New data, new pathways to the patient
Digital & analogue companions for ageing people for handicapped chronically ill

Joint research project funded by the Brandenburgian Ministry of Science, Research and Culture
TOPIC I
Health care in Brandenburg today and tomorrow
A. Health care in rural regions against the background of demographic and structural changes
B. 'The Sheltered Way' in a model region

TOPIC II
Networked care
C. IT architecture for mHealth
D. Wearables and implants

TOPIC III
Mobile diagnostics
E. Point-of-care as Lab-on-a-chip: patient-side chemistry
F. Point-of-care-ultrasound: patient-side imaging at hot spots of out-patient care
...digital extension of the individual living environment

what are they for?

e/mHealth? big data? handheld devices?

what about
Themenfeld I

Gesundheitsversorgung im Land Brandenburg heute und morgen

Teilprojekt A: Gesundheitsversorgung im ländlichen Raum vor dem Hintergrund des demografischen und Strukturwandels

Teilprojekt B: "Der geschützte Lebensweg "in einer Modellregion

Milestones:
• Calculating demographic changes and the development of existing structures of healthcare w/o interventions the 10 yrs to come
• Gathering perceived deficits and wishes, with a view to widespread diseases, from all players involved
• Predicting future needs of out-patient, preventive and rehabilitative medicine and care, various scenarios will be worked up, and their respective advantages, disadvantages, chances and risks named
the role of the health architect

Health Architect;

from: Wikipedia (modified)
...consultant
...coordinator
...supervisor
...anchorman...

ccc trains regional players in the planning, design, controlling and reconstruction of healthcare.

...of an healthcare project
Schmailzl KJG, Sendler HTH. Networked Care: IT-assisted tools (wearable sensors) for patients at risk. In: Boundaryless Hospital - Rethink and Redefine Health Care Management. Springer-Verlag Berlin Heidelberg 2016: 111.
Integration von Daten aus Medizinprodukten und Consumer Health-Produkten auf der IoT-Plattform.
In-Ear PPG
for a cuff-less continuous blood pressure measurement
digital companions...
of a 'Sheltered Way'
for the elderly
for the handicapped
for the chronically ill
Plug & Play Integration and Analysis of Fitness and Medical Data using IoT Platform

Learns from the Implementation of an IoT Demonstrator for Predictive Monitoring of Heart Patients at Ruppiner Kliniken
Themenfeld III

Mobile Diagnostik

Teilprojekt E: *Point-of-care* als *Lab-on-a-chip*: patientennahe Labordiagnostik

Teilprojekt F: *Point-of-care-ultrasound*: patientennahe Bildgebung (*mobile imaging*) an Brennpunkten der ambulanten Versorgung
Patient-side lab for simultaneously analyzing of up to 8 lab parameters made-to-measure for the follow-up of particular patients at-risk
Smartphone-based, mobile microscopy system for out-patient blood count diagnostics

Mobile, integrated lab-on-a-chip system (iLOCS), laptop sized, for detecting nucleic acids of common hospital infections
patient-side acquisition of images at hot spots of out-patient care (at home, country doctor's office, ambulance, in palliative care) and transferring to a reference center & establishing a training program for family doctors, palliative care doctors, and specialized physicians' assistants
The body as a source of data: transforming healthcare

- Monitoring (e.g., vital signs)
- Managing (e.g., adherence)
One more thing...
combining a huge variety of medical and everyday life...

to be tailored to particular needs
for various target groups and scenarios

Hold the line, please...
THE INFORMATION GAP
Game CHANGER
Mapping the journey of our patients

Changing the way we interact with our caregivers
Driving better clinical outcomes and patient care
New data,
new pathways to the patient

K.J.G. Schmailzl 29.03.2017