Andy Hyde

Making *IT* work for you:

Hospital Discovery through a Business Discovery solution.

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Content

- Information for decision making - right information, right time, right format
- How many computer systems do you have that you don't use in decision making?
- Using the data
- Business Intelligence and Business Discovery
- Some results
- Conclusions

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Right information, right time, right format.

- What information do managers need to make informed decisions?

  ✧ Correct information

  ✧ When they need it

  ✧ In a format that is usable

- Different needs from the Board of Directors to the ward manager

- What about clinical staff – should doctors and nurses have access to information too?

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How many IT systems do you have?

Patient Administrative System (PAS)

Electronic Patient Record (EPR) >100mill records

Radiology (RIS / PACS)

Lab system

Adverse Event reporting

Document Management System   Electronic Correspondence Archives

Specialist Clinical Systems

Food Ordering

Buildings maintenance   Medical Equipment Technology (MET)
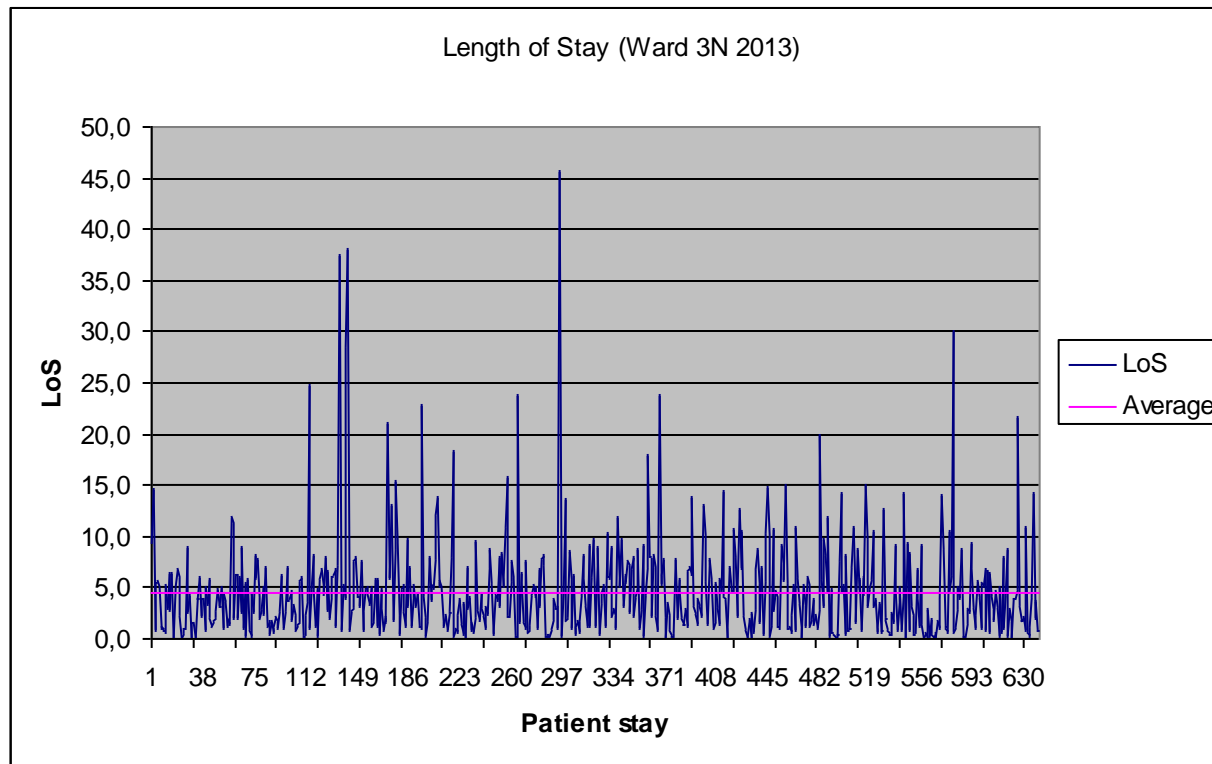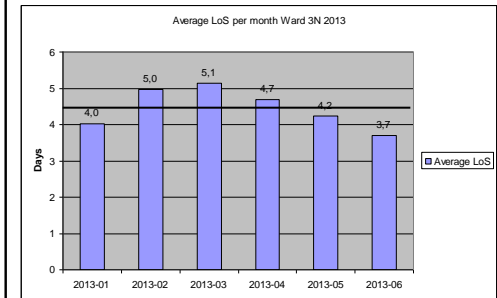
Personnel management
Financial management

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Using the data?

- Reporting upward and outward
  - ✧ Aggregated and summarised information
  - ✧ Financial information

- Pitfalls
  - ✧ Quality of the data
  - ✧ Definition of the data
  - ✧ Timeliness

- Averages and medians vs. individual cases and variation
  - ✧ Statistical Process Control (SPC)

Averages vs. variation
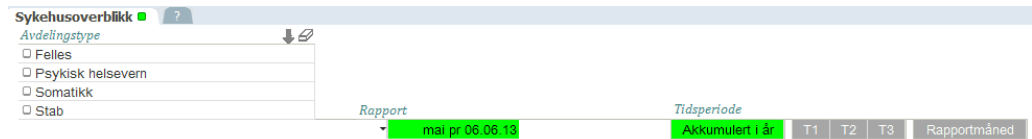

Average LoS = 4.5 days

Averages vs. variation

Length of Stay (Ward 3N 2013)

20% of patients account for 50% of the bed days.

Average LoS = 4.5 days

Average LoS per month Ward 3N 2013

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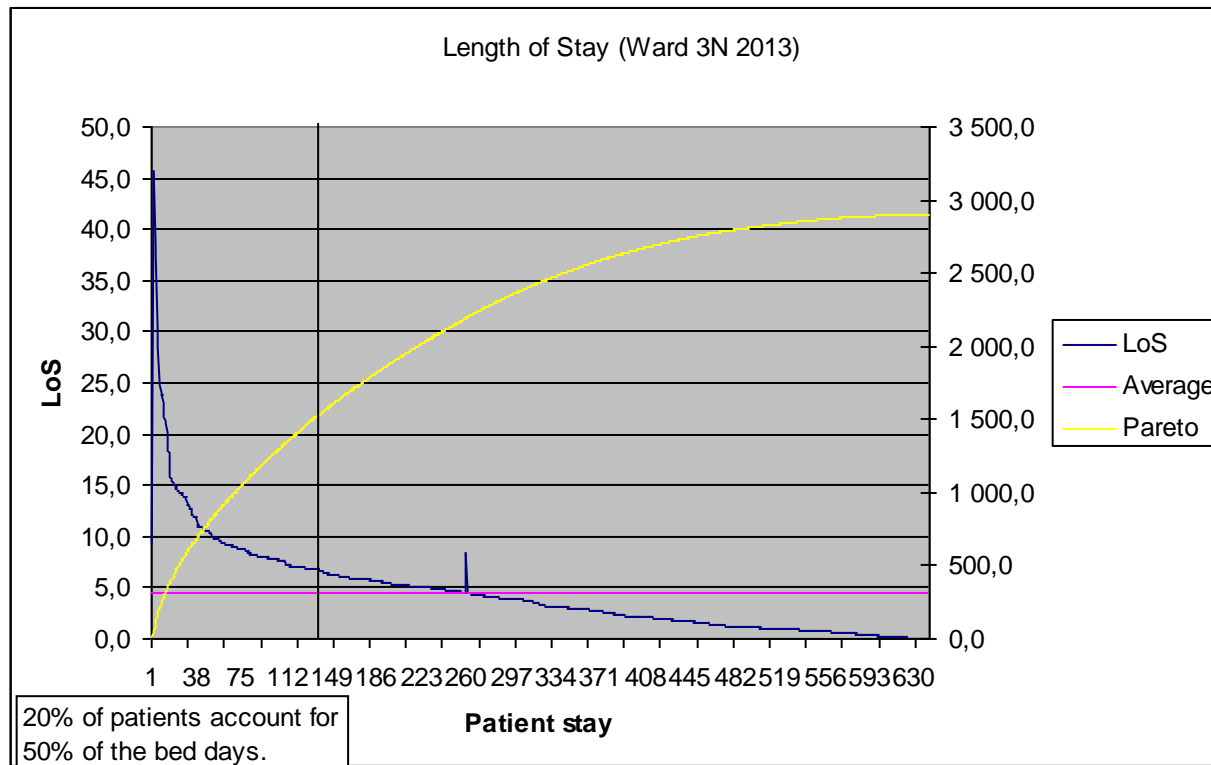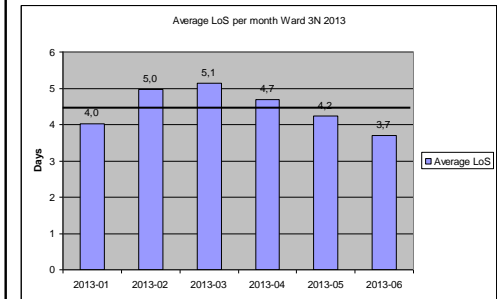
Business Intelligence and Business Discovery

- Business Intelligence
  - ✧ Dashboards
  - ✧ Looking backwards
  - ✧ Averages

- Business Discovery
  - ✧ Interactive dashboards
  - ✧ Looking forward
  - ✧ Cases

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Looking ahead – on time delivery of care

Overdue now

Overdue next 3 weeks

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On time – per patient

Unfortunately NO direct link to the PAS/EPR ☹

Business Discovery

- What do you need to know that you didn't know you needed to know?

Collaboration

Collaboration between users in realtime online

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A method for using Business Discovery

- Rapid cycle PDCA (Lean / Action Research)
    - ✧ Hypothesis – what is the problem?
    - ✧ Implement a change
    - ✧ Did it work?
    - ✧ Yes – carry on doing it
    - ✧ No – try something else

Act | Plan

Respect
Quality
Service
Justice

Check | Do

- Collaboration with the people doing the work, i.e. front line workers meeting the patients. Only they understand the problem and the value of finding a solution.

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Results

Waiting time from refferal to treatment

Broken treatment guarantee %

In and out patient activity 2006-2012
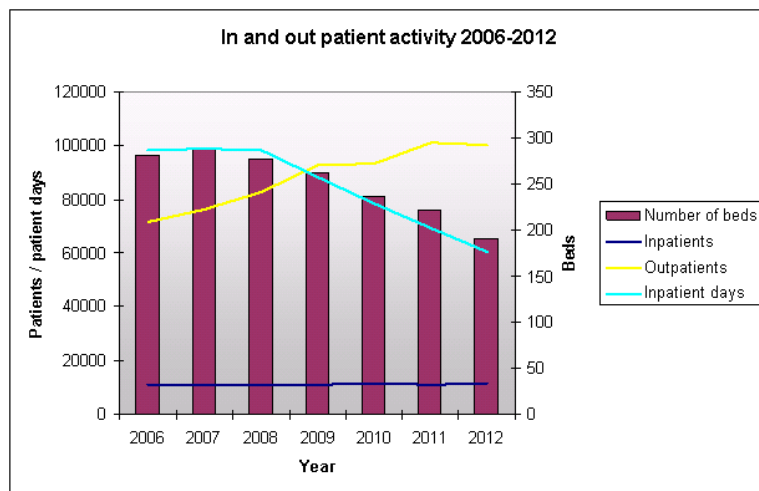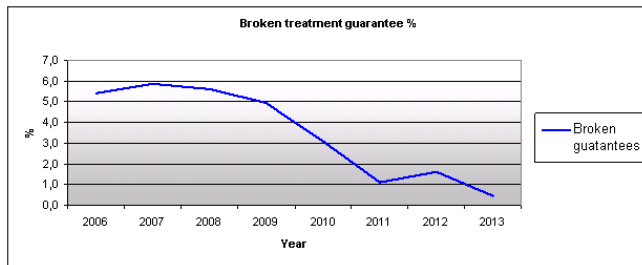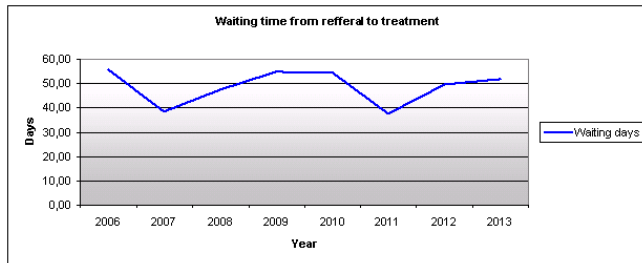
Consistently low waiting times for treatment and low rate of guarantee breaks through focus on variation in a process that should be stable.

Reduced number of beds
Constant number of inpatients but..
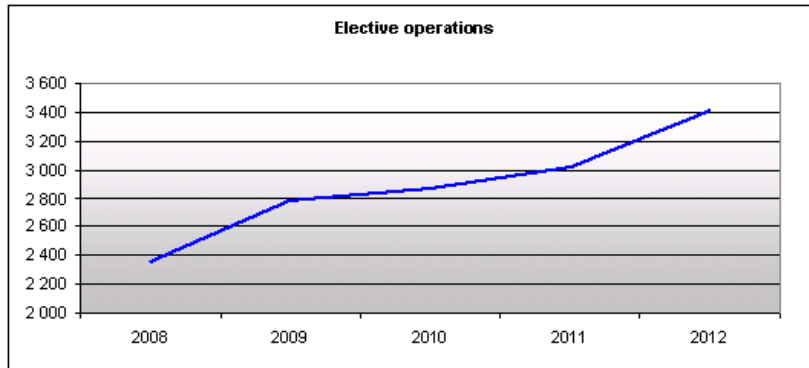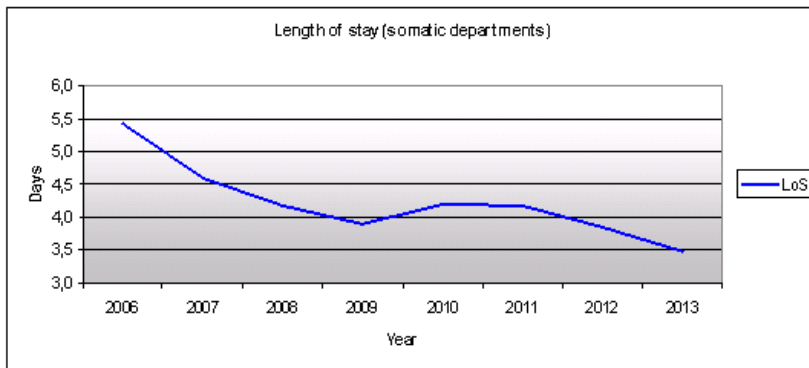Reduced numbers of inpatient days
Increased number of outpatients

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Results

40% increase in OR throughtput

Reduction in Length of Stay
in the somatic departments

Conclusions

- We use data not just for reporting but for analysis and looking forward
- We focus on variation and not just averages
- We (can) use ALL the data we have in our computer systems
- We have discovered things we didn't know, not always pleasant things either......
- We have improved our processes to the benefit of the patients

- Next is to apply the same methods to patient treatment and improve outcomes

Questions?

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Thanks

Andy Hyde

andy.hyde@diakonsyk.no