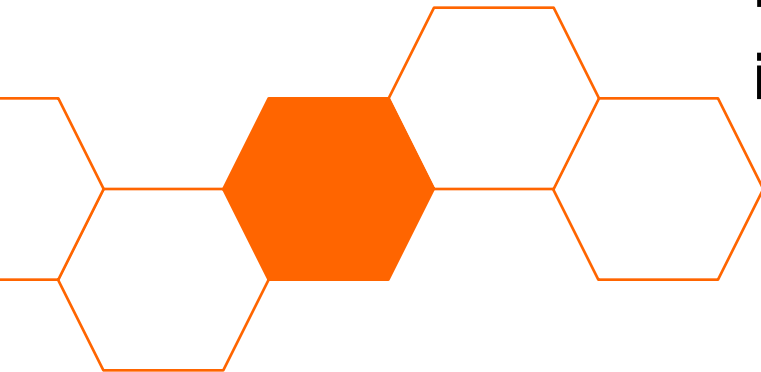


Digital health, Sweden sept 2016

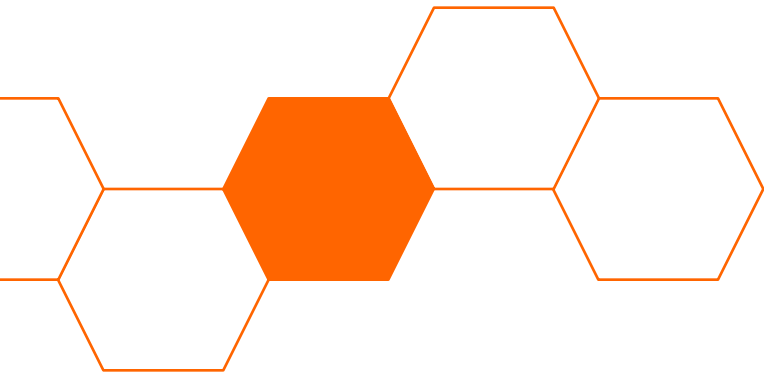
Progress and setbacks

**Sophia Eberhard,
MD, senior consultant in psychiatry
Head of the Child – and Adolescent
inpatient clinic in Malmö, Sweden**



In this talk:

- 1) What's happening regarding digital health in Sweden right now?
- 2) Brief presentation of the 'Blue App', a smart phone application just released to use in child and adolescent psychiatry in Malmö, Sweden



Electronic medical record systems in Sweden

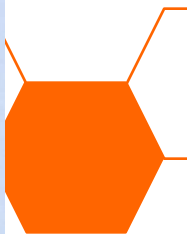
Good news: all use them

Bad news: no national strategy

Health care: the worlds largest, most ineffective information enterprise?

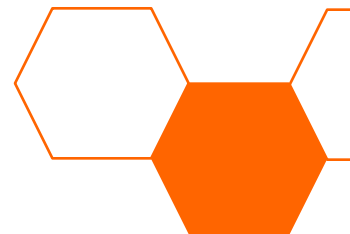
(internationally most medical records still stored on paper)

ref: Hillestad 2005)



Setbacks

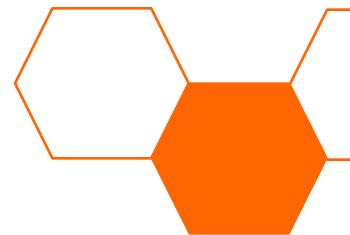
- Health sector: Slow to take on board modern information tools
 - Cost benefit issues in health care
-but also
- Legislation and harsher regulations has come into force
 - Regulatory is 10 years behind, strict safety measurements regarding logon, detectability etc.
 - The lack of precedents around IT in health care puts progressive health care providers in a catch 22, trapped by contradictory rules.



IT in healthcare

State of the art, Sweden 2016

- Electronic medical records for all parts of the health care system (primary care as well as specialist care).
- The electronic medical record is accessible for patients at home, from their own device
- Online delivered treatments (psychiatry): CBT programs regarding anxiety, sleep disturbances, depression
- 1177 – website with extensive online guidance regarding all medical conditions
- Electronic medical record-based reminders to improve lifestyle
- Decision making support for practitioners



What is being developed right now in Sweden, some examples:

For patients:

- Book and reschedule your health care appointment online
- Skype appointments with your health care professional

For health care professionals

- Single sign on,
- Improved medical records (one system for all)



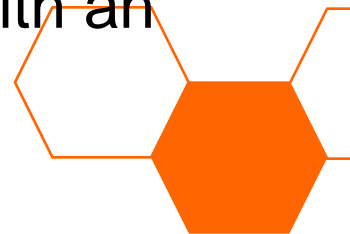
Blue App (Blåappen)



Background:

The child – and adolescent inpatient unit in Malmö, Sweden

- Skåne county, the unit's catchment area, consists of 85 000 adolescents.
- 300 of these are annually admitted to the regional adolescent psychiatric emergency unit in Malmö, the largest unit in Sweden with 23 beds.
- Most common reasons for admission are suicidality, depression, acute stress disorder, eating disorder and psychosis.
- The majority of patients are 14 – 17 years old, with an even gender distribution.
- All of them have a smartphone!



Challenges at the child - and adolescent psychiatric emergency unit

In psychiatry the diagnostic assessment consists of

- a) diagnostic interview
- b) structured diagnostic screening with validated diagnostic screening instruments, up till now administered by pen and paper during both inpatient stay and after discharge

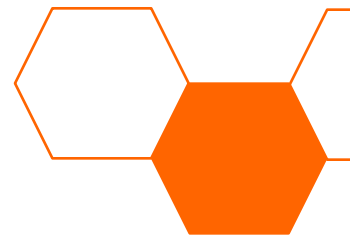
Pen and paper versions take up a lot of resources making the use less attractive. Also after discharge the response rate for pen and paper follow-up is often low.

Altogether our tool box turned out to be outdated, especially in our population of adolescents and new methods for inpatient data collection and outpatient follow-up were needed.



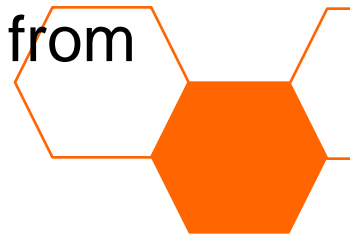
Blue App

- Smartphone applications have shown promising results regarding data collection as well as intervention for behavior change.
- Looking around in Sweden we did not find any solution on the market that met our needs.
- We decided to build a smartphone application that we named “Blå Appen” (‘The blue app’, referring to colour of hope and blue as in moody), in collaboration with the IT-company Stretch, experienced in building IT-solutions for Swedish health care, and Lund University.



Blue App, aims

- Aim 1: to deliver structured diagnostic screening instruments in a modern attractive solution, leading to more screened patients, more precise diagnosis, correct treatment and possible shorter admission times.
- Aim 2: To create a follow-up system of symptom mapping and feedback via smartphone after discharge via the application, available for all of our patients. From earlier research at the unit we knew that keeping a connection with the patient after discharge via text messages as add on to treatment as usual in the outpatient clinic is a way to improve treatment outcome, boost mood, and reduce the drop- out frequency from open care treatment.



AUDIT-C

Här är ett antal frågor om Dina alkoholvanor

Vi är tacksamma om Du besvarar dem så noggrant och ärligt som möjligt genom att markera det alternativ som gäller för Dig.



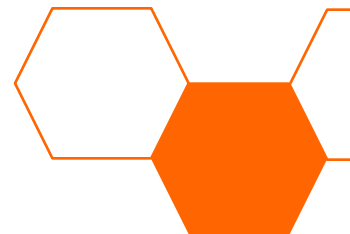
Påstående	Aldrig	1 gång i månaden eller mer sällan	2-4 gånger i månaden	2-3 gånger i veckan	4 gånger/vecka eller mer
1. Hur ofta dricker Du alkohol?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Påstående	1-2	3-4	5-6	7-9	10 eller fler
2. Hur många "glas" (se exempel) dricker Du en typisk dag då Du dricker alkohol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Påstående	Aldrig	Mer sällan än en gång i månaden	Varje månad	Varje vecka	Dagligen eller nästan varje dag
3. Hur ofta dricker Du sex sådana "glas" eller mer vid samma tillfälle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Alla frågor är inte besvarade så formuläret kan inte skickas in utan bara sparas.

Spara





7. Känslomässigt engagemang

Här ber vi dig ta ställning till hur du upplever ditt intresse för omvärlden och för andra människor, och för sådana aktiviteter som brukar bereda dig nöje och glädje.

0. Jag är intresserad av omvärlden och engagerar mig i den, och det bereder mig både nöje och glädje

1. Mellan 0 och 2.

2. Jag känner mindre starkt för sådant som brukar engagera mig. Jag har svårare än vanligt att bli glad eller svårare att bli arg när det är befogat.

3. Mellan 2 och 4.

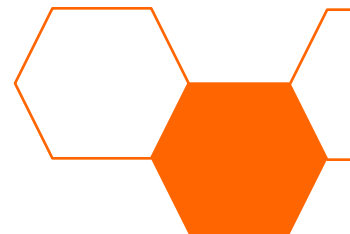
4. Jag kan inte känna något intresse för omvärlden, inte ens för vänner och bekanta.

5. Mellan 4 och 6.

6. Jag har slutat uppleva några känslor. Jag känner mig smärtsamt likgiltig även för mina närmaste.

Föregående

Nästa





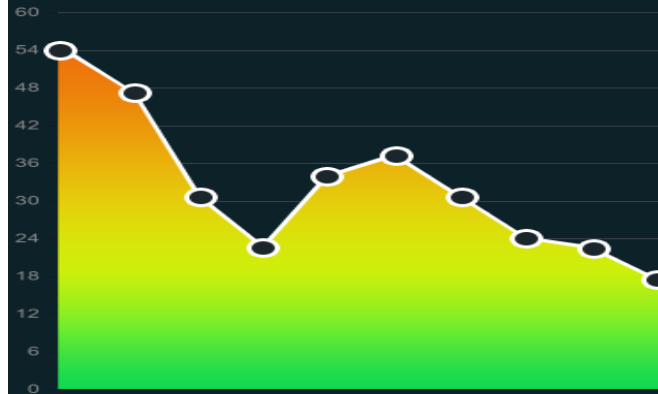
BLÄAPPEN

Dagens tips

Alla sätt att röra på sig är bra, testa olika alternativ för att se vad som känns bra för dig.

Mitt mående

Ju lägre poäng, desto mindre depressionssymtom



Värt att veta

Ditt resultat är anonymt och en del i en studie om hur ungdomar mår. Det betyder att vi inte kan se hur just ditt mående förändras och komma i kontakt med dig om det skulle behövas. Känner du att du behöver hjälp, kontakta en vuxen du litar på, din behandlare på BUP eller använd kontaktuppgifterna nedan.

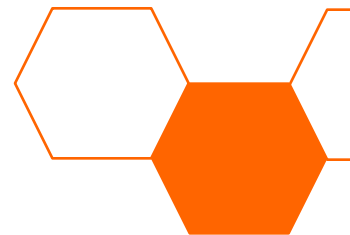
Vi kan hjälpa dig!

Du kan alltid vända dig till BUP för att få stöd och hjälp. Använd dig av knapparna nedan för att se våra telefonnummer eller hitta var du kan besöka oss.



Conclusion

- Using new technology not only makes it possible to collect data in a new more effective manner, but also open up for new ways of assessment and treatment. The development of apps like Blåappen is for our unit a first step in this process.
- For more innovative use of technology in psychiatric health care a close collaboration between researchers and experts in new technology has to be in place.



Thanks to

- Blåappen group: Senior Consultant Björn Johansson, Psychologist Kristian Hansson
- Project manager, Fujitsu: Henrik Boll
- Project manager and CEO Stretch: Daniel Terborn



Stretch



LUNDS UNIVERSITET

