

Simplifying the Scheduling Process in the Swedish Healthcare

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The Swedish healthcare sector struggles with planning and resource utilization. This threatens the ability to provide timely and efficient healthcare to the citizens, not reaching the statutory goals of the Health care guarantee (Swe. Vårdgaranti).

Background

The *Health Care guarantee* in Sweden has four goals:

- **0** - Contact with healthcare within the same day
- **3** - Medical assessment of licensed healthcare staff in primary care within three days
- **90** - Visit a specialist within 90 days
- **90** - Treatment started within 90 days

Yet, 27% of the Swedish regions fails to fulfill the third goal, and as much as 44% of the regions are not able to start a treatment within 90 days. These displeasing numbers are a result of shortage within the healthcare sector and compromises patient safety as well as the quality of care. Despite this, planning and scheduling within healthcare is still based on available personnel and their personal preferences, rather than the need of the patients. This means that the patient and unit needs are not leading when deciding on how the unit is to be organized, planned and staffed. As a consequence machines, instruments, and premises, are not being used optimally. On top of this, many regions also lack adequate IT-systems, and employees are facing poor design and functionality in their everyday work, increasing the workload further. A change is needed, where the needs of the patients, and the organization, are more central in the process. Planning and scheduling needs to be more efficient and based on these needs.

The User Study

To gain a better understanding of the problems described above, a user study was conducted, interviewing 23 people working at five different hospitals around Sweden. What was found was that all of the involved hospitals had trouble with their planning and scheduling of staff. The systems used were described as outdated, hard to use, and complicated. Leading to a lot of work needed to be done manually, or information kept in the head.

Some schedulers receive 30 paper notes with personal preferences from their coworkers that need to be taken into account in the next upcoming schedule. This shows the problems within scheduling process today and the need for a better digital solution.

The Design

A prototype for a digital tool has been created to better meet the needs of the healthcare personnel. It has a minimalist design in order to increase understanding and simplify working in the system, giving users a better overview and a tool that is easy to learn, with minimal need for training. It was developed over three rounds with designing and testing with users who had insights in healthcare and design. New functions have been added, such as helping the staff keep their competences updated, a focus on healthy schedules, and generated schedule suggestions based on the unit needs and staff preferences. Furthermore, the staff get more influence over their schedule, without taking focus away from the needs of the patients, and the organizations.

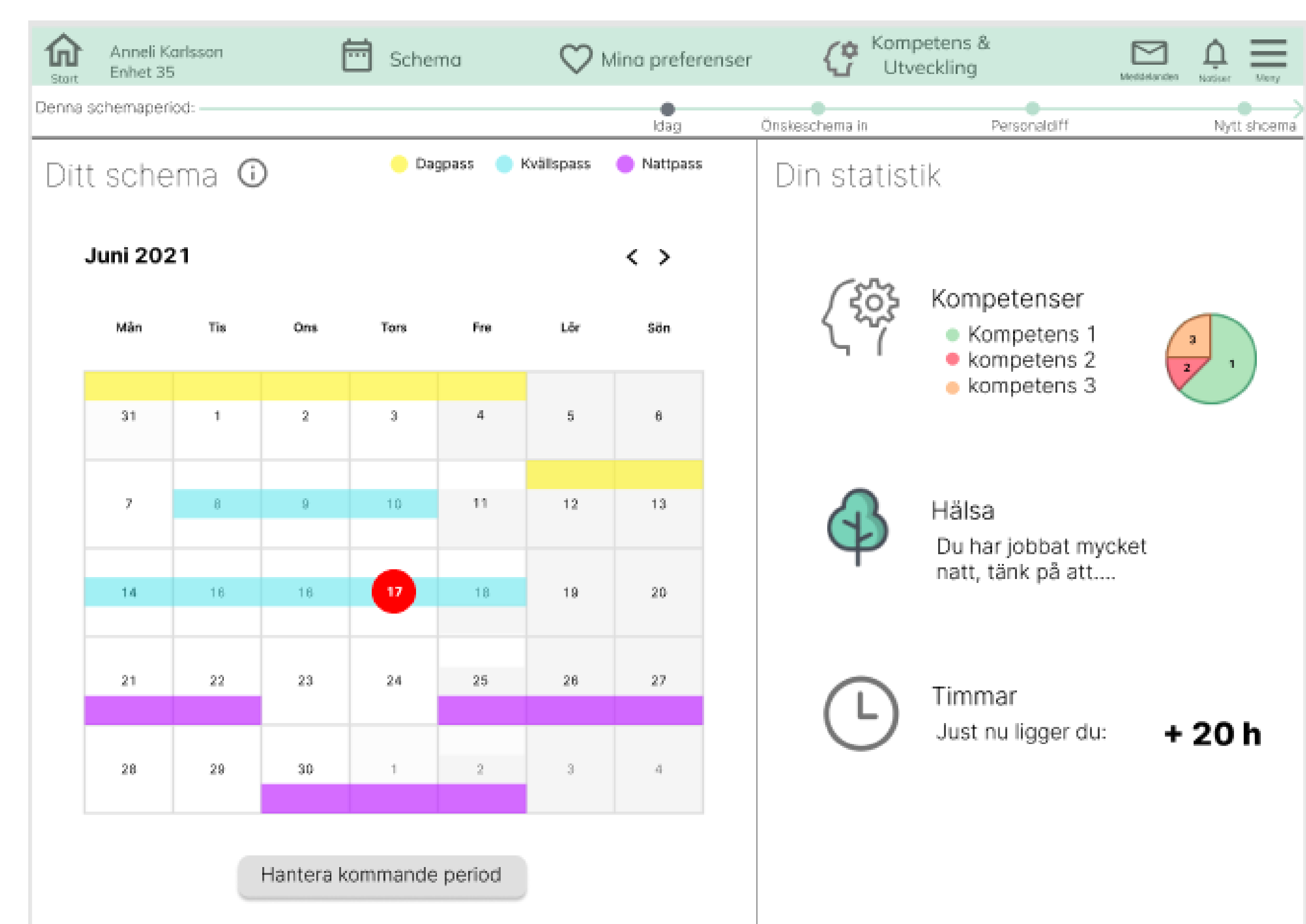


Figure 1: The home page of the staff section.

Conclusion

With further development of this new design, we hope to simplify and streamline the scheduling process, creating a more efficient work environment. In turn, this together with other efforts could help to achieve the *Health Care guarantee* goals.