

self-management and prevention

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challenges

- Government white-paper:
 - today every 6th child in secondary school take a health or care related education
 - in 2035 every 3rd child must get a health or care related education if we shall deliver the same services to the same parts of the population as today

this is not sustainable!

challenges

- a Danish colleague calculated the amount of time the worst COPD patients spent visiting health services: 0,02%
- i.e. more than 99,98% of the time seriously ill patients spend alone, making all critical decisions that will affect their health

challenges

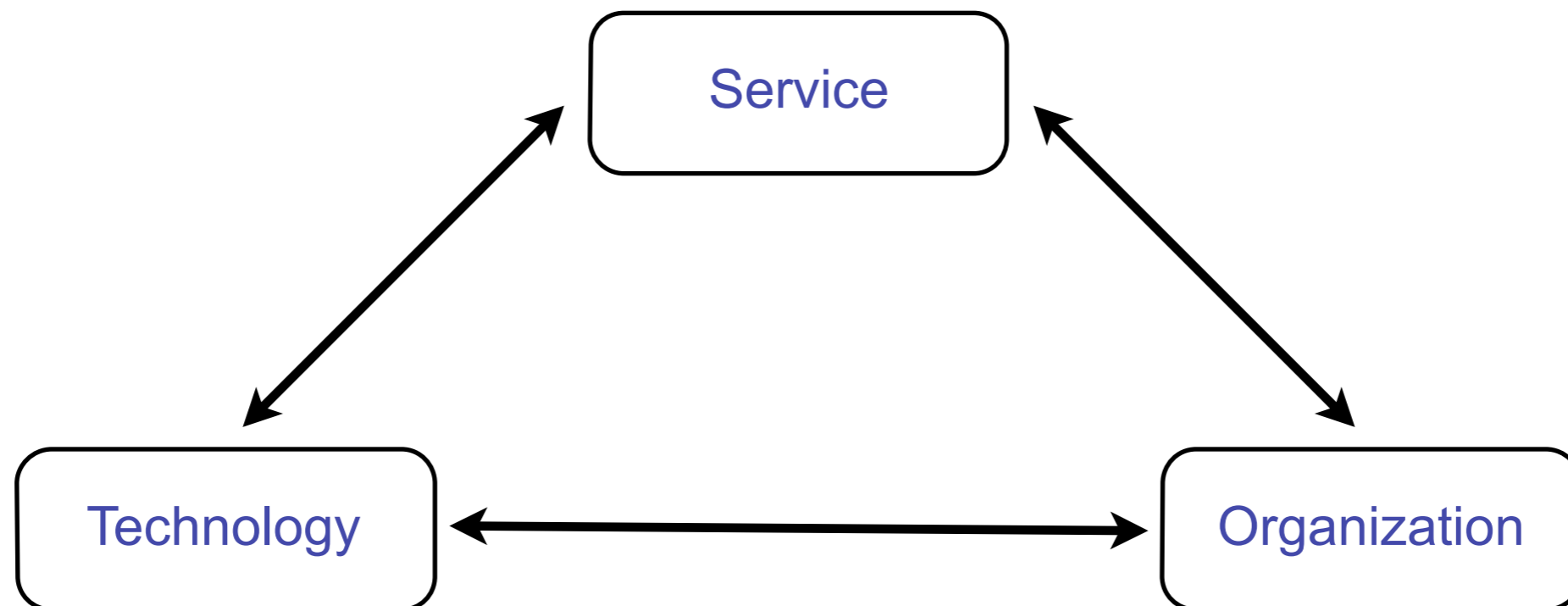
- healthcare organizations are a complex systems
- healthcare organizations characterized by professional roles and ethics, and high rate of ad-hoc decisions
- healthcare has been slow at making changes

our objectives

to find ways of applying technology:

- to deliver better care, using fewer resources
- to support self-management
- to motivate changes in lifestyle to a more healthy one
- to prevent secondary disease
- to reduce the risks leading to injury and health problems

a sociotechnical perspective



the diabetes diary

- result of 12 years of research
- examples: bluetooth interface for blood glucose meters; SMS service for parents of child with type 1 diabetes
- user involvement in all aspects of development
- focus on usability; supporting self-management
- current version is available for free at Google Play and App Store
- features mechanism for analyzing data to find similar situations; seeing trends and patterns
- future: tailoring; gamification; investigate gender differences

eRehabilitation

- current projects:
 - COPD patients receive treadmill, pulse-oxymeter, iPad - follow up by physiotherapist
 - post cardiac surgery rehabilitation, tailored support to encourage adherence to training
- we achieve better adherence and compliance, improvements in quality of life, reduction of readmissions to hospital

welfare technology

- participation in national networks on welfare technology
- support of projects on municipality level on smart homes for the frail
- use of virtual presence robot - the Giraf
- the serenity button: use of mHealth to connect the resources around the patient
- discuss aspects of welfare technology and possible consequences

mental health

- apply eHealth to create low threshold services to reach people with mild mental health problems
- create models of care that gives more citizen services with less use of resources



apps and mHealth



apps

- apps are maturing
- ecosystems of apps
- integration with legacy systems
- advanced data analysis (in phone or online)
- dashboard interfaces
- tailoring

health information

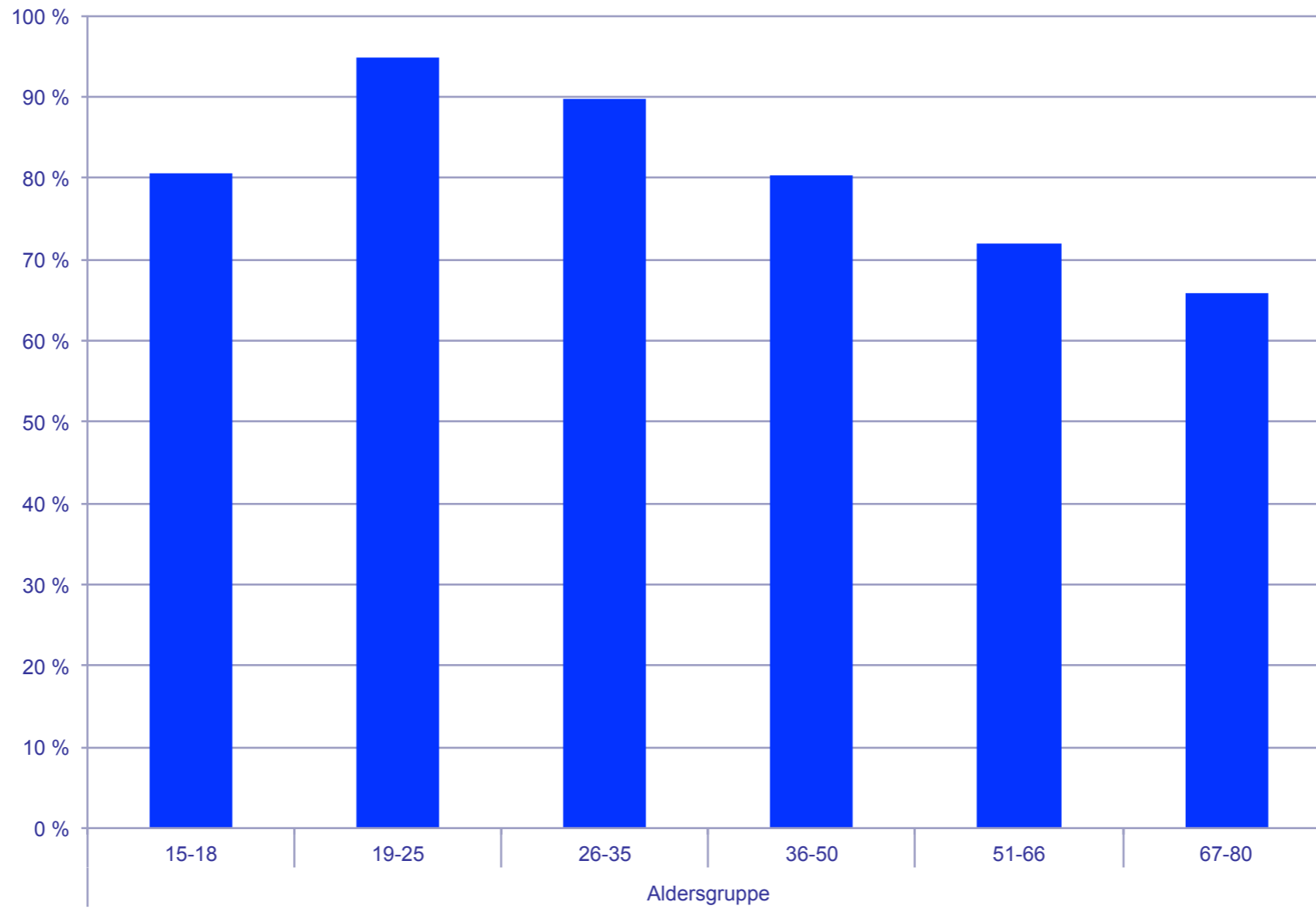
- apps and devices collect data about the user - more than health professionals can deal with
- using big-data and multivariate analysis we turn huge amounts of data into useful information
- important in terms of bridging the personal health systems to the professional health information systems
- citizen services: erdusyk.no
- real-time dashboard for infections in the region: snow.telemed.no

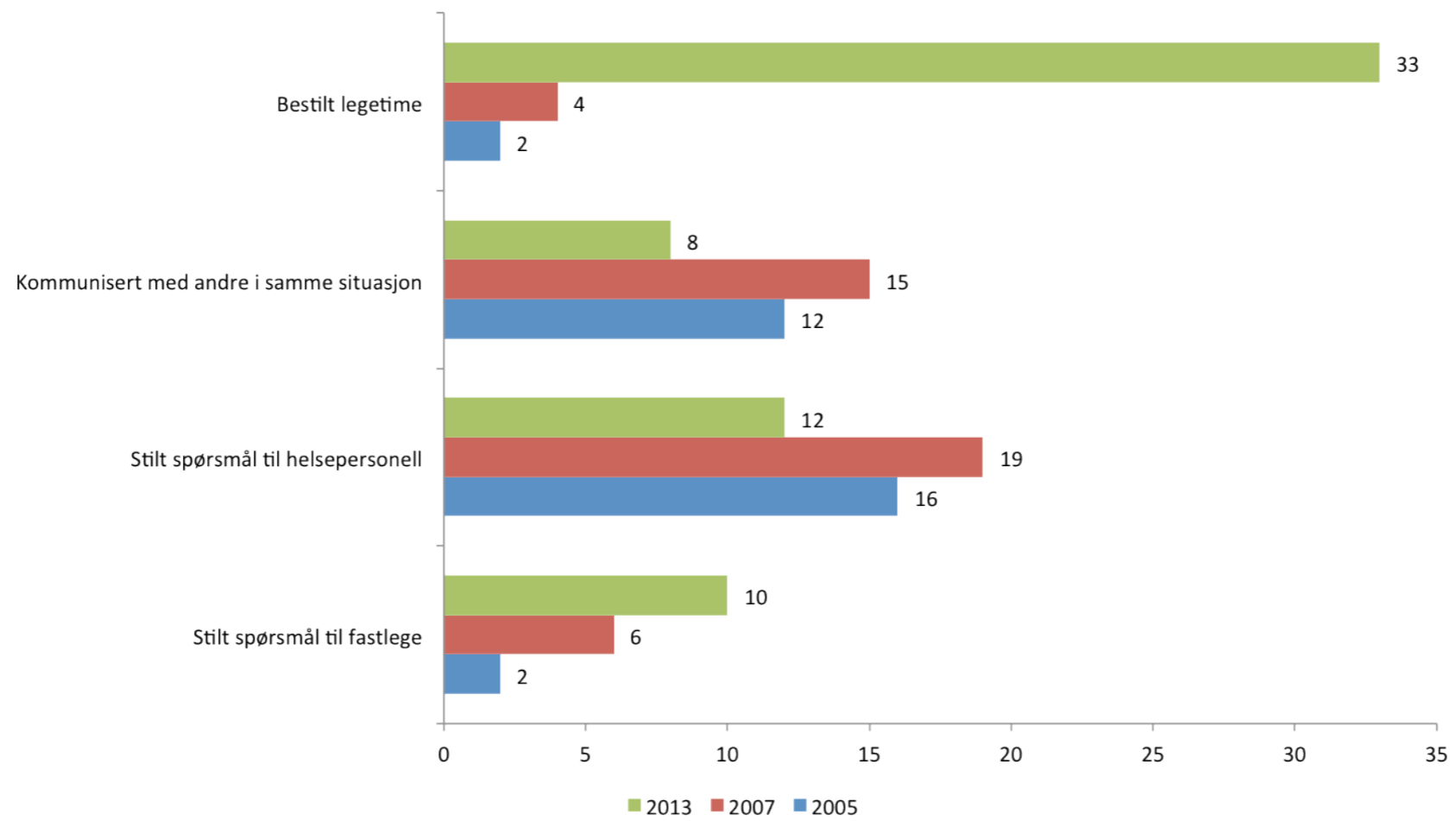


eHealth trends

- national survey on use of eHealth and interaction with health care services through the net: 2000, 2001, 2003, 2005, 2007, 2013
- November 2013:
 - 26% has used a foreign eHealth service
 - 44% wants to be able to send email to GP
 - 48% are worried that information will not be available in an emergency situation
 - 41% are worried about health information privacy

Har erfaring med eHelse





tailored eHealth

- slutta.no smoking cessation - part of the national health portal
- tailoring: feedback and type of follow up depends on psychological profile - stratification of user types
- tailoring leads to better adherence and compliance - i.e. better outcomes

universal access

- privacy laws require use of BankID to log on to national portal helsenorge.no to access personal information and services
- however, if you are blind, you need someone to help you with the BankID code generator - i.e. the assistant has full access to the health information (as well as banking services)!
- mHealth is a challenge in terms of UA



Knowledge

Trust

Technology

Safety requires:

- Equipment must be made for the task
- Equipment must be well maintained
- Equipment must be used correctly

gaming and gamification

- gaming is used to award healthy behavior and to attract users to a health service
- gaming used for activating people and to measure cognitive performance - might be useful in diagnostic and monitoring
- gamification is to build in the factors that attract people to become active in games to make people adhere to lifestyle change programs, and to educate: e.g. sjekkdeg.no

thank you!

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