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PROGRAM

9:00 - Learning objectives and Background

9:05 - SMILE ECO-System

9:15 - Group Discussion

9:35 - READY model and Stratification

9:55 - Group Discussion

10:15 - Plenary Discussion

10:30 - Thank you

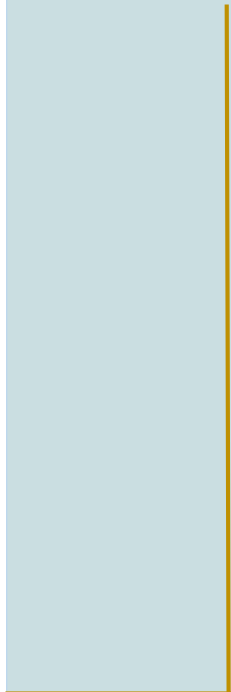
LEARNING OBJECTIVES

- Be able to **involve older adults** with frailty or impairments with various user profiles and technology readiness levels, in a design process
- Identify various user profiles and technology readiness levels, using the **READYH instrument**
- Be able to apply the **ECM model** and assist in an implementation process

- **EU-funded project**, Horizon 2020. ‘SMart Inclusive Living Environments’ (SMILE). Collaboration between Norway, Denmark, The Netherlands, Canada, and Greece
- Increased number of **older people** (60+) globally, increased risk of multimorbidity’s, frailty and social isolation.
- **SMILE aim** to enable older people to live an independent and active life, irrespective of frailty, physical or cognitive impairments using eHealth solutions developed in co-creation with the users.

Acute condition

Paramedic treatment



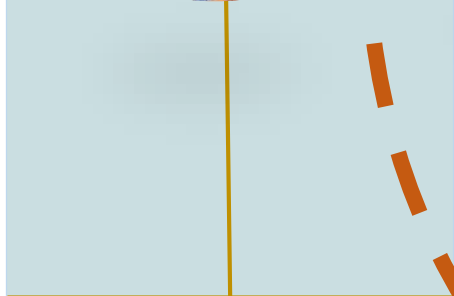
Super Hospital ALS

Health issues

Family GP



Health center incl. health services

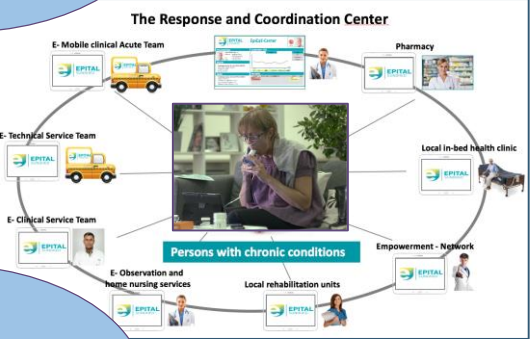



Elective specialized care


Chronic condition

THE EPI-HOSPITAL SYSTEM

Health center chronic care

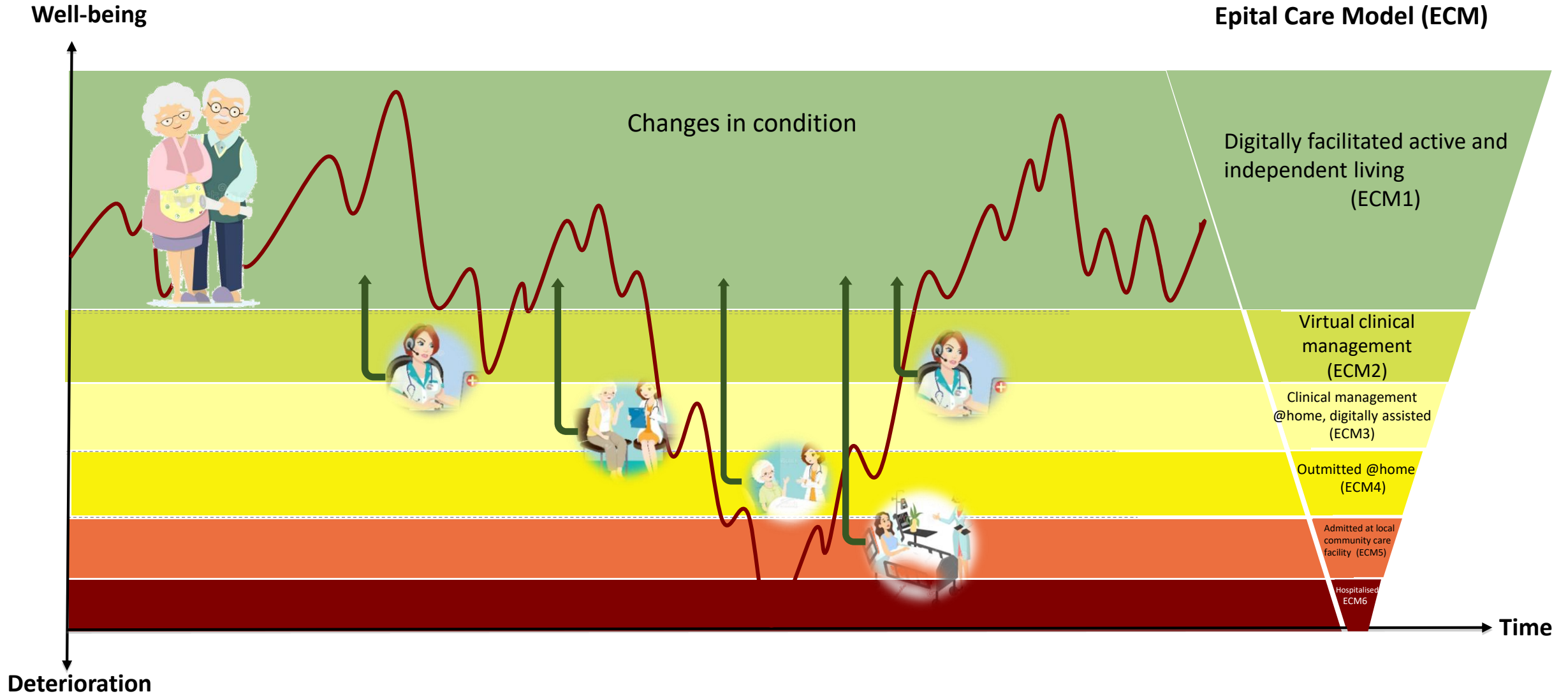


Specialised Chronic Care GP



Consultant team

The Epital Care Model



Mesh



With a focus on **ECM level 1 ‘Digitally facilitated active and independent living’**

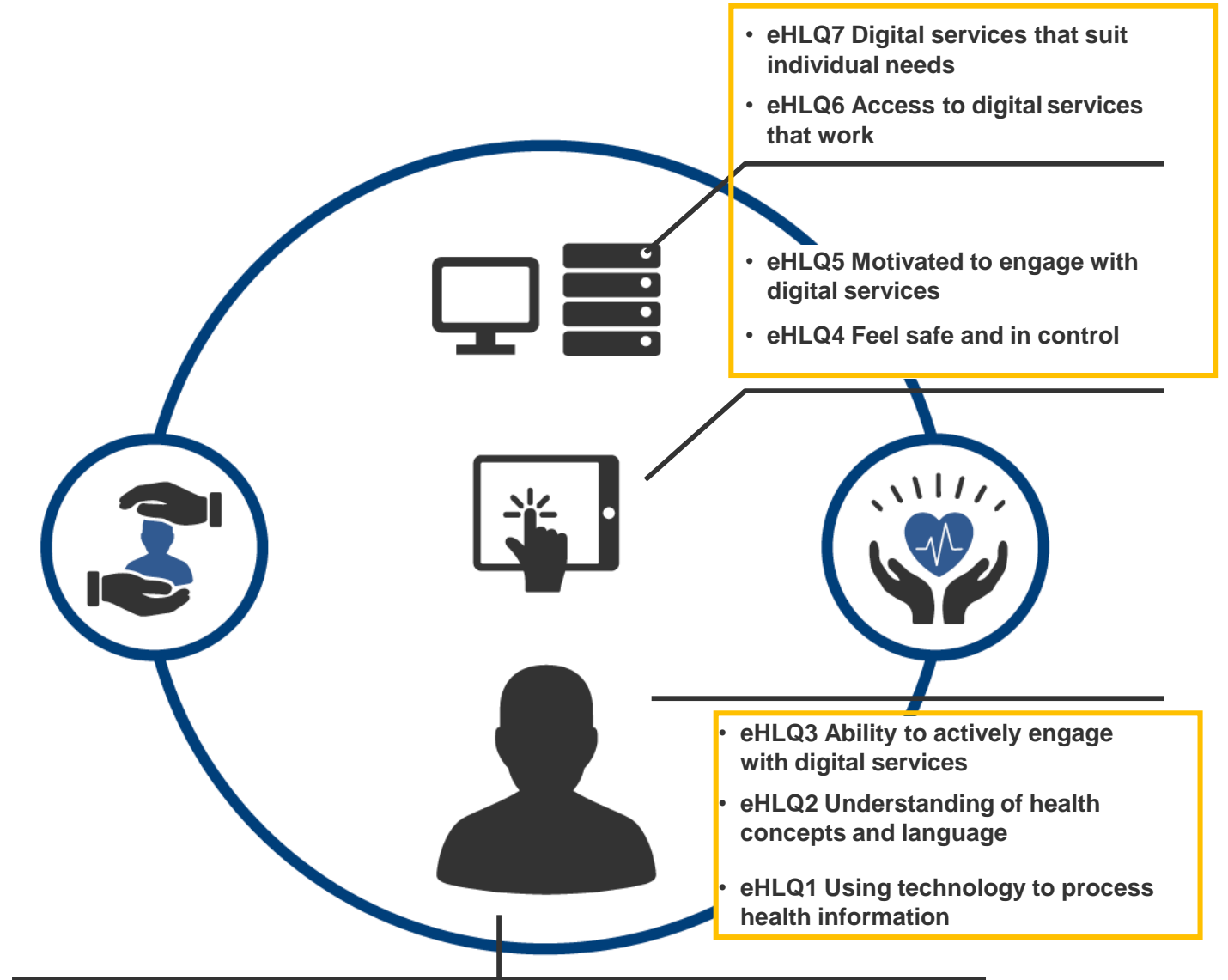
1. Who are the different stakeholders at this level?
2. For each of the identified stakeholders, describe responsibilities, activities, and roles before and after introducing a new technology to enhance the citizens well-being

READY MODEL

13 dimensions: 65 items

Users' competence; abilities, trust, motivation and experiences in relation to digital technologies and services

Digital Health Literacy



READYH MODEL

13 dimensions: 65 items

Users' competence; abilities, trust, motivation and experiences in relation to digital technologies and services

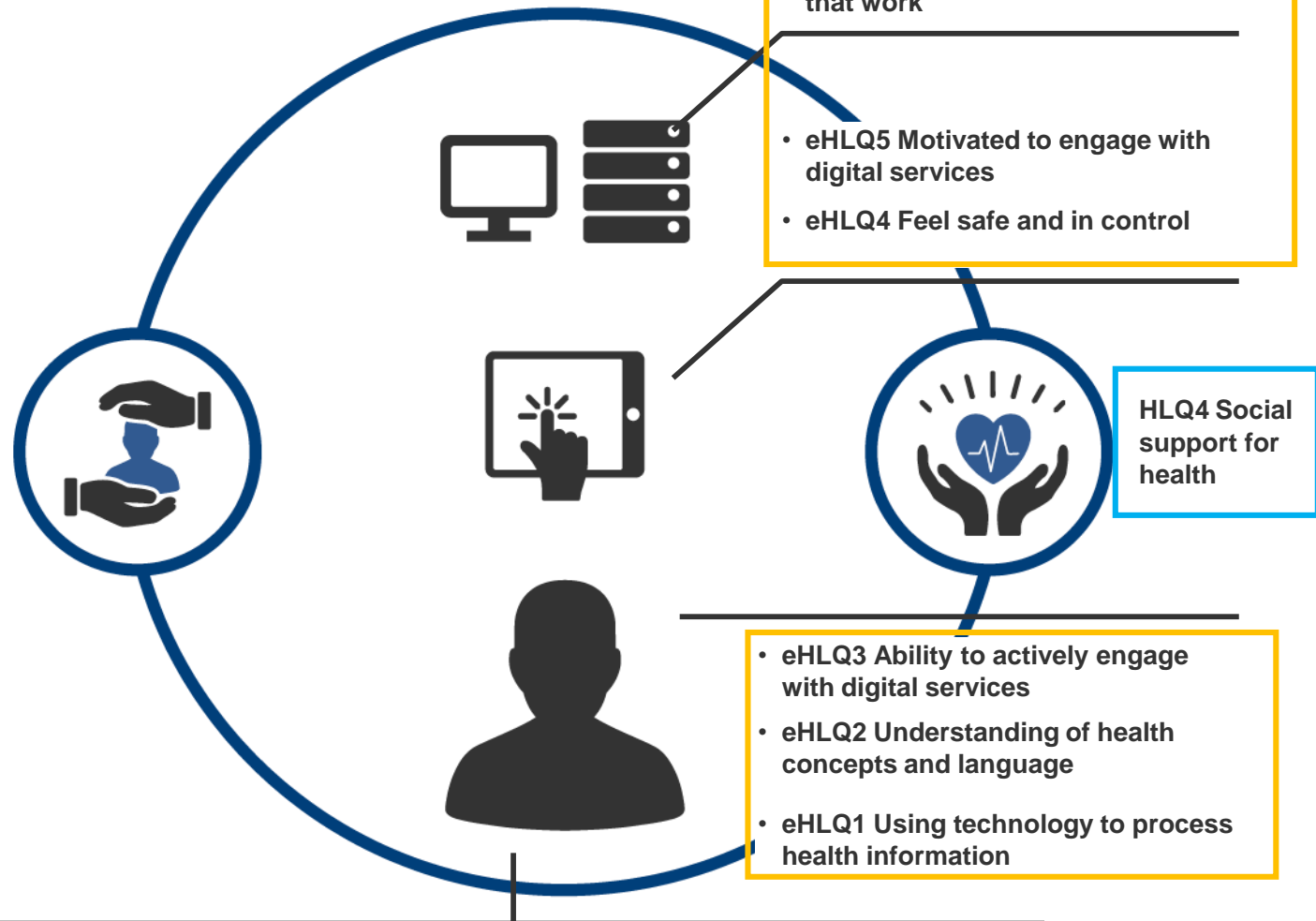
Digital Health Literacy

Social Support

Self-management

HLQ1 Feel understood and supported by healthcare providers

HLQ4 Social support for health



- eHLQ7 Digital services that suit individual needs
- eHLQ6 Access to digital services that work

- eHLQ5 Motivated to engage with digital services
- eHLQ4 Feel safe and in control

- eHLQ3 Ability to actively engage with digital services
- eHLQ2 Understanding of health concepts and language
- eHLQ1 Using technology to process health information

- heiQ3 Self-monitoring and insight
- heiQ5 Skill and technique acquisition
- heiQ4 Constructive attitudes and approaches
- heiQ8 Emotional distress

STRATIFICATION USING READYH

Final Cluster Centers (Denmark) (41 valid, 5 missing)

	1 (16)	2 (5)	3 (11)	4 (9)
heiQ3 Self-monitoring and insight	2.98	3.66	3.13	3.11
heiQ4 Constructive attitudes and approaches	2.81	3.28	2.76	3.46
heiQ5 Skill and technique acquisition	2.65	3.15	2.84	3.11
heiQ8 Emotional distress	2.50	2.76	2.13	3.12
HLQ1 Feel understood and supported by healthcare providers	2.78	3.70	3.40	3.44
HLQ3 Actively managing my Health	2.68	3.40	2.92	2.68
HLQ4 Social support for health	2.83	3.59	2.90	3.33
eHLQ1 Using technology to process health information	2.78	3.92	1.89	2.03
eHLQ2 Understanding of health concepts and language	2.85	3.96	2.82	2.77
eHLQ3 Ability to actively engage with digital services	2.95	3.96	1.99	2.65
eHLQ4 Feel safe and in control	2.97	4.00	2.95	3.18
eHLQ5 Motivated to engage with digital services	2.85	3.92	2.11	2.60
eHLQ6 Access to digital services that work	2.86	3.96	2.42	2.97
eHLQ7 Digital services that suit individual needs	2.78	3.80	2.04	2.68

PERSONA 1

	Cluster 1
heiQ3	2.98
heiQ4	2.81
heiQ5	2.65
heiQ8	2.50
HLQ1	2.78
HLQ3	2.68
HLQ4	2.83
eHLQ1	2.78
eHLQ2	2.85
eHLQ3	2.95
eHLQ4	2.97
eHLQ5	2.85
eHLQ6	2.86
eHLQ7	2.78

Challenged by own condition

Female, 69 years old, lives alone. She has been suffering from COPD and ischemic heart disease for more than five years. She is treated with inhalations for her COPD and three different types of drugs for her heart condition. She has a background in the service industry and started working as front desk personnel after finishing elementary school. she retired at 67.

She has problems with sleep, due to restlessness and nightly coughing, and finds it difficult to maintain daily activities in her everyday life. She also has difficulties in managing his condition and finds it hard to understand when she needs take additional inhalations for her COPD (heiQ5). This has caused her to feel a higher level of emotional distress in his everyday life (heiQ8).

She is highly motivated to engage with digital services and is not experiencing difficulties in acquiring and processing health information through digital services (eHLQ5, eHLQ1). Further, she feels overall understood and supported by both health care workers and her family and friends (HLQ1, HLQ4).

PERSONA 2

	Cluster 2
heiQ3	3.66
heiQ4	3.28
heiQ5	3.15
heiQ8	2.76
HLQ1	3.70
HLQ3	3.40
HLQ4	3.59
eHLQ1	3.92
eHLQ2	3.96
eHLQ3	3.96
eHLQ4	4.00
eHLQ5	3.92
eHLQ6	3.96
eHLQ7	3.80

Male, 82 years old, lives alone. Has been suffering with COPD for 20 years and high blood pressure. He suffered a heart attack 5 years ago and is medicated with anti-circulation medicine. He has a background in engineering. He has a girlfriend that lives 40km away, that he visits on a weekly basis.

He has a constructive attitude and approach in relation to own condition (heiQ4) and is not emotionally distressed (heiQ8) or challenged by lack of knowledge and skills related to own condition (heiQ3, heiQ5). Further he feels overall support from relatives and health care providers (HLQ1, HLQ4).

He actively engages in social media and uses technological devices to monitor his condition daily (eHLQ5, eHLQ7, eHLQ6). Further, he has developed his own system for tracking his health and keeps a physical document that he fills out everyday.

In general he feels safe and in control of his condition and his everyday life (eHLQ4).

PERSONA 3

	Cluster 3
heiQ3	3.13
heiQ4	2.76
heiQ5	2.84
heiQ8	2.13
HLQ1	3.40
HLQ3	2.92
HLQ4	2.90
eHLQ1	1.89
eHLQ2	2.82
eHLQ3	1.99
eHLQ4	2.95
eHLQ5	2.11
eHLQ6	2.42
eHLQ7	2.04

Male, 70 years old, lives alone. Smokes. Has been suffering from COPD and diabetes for over 10 years. He has seven years of school and five years work experience at a factory until he retired at 58 years old, due to his pulmonary problems.

He has an overall feeling of being safe and in control and does not generally have difficulties in processing information given by health care professionals, about his own condition. He also has a strong feeling of being supported by both formal and informal caregivers. His attitude is overall constructive in relation to his own condition, in which he also have great insight (eHLQ4, HLQ1, HLQ4, eHLQ2).

In relation to managing his condition daily, he have been provided with a tablet to send daily measurements to a nurse in the municipality, but he finds it difficult to understand how to use the technology. He has a feeling that the technology does not fit his individual need and does not have an overall feeling that the technology is working and benefitting his everyday life (eHLQ1, eHLQ3, eHLQ6, eHLQ7). This has also caused him to feel a degree of emotional distress in his everyday life (heiQ8)

Further, he has been asked to follow a group on Facebook, but finds it difficult to navigate on the platform and to find relevant information. This has resulted in a lack of motivation to engage in these new technologies (eHLQ5)

PERSONA 4

	Cluster 4
heiQ3	3.11
heiQ4	3.46
heiQ5	3.11
heiQ8	3.12
HLQ1	3.44
HLQ3	2.68
HLQ4	3.33
eHLQ1	2.03
eHLQ2	2.77
eHLQ3	2.65
eHLQ4	3.18
eHLQ5	2.60
eHLQ6	2.97
eHLQ7	2.68

Female, 80 years old, lives with partner. In need of 24/7 oxygen supply. She has to children that lives close by, as well as grandchildren that visits often.

She is aware of the status of her own condition and is not challenged emotionally by her condition (heiQ3, heiQ5, HeiQ8). She feels understood and supported by both health care professionals and her relatives (HLQ1+4). She feels safe traveling with her oxygen supply.

She usually uses the phone to call health care professionals if needed. This is due to an overall feeling that digital services does not suit her individual need (eHLQ7). She does not use social media, and is in general not motivated to engage in digital services (eHLQ5). She is challenged in using technology to process health information (eHLQ1) and to some extent also challenged in her ability to actively engage with digital services (eHLQ3). She does however have a feeling that the technologies she have been introduced to have been working well (eHLQ6).

How can the personas be improved?

1. Is there a need for more variables to inform the clustering process?
2. Could the personas be enriched with more detailed information? What kind of information?

PLENARY DISCUSSION

THANK YOU

References

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2. Phanareth K, Vingtoft S, et al. *The Epital Care Model: A New Person-Centered Model of Technology-Enabled Integrated Care for People With Long Term Conditions. JMIR Res Protoc. 2017*
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