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The benefits of digital health: Digital health value pools

Presentation

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Introduction

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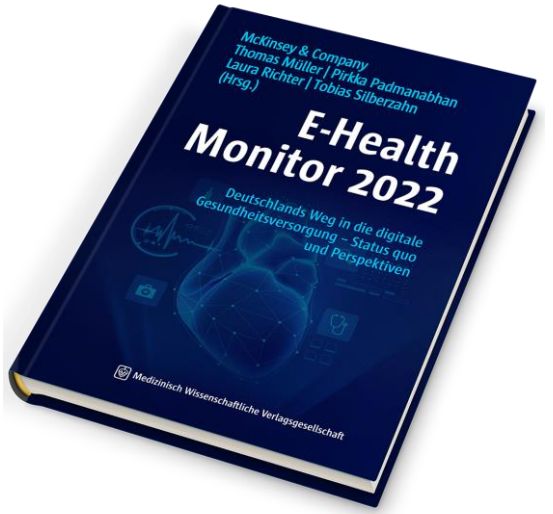
Focus: Health tech

Host of the **Health Tech Network**
(1800 Health Tech CEOs, 400 public, social and private sector organizations, 300 investors)

Co-publisher of the annual "**e-Health Monitor Germany**" book

Co-leads health & wellbeing program for McKinsey Germany



Health Tech Network

HealthTech Network (HTN)

Currently, **>1,800** Health Tech CEOs and Founders in the network

- >25 regional chapters, covering Americas, Europe, Africa and Asia
- Possibility to do workshops with health tech CEOs
- Possibility to test interest for collaboration
- Find the right partner companies

Engagement/ Adherence

BELONG.LIFE, EngagedMD, uMotif, VOLUNTIS, bepatient.

Efficiency / automation

antidote, eConsult, MONDOSANO, LUMEON, Reactive Robotics

Remote patient monitoring

HUMA, Kaiku HEALTH, aparito, binah.ai, doccla, Luscii

Diagnosis/ Disruptive services

THIRTY MADISON, miiskin, color, doctor care anywhere., ada

Digital Therapeutics

Big Health, ieso, welldoc, omada, ANIL

Data / analytics/ visualization

Benevolent AI, SOPHiA GENETICS, eagle genomics, Exscientia, UCARE.AI unlock the impossible

Public, social and private sector organizations and investors:

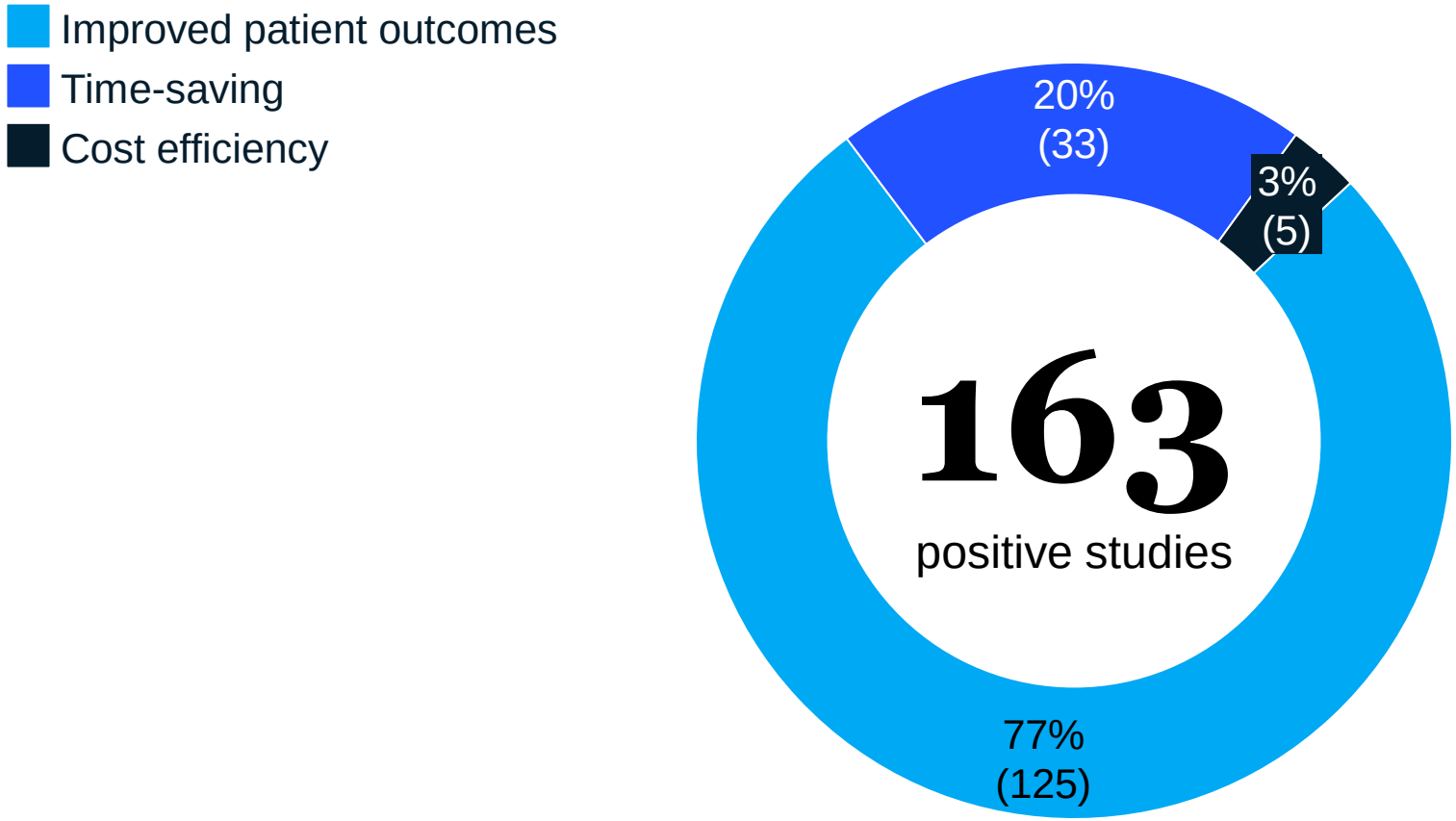
Currently, **300 investors and ~400 public health organizations and corporates** are part of the network to:

- Deep-dive into digital health areas of interest
- Network
- Identify potential collaboration partners
- Examples: European eic INNOVATION Council, Bessemer Venture Partners, Intermountain Healthcare, NHS Digital, NHS Guy's and St Thomas' NHS Foundation Trust, CHARITÉ, GE Healthcare

The strategic playing field for digital health today – where is the value?

	Efficiency		Effectiveness and care	
	Patient self-service	**Online interaction**	**Patient self-care**	
Directly patient facing services (Digital health)	e-Booking	Tele-consultation	Medical chatbots	Patient support networks
		Chronic patient remote monitoring	Disease prevention tools	Digital diagnostic tools
		e-Triage	Chronic disease management tools (Mental health, Diabetes, Respiratory, Cardiovascular)	Virtual reality for pain treatment
	Workflow/automation		**Outcome transparency/ decision support**	
Non-patient facing back-ground services (e-Health)	Nurse mobile connectivity	Barcoding medication administration	Performance dashboards	Clinical decision support
	Vital parameter tracking (eICU)	Process/logistics automation through robotics	Patient flow management	Genetic testing and (digital) interpretation
	Clinician's virtual assistants (AI)	e-Referrals		Advanced payor analytics
	RFID-tracking	Intra-hospital staff communication		
Enablers	Unified electronic health record/ exchange	e-Prescribing		

What is the value of digital health from a medical perspective?



~80%

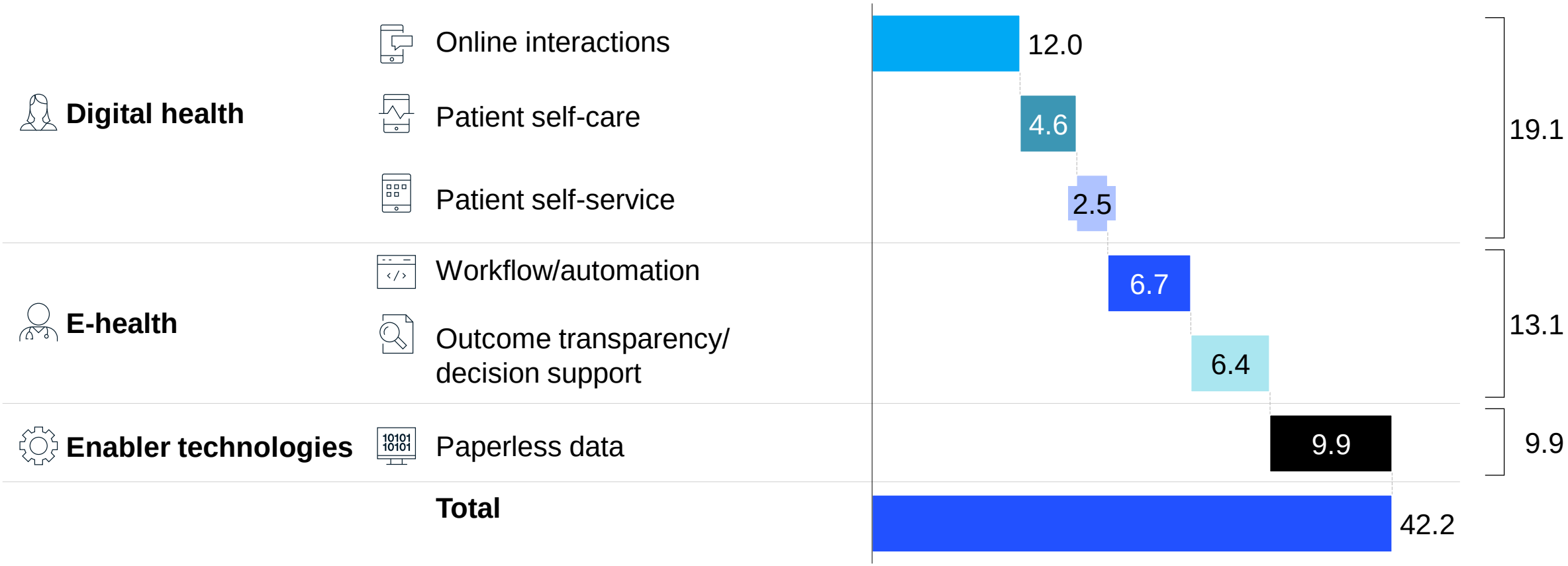
of publications (2018-21) show benefits of e-Health solutions

Looking at the value of digital health from a health system perspective

- Reviewed 500+ papers to capture the “fact-base” behind digital health
- Mapped 85 use-cases to 25 digital health categories, mapped digital health categories to health system budgets
- Developed a quantitative value model – also indicating the distribution of benefits between the main stakeholders
- Tested and reviewed findings with health system stakeholders

German health system: Fully launching 25 digital solutions could enable realization of benefits of up to EUR 42 billion

Benefits for each digital solution category, EUR billions

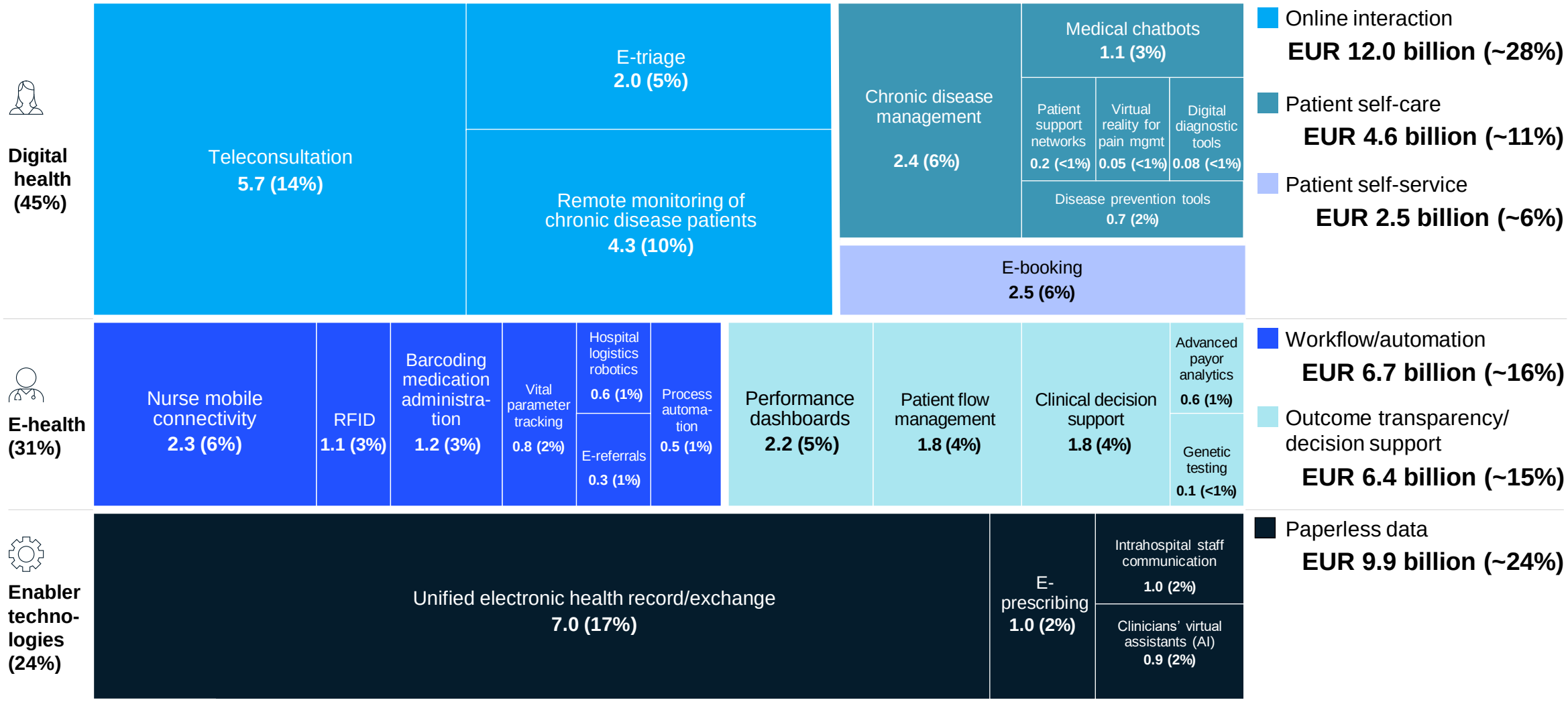


Note: slight deviations possible due to rounding

Source: McKinsey analysis

German health system: How is the value distributed by category?

Value pools along 26 healthcare technologies, EUR billions



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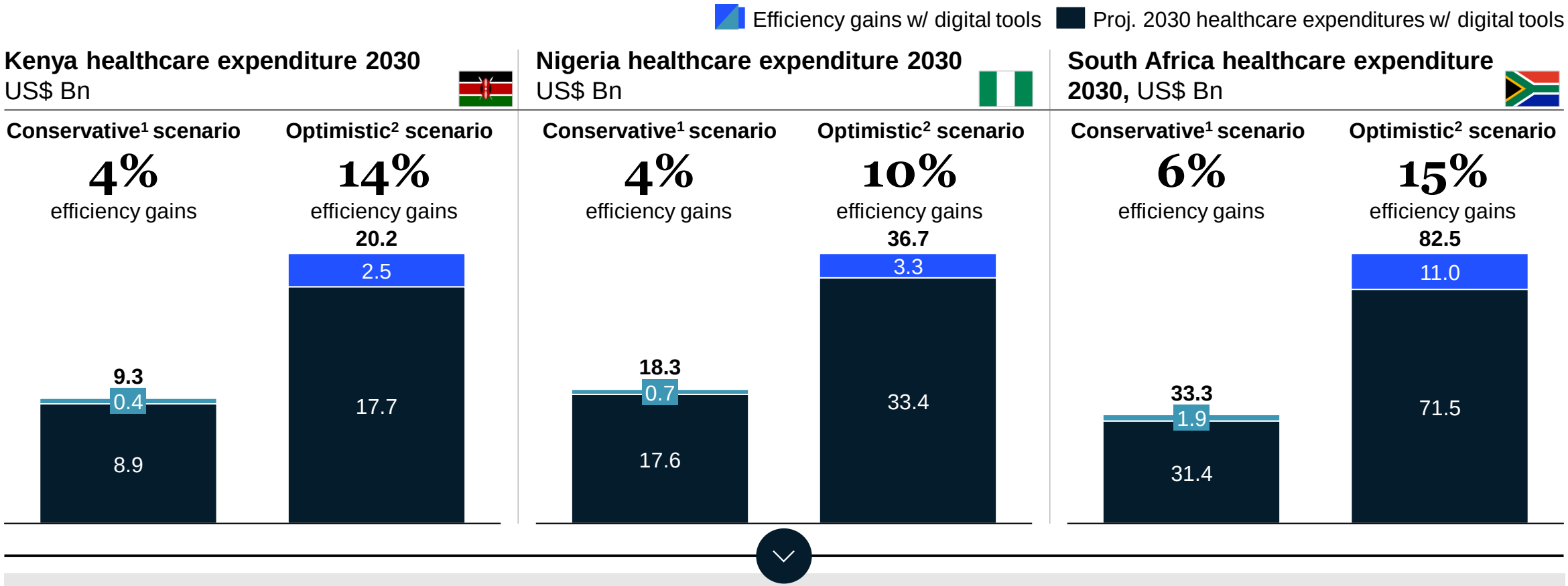
Source: McKinsey analysis

Africa view: Digital health tools could enable healthcare expenditure efficiency gains between 4-15% in Kenya, Nigeria and South Africa



Two key digital categories drive most of the healthcare expenditure efficiency gain potential in the three countries

Virtual interactions

Paperless data

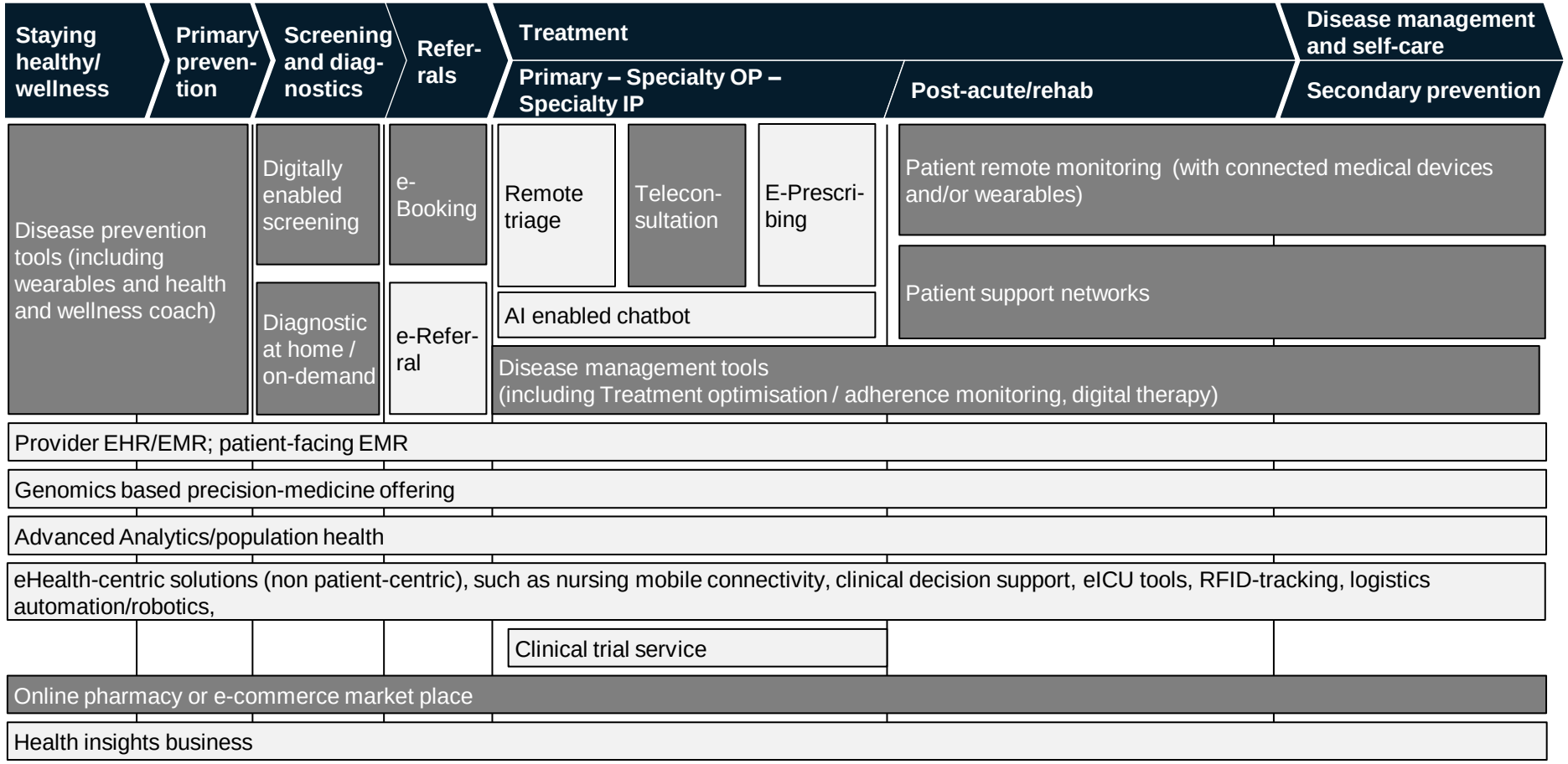
1. Conservative scenario assumes current trends in implementation & adoption of digital health tools, and lower-bound efficiency gains
2. Optimistic scenario assumes accelerated growth in implementation & adoption of digital health tools, and upper-bound efficiency gains

Sources: see list of sources used in McKinsey analysis in appendix

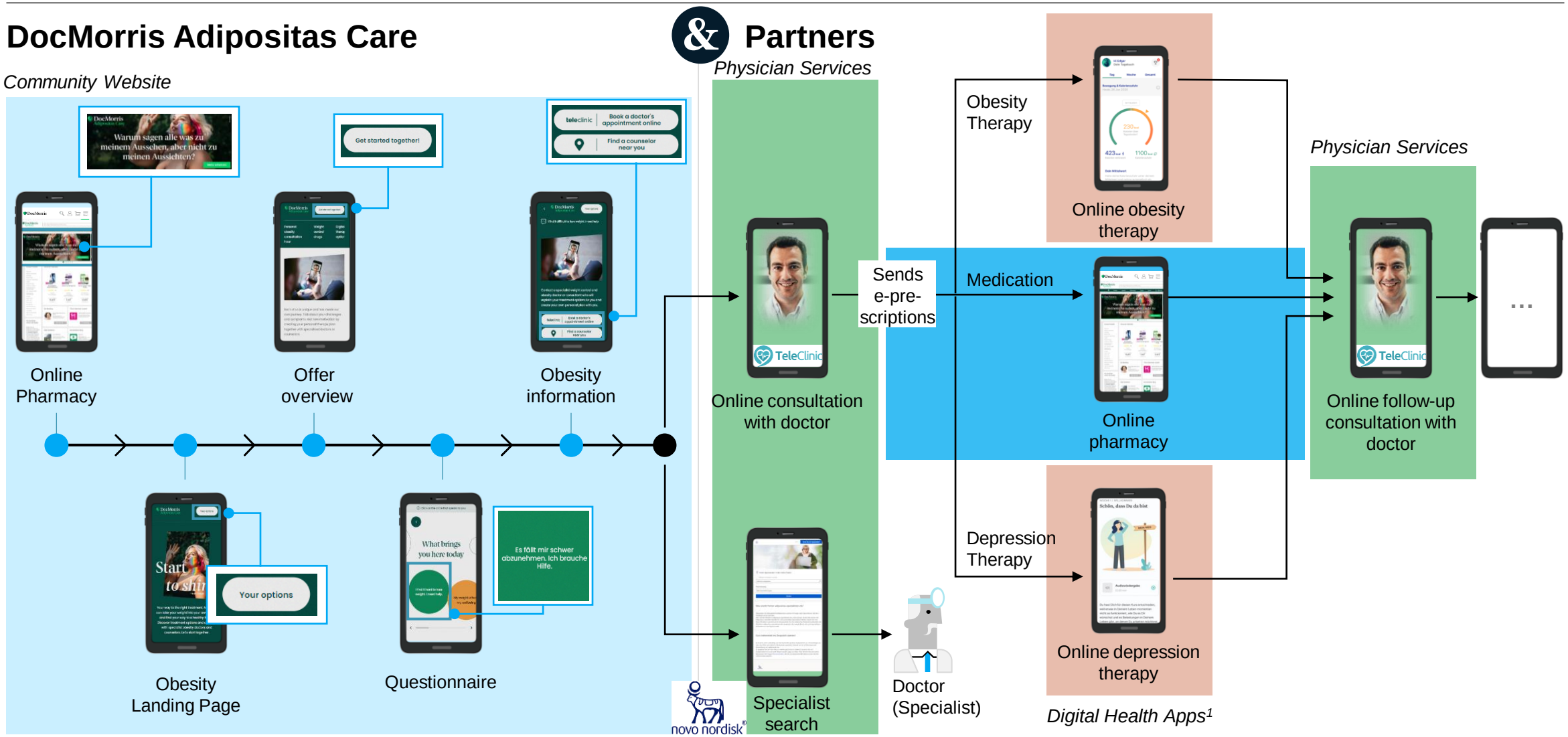
Digital health solutions add most value as part of digitally-enabled care journeys or ecosystems

Illustrative selection of offerings to build an ecosystem

Illustrative possible set of solutions to build an ecosystem



Case example: Zur Rose Adipositas Care ecosystem
Psychological and physiological support offered across care settings



1 fully reimbused by public payor if prescribed by a physician

Source: https://www.docmorriscare.com/adipositas/

Case example: Digitally-enabled care pathway for Covid-patients

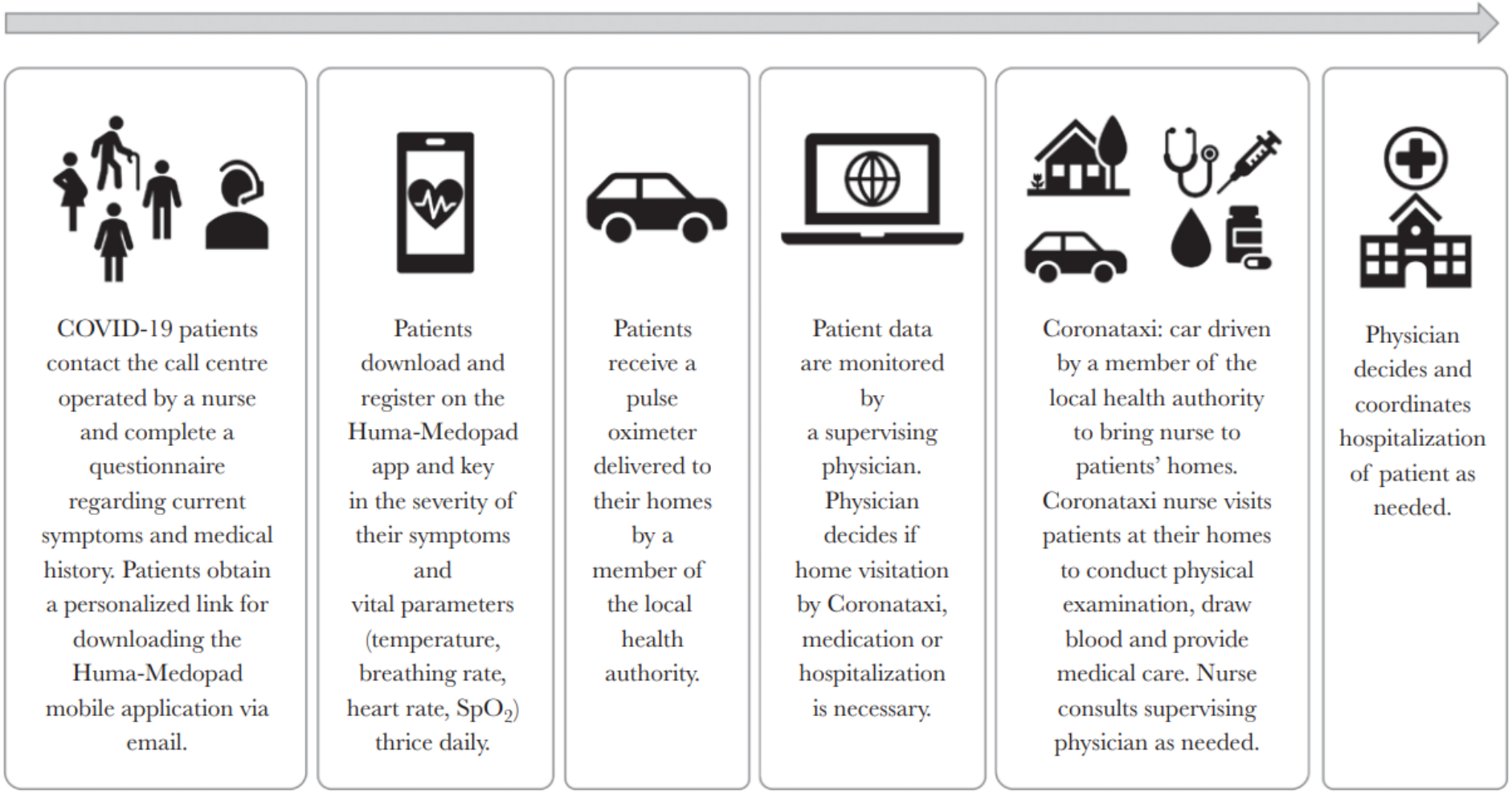


Figure 1. Workflow of the Coronataxi digital early warning system. CDEW, Coronataxi digital early warning system; SpO_2, peripheral oxygen saturation.

Impact: Digitally-enabled care pathway Covid-patients

Results:

Mortality rate was 3- to 4-fold lower […] in the CDEW cohort (459 patients) compared with the cohort without CDEW in the same test area and other regions (Mannheim, Karlsruhe town, Karlsruhe district, and Germany), (mortality rate: 0.65% [95% confidence interval {CI}, .13%–1.90%] versus 2.16%, 2.32%, 2.48%, 2.82% and 2.76%, respectively, P < .05 for all

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THANK YOU!

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