

# How Gamification, Wearables, Lifestyle Medicine and AI could Transform Public Health



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**Games for Health Europe 2025**

# Presentation Takeaway



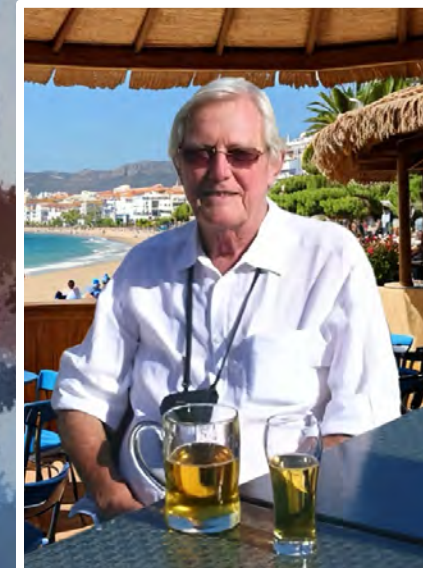
**Gamification** **+** **Wearables** **+** **Artificial Intelligence** **=** **Lifestyle Medicine**

# Human Behavioural Change



**The Future of Sustainable Public Health needs Behavioural Change**

# Some Public Health Cost Challenges



Costs Tomorrow

Costs Today

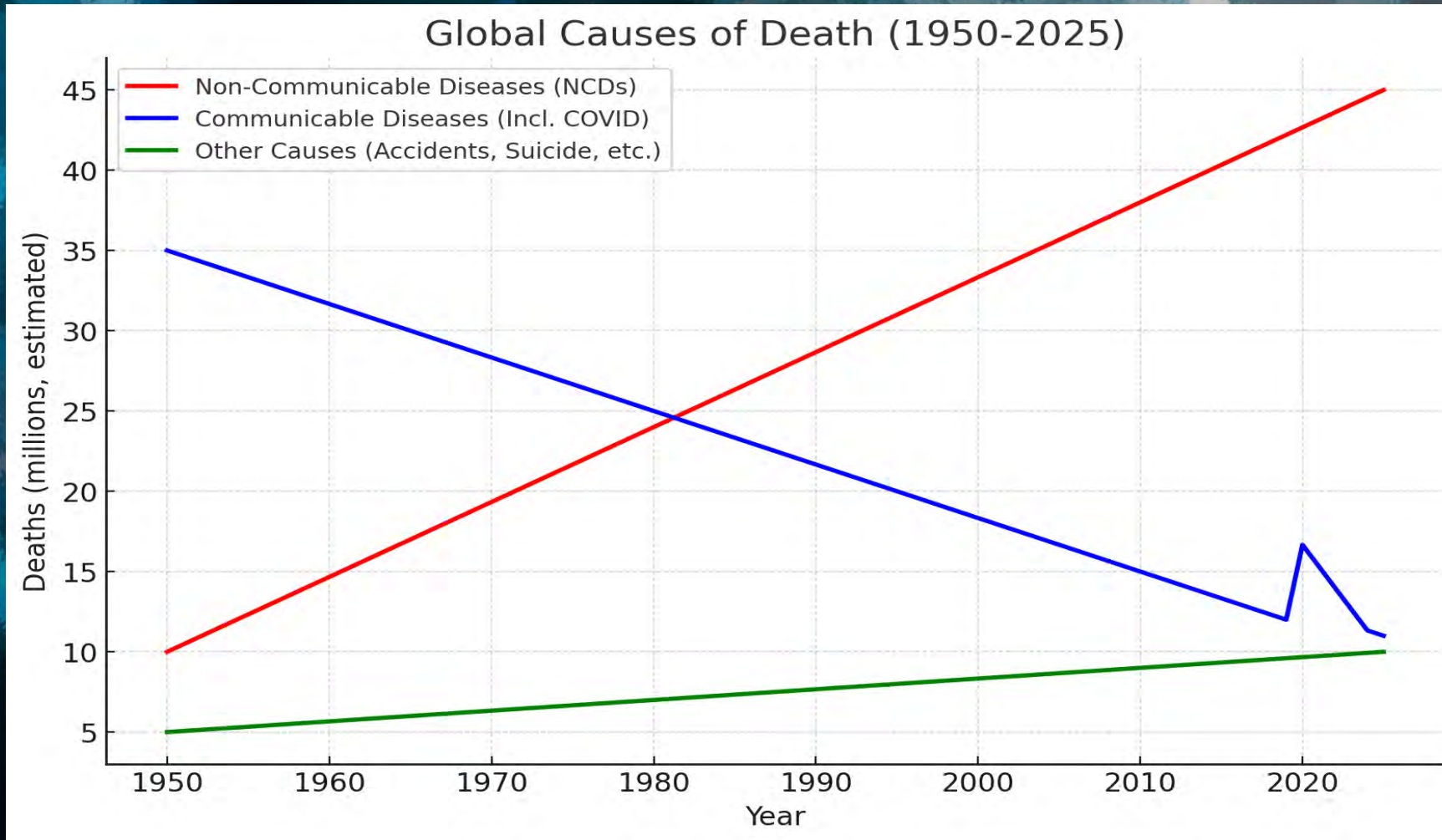
Individuals of all ages contribute to the global NCD health challenges

# Today Costs - Co-Morbidity

Eric Jepson  
1925 – 2021  
RIP



# Causes of Death and NCD 's



Graph generated  
by ChatGPT  
to illustrate trends

**We die more from Lifestyle-related Diseases (NCDs)**

# The Ageing Society Challenges

Increased Longevity

More medical care needed

Fewer working people

Elderly Care under-funded

Pandemics



# The Ageing Society Challenge



**A growing imbalance in the cost of public healthcare services**



# Transition from Cure to Prevention & Behavioural Change in Lifestyles



**It's quite clear that the best chance we have for increasing our life spans and overall improving our health is to adjust our personal behaviours and to do so at an early age.**

# THE CHALLENGE

How can we influence lifestyle behaviours and circumstances at an individual level at scale?





**PERSONALISED, GAMIFIED & VALIDATED  
BEHAVIOURAL CHANGE**

# Gamification



# Gamification is Part of Everyday Life



**Gamification is embedded into every human activity**

# Gamification for Health is not New

**Ring a Roses Nursery Rhyme and Game based on Black Death**

# Snow World

The background is a pixelated, colorful landscape. It features a central area with a rainbow-like glow, transitioning from red and orange to yellow and green. The surrounding areas are dominated by shades of blue and teal, with some darker, almost black, regions. The overall style is reminiscent of early computer graphics or video game environments.

**Using Gamification to mitigate pain**

# Remission



**Gamification used to improve outcomes of childhood cancer**



# Overcoming Fear with Gamification



**Gamification to reduce fear of medical procedures**

# Gamification Theory & Practice White Paper

## Theory and Practice of Gamification and Enabling Technologies in the Future of Humanity



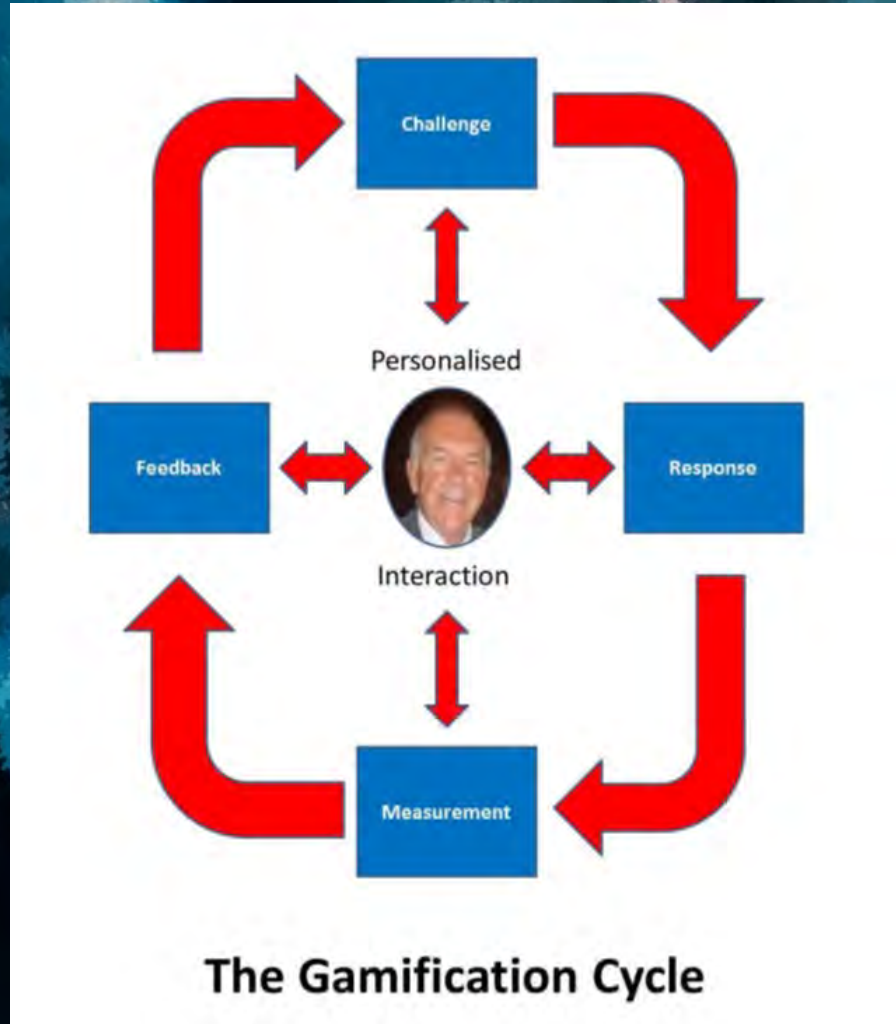
*Gamification is a process designed to shape the world (achieve goals/objectives) by influencing the actions, behaviours, characteristics and state of entities within the world (through the use of games strategies and/or enabling technologies)*

### Executive Overview

This article is intended to provide an understanding of gamification and its growing importance and relevance for addressing some of the serious challenges faced by business and society in the modern world. It argues that gamification is a vital and ubiquitous practice for our continuing sustainable development and is a life skill that individuals and organisations need to master in order to be successful. The article explains the implications and results of the

**A Practical Guide to Gamifying Real World Scenarios**

# Gamification Theory



Challenge / Opportunity



Response



Measurement



Feedback

# Gamification Lens Theory



Games Master



Player



Fan



Spectator



Hermit

# Gamification and Behavioural Change



**Transforming Health Hermits to Players and Games Masters**

# Wearable Devices are Evolving



# The Explosion of Wearables Technologies

Smart Headbands

Smart Watches

Mobile Apps

Smart Rings

Glucose Monitors

Smart Clothes

# The Consumerisation of Medical Devices



An InBody 520 body composition analysis report. The report includes a header with the device name "InBody 320 Body Composition Analyzer" and "InBody 520". It displays various metrics such as weight, body fat percentage, muscle mass, and bone mass. The report is organized into sections like "Basic Information", "Body Composition", "Muscle Mass", "Bone Mass", and "Weight Control".

Basic Information		Body Composition	
Item	Value	Item	Value
Weight	68.5 kg	Body Fat %	12.5%
Height	175.0 cm	Muscle Mass	23.5 kg
Age	25.0 years	Bone Mass	3.5 kg
Sex	Male	Visceral Fat	0.5 kg
Activity	Sedentary	Protein Mass	1.5 kg

From Surgeries to Health Clubs to Home



# The Consumerisation of Medical Devices

Greater Accuracy

Medical Device  
Accreditation

Digital Therapeutics

Lower Costs

Personalisation

Real Time Data

Clinical  
Interventions

Health System  
Integration

# Continuous Blood Glucose Monitoring

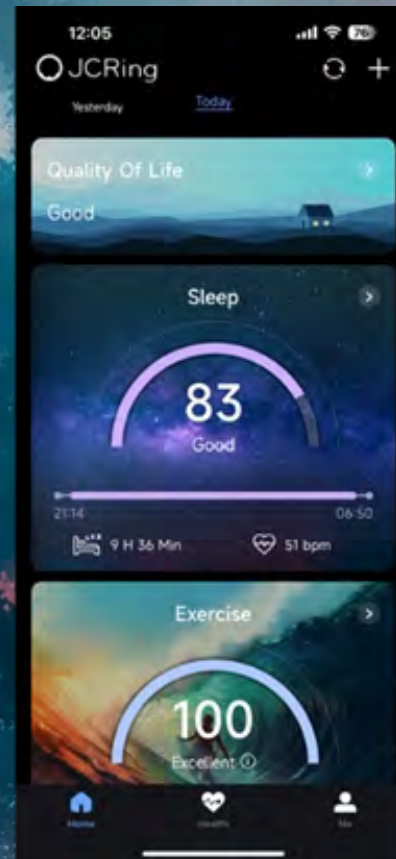
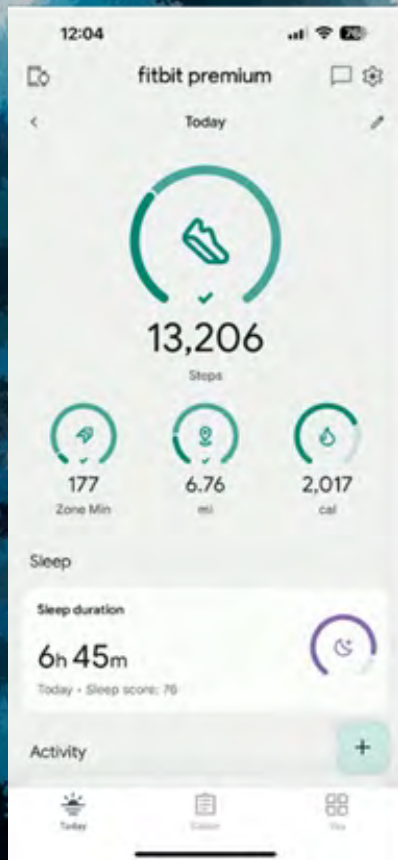
## Lingo Blood Glucose Monitor Screenshots



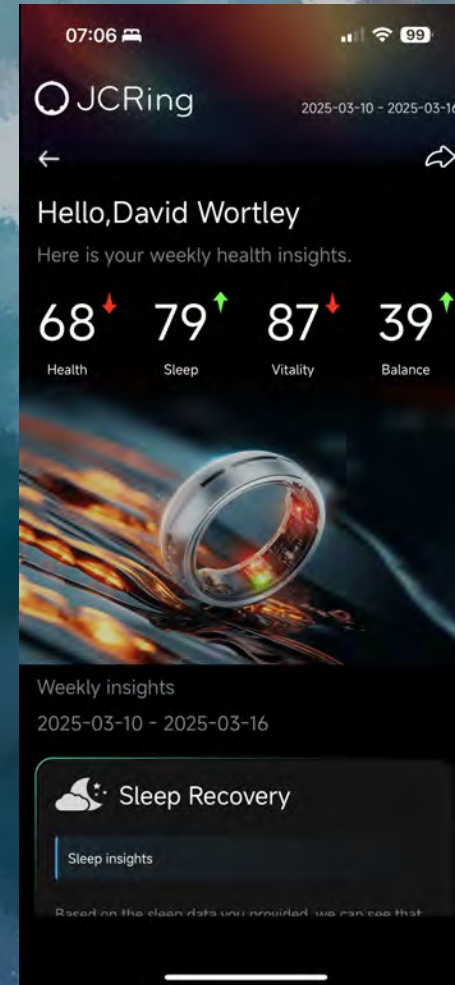
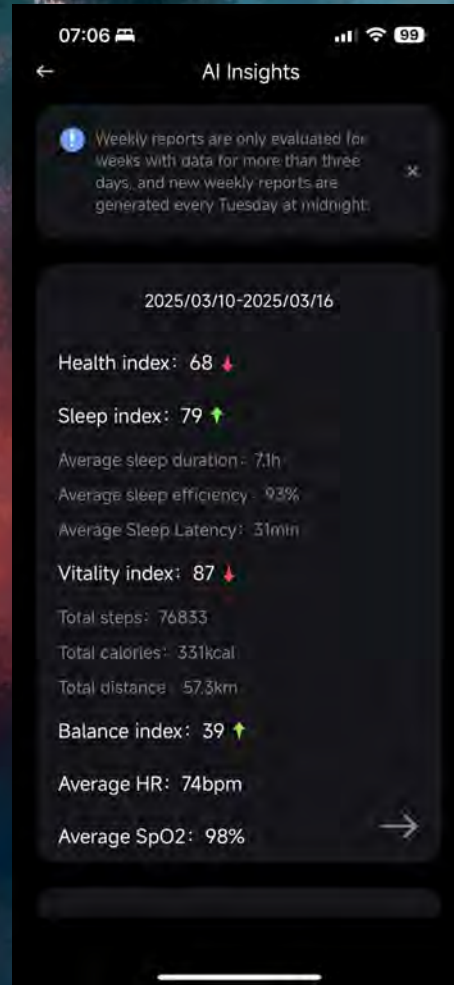
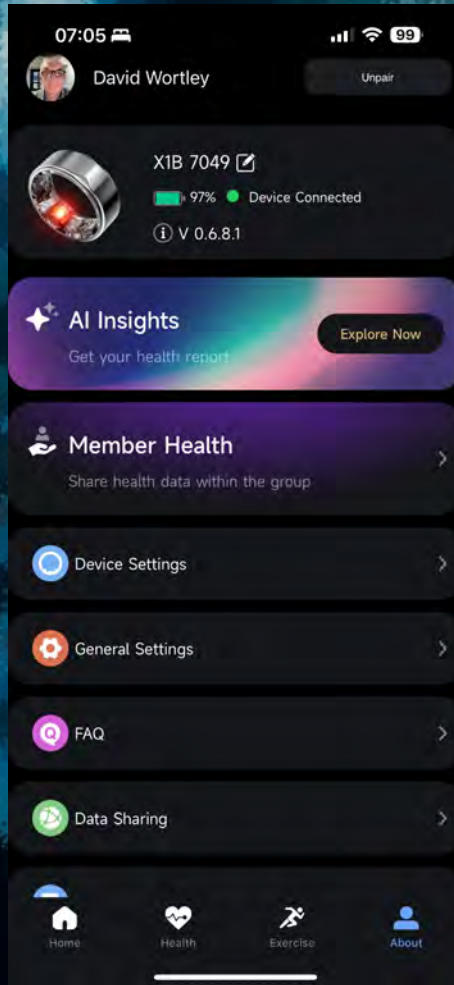
# Artificial Intelligence



# Creating a Digital Twin with Data & AI



# AI Smart Ring Insights



# Putting it all Together



**A Multi-Disciplinary Approach**

# Putting it All Together



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# Hobson Hoggard & Me Today





# Questions



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