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Preventive care and digital health: A fad or forever

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Introduction to preventive care and digital health

Introduction

Preventive Care

- Range of services to screen and identify health issues before symptoms develop
- Prevention activities: Primary, secondary and tertiary
- Examples: Annual check-up, cancer screenings and immunisations

Digital Health

- Digital technology to improve operation and quality of healthcare services
- Pandemic boosted utilisation of digital health
- Examples: Collection of data, patient-facing apps and telemedicine

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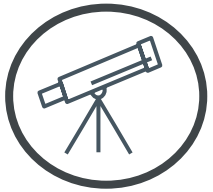
Technology in preventive care



Remote patient monitoring

Assess and treat patients outside of clinical settings

- United HealthCare (US) provides wearables such as KardiaMobile to monitor heart conditions, using real time data to manage patients remotely
- Veterans Affair Health System reported a reduction of 25% in hospital admissions among remotely monitored veterans

Digital patient engagement

Use of digital tools to actively involve patients in their health

- Techniker Krankenkasse (Germany) send personalised reminders for preventive care services
- Mysugr (Austria) is an app designed for diabetic patients, allowing them to log blood sugar levels, meals and insulin doses and includes gamification

Predictive analytics and AI

Predictions of potential outcomes and treatments

- Ping An Good Doctor (China) uses predictive analytics to analyse symptoms and suggest possible diagnoses
- AIA's (Hong Kong) AI system can predict the likelihood of certain chronic diseases using health data, family history and lifestyle inputs

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Bringing it to life

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Daily steps and all-cause mortality: a meta-analysis of 15 international cohorts

Amanda E Paluch, PhD [a] · Shivangi Bajpai, MS [a] · Prof David R Bassett, PhD [b] · Prof Mercedes R Carnethon, PhD [c] · Prof Ulf Ekelund, PhD [d,e] · Prof Kelly R Evenson, PhD [f] · et al. Show more

	Steps per day quartile	Number of studies	Median steps per day	Participants	Deaths/ person-years	Hazard ratio (95% CI)		Risk difference per 1000 people (95% CI)	Heterogeneity I^2
						Model 1	Model 2		
Total	1	15	3553	11 858	1447/70 991	1·00 (ref)	1·00 (ref)	1 (ref)	
	2	15	5801	11 877	676/74 732	0·56 (0·47 to 0·65)	0·60 (0·51 to 0·71)	−65 (−72 to −58)	52%
	3	15	7842	11 877	511/75 587	0·47 (0·40 to 0·56)	0·55 (0·49 to 0·62)	−79 (−86 to −72)	12%
	4	15	10 901	11 859	379/76 526	0·39 (0·32 to 0·48)	0·47 (0·39 to 0·57)	−90 (−97 to −83)	47%

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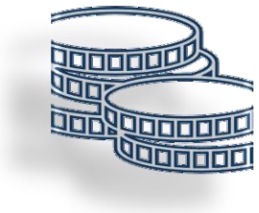
Why preventive care?

Early detection of disease



Reducing healthcare costs

Improving quality of life

Increasing life expectancy

Public health integration

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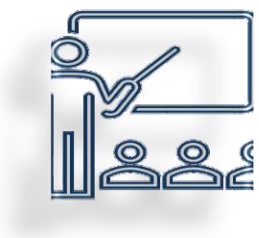
Impacts of introducing a preventive care and digital health model

Public health

Disease prevention and control



Health education

Promoting equity

Environmental health

Emergency preparedness

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Public health spending

Return on investment of public health interventions: a systematic review

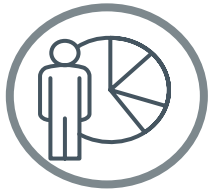
Rebecca Masters,[1,2] Elspeth Anwar,[2,3,4] Brendan Collins,[2,4] Richard Cookson,[5] Simon Capewell[2]

"An ounce of prevention is worth a pound of cure"

ROI 14.3:1	CBR 8.3	National 27.2	False economy of cuts
Median ROI of 14.3:1 for public health interventions; every £1 invested returns £14	Median CBR is 8.3, meaning significant savings for the healthcare system	National-level interventions show higher returns (median ROI of 27.2), but local interventions also yield strong results (median ROI of 4.1)	Cutting public health budgets may save money in the short term but results in greater future costs to health services and the wider economy

Delivering value

Customer engagement



Reduced reliance on invasive procedures

Better chronic disease management

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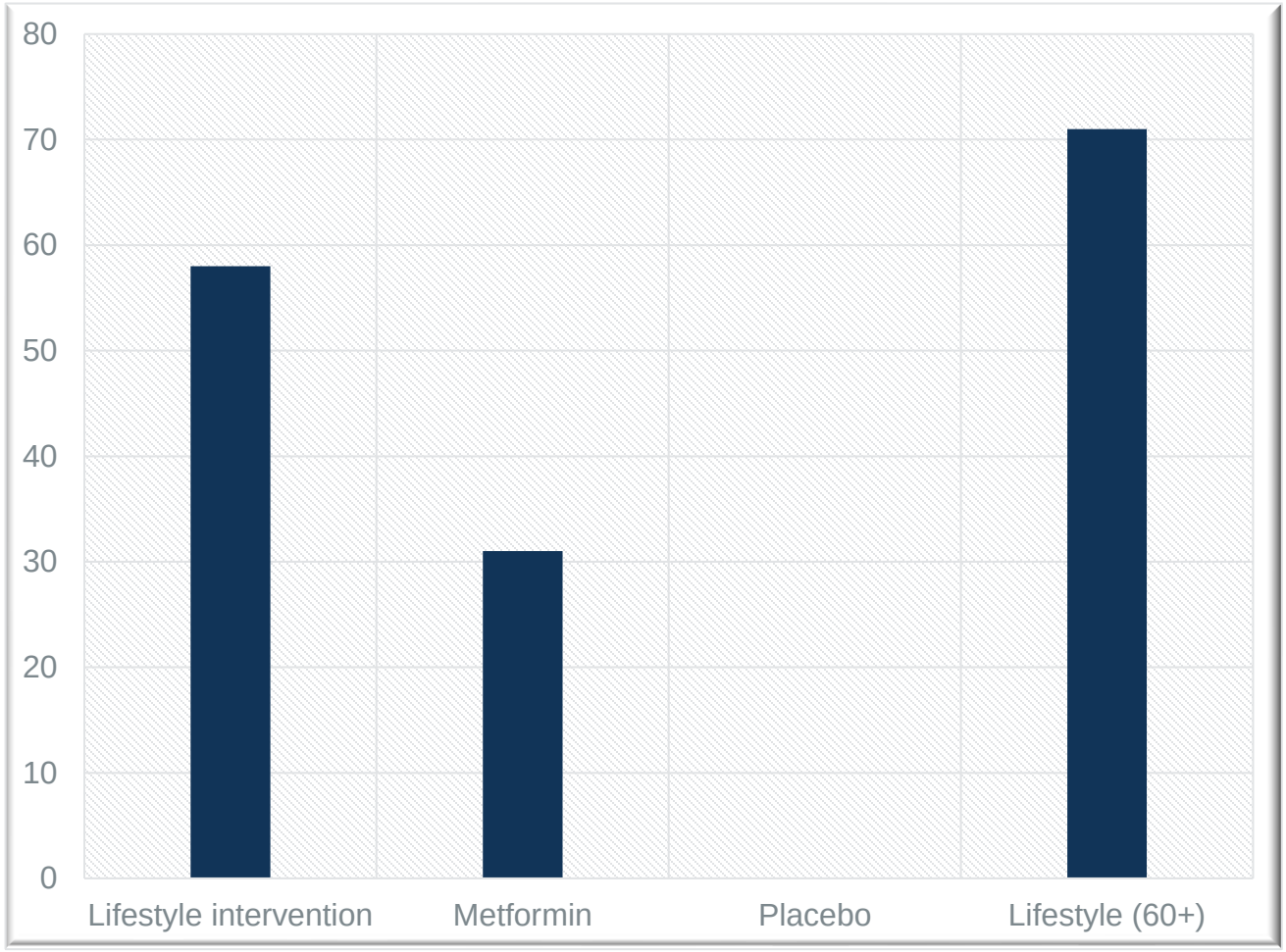
Success stories – pre-diabetes reversal



DPP Study Results
And Weight Loss
Risk Reduction

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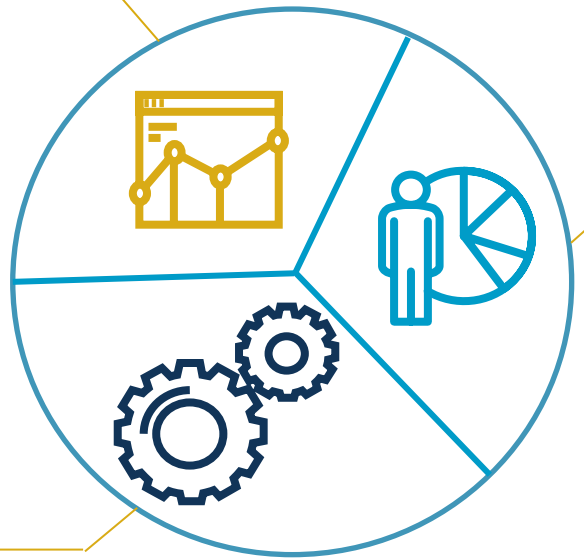
Opportunities in developing this model

Underlying challenges

Utilisation rate

- Lack of awareness and engagement
- Perceived value of preventive care and behavioural inertia



Accessibility

- Digital divide and healthcare literacy
- Cost, coverage and infrastructure barriers

Data and impact measurement

- Data integration across platforms
- Measuring long term impact and defining tracking success metrics

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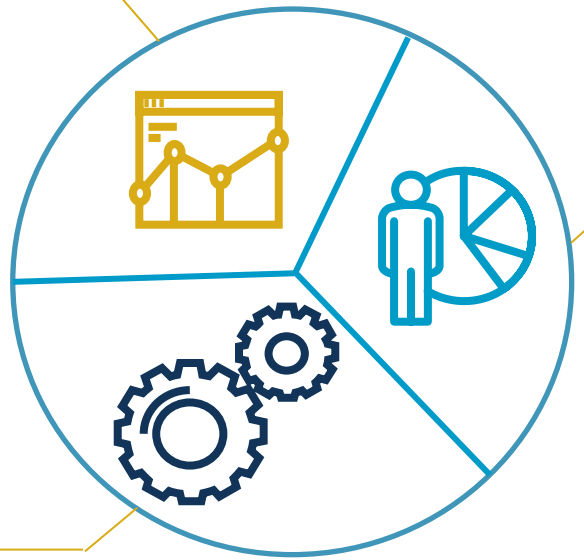
Opportunities with this model

Utilisation rate

- Targeted communications campaign and education
- Offer financial incentives/ rewards and create gamified wellness challenges



Accessibility

- Prioritising simplicity in digital health platforms
- Use simplified communications with clear messaging
- Telemedicine and flexible care models offering both in-person and virtual consultations

Data and impact measurement

- Promoting and adopting standardised data formats
- Develop KPI's and track outcome and costs over time.

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Questions

Comments

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