Staffing and competency in healthcare and patient safety

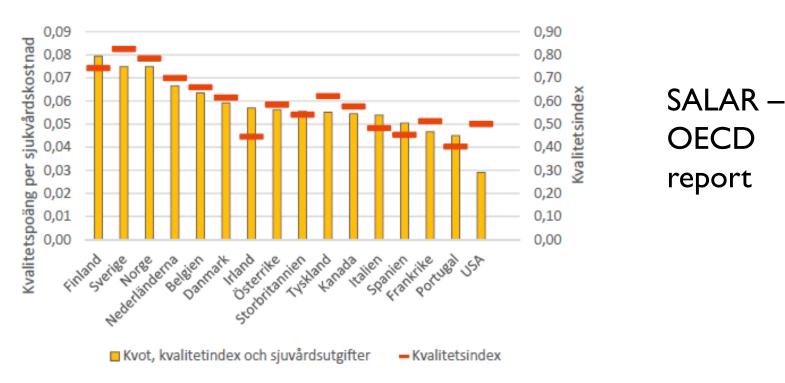
Axel Ros and Erik Hollnagel



Is there a crisis in the Swedish healthcare sector?



Is there a crisis in the Swedish healthcare sector?





Is there a crisis in the Swedish healthcare sector?

- Growing concern about problems with staffing in healthcare among:
 - healthcare staff and management
 - media
 - the population
 - the politicians



Is there a crisis in the Swedish healthcare sector?

• Growing concern about problems with staffing in healthcare among:

- healthcare staffand management
- media
- the population
- the politicians





The Swedish Ministry of Healthcare and Social services in 2017 commissioned the Swedish National Board of Health and Welfare to investigate the risks for patient harm in cases of shortages in staffing and in lack of competency in healthcare staff, with focus on emergency care and obstetric care.



The Swedish Ministry of Healthcare and Social services in 2017 commissioned the Swedish National Board of Health and Welfare to investigate the risks for patient harm in cases of shortages in staffing and in lack of competency in healthcare staff, with focus on emergency care and obstetric care.

What did they really want?

Simple solutions to difficult problems?



- The Swedish Ministry of Healthcare and Social services in 2017 commissioned the Swedish National Board of Health and Welfare to investigate the risks for patient harm in cases of shortages in staffing and in lack of competency in healthcare staff, with focus on emergency care and obstetric care.
- As a part of that government investigation we performed a FRAM analysis.



Method

We studied

Emergency care

One larger and one smaller

Obstetric care department respectively

Information was collected

Interviews with staff and managers, statistics, procedures and protocols, site visits

work as planned - work as done - or work as described as done

Modelling

The modelling was done in the FRAM Modelling Visualizer in a Swedish version, hence all models in the report are presented in Swedish.



The models

- The two complete models
 The emergency care model
 The obstetric care model
- The two simplified models
 Simplified emergency care model
 Simplified obstetric care model
- Generic models

 Generic emergency care model
 Generic obstetric care model
 A generic model for healthcare at hospitals



The complete models

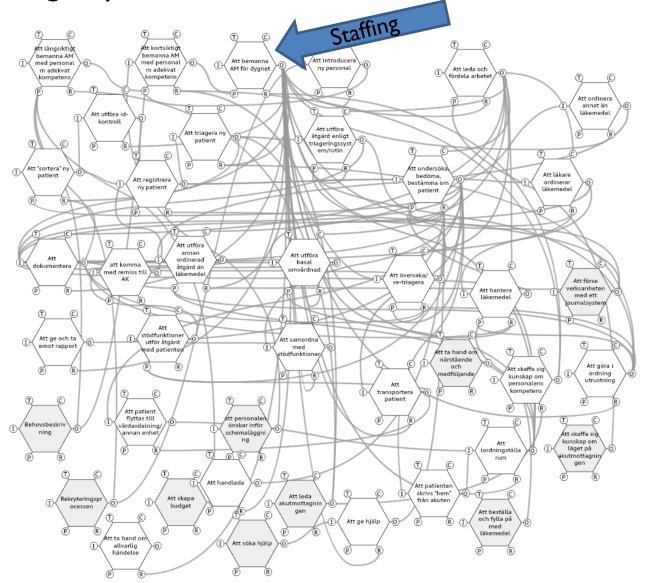
The emergency care model

The obstetric care model

41 functions
49 functions



The emergency care model





The simplified models

Simplified emergency care model Simplified obstetric care model

Some key functions removed, those describing

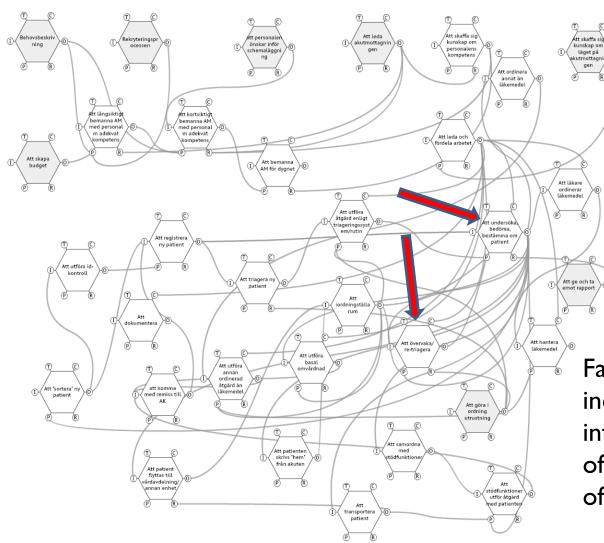
- the supply of workplaces with staff with adequate skills
- patient data documentation
- "producing" routines and procedures

In the complete models it is clear that these functions have dependencies with virtually all functions that describe the tasks of healthcare professionals at the workplace.

This means that the other dependencies between functions may not be clear, they "drown" among these functions.



Simplified emergency care model



Central and important functions

- monitoring patients
- evaluating patients
- taking decisions

Depend to a large extent on available staff and the right competencies and skills.

Failure in such functions increases the risk of inferiority in the performance of the functions, i.e. the risks of patient harm increases.



The generic models

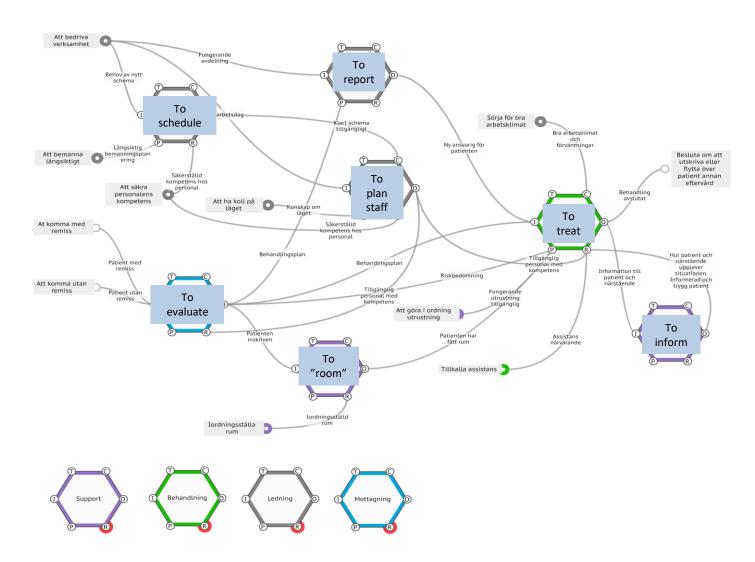
Generic emergency care model
Generic obstetric care model
A generic model for healthcare at hospitals

Although the simplified models still seem complicated, the details are necessary to adequately analyze the consequences of variability in skills and manpower and to assess the consequences of possible measures.

On the other hand, there is also a need for even more transparent models, for example in order to better compare functions within different departments and hospitals.



A generic model for healthcare at hospitals





Based on:
The models
A few instantiations
Reflection and discussions

- Operations in emergency care and obstetric departments are by nature varied and the conditions for the work performed there are variable.
- Functions that relate to the need for staff with skills have many dependencies with other functions.
- The dependencies between the functions are high, the potential for resonance is high, which in practice means that the possibility of undesirable consequences (risk of patient harm) is large and not always transparent or predictable.



- Central clinical tasks of an emergency department and an obstetric department are those concerning evaluating, taking decisions about and treating the patients.
- Staffing with healthcare staff with adequate competence for their tasks have many dependencies, such as with the functions that describe these central important clinical tasks.
- This may appear banal, but the analysis shows this.



Measures that may be helpful to reduce the negative consequences of lack of staffing and lack of competence are:

- to provide space for skills improvement
- division of labor so that proper skills are utilized correctly
- scheduling that utilizes available skills in the best way, for example, well-composed multiprofessional teams where the team's overall skills are valued



As this analysis with FRAM shows, the risks do not arise as simple consequences for specific reasons, but because of complex relationships and dependencies between the many activities that together constitute the daily life of a department.

Therefore, there are no simple solutions to these difficult problems.

(if that is what the politicians asked for)

