Power to the People
Are we really ready for this?

Zoltan Lantos
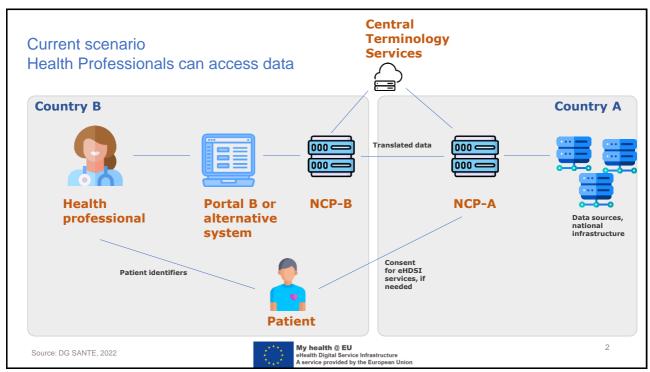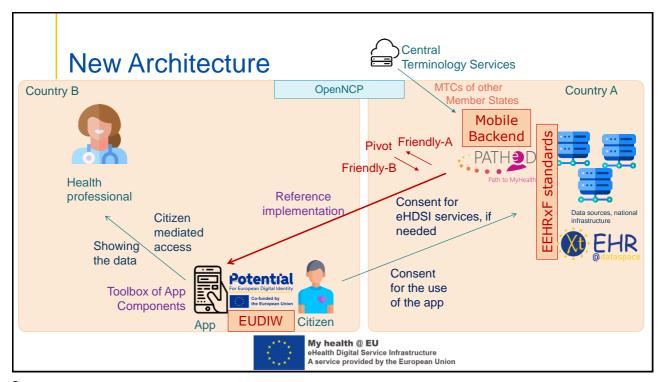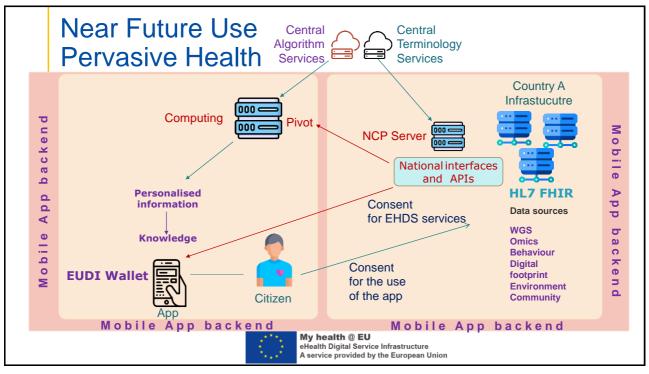
2023 Thought Leader EHTEL Symposium
Digital Health Implementation: It's a collaborative business
29 November Ghent, Belgium

1

Current scenario
Health Professionals can access data

2

New Architecture

Central Terminology Services

Country B

OpenNCP

MTCs of other Member States

Country A

Mobile Backend

PATH∍D
Path to MyHealth

Pivot — Friendly-A

Friendly-B

EEHRxF standards

Data sources, national infrastructure

Xt EHR
@dataspace

Health professional

Reference implementation

Consent for eHDSI services, if needed

Citizen mediated access

Showing the data

Potential
For European Digital Identity
Co-funded by the European Union

Consent for the use of the app

Toolbox of App Components

App

EUDIW

Citizen

My health @ EU
eHealth Digital Service Infrastructure
A service provided by the European Union

3

Near Future Use Pervasive Health

Central Algorithm Services

Central Terminology Services

Country A Infrastucutre

Mobile App backend

Computing

Pivot

NCP Server

National interfaces and APIs

HL7 FHIR

Personalised information

Data sources

Knowledge

Consent for EHDS services

WGS
Omics
Behaviour
Digital footprint
Environment
Community

Mobile App backend

EUDI Wallet

Consent for the use of the app

App

Citizen

Mobile App backend

Mobile App backend

My health @ EU
eHealth Digital Service Infrastructure
A service provided by the European Union

4

100% of citizens have access to medical records online

Source: Europe's Digital Decade: digital targets for 2030

Welcome
to the Data Age

Data is the only renewable resource
That can transcend the boundaries of our ecosystem

January 2019
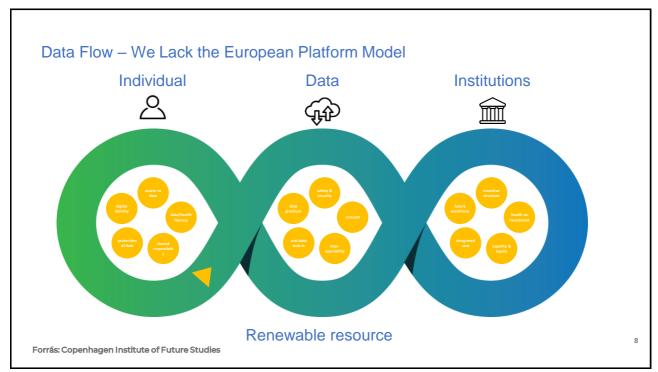
We are trying to solve 'wicked problems'.

Primary

• No clear solution

• Attempts to address the problem often lead to unforeseen outcomes

• Solutions involved changing behaviours

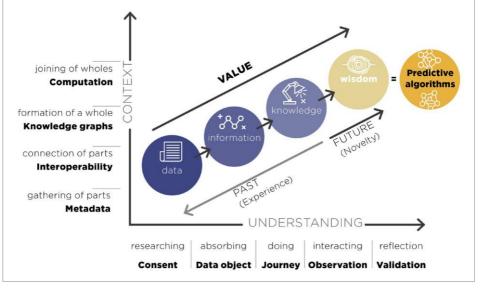• Many interdependencies are often multi causal

• Socially complex

Secondary

• Difficult to clearly define

• Frequently not stable

• Rarely is the responsibility of only one stakeholder

• Can be characterised by chronic policy failure

• Requires adaptive leadership

Wicked problems need to be addressed in a holistic way rather than from just one of the many stakeholders' perspectives - some of which can actually be conflicting with each other. Stakeholders must work together to ensure a full understanding of the problem and to share a commitment to possible solutions. Because wicked problems have no simple identifiable root cause, and often there are interactions between several causal factors, solutions require broader, more collaborative and innovative approaches.

January 2019

(Source: PDA Letter, 2016)

7

Data Flow – We Lack the European Platform Model

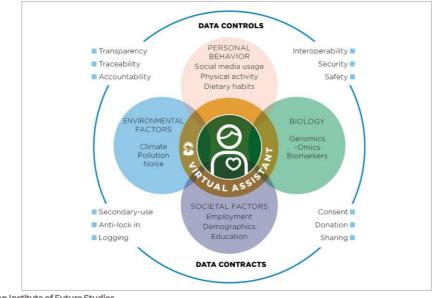Forrás: Copenhagen Institute of Future Studies

8

4

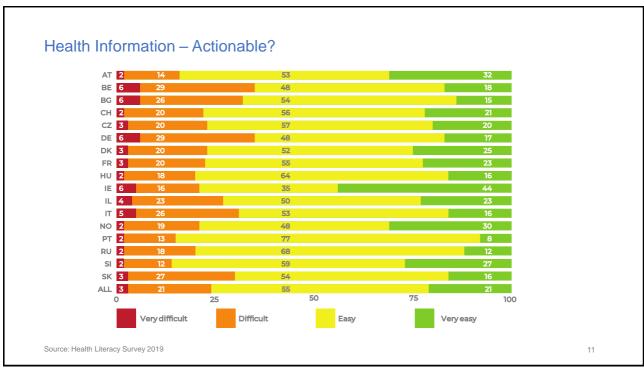## Data Value Chain – Little Attention to the Foundations

Source: Lantos 2022, based on Ackoff 1989 in: The Next Era in Global Health by Copenhagen Institute for Futures Studies, 2020.

9

The Individual as a Data Centre – We Lack Clear Motivation

Source: Copenhagen Institute of Future Studies

10

Health Information – Actionable?

	Very difficult	Difficult	Easy	Very easy
AT	2	14	53	32
BE	6	29	48	18
BG	6	26	54	15
CH	2	20	56	21
CZ	3	20	57	20
DE	6	29	48	17
DK	3	20	52	25
FR	3	20	55	23
HU	2	18	64	16
IE	6	16	35	44
IL	4	23	50	23
IT	5	26	53	16
NO	2	19	48	30
PT	2	13	77	8
RU	2	18	68	12
SI	2	12	59	27
SK	3	27	54	16
ALL	3	21	55	21

11

11

Health Literacy – How Many Are Capable?

Knowledge	Access	Ability	Efficiency	Sharing	Maintaining

Knowledge of health, available health services and the healthcare system.

The extent to which an invidual can process and use information in diiferent formats about health and health provisions.

Access to resources and support required for processing and using information.

Ability to process and use information for health purposes.

Personal efficiency in processing and using health information.
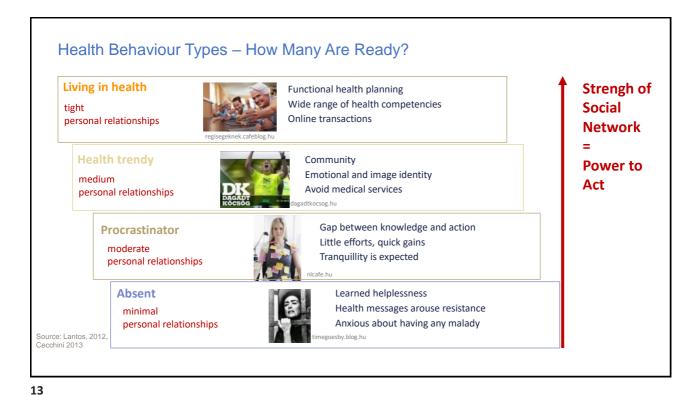
Sharing health information.

The capability to maintain health through self-management and collaboration with health service providers.

Health co-management

Feldolgozva: Liu C et. al..: What is the meaning of health literacy? A systematic review and qualitative synthesis. Fam Med Community Health. 2020 May;8(2):e000351. doi: 10.1136/fmch-2020-000351.

12

6

Health Behaviour Types – How Many Are Ready?

Living in health

tight
personal relationships

Functional health planning
Wide range of health competencies
Online transactions

regisegeknek.cafeblog.hu

Health trendy

medium
personal relationships

Community
Emotional and image identity
Avoid medical services

DK DAGADT KOCSÖG
dagadtkocsog.hu

Procrastinator

moderate
personal relationships

Gap between knowledge and action
Little efforts, quick gains
Tranquillity is expected

nlcafe.hu

Absent

minimal
personal relationships

Learned helplessness
Health messages arouse resistance
Anxious about having any malady

timegoesby.blog.hu

Source: Lantos, 2012,
Cecchini 2013

Strengh of Social Network = Power to Act

13

From Data to Health Value

Communication-Dissemination-Education
Reuse2Advance
MyHealth@EU in the eHealth Ecosystem
1EU – Regulation
eID
Power to the People

PATHeD
Path to MyHealth

14

EUDI Wallet - ePrescription

As seen by the citizen

As seen by the HCP

Solving a Wicked Problem Requires Social Innovation

Source: Cho, M.-H.; Yi, C.-G. Adaptive Social Innovation Derived from Digital Economy and Its Impact on Society and Policy. *Sustainability* 2022, *14*, 3408. https://doi.org/ 10.3390/su14063408

17

18