

*Experiences
from a
Specialized Regional Clinic
for
Patients with Persistent Neck Pain and Disability after
Trauma*

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Regional Pain Center of Knowledge and Development



The situation 10 years ago...

- Some patients were referred to us and treated...
- Many patients were "hidden" in several clinics under several diagnoses
- Earlier treatment algorithms focused on physiotherapy (only)...
- Patient organizations recommending surgery...

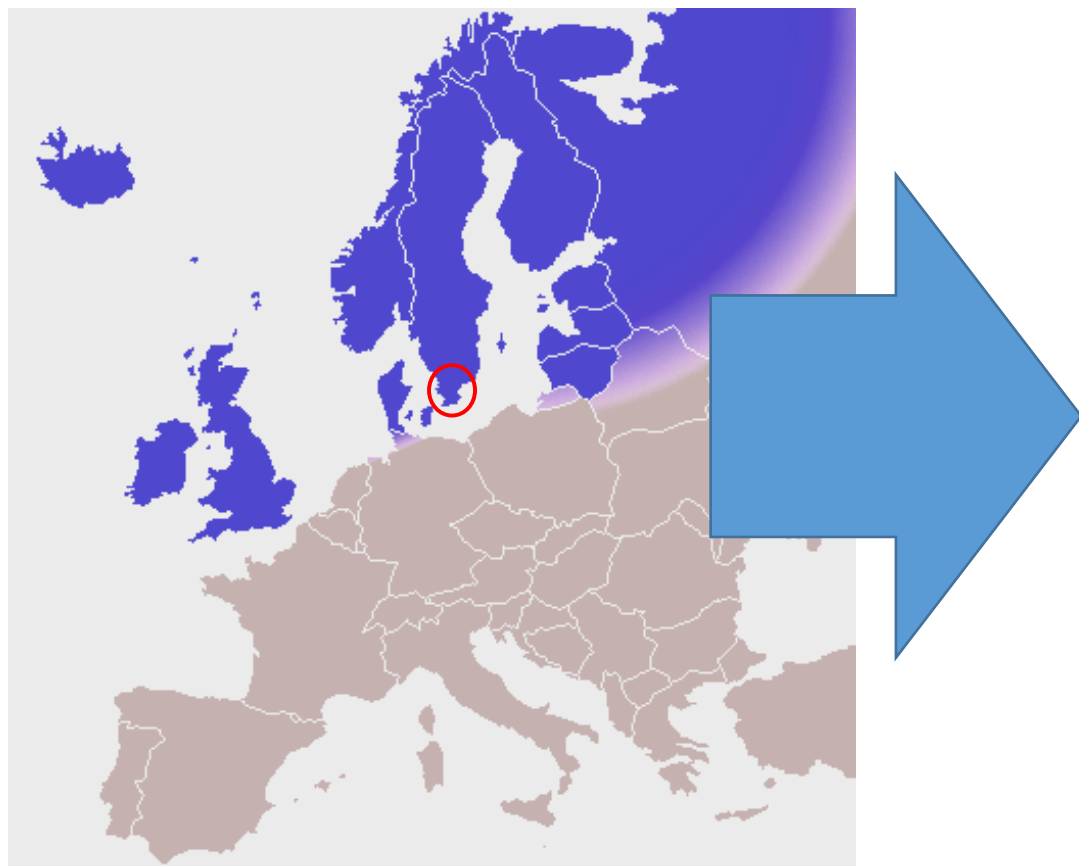
- So, in 2010 we said:

Send them to us!

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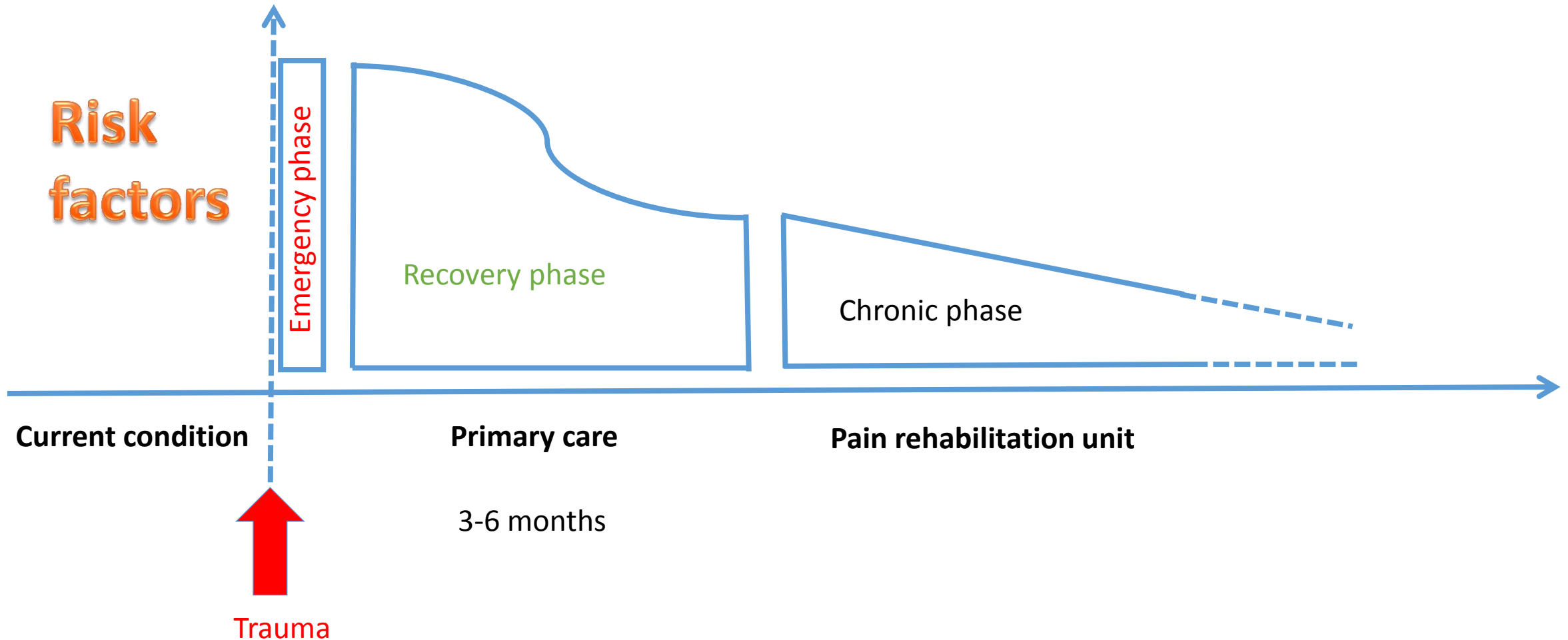
...and there were no protests...



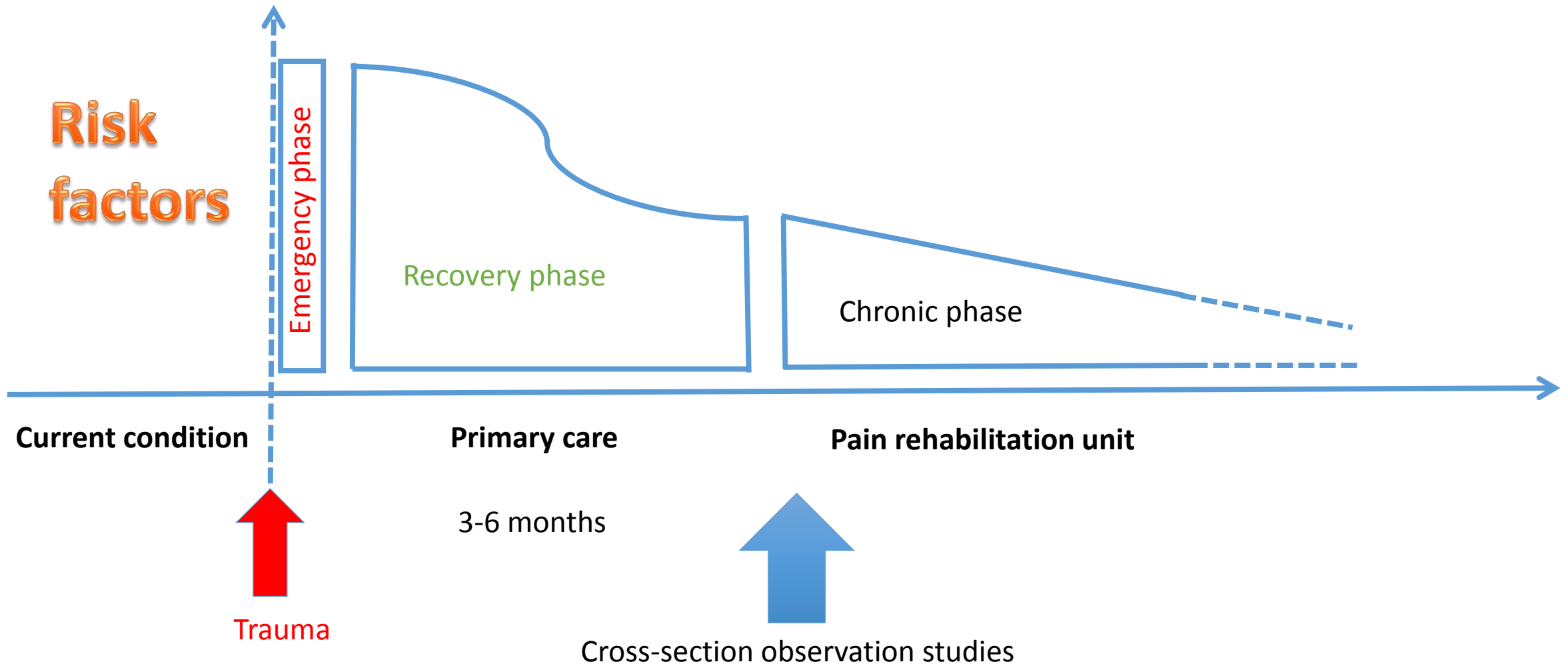
The Skåne Region
1.2 million inhabitants



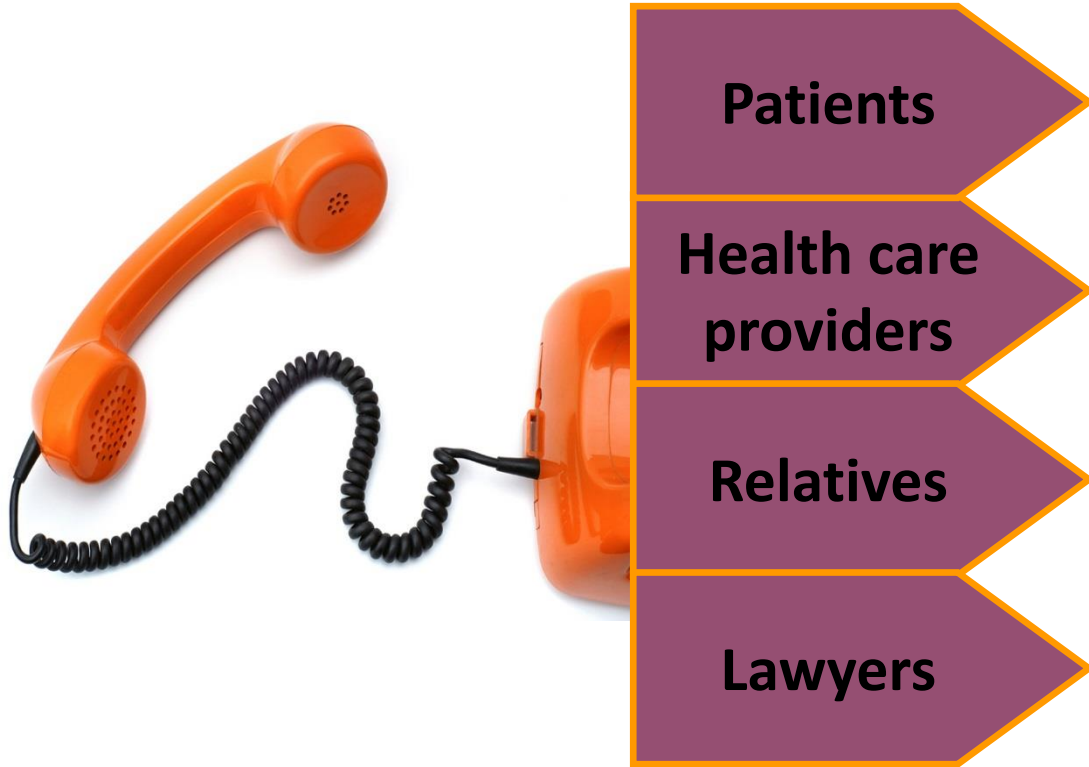
General outline of treatment algorithm



General outline of treatment algorithm



Call center



Approx 150 calls a year

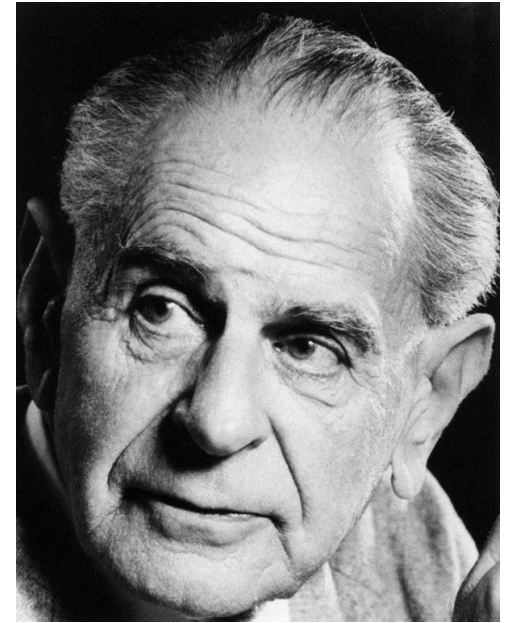


(F)riskfactors = Health factors

- Previously healthy
- Adequate care in the emergency phase
- Good sleep
- Stable home and job situation with possibilities to recover
- Good body awareness
- Good response to treatment
- High self-efficacy
- Stable social/economic situation
- No problems in the insurance process
- Good coping mechanisms and knowledge about pain
- Etc...

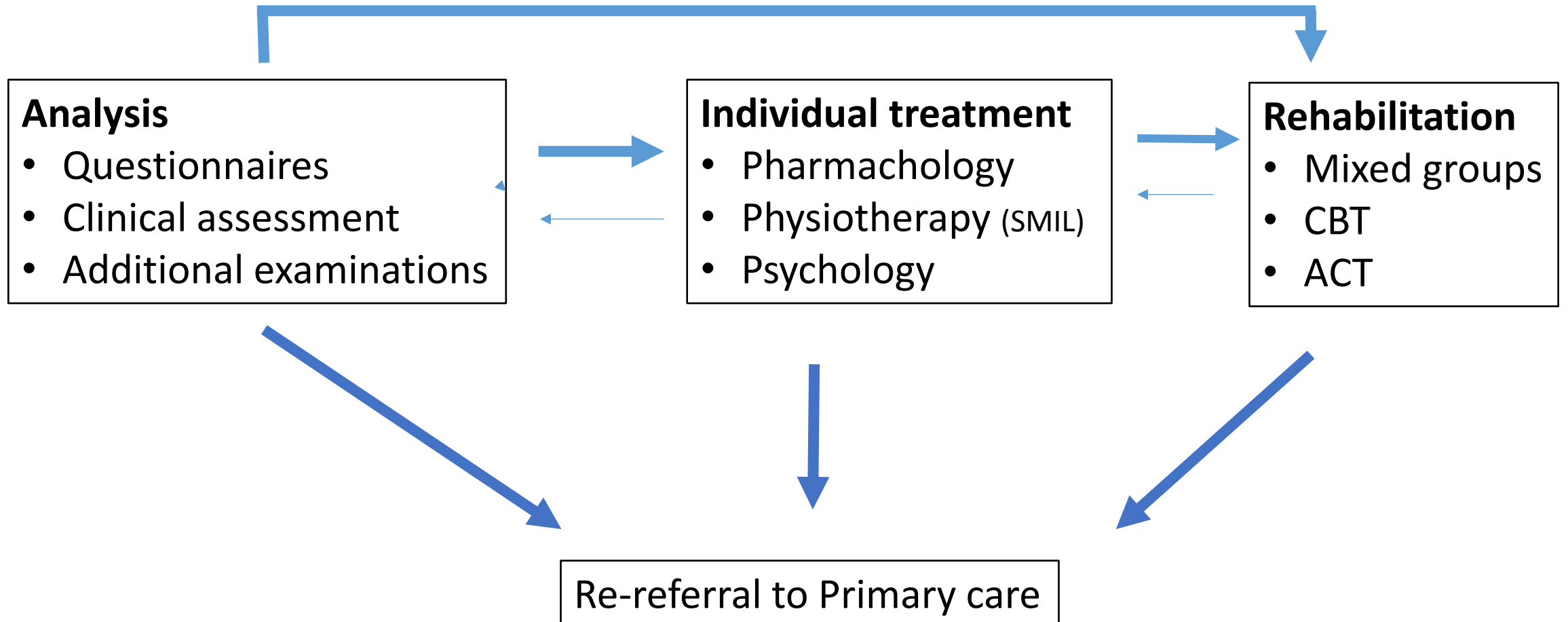
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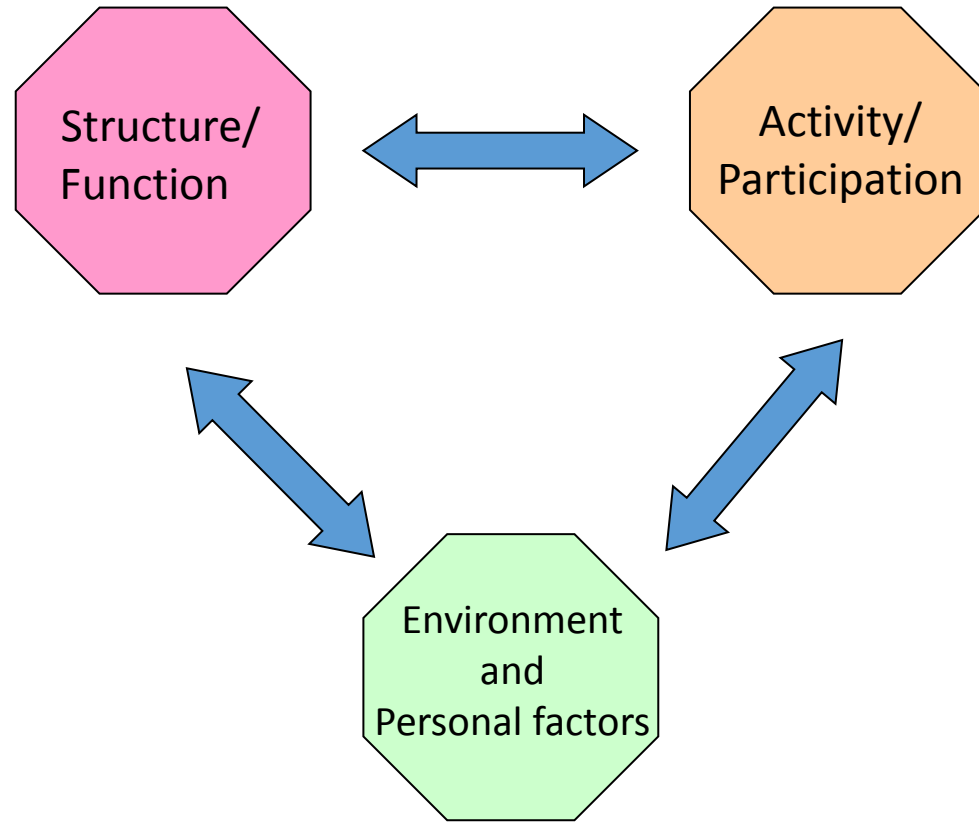


- What about
the other way round?

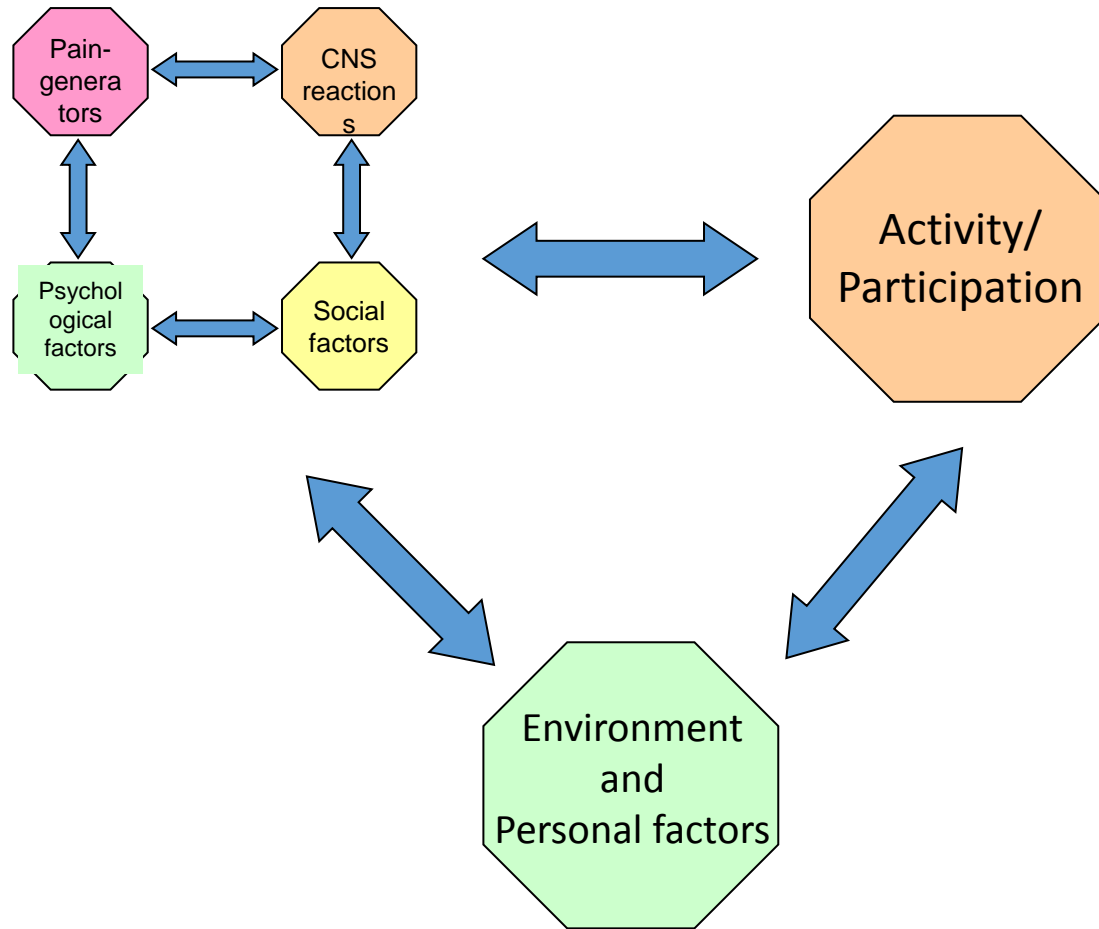
Patient flow in Pain Rehabilitation



ICF- domains

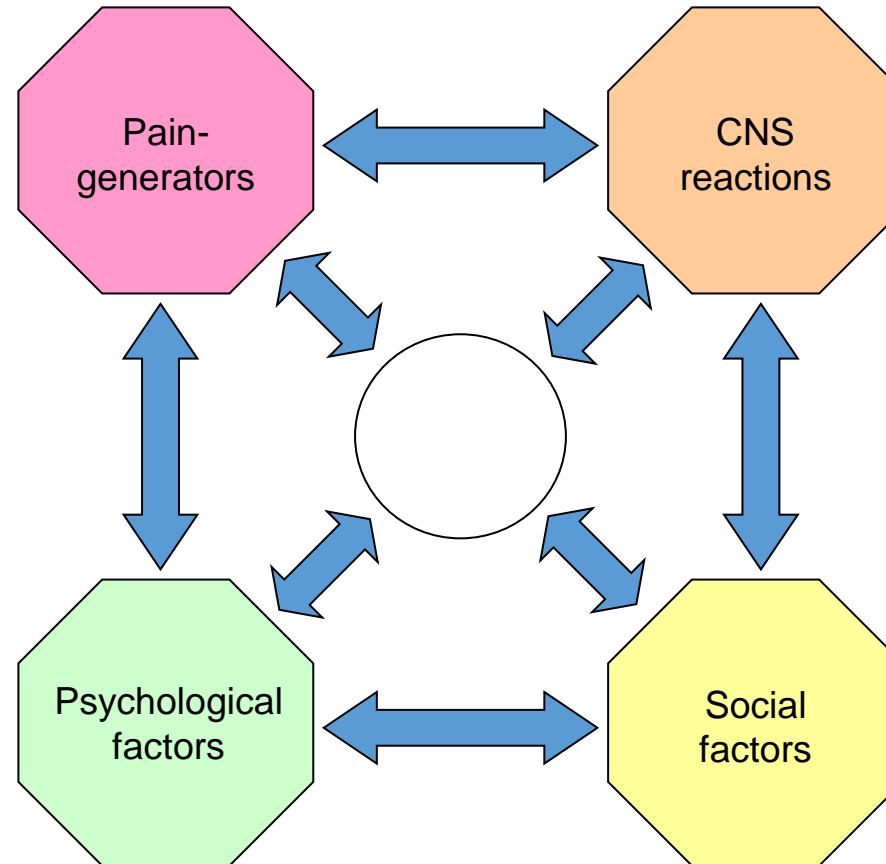


ICF- domains



Key-areas for assessment of complex persistent pain

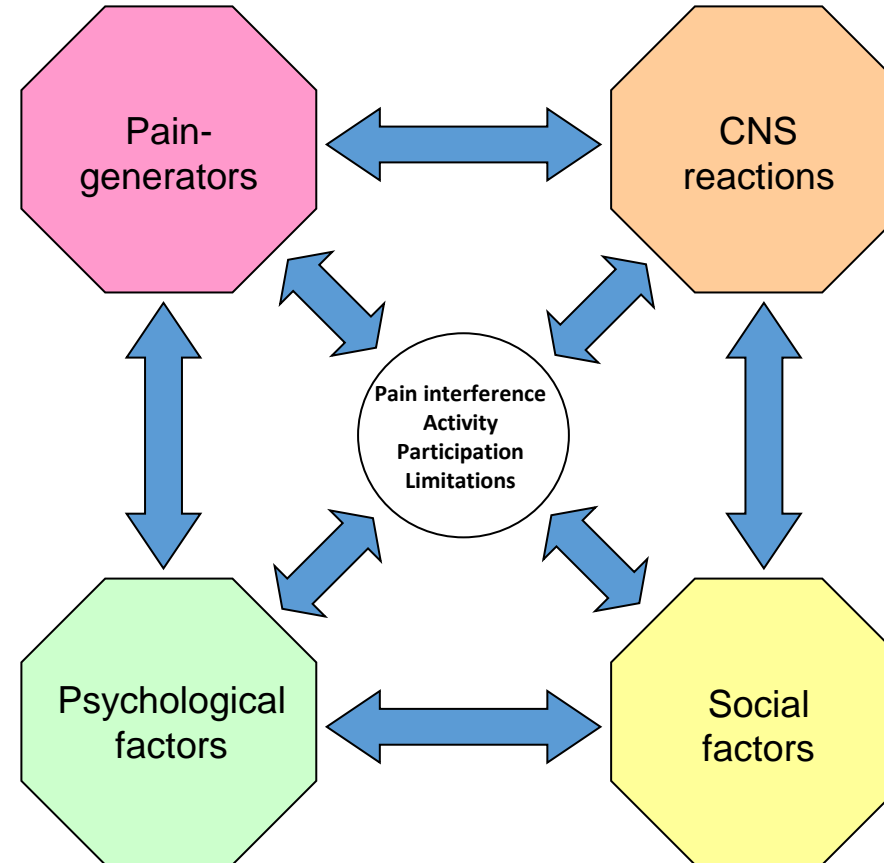
Department of Painrehabilitation , Lund, Sweden



Key-areas for assessment of complex persistent pain

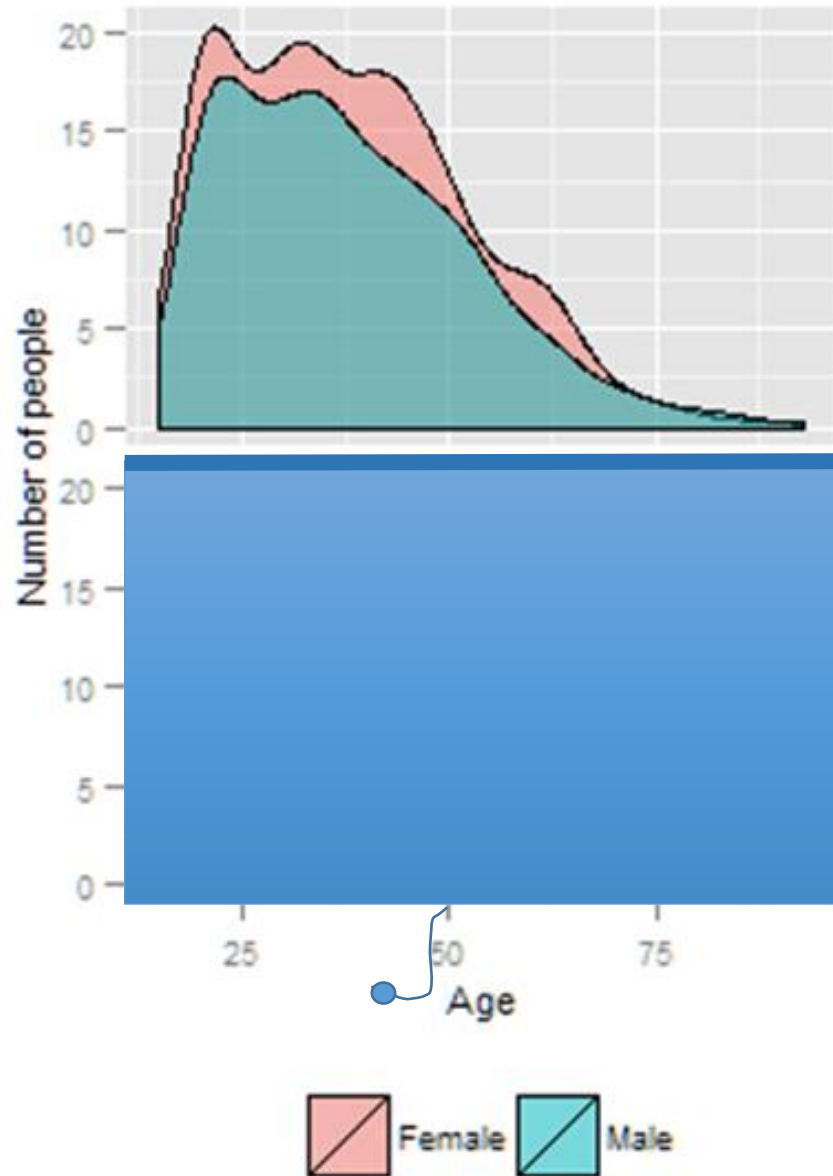
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- **Muscles**
 - Deep, stabilizing
 - Global
- **Joints**
 - Hypomobile
 - Hypermobile
 - Segments
- **Nerves**
 - Rizopathy
 - Myelopathy
 - Plexus pain
- **Coordination**
- **Sadness**
- **Depression**
- **Worry**
- **Anxiety**
- **Catastrophizing**
- **PTSD**
- **Coping**
- **Self image**
- **Aimlessness**
- **Stress sensitivity**

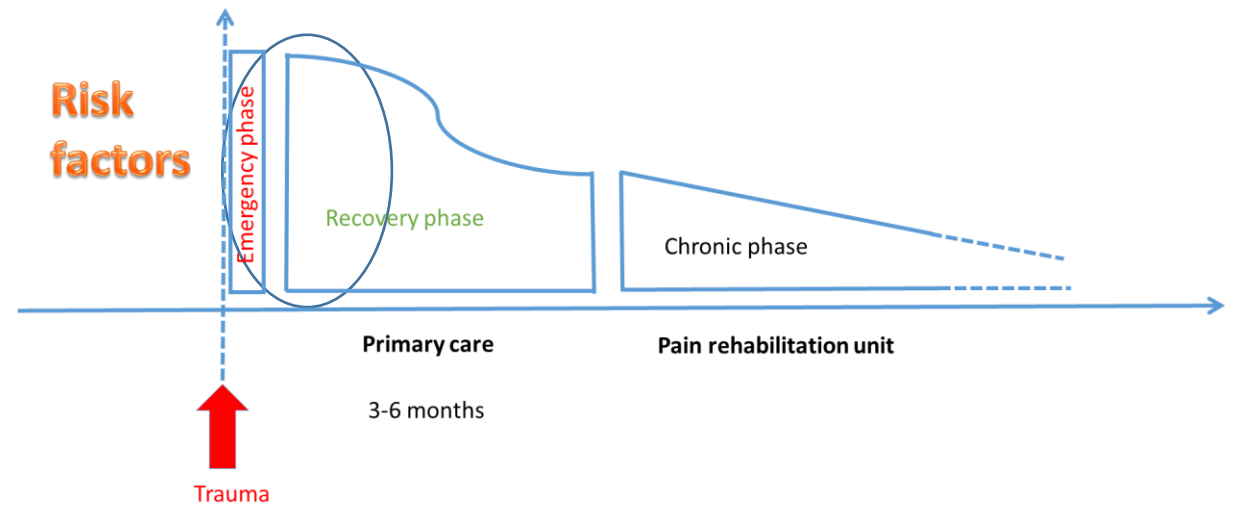


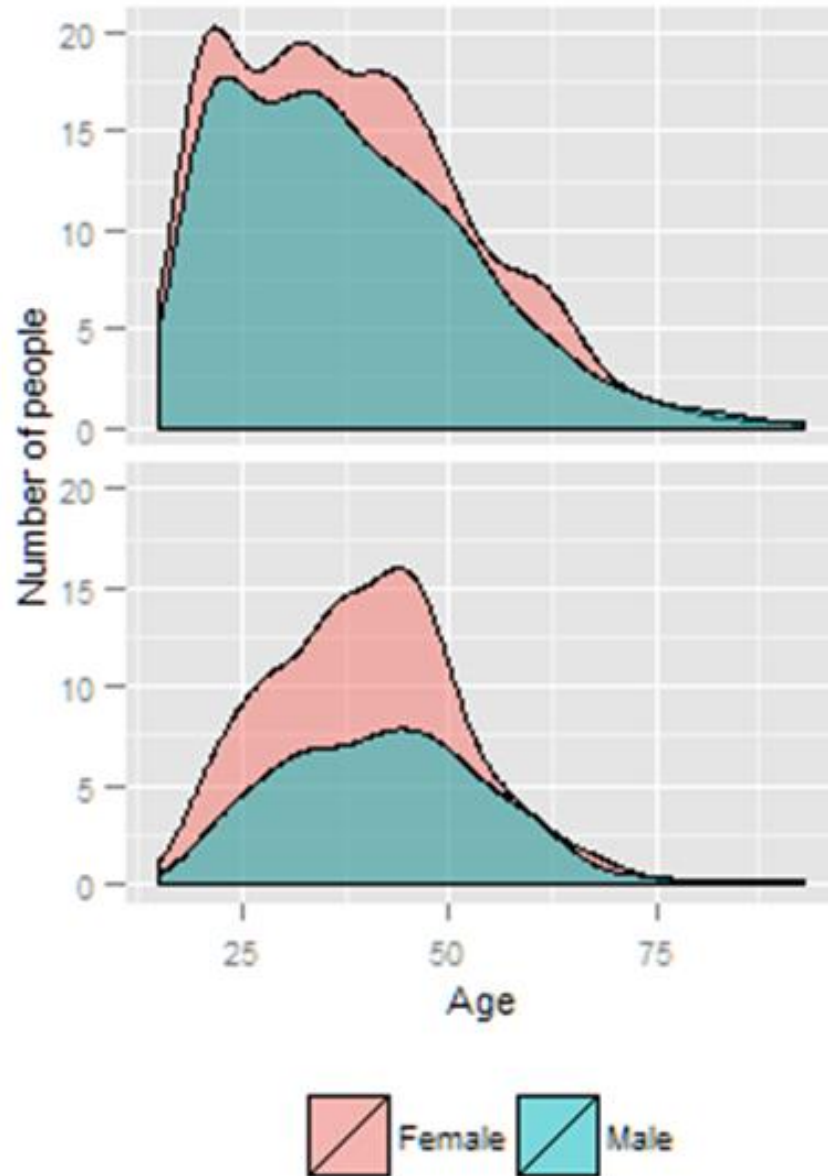
- **Sensitization**
- **Pain Distribution**
 - Local
 - Regional
 - Wide-spread
- **Sleep**
- **Concentration**
- **Memory**
- **Dizziness**
- **Trigger-points**
- **Vegetative symptoms**
- **Own demands**
- **Demands from others**
- **Relations**
- **Family situation**
- **Work situation**
- **Economy**
- **Insurances**

The patients....



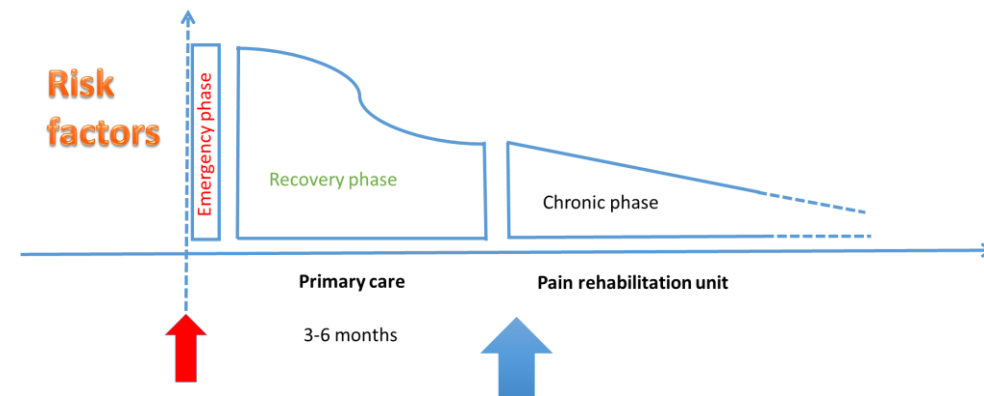
Sex and age distribution of 1443 individuals receiving diagnosis
ICD 10 – S13.4
During the year 2008.
Jöud et al BMJ Open, 2013



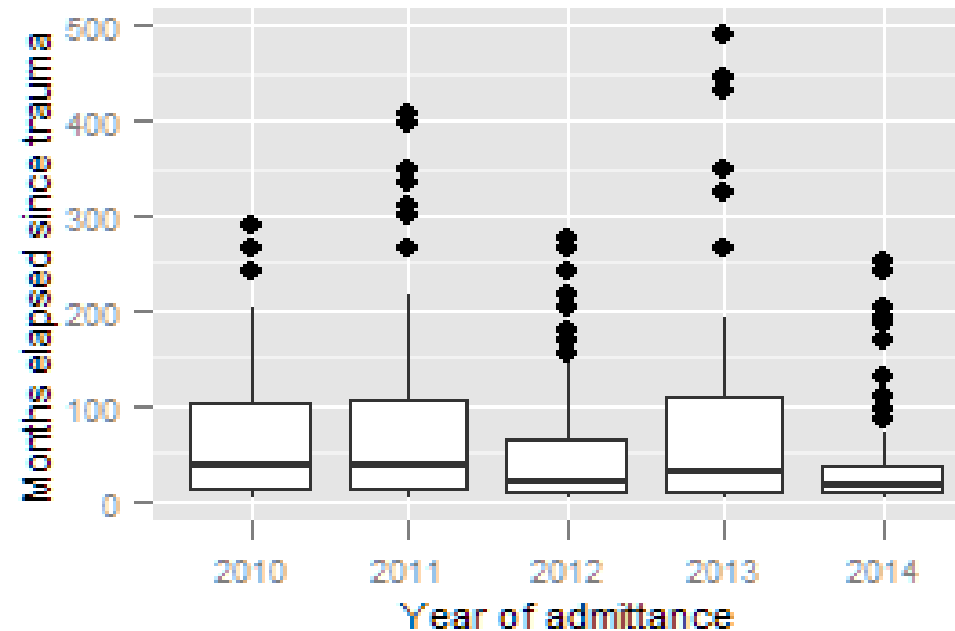
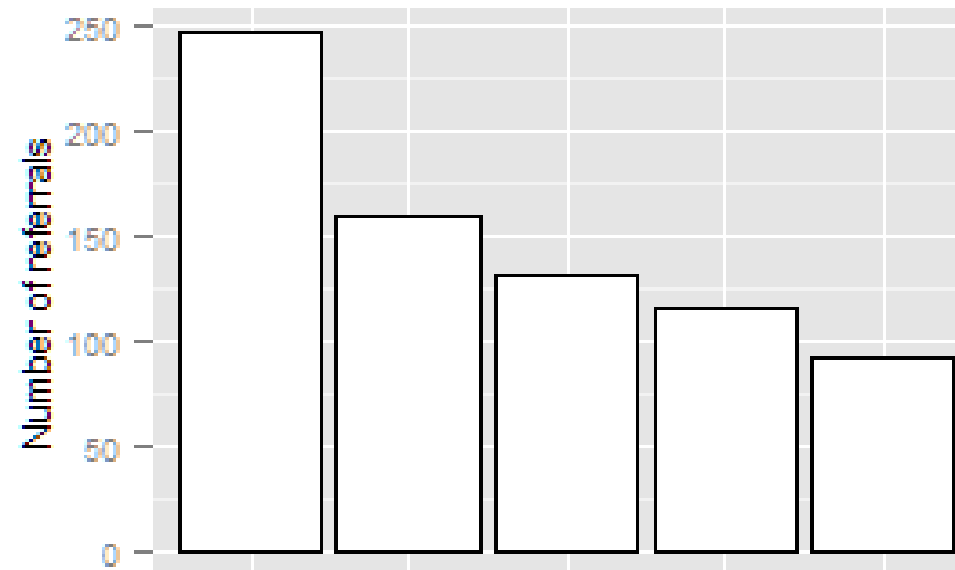


Sex and age distribution of 1443 individuals receiving diagnosis
ICD 10 – S13.4
During the year 2008.
Jöud et al BMJ Open, 2013

Sex and age distribution of 745 patients with persistent pain
after neck trauma. 2010-14
Westergren et al Disability and Rehabilitation, 2017



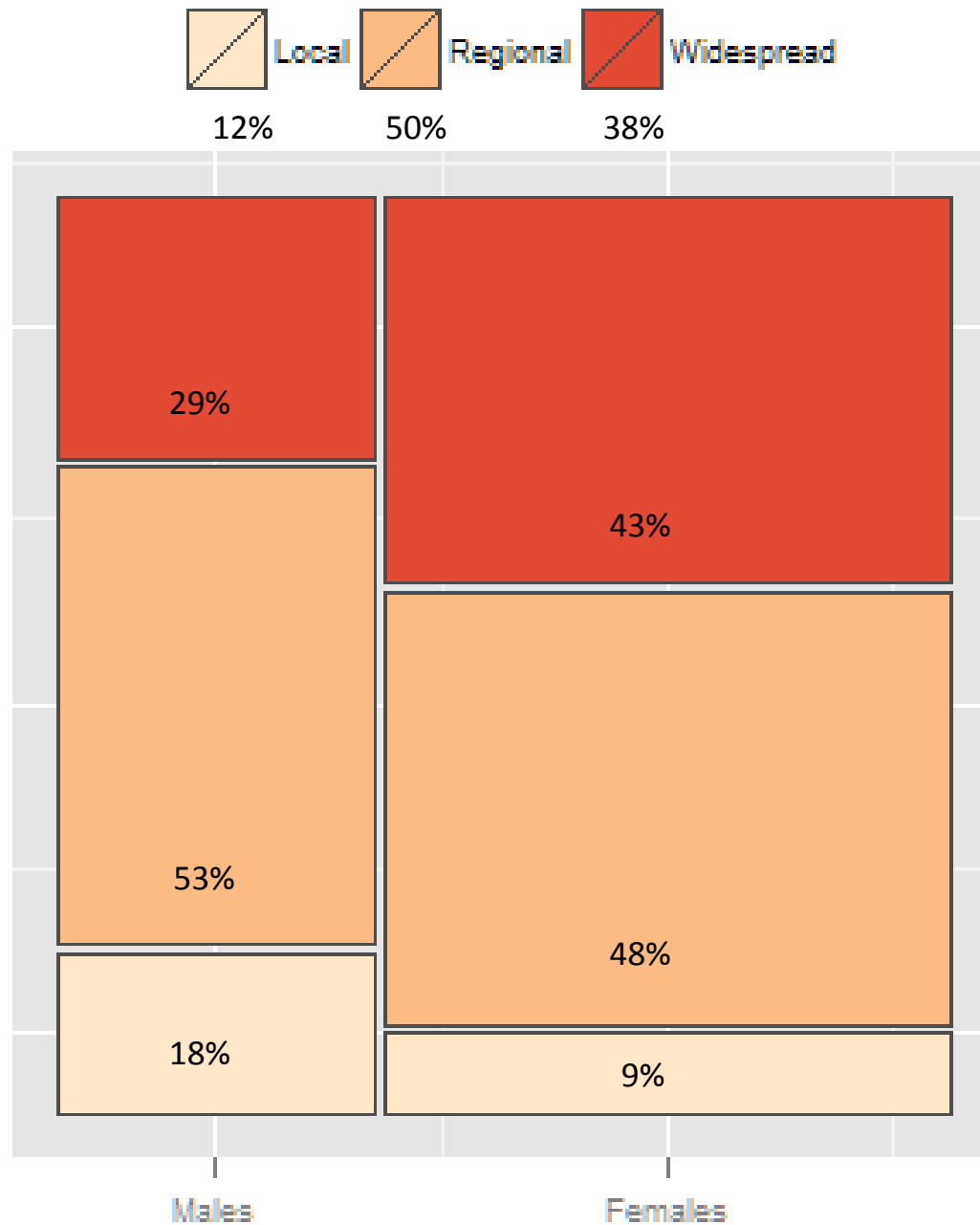
Number of patients referred and assessed



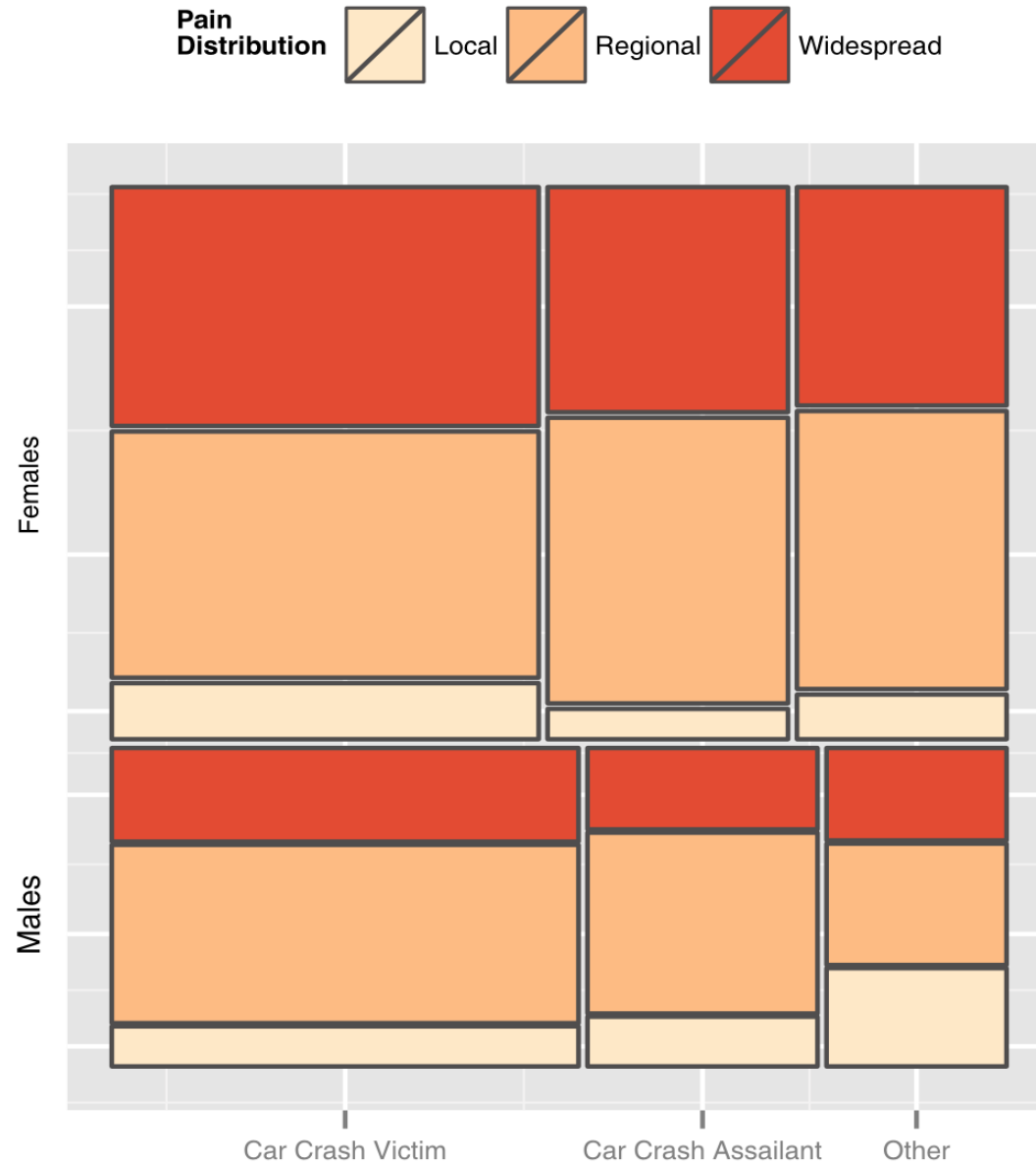
Types of trauma

Type of trauma	Males	Females	Total
Car crashes			
In striking vehicle	69	125	194
In struck vehicle	139	223	362
N/A	6	20	26
			582
Other neck trauma			
Bicycle accidents	5	14	19
Motor-cycle crashes	5	0	5
Pedestrians	1	5	6
Miscellaneous vehicle accidents	1	9	10
Horse accidents	0	4	4
Sports-related accidents	7	15	22
Falls	13	31	44
Direct head or neck traumas	8	12	20
Assaults or scuffles	8	9	17
Miscellaneous (e.g. exertions, heavy lifting)	7	9	16
			163
Total			745

Pain distribution



Pain distribution vs type of trauma



Conclusions

- No sex distribution difference in initial trauma diagnosis
- Twice as many females with persistent pain after neck trauma
- Regional or wide-spread pain in almost 90% of the patients

Why?

- Higher female vulnerability for neck injury for anatomical reasons
- Higher prevalence for psychological distress in the female population
- Higher risk for females to develop sensitization
- Gender differences in social rolls giving women less opportunity for recovery

Pain distribution.....and so what?

Clinical assessment

- Pain distribution

Versus

Patient reported data

MPI and SF-36

- Activity
- Pain severity
- Health factors
- Number of reported pain sites

Pain factors

vs

Psychological factors

- Pain distribution
(clinical assessment)
- Pain interference
(MPI)
- Pain severity
(MPI)

- Depression (HAD)
- Anxiety (HAD)
- Acceptance (CPAQ)

Outcomes in Pain rehabilitation...

- Neck trauma patients lower activity than Fibromyalgia (without trauma)
- No difference in activity related outcome after Multiprofessional Rehabilitation

Conclusions

- 250 → 100 patients a year per million inhabitants
- Clear cut rules about responsibility for the patient care
- Defined "care-chain"
- Multiprofessional team assessment
- Individual treatment options
- Pain rehabilitation

Inglehart– Welzel cultural map of the world

WVS6, 2015

