



Using innovative mHealth solutions to improve mental Health

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- mHealth solution for mental health
- Based on five years of R&D with leading experts within mental health, pervasive healthcare and computing
 - Founded 2013 as spin-out of “MONARCA” project
 - Region H, IT University of Copenhagen and 11 other partners
 - Involved in 10+ research projects
- Developed in collaboration with patients, clinicians and carers
- Team and funding in place for commercial growth
- CE, ISO 13485, TGA, HIPAA , ISO 27001 (Q2-17)



- 22.7% of all YLDs/Years Lived with Disability
(WHO, 2012)
- Cost equals 3,5% of GDP in Europe
(OECD, 2015)
- 38% of all European suffer from mental disorder
(ECNP/ECB report 2011)
- Will be largest burden for society in early 2020s
(WHO, 2012)
- 10% get "adequate" care - 25% any care at all
(Economist Intelligence Unit, 2015)

...it makes sense!



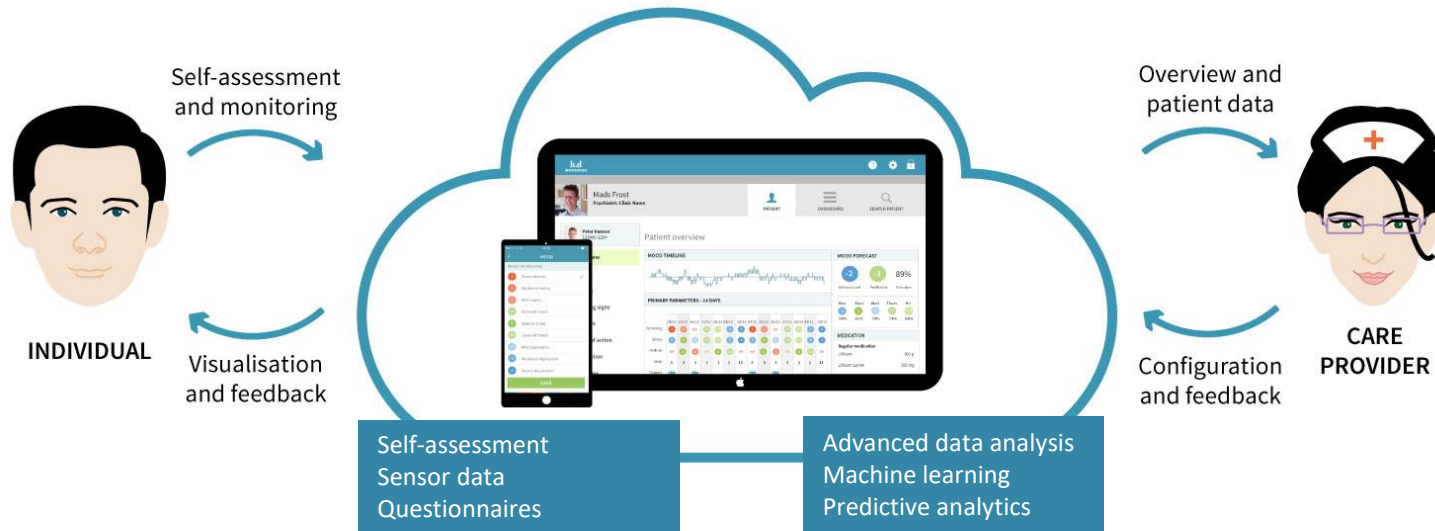
**World Health
Organization**

- Solution currently configured for
 - Bipolar disorder
 - Depression
 - Schizophrenia
 - Borderline
 - PTSD
 - Anxiety
- Solution can be configured to support
 - Specific disorders and conditions
 - Detailed clinical practice and research project needs



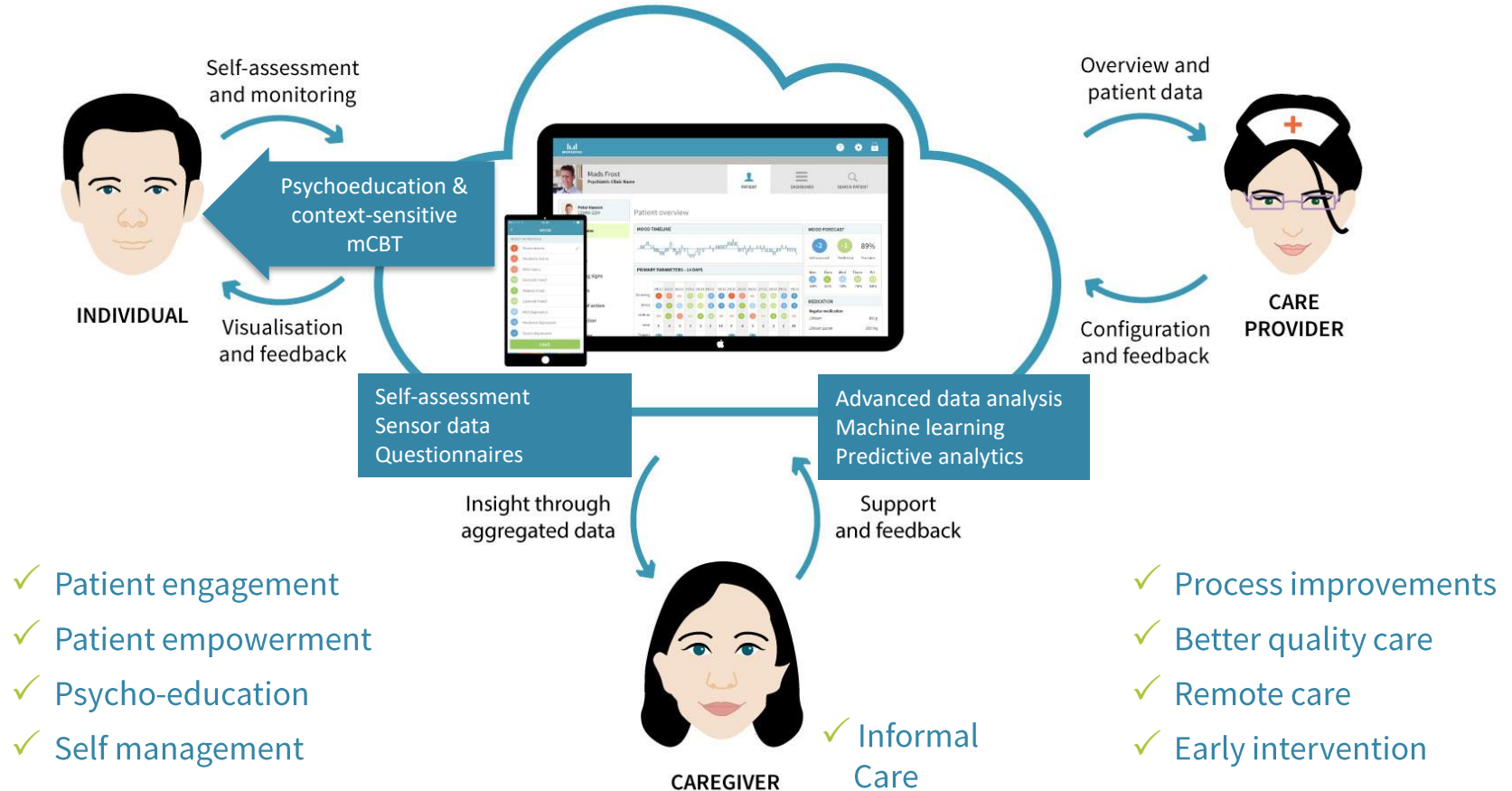
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- ✓ Patient engagement
- ✓ Patient empowerment
- ✓ Psycho-education
- ✓ Self management

- ✓ Process improvements
- ✓ Better quality care
- ✓ Remote care
- ✓ Early intervention

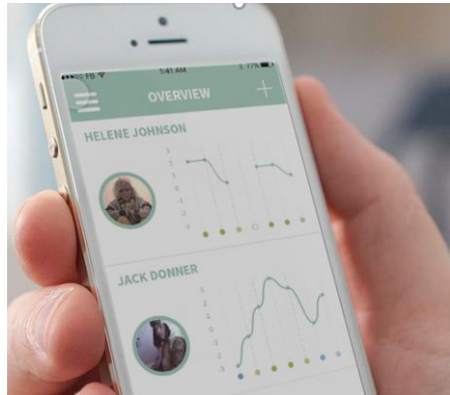
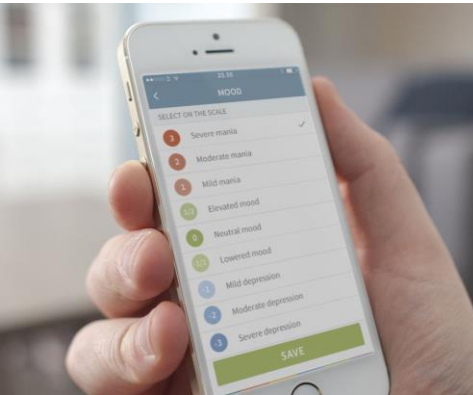


- ✓ Patient engagement
- ✓ Patient empowerment
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- ✓ Process improvements
- ✓ Better quality care
- ✓ Remote care
- ✓ Early intervention

✓ Informal Care





Patient smartphone

- Self-assessment
- Sensor data collection
- Questionnaires
- Triggers / warning signs
- Medication compliance
- Visualization and motivational feedback
- Communication with clinic

Carer smartphone

- Overview of the patient
- Evaluate the patient
- Notes

Clinical web portal

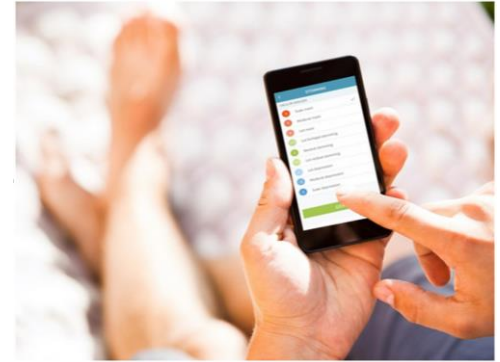
- Overview and patient specific dashboard
- Historical overview
- Correlation analysis
- Triggers / Early Warning Signs
- Medication management
- Notes / medical record
- Communication with patient

Back-end data analysis

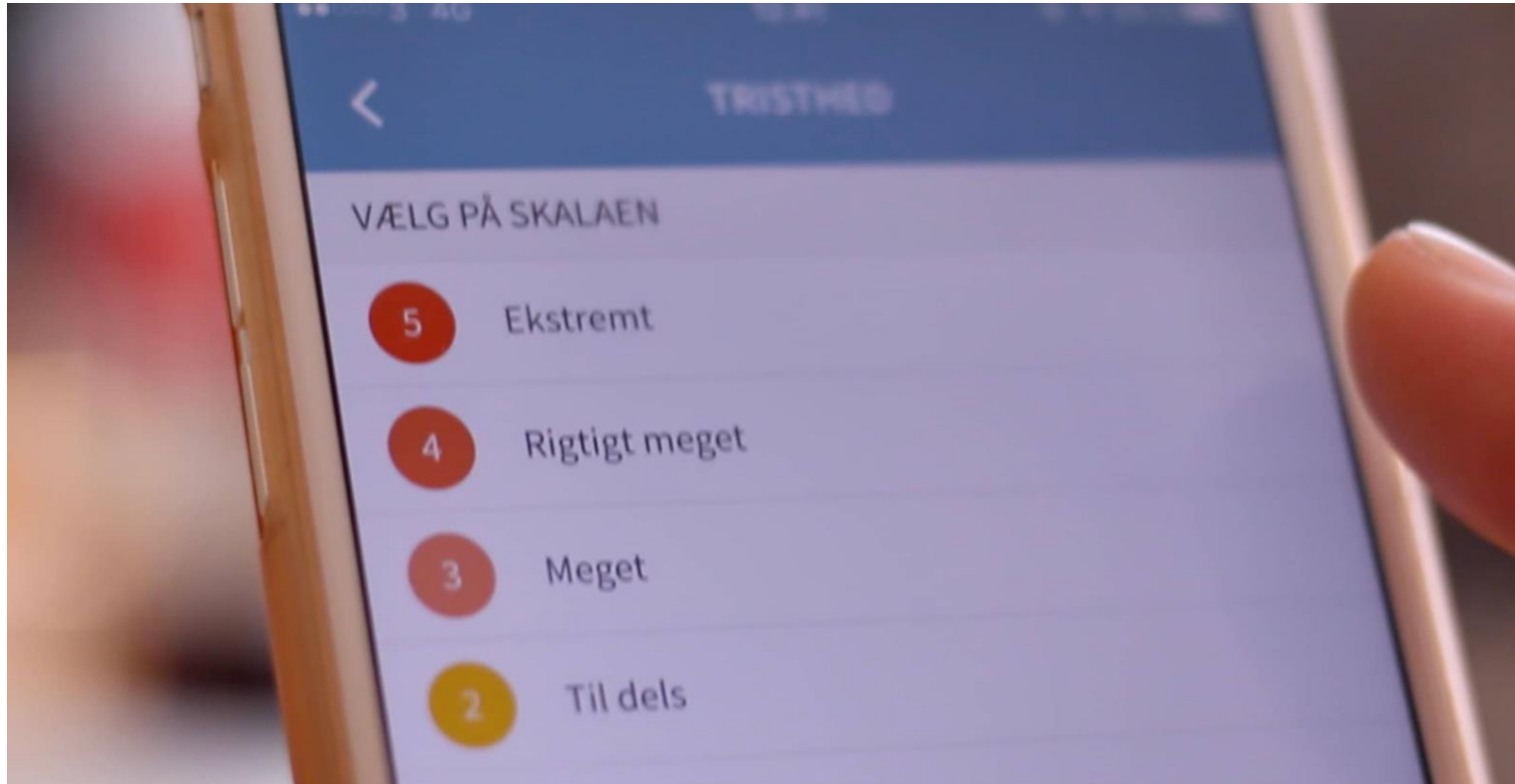
- Aggregation of health and behavioural data
- Correlation between behavioural data and disease progression
- Pattern analysis
- Prediction of illness & mood forecasting

Title	Illness	Partners	Lead professor	Description	Year
IMPACHS	Schizophrenia	Region Z, UHH, time4you	Prof. Tania Lincoln and Ph.D Stephen Austin	IMPACHS aims at designing, developing and testing mobile- and context-aware Cognitive Behavior Therapy (CBT) content	2017-
TAILOR	Schizophrenia	Region H – Mental Health Service	Prof. Merete Nordentoft & Prof. Ole Mors	Dose reduction trial closely monitoring the effects of gradually reduced doses of antipsychotics with schizophrenic patients.	2016-
MOMENTUM	Schizophrenia	Region H – Mental Health Service	Ph.D Lisa Korsbek	Measuring the rise in engagement of patients using the Mosenso Solution as a part of the research project	2016-
RADMIS	Depression and bipolar disorder	Region H – Mental Health Services, DTU	Prof. Lars V. Kessing	Develop a smartphone-based monitoring and CBT treatment platform and clinical evidence for improving depression for patients receiving smartphone-based CBT.	2016-
ENTER	Anxiety and Borderline	Region S – Telepsychiatric center, SDU, AAU	Prof. Tanja Maria Scheldrick-Michel Stig Helweg-Jørgensen	mDIARY study: Designing, developing and testing DBT monitoring and intervention solution for Borderline Personality Disorder Anxiety monitoring study: Development and clinical test of the Mosenso monitoring solution for anxiety.	2016-
SAFE II	Major depression	Region H - Psychiatric center	Prof. Klaus Martiny	A Randomised Clinical Trial, investigating how sleep and mood correlates and affects patients after being released from inpatient care	2016-
BIO	Bipolar	Region H – Mental Health Services	Prof. Lars V. Kessing	Identifying a smartphone based biomarker for self-assessment and automated behavioural data within bipolar disorder	2015-
Mindframe	Schizophrenia	Region N	Malene Terp	Research project providing young adolescents with an application to help them in their recovery process.	2014-
MONARCA II	Bipolar disorder	Region H – Mental Health Services	Prof., Dr., Med. Lars V. Kessing	A Randomised Clinical Trial evaluating the efficacy of the Mosenso Solution	2014-
SAFE	Major depression	Region H - Psychiatric center	Prof. Klaus Martiny	Investigating the feasibility of a smartphone app (Daybuilder) can support patients suffering from depression, when transferred from an inpatient ward to outpatient treatment.	2012-2014
MONARCA	Bipolar disorder	ITU, Region H, +12	Prof., Dr., Med. Lars V. Kessing	Researching, designing, developing, and validating a smartphone-based technology platform for monitoring behavioral and physiological information relevant to bipolar disorder.	2009-2013

- Easy-to-use, secure, clinical-class cloud-based solution
- Solidly based on research
- Improved access, empowerment and outcomes
- Help patients, carers, clinicians, researcher and payers overcome the burden over mental illness



What users say (click picture for video - requires internet access)



Questions?



Monsenso

Knowing how you feel