the basic tasks defined or the inability or unwillingness to exploit the added resource properly
- A necessary step in the continuing work to develop the pre-hospital emergency care must be to conduct a medical evaluation with a focus on the benefits of pre-hospital doctor's assistance on site.
 - What measures are taken that would not have been taken unless these doctors assistance has been in place?
 - Will care and medical outcomes be better (higher survival rate, better quality of life) by doctors support at the incident site?
- This evaluation should be instituted, particularly from a credibility standpoint, but also in view of the massive criticisms from the ambulance service.
- ... but there was no further medical evaluations done since it was considered to be obvious to terminate existing Doctors Cars.



Sweden 2013 – variations in competence*

- Eight Counties require as a minimum one specialist nurse in each ambulance. Most of these eight Counties demand that specialist training should be focused on Ambulance or Emergency Care such as Anaesthesia and Intensive Care
- The remaining thirteen Counties think it is enough with the stated fundamental requirements of the National Board of Health and Welfare, namely that each ambulance must be staffed with at least a basic trained Registered Nurse
- In addition to the requirements of formal education setting, ten Counties require that all personnel in the ambulance should have previous experience in Emergency Care, while four Counties require that at least one staff in the ambulance has this experience
- The remaining seven Counties make no requirement that staff have previous experience in emergency care; however, it is seen as an advantage



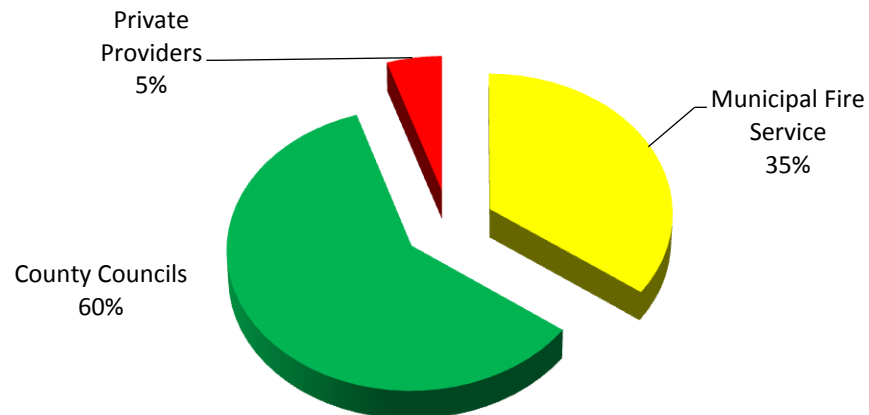
Sweden 2014 and onwards – Fire Service act as RRV



- Back to where everything started. Nurses do all kind of calls – from High Dependency transports to A&E and fire-fighters act as First Responders due to heavy workload on ordinary ambulances

- More than 75% of all ambulance staff are registered nurses but nobody knows the proportion of Ambulance Specialist Nurses
- Many ambulances are double-crewed with nurses, some with two specialist nurses.
- No regulation for education or training in blue-light driving
- No mandatory regulation for specialist education in Ambulance Care for nurses working in ambulances. Only recommendation.

Provision of A&E Ambulance Service 1991



Provision of A&E Ambulance Service 2016



Nurses as Paramedics, in conclusion:

- A British idiom says; an apple a day keeps the doctor away, but in Sweden we could say a Nurse as a Paramedic keeps the doctor away (from the ambulance service)
- Holland has dedicated technicians who assists their Ambulance Nurses and they always drive the vehicle, but this is not the case in Sweden
- Sweden's need for equality with two nurses in the same ambulance doing the same things is not cost-efficient and not good for maintenance of medical skills and driving skills
- Airway management and ventilation in Swedish ambulance service has not that importance as it should have had, no RSI for instance
- Nurses without specialist education puts trauma victims and severely ill patients at unnecessary risk
- Paramedic Science should be mandatory part of nurse's specialist education for work in ambulances
- Critical Care Paramedics should be at Master's level



Thank you for your attention!



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