

Telemedicine and selfcare- are doctor's ready for change?

Dr.Madis Tiik

Estonia

14.09.2013 Tartu

Madis Tiik, MD, PhD



- Tartu University , medical doctor 1996
- Nordic School of Public Health (Sweden) - Diploma in Public Health 2003
- Estonian Business School 2001-2003 ICT Management
- Tallinn University of Technology , PhD (healthcare engineering)14.12.2012
- Family doctor 1998-
- Estonian Society of Family doctors, chairman 2001-2008.
- Estonian eHealth Foundation , CEO, 2007-2011
- EU eHealth Task Force group *scientific adviser of the President of the Estonia* (2011-2012) Preparing report for EU Commission , how to improve ehealth after 2020
- Senior Adviser , Sitra (Finnish innovation fund) 2012-

eHealth Task Force Report

Redesigning health in Europe for 2020



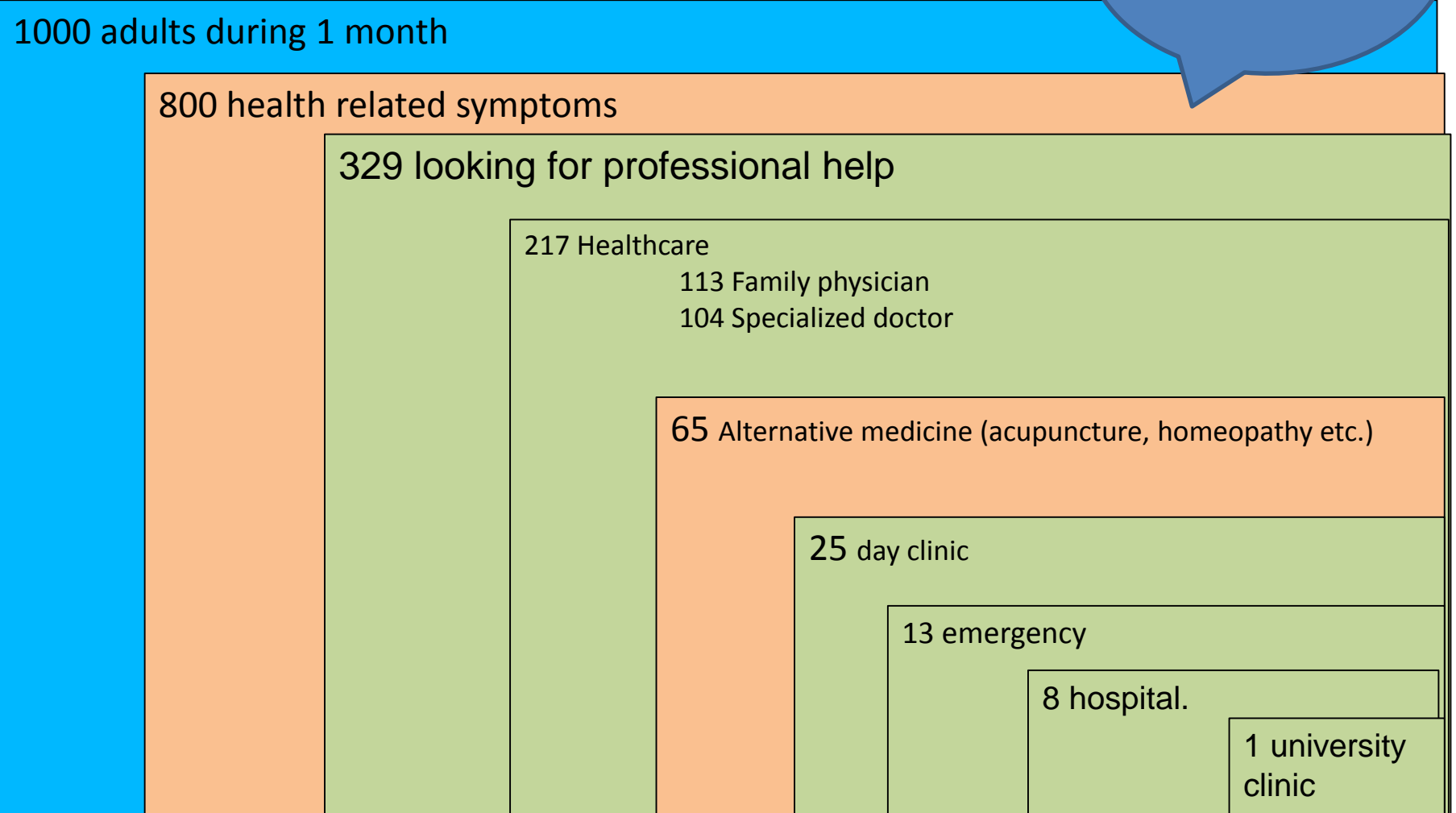
Access Rights and Organizational Management in Implementation of Estonian Electronic Health Record System

MADIS TIIK

**SELFCARE, UNUSED RESOURCE OF
CARE**

Where patients seek informat

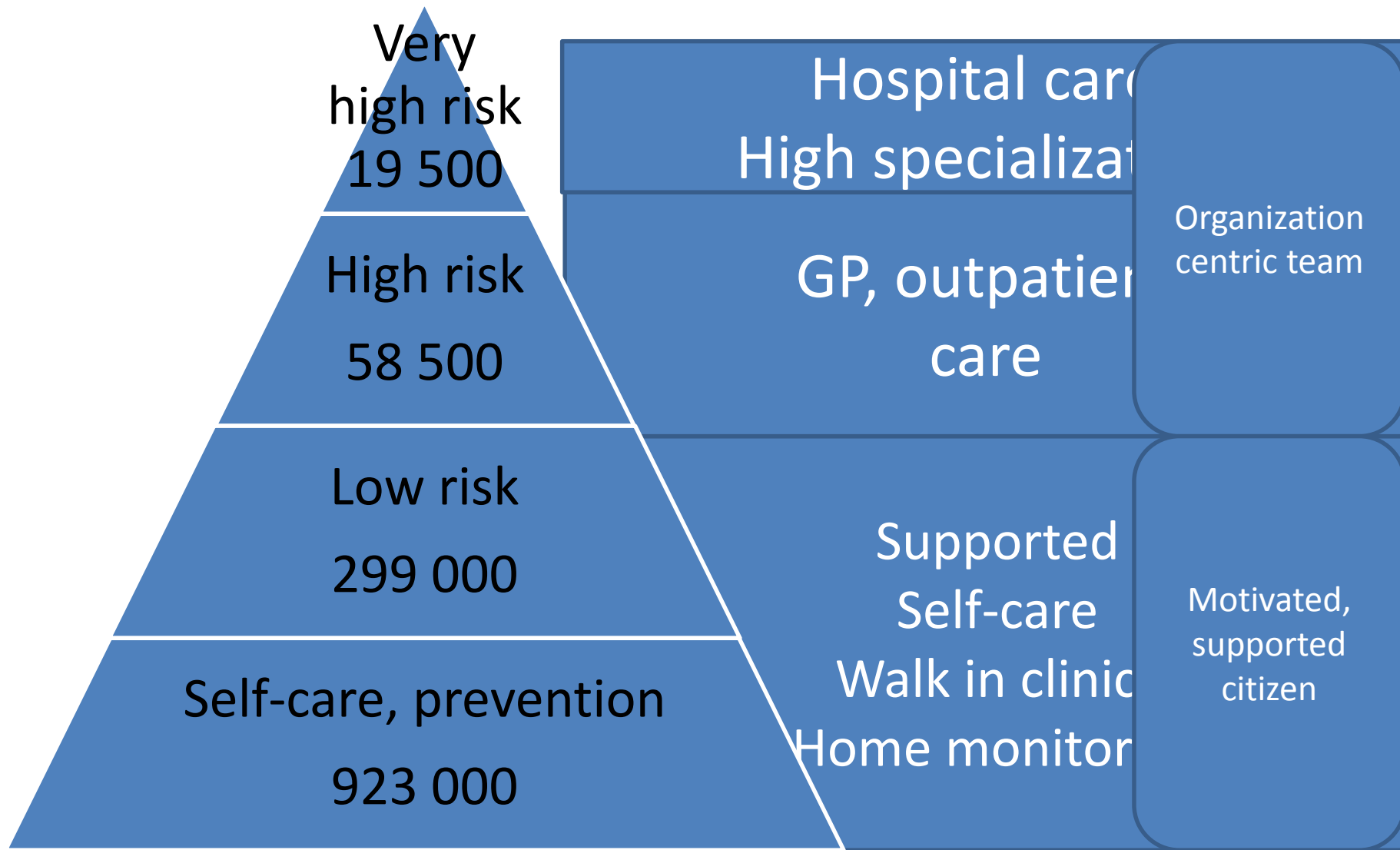
406 self-care?



Green, LA. Fryer, GE Jr. Yawn, BP. Lanier, D. Dovey, SM (2001). 'The ecology of medical care revisited.' *New England Journal of Medicine*, 344(26): 2021–2025

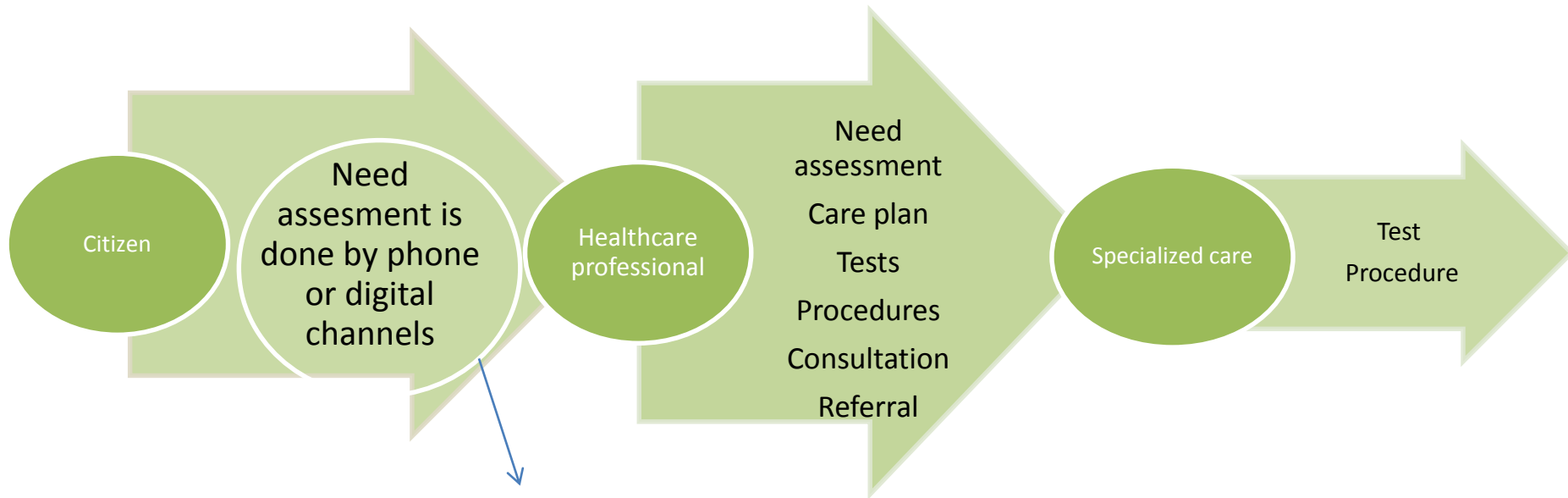
PROBLEM

Unequal distribution of healthcare services in Estonia
(population 1,3 mio)



PROBLEM

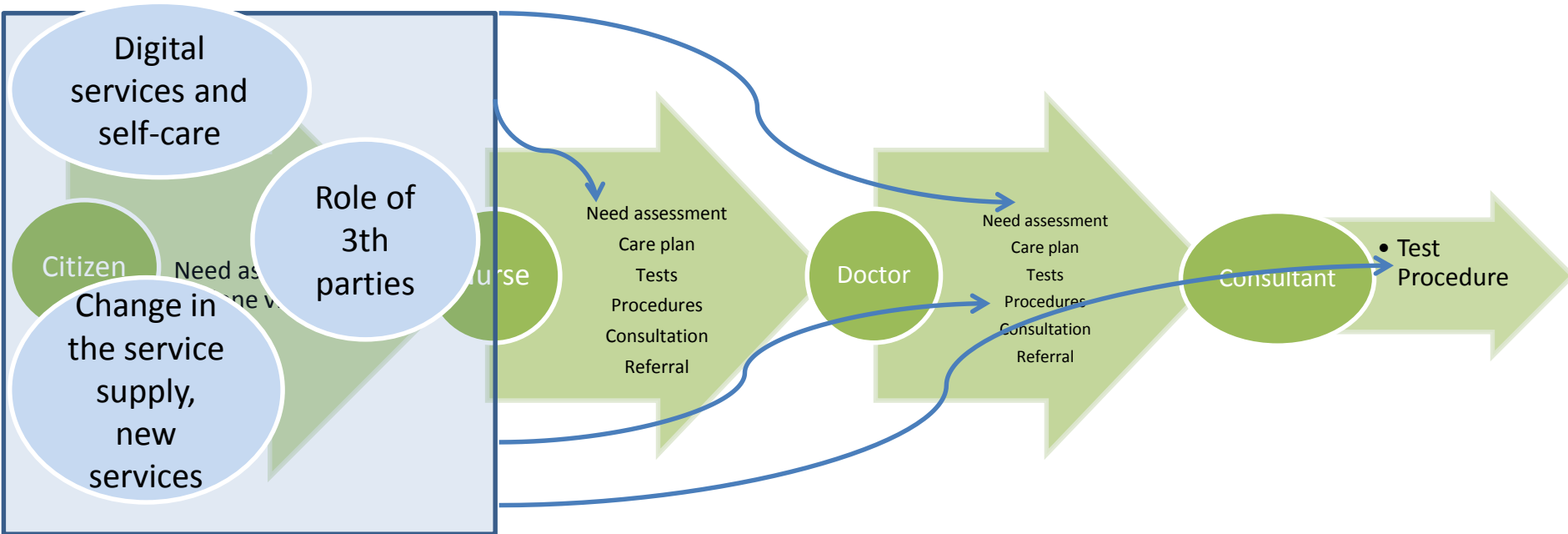
Existing model of care



- Patient carries information
- Unprepared patient entering to the healthcare
- Wasting time and money of the healthcare

SOLUTION

Empowered citizen



- Virtual need assessment
- Personal profile
- Assisted selfcare
- Target- 80% of health related problems solved virtually

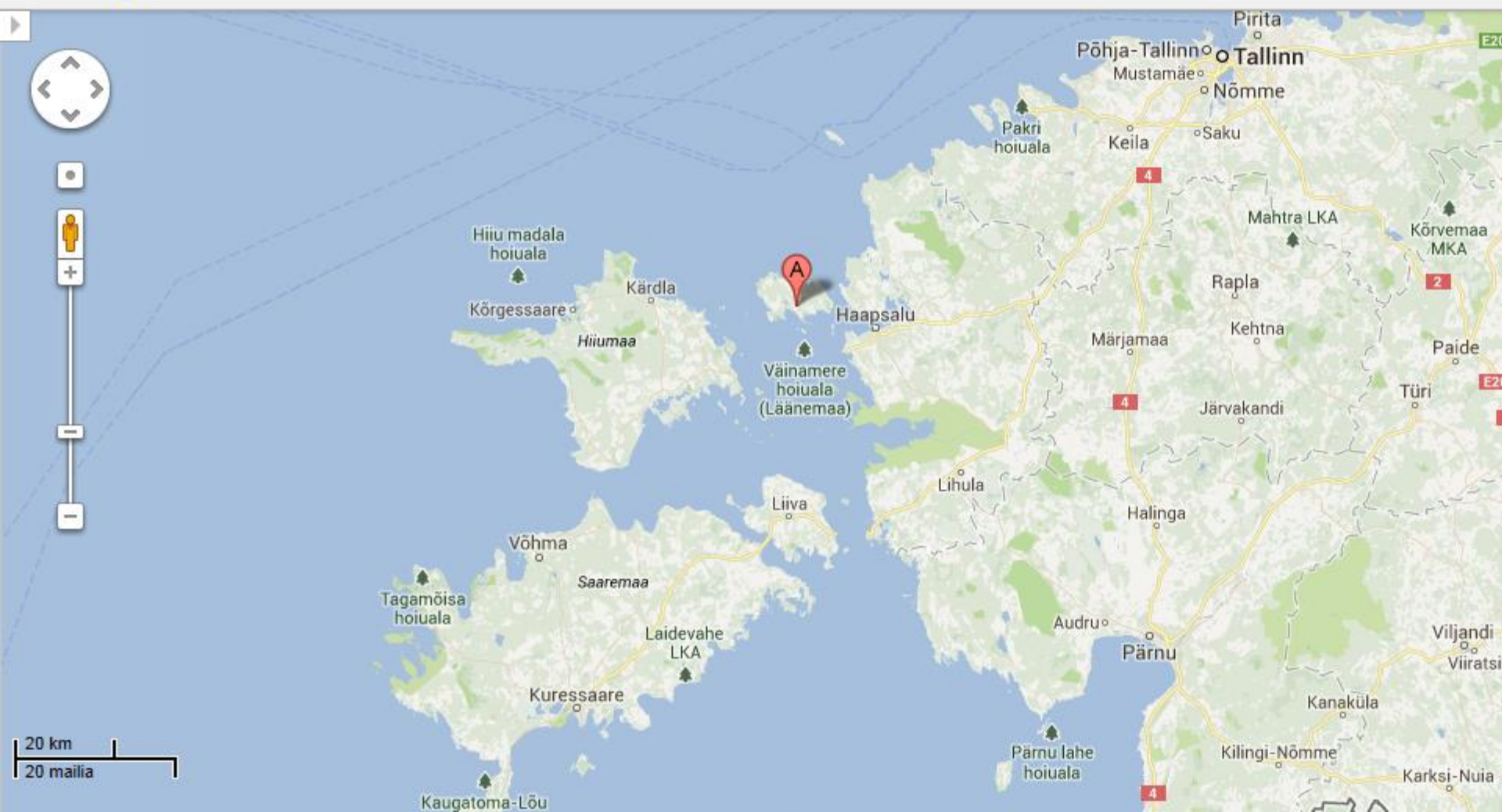
Tools

- Decision support
- Big data
- Simulation
- Statistical analyzes
- <http://www.ukpreventivemedicine.com/>

TELEMEDICINE



Vormsi, Hullo, Viro



Need for telemedicine solutions in Vormsi

- Geographical isolation
 - Storm, ice, snow
 - Shortage of professionals, inefficiency
- Professional isolation
- Transportation problems for patients

Driving forces

Telemedicine equipment for small islands in Estonia

- Initiated by the Health Board (under the Ministry of Social affairs)
 - Telemedicine solution for paramedics (5)
 - Telemedicine solution for GP-s (2)
- Financed from the state budget

eMedic project

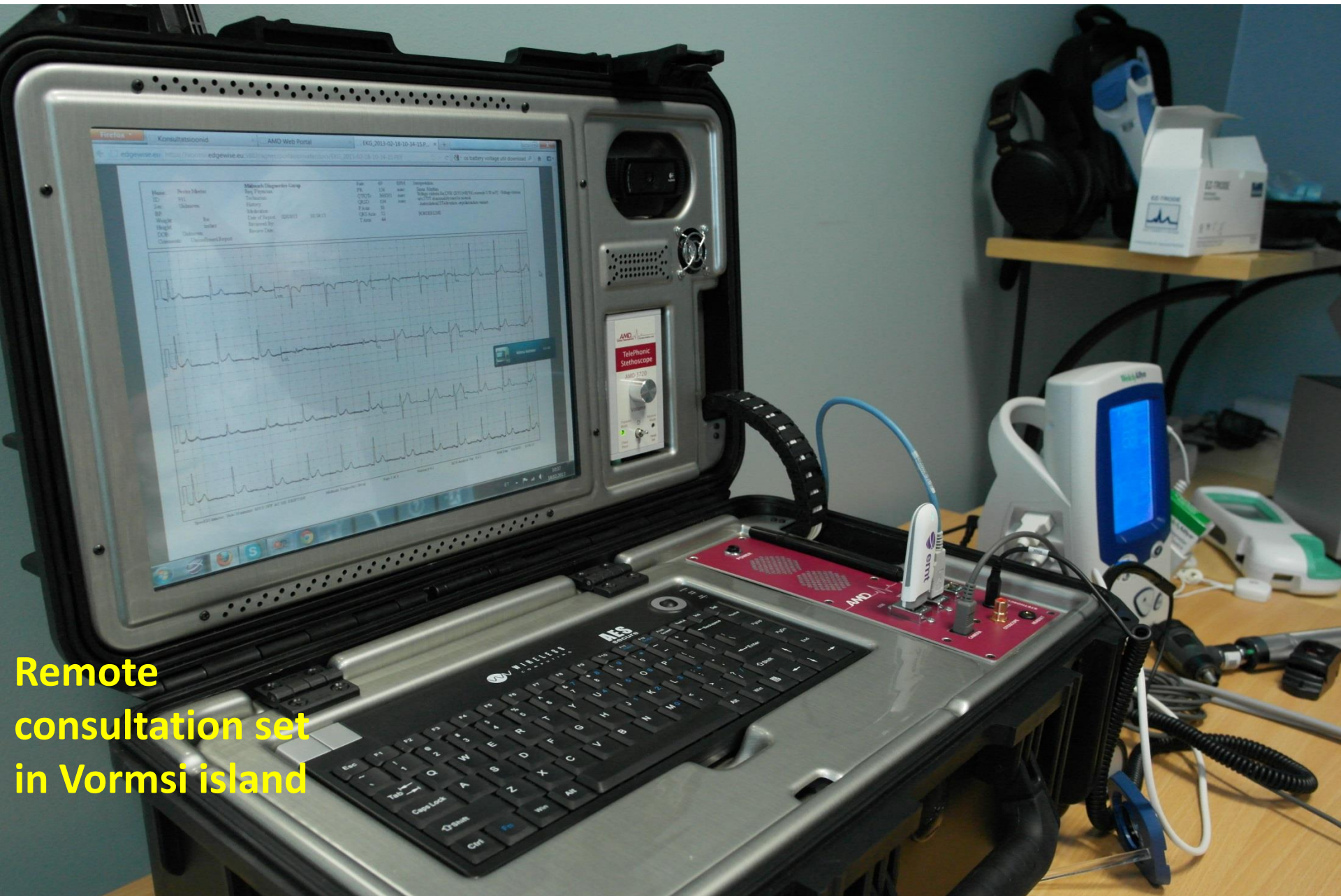
- Estonia, Latvia, Sweden and Finland
- The target of the project is to develop new practices for virtual consultation in medicine.

Central Baltic INTERREG IV A program

PrimCare IT

- Teleconsultation
- Telementoring

The European Union's Baltic Sea Region Programme 2007-2013



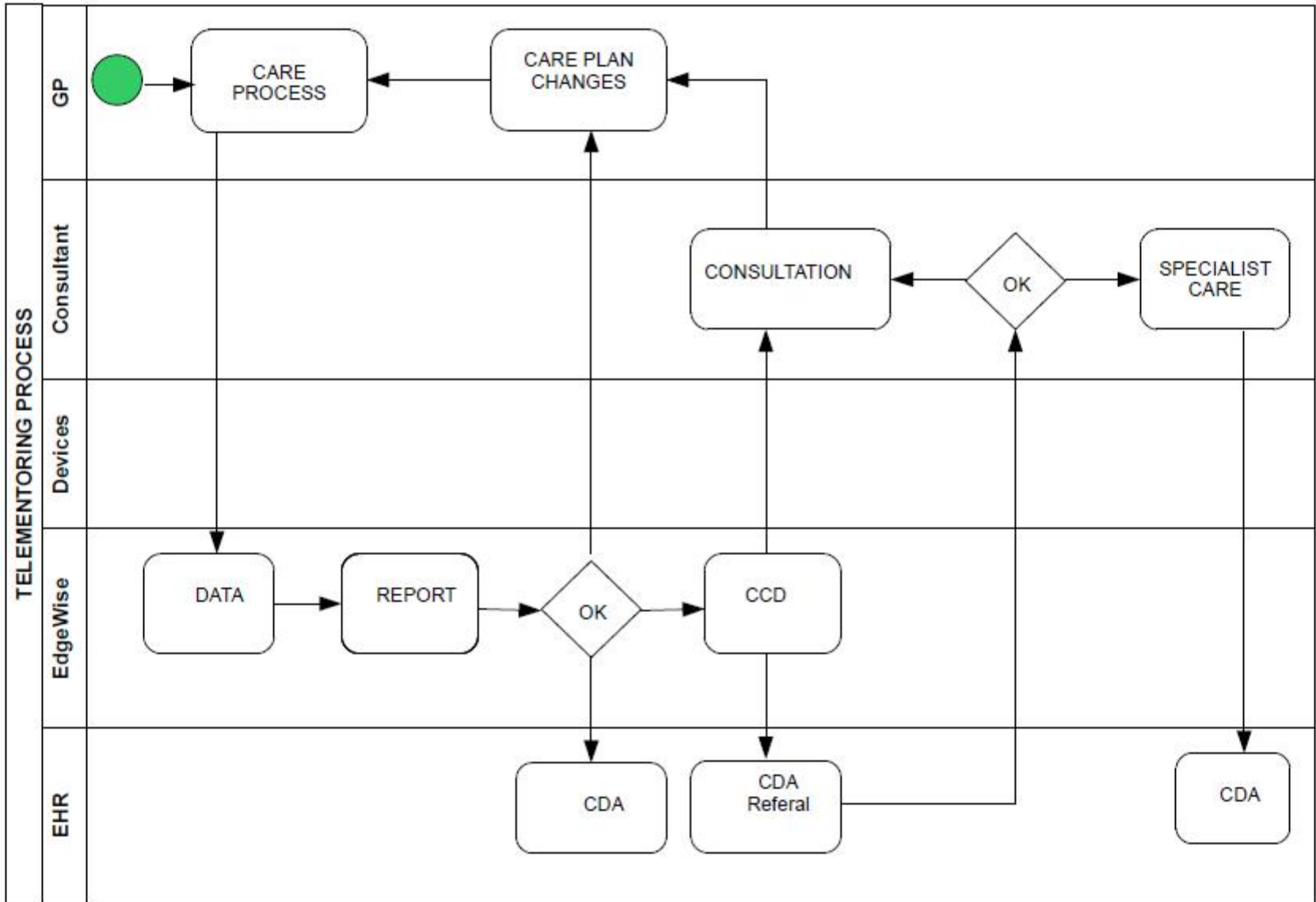
Remote
consultation set
in Vormsi island





HEAR IT...
RECORD IT...
SEND IT...





eMedic self –monitoring set



Bluetooth



Pre & Post Meal Recording



LCD Backlight



PATIENT HEALTH BEHAVIOUR TELEMONITORING

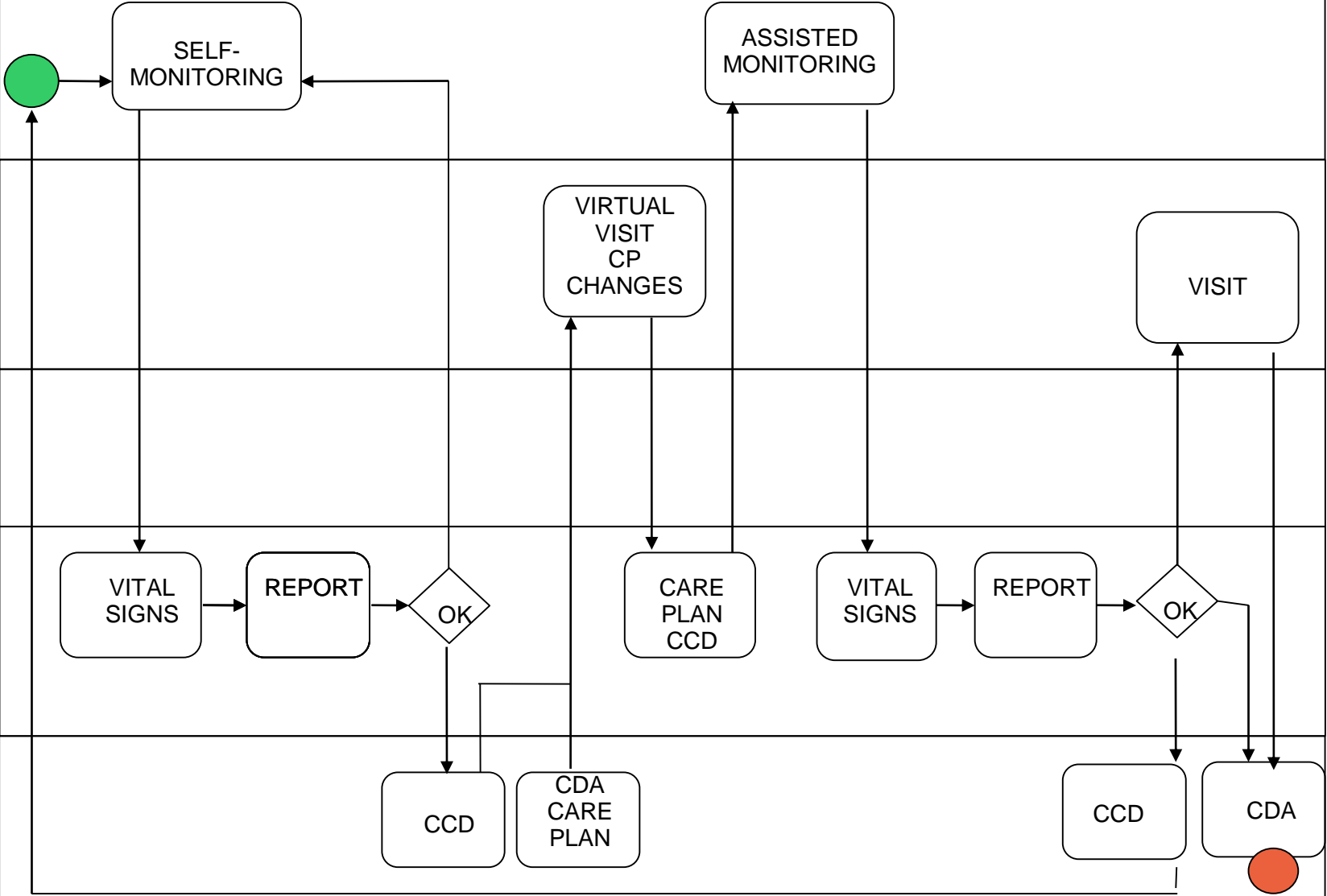
Patient

HCSP

DEVICES

PHRBox

EHR



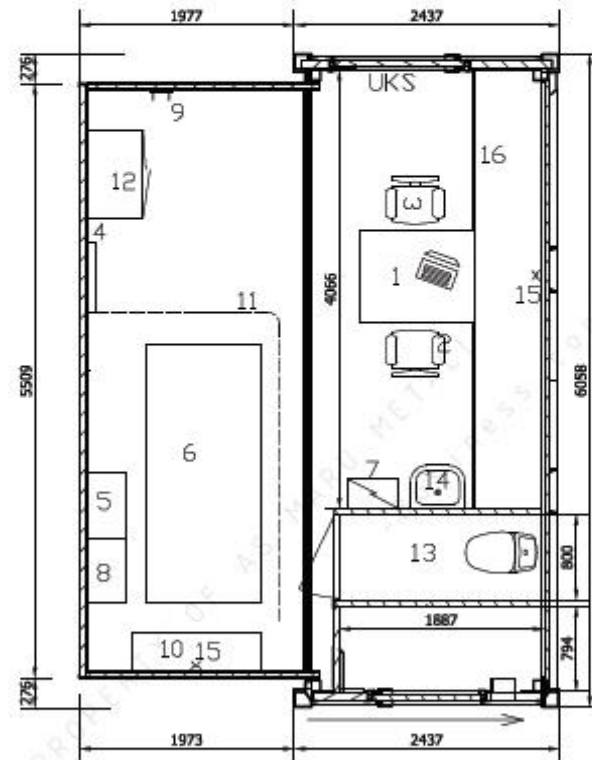
Mobil unit with nurse



Telemedicine | PRODUCT



Deployable turn-key telemedicine container



Add record

Records

Today



10.12.2012 - 16.12.2012

December 2012

Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

Filter records

- Blood sugar
- Food
- Medication
- Physical activity
- Measurement
- Report
- Message
- Visit
- Document

Group

beta

Andres

Valga

Kuressaare

Võru

Rapla

Linnamõisa

Subject

Andres

Document

Patient name Angry Anier
7af715bd-dda9-4f0d-8c0

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Document



Andres

Other

11.12.2012 14:39

Patient name

Angry Anier

View document

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Andres Anier

11.12.2012 14:57

Jäin häтта sellele patsiendile diagnoosi panemisega.

Veronika Palmiste-Kallion

12.12.2012 19:24

OK, see on tõesti raske. Kas Rapla pole pilti saatnud?

Andres Anier

20.12.2012 16:21

Loe läbi siit: www.google.com/?angry



11.12.2012 14:57

e diagnoosi panemisega.

12.12.2012 19:24

s Rapla pole pilti saatnud?

20.12.2012 16:21

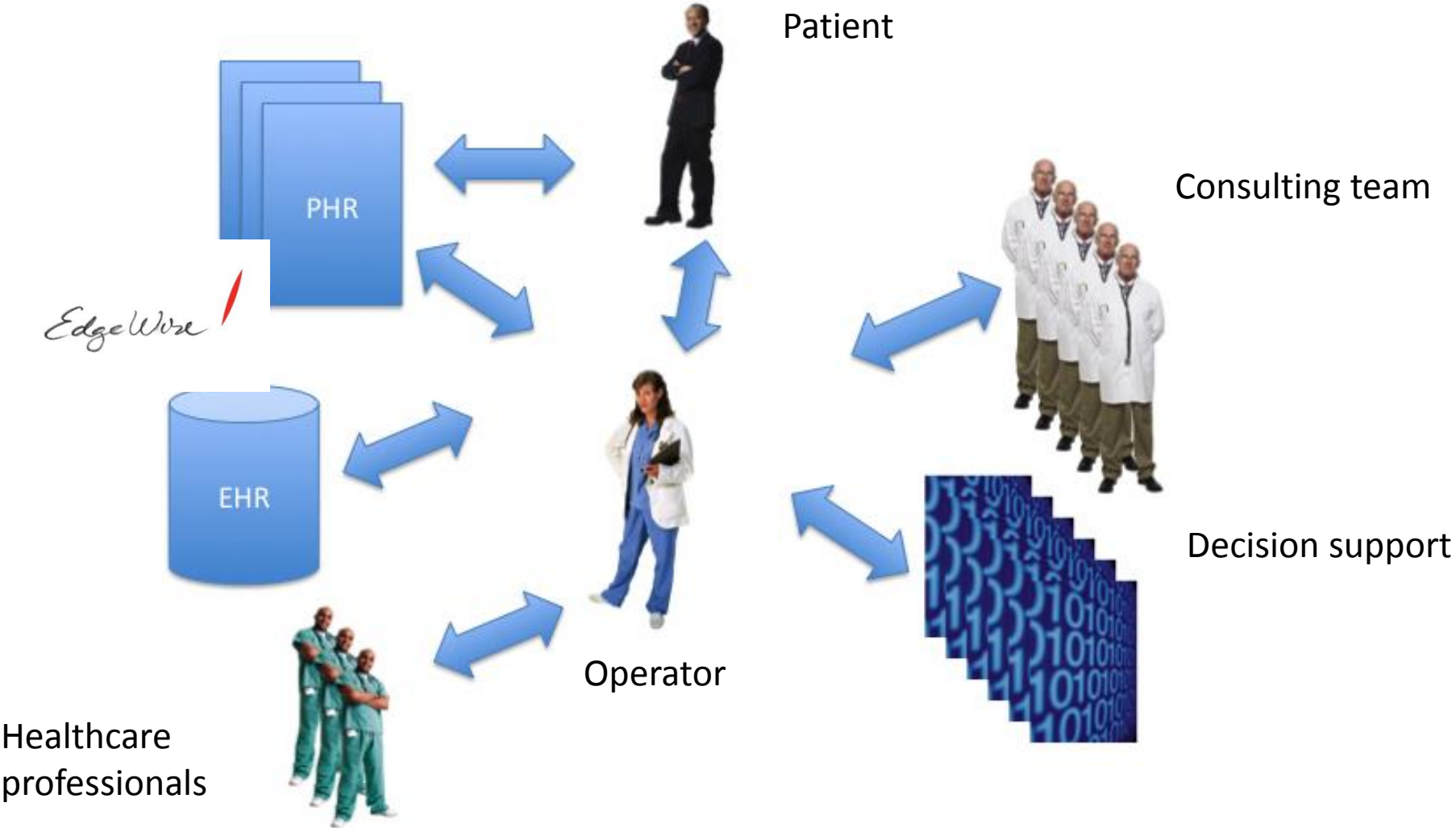
m/?angry

EdgeWise



- Collecting data from patients devices
 - Glycometer
 - Mobil phone
 - Blood pressure cuff
- Collecting data from devices in the GP office
- Access for the patients and doctor/nurse
- Communication between patients and doctor/nurse

PARTNERS FOR TELEMEDICINE SERVICE

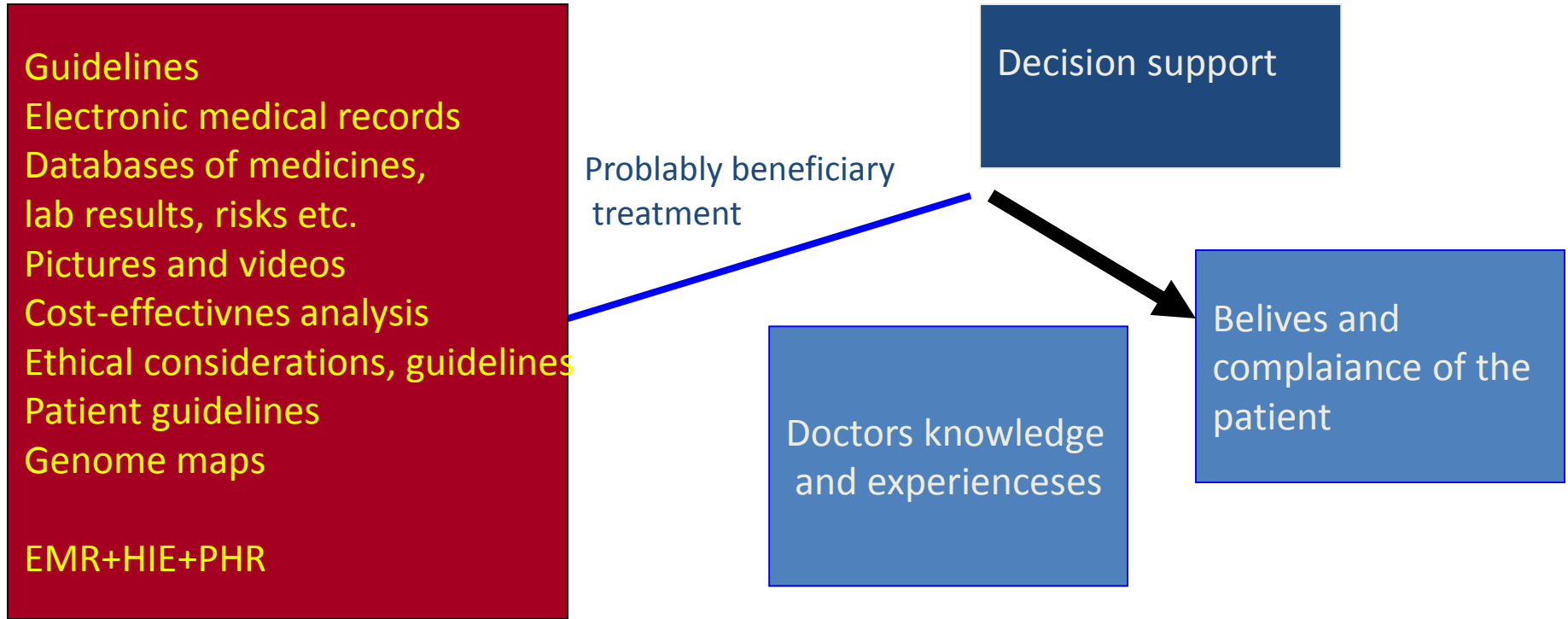


EHEALTH ECOSYSTEM 2020

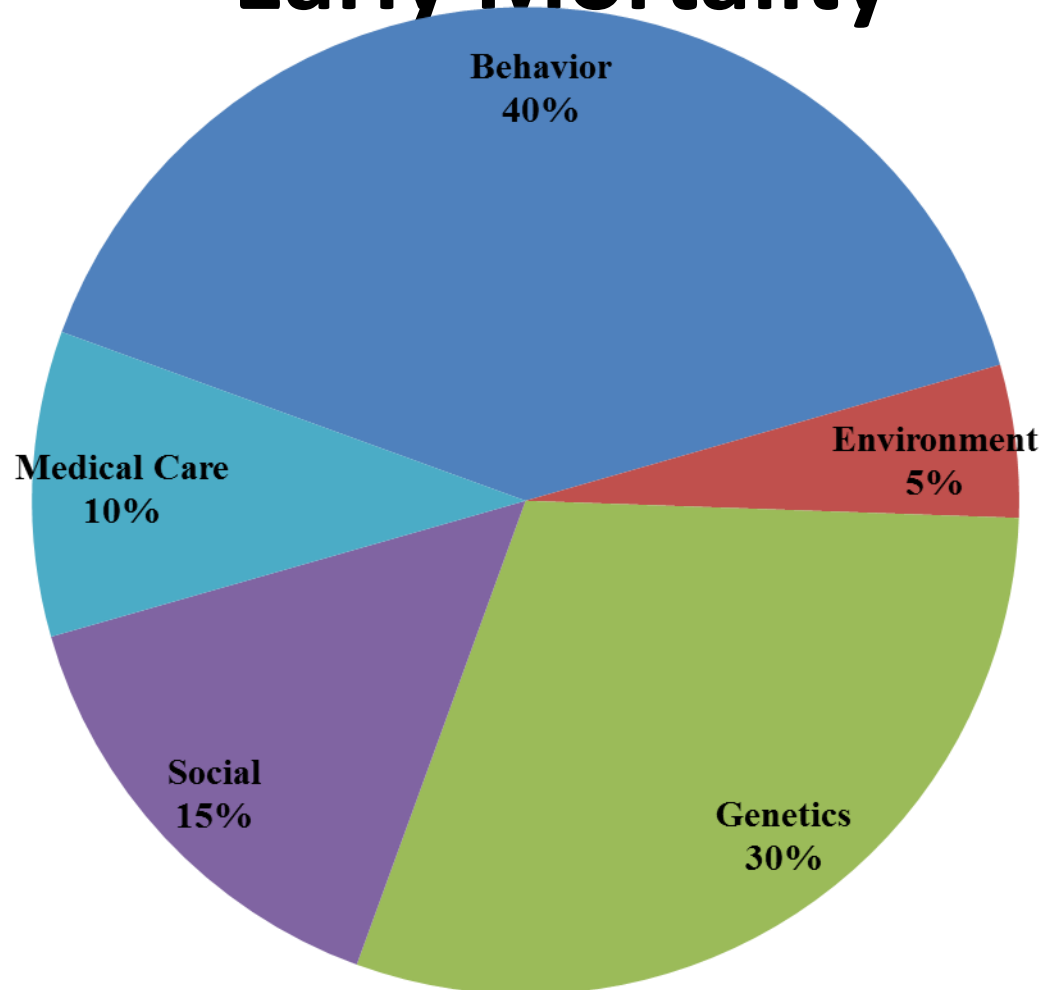
eHealth ecosystem

- ehealth, mhealth, phealth
=healthcare delivery of the 21st century
- Selfcare,
 - self–monitoring,
 - health coaching
- Genomics

Care process in 2020

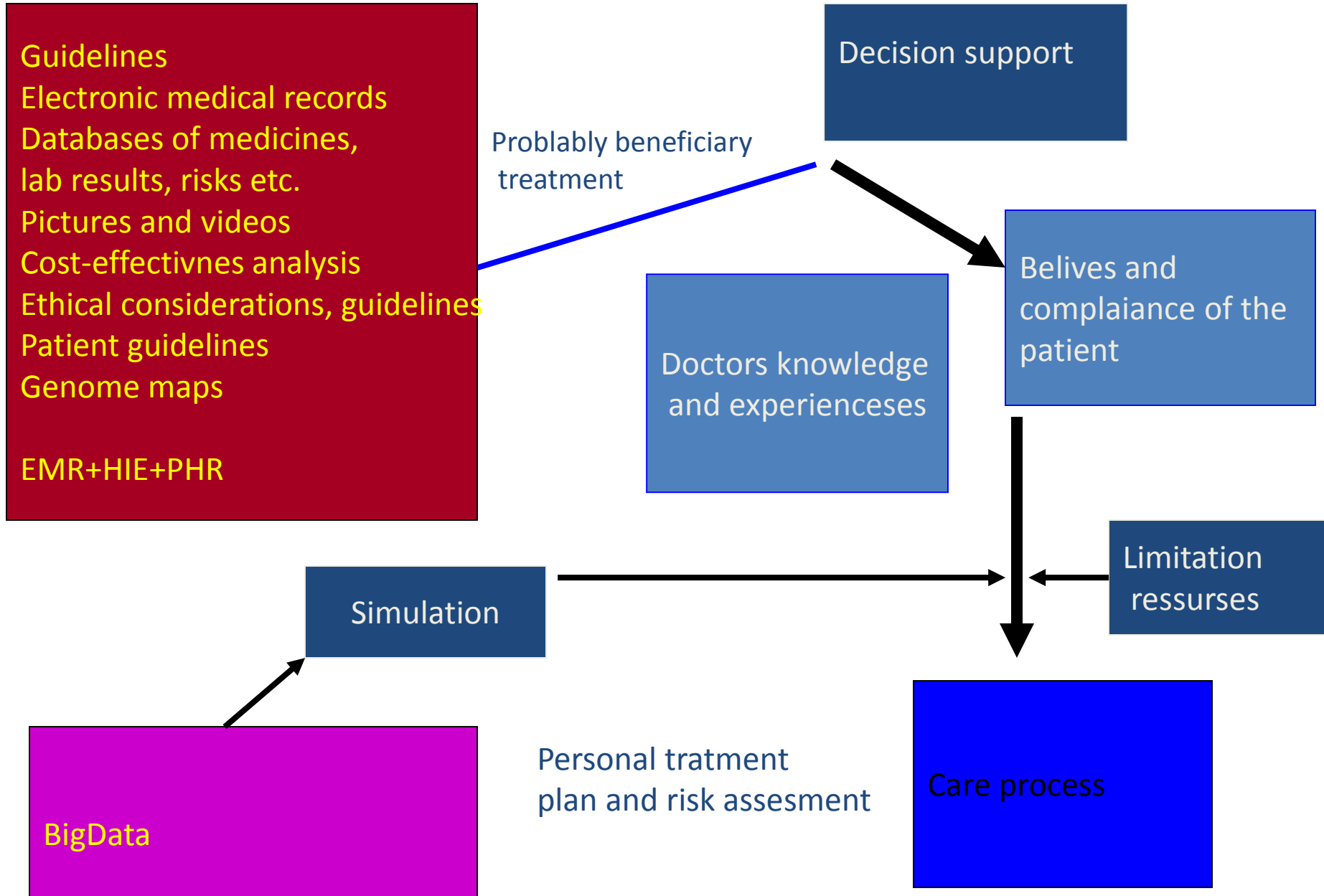


Factors Contributing to Early Mortality

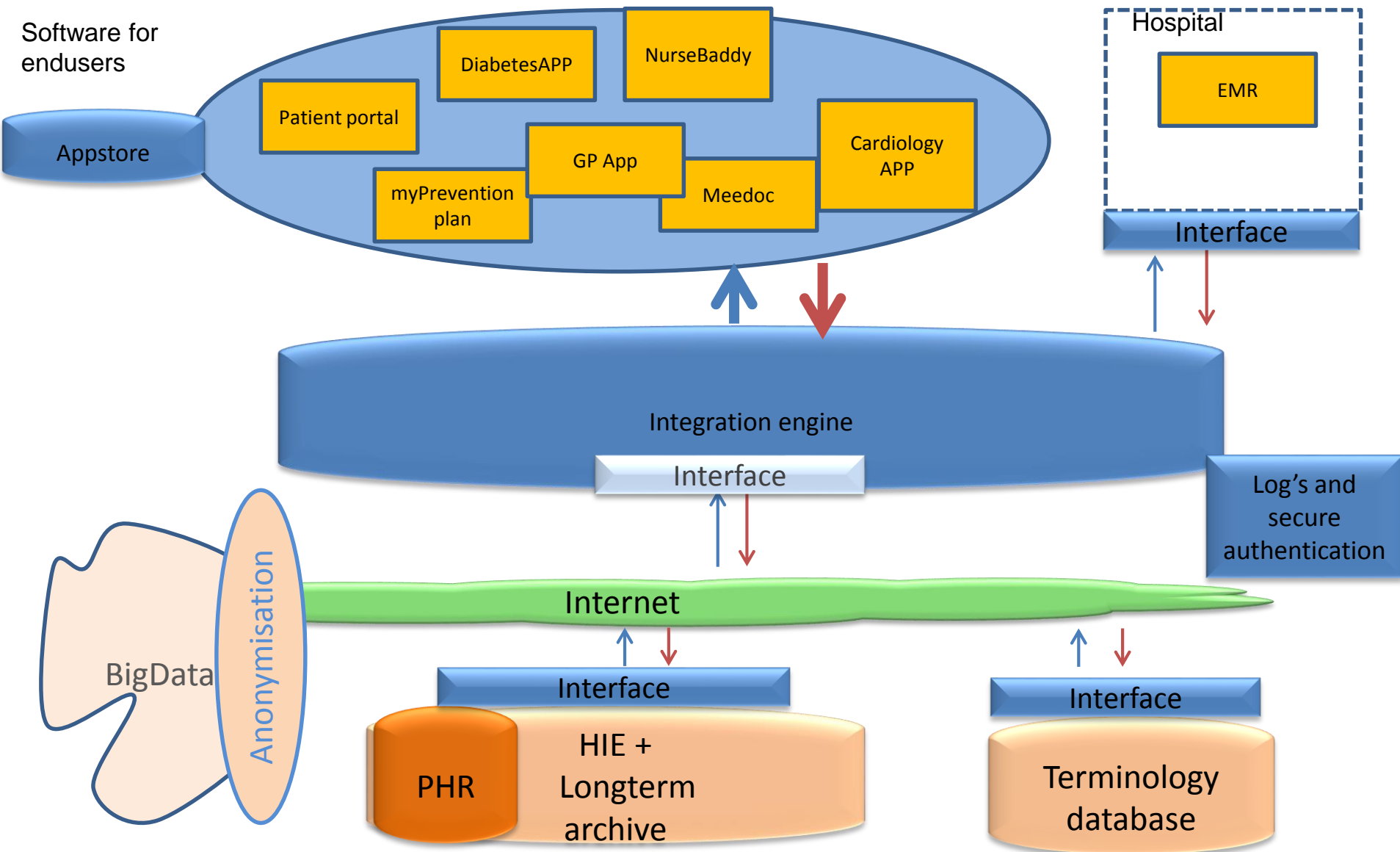


McGinnis, et al., *Health Affairs*; 21(2), 2002

Care process in 2020



Ehealth ecosystem 2020



Kiitos!
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THANK YOU !