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Assignment: Component 1

Task 1- Blog

Task 2- Poster

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Blog 1: Fitbit

Step-by-Step: Reducing Obesity with Fitbit Technology

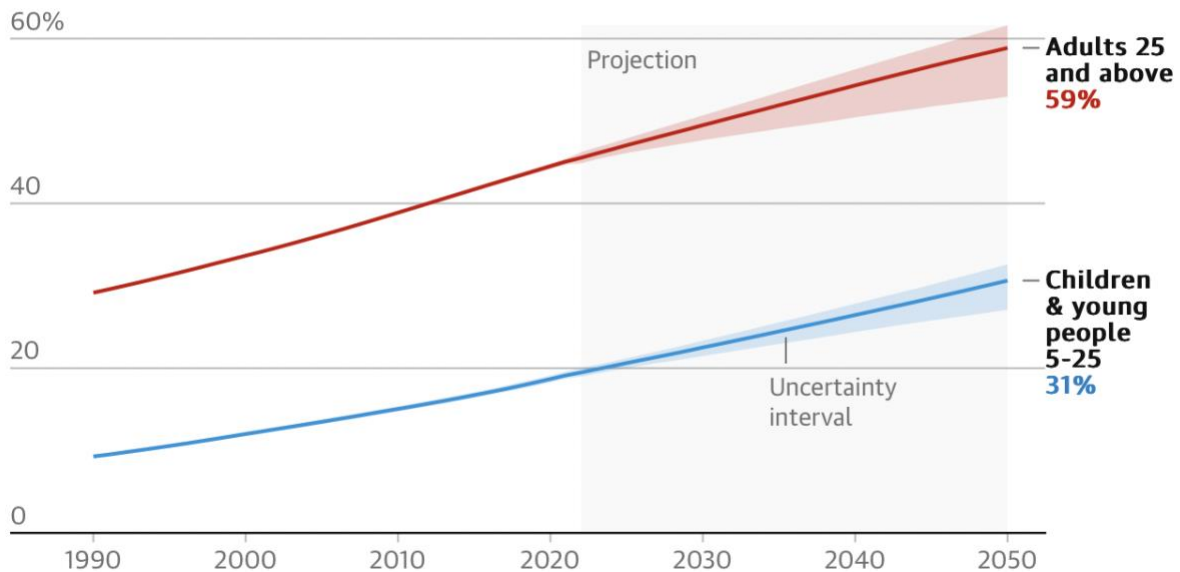
Imagine getting on a scale and realizing you have gained 10 pounds and you have tried many different diets but nothing is working. What if your watch can be your personal health coach guiding you to a healthier lifestyle?



(Woolcock, 2018)

Obesity is a growing concern as in 2025, 1 in 5 people are expected to be obese (World Obesity, 2020). Obesity is not alone, diabetes, heart diseases and certain cancers are linked with it (National Cancer Institute, 2022).

Almost 60% of adults over 25 are expected to be overweight or living with obesity by 2050



(Gregory and Lay, 2025)

Fitbit – a wearable device that acts like a personal health coach and ensures reaching your healthy goals is easier.

What can Fitbit do for you?

- 1. Activity Tracking:** It counts steps, distance, calories burned and encourages daily movement.
- 2. Heart Rate Monitoring:** Tracks your heart rate 24/7 and monitors your cardiac health.
- 3. Sleep Insights:** Monitors sleep quality and provides tips for better sleep.
- 4. Goal Setting and Progress Reports:** Helps you set realistic goals with progress tracking.



(Holman, 2016)

If you don't believe it, see the results and researches from others like you! Research found Fitbit-users with increased daily step-counts and moderate-to-vigorous physical activities (Ringeval *et al.*, 2020). Studies found Fitbit to outshine standard weight-loss interventions in short-term outcomes (Cheatham *et al.*, 2018)!

The Pros and Cons of Fitbit

The Advantages:

1. Encourage daily movement

By accessing real-time health tracking, people are more excited to meet their daily goals and receive immediate feedback. Research found technology used to monitor physical activity levels to boost this likelihood (Ringeval *et al.*, 2020). Whether its through gamified features or rewards, it makes exercising fun and that's the goal.

2. Real-time health tracking

Research found real-time tracking beneficial as immediate feedbacks ensures maintaining healthy habits easier (Li and You, 2022). Whether its calorie counting or daily health goals, this app is always working to provide the best for you.

3. Motivational features

The apps gamification elements- badges, challenges and daily milestones- makes healthier choices more rewarding. This will maintain motivation as accomplishing a goal and earning rewards simultaneously is thrilling (Jang and Kim, 2025).



(Google Images)

Shortfalls You Should Know:

1. Accuracy Concerns

Inconsistent and inaccurate data readings can undermine the effectiveness of the mobile health interventions (Schyvens *et al.*, 2024).

2. User engagement declines

Research found digital health tools may be effective initially however, over time, user engagement declines as the excitement fades (Allous, 2024).

3. Dependant on user motivation

The apps' success largely depends on people's intrinsic motivation, if they don't feel encouraged to continue, they may neglect the tool altogether.

Solutions to Shortfalls:

1. Increase long-term engagement

By integrating new interactive elements in the Fitbit watch and app together, engagement can be prolonged. By keeping it exciting and fresh, we can turn health goals into a game that people never want to quit.

2. Enhance accuracy

By improving the sensors and algorithm needed, we can reduce errors and provide users with reliable data. This will involve engagement with health professionals to ensure Fitbit provides scientifically accurate measurements.

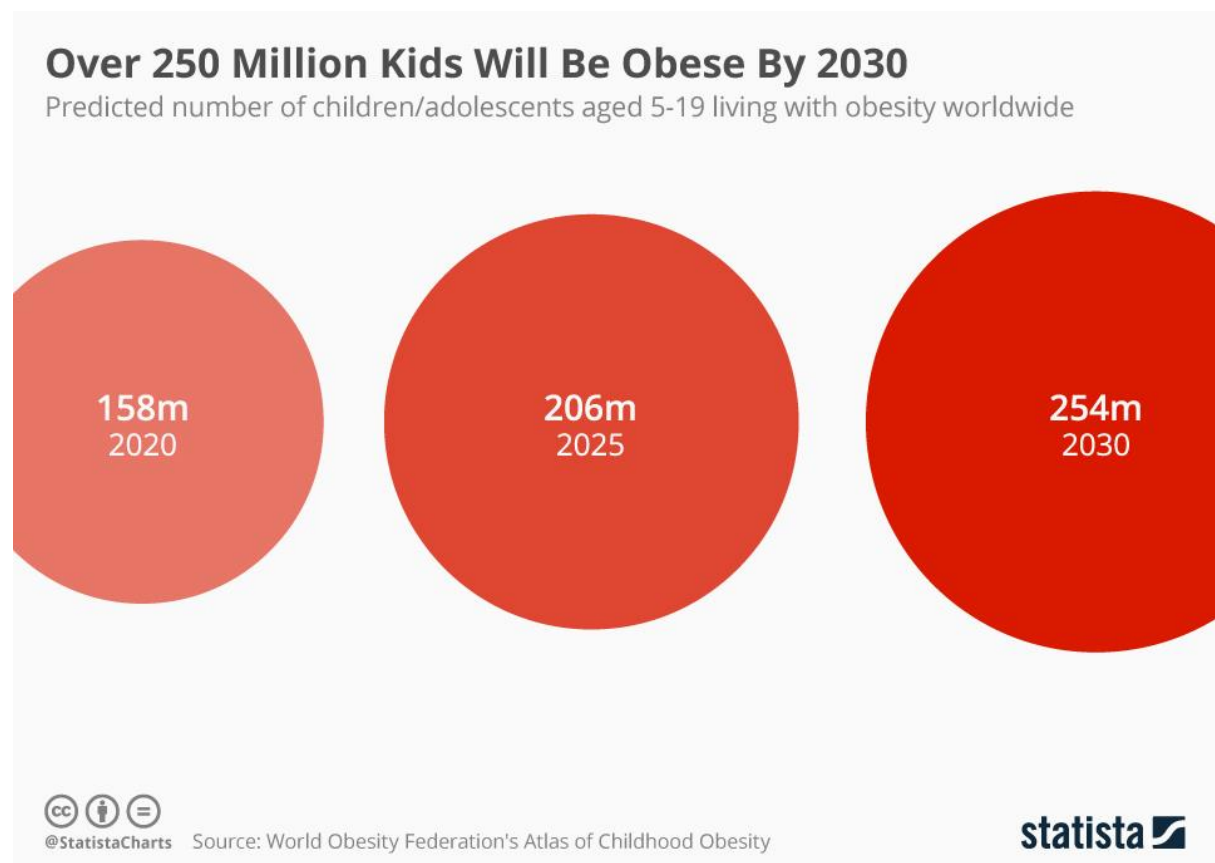
3. Provide External Incentives

The external rewards such as discounts on healthy food and gift cards can be offered when people reach certain reachable milestones. This extra layer of incentive will provide an extra push even when people are feeling less motivated.

Blog 2: Fitness Jr. App

Small Steps, Big Impact: Digital Tools to Combat Childhood Obesity

Childhood obesity is one of the pressing issues of our time and its consequences are unprecedented (Kumari, Shukla and Acharya, 2022). Ranging from increased risk of chronic diseases such as type 2 diabetes and heart disease to mental health problems such as low self-esteem are concerns for obese children (Balasundaram and Krishna, 2023). So how can we tackle this issue in the technological era?



(McCarthy, 2019)



(Direct Orthopedic Care, 2019)

Introducing the Mobile App for Real-Time Nutrition and Physical Activity Tracking

Imagine an app designed to help children and their families track nutritional and physical activities in real-time. This app would integrate fitness trackers to monitor daily activity levels while offering a database of food items to track calories, nutrients and serving sizes. Parents and caregivers can track food consumption and children can receive instant feedbacks on their health goals. The app can be personalized to the child's age, weight, height, fitness levels and preferences.



(Google Images)

How This Technology Could Revolutionize Health Promotion for Children

The app provides continuous real-time feedback and motivation to maintain healthier habits eventually becoming a habit (Michaelson and Esch, 2023; Duckworth and Gross, 2020). The app also empowers parents with their child's behaviour, helping them make informed decisions about physical activities and meal planning. Healthcare providers could also use the data from this app to monitor a child's progress and recommend necessary adjustments. The app also fosters a form of accountability for both parents and children to be aware of their daily habits.

The Impact: What's Working and What Needs Improvement

Like any intervention, this app would have its advantages and limitations. Let's break it down:

Advantages:

1. **Personalization:** The platform would be tailored to each child's specific needs, making it relevant and effective.

2. **Convenience:** As the app is available on smartphones, it is accessible to a wider audience and children can actively track their meals and activities wherever they are – at school, at home or on the go.
3. **Engagement:** Gamification makes it fun. The reward system in the apps keeps children motivated and encourage them to continue setting and achieving new goals.



(Google Images)

Disadvantages:

1. **Dependence on Technology:** Not every family is able to access smartphones or wearables, hence, not all children can access this app.
2. **Behavioral Fatigue:** Although gamification can keep children motivated, there is always the risk of losing motivation especially if the rewards become repetitive.
3. **Privacy Concerns:** As collecting health data especially from children can cause concerns on privacy, parents must feel confident that their child's information is handled confidentially and safely.

Addressing the Shortfalls:

While the app's potential is clear, there are a few ways to enhance its effectiveness:

1. **Increasing Accessibility:** By partnering with schools and local healthcare organizations, smartphones and wearables with educational resources could be provided for families that do not have access to it.
2. **Improving Engagement:** To prevent behavioural fatigue, the app can periodically introduce new and dynamic challenges to keep the audience engaged.
3. **Prioritizing Privacy:** To ensure the app adheres to strict data protection rules such as GDPR and HIPAA will be essential and parents should have full control and knowledge over the data collected and on how it is being used.



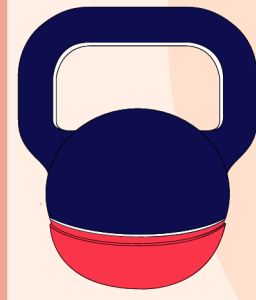
(Strategy Education, 2022)

SMART MOVES: PROMOTING WELLBEING WITH FITBIT



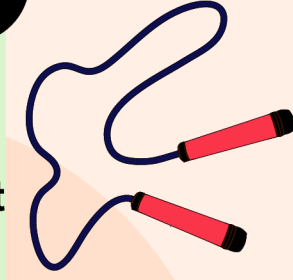
INTRODUCTION 1

Physical inactivity has been a growing concern worldwide which leads to many diseases such as obesity, diabetes and heart diseases (Katzmarzyk et al., 2021). Nearly 31% of adults worldwide, approximately 1.8 billion people have reported to not meet their recommended levels of physical activity in 2022 which is concerning (World Health Organization (WHO), 2024). An intervention to reduce these figures significantly is essential at this period of time. Some interventions which has been implemented in the UK are health campaigns such as Change4Life and Better Health offers online activities to encourage physical activity (Office for health Improvement and Disparities, 2022).



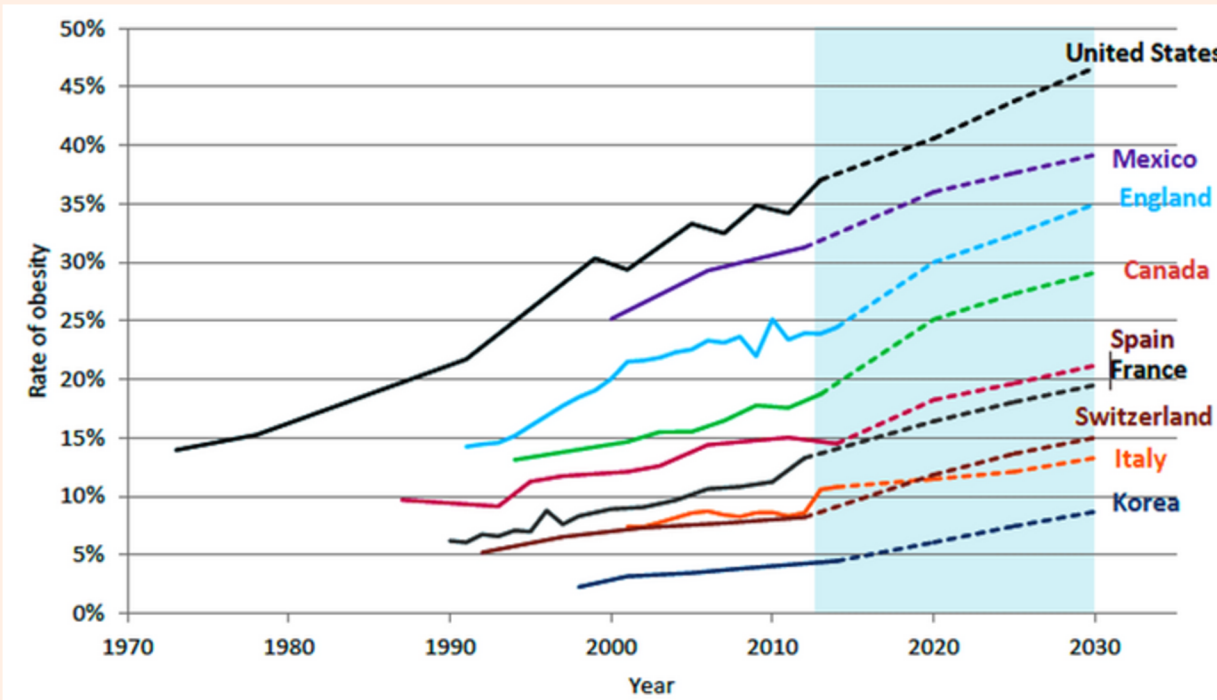
THE HEALTH BELIEF MODEL 5

The Health Belief Model explains why people make varied health choices (Merlo and Berra, 2022). It focuses on how an individual assess their risk of an illness and factors that prompts them to take action. In this poster, the Health Belief Model is used to show how Fitbit can encourage healthy long-term habits.



CONCLUSION 7

Fitbit can enhance education through school wellness programs, produce real-time data for research and eventually support public health policies on physical activity (Au et al., 2024). It is important to reduce digital health inequality by ensuring these devices are accessible and sufficient aid is provided to those with limited digital skills especially low-income and elderly adults (Mcvean, 2020; Hanebutt and Mohyuddin, 2023).



(Lee, 2019)



ALL ABOUT FITBIT! 2

Fitbit is a wearable fitness tracker which helps individuals monitor activity, heart rate and sleep (Pingo and Narayan, 2020), it encourages healthier lifestyles through real-time feedback and goal setting (Jarrahi, Gafinowitz and Shin, 2018). This digital intervention is beneficial for the population and will be tailored to each individual's specific needs to meet their personal goals (Ringeval et al., 2020).

HEALTH PROMOTION PRINCIPLES 4

- 1. Involves Population as a Whole**
 - Definition: Health promotion focuses on the population as a whole and not only on individuals at high-risk (Haugan and Eriksson, 2021).
 - Application: Fitbit can be integrated into community-wide health campaigns such as for school fitness programs and workplace wellness initiatives, this engages the wider population to track and improve their health.
- 2. Acts on the determinants of health**
 - Definition: This ensures that health is promoted by addressing overall factors such as lifestyle, environmental and social conditions instead of focusing on medical care only (Zaid and Liamputtong, 2025).
 - Application: Fitbit encourages daily physical activity, stress management methods and better sleep habits, it tackles lifestyle-related determinants of health and fosters healthy routine-building across different environments.
- 3. Aims at public participation**
 - Definition: This empowers individuals to take control and be actively involved in decisions and actions affecting their health (Trojan, Lorentz and Nickel, 2023).
 - Application: Fitbit users set personal health goals, monitor progress and share achievements which promotes autonomy and engagement. Group challenges also encourage peer participation and community motivation.
- 4. Combines diverse approaches**
 - Definition: This is a mixed approach (WHO, n.d.) of a combination of education, technological, policy-based and community-driven interventions.
 - Application: Fitbit combines technology, behavioural sciences and community support to create a multi-dimensional approach to address health promotion.
- 5. Health professionals have enabling role**
 - Definition: Health professionals guide and aid communities to take control of their own health (Heidemann et al., 2024).
 - Application: Doctors, public health professionals and fitness coaches may use Fitbit to personalize advice, monitor progress and support behaviour changes.

HEALTH PROMOTION VALUES & PRINCIPLES 3

HEALTH PROMOTION VALUES

- 1. Empowerment**
 - Definition: Individuals should be empowered to take control of their own health (Jiang et al., 2021).
 - Application: As Fitbit provides real-time personal health data, users can feel in control of their progress and feel engaged.
- 2. Participation**
 - Definition: Health promotion requires active participation from individuals (World Health Organization (WHO), 2019).
 - Application: Fitbit offers group challenges which can foster feelings of collective engagement in lifestyle improvement.
- 3. Equity**
 - Definition: Health promotion aims to reduce health inequalities and aims to ensure equal access to health resources (Lewis et al., 2023).
 - Application: Fitbit can address digital health inequality if made accessible through public health initiatives (schools and community health centres)
- 4. Holistic Approach**
 - Definition: Health promotion considers the whole individual (physical, mental and social wellbeing) (Araja et al., 2023)
 - Application: Fitbit ensures to address a holistic view as it tracks physical activity, mental wellbeing (sleep, stress levels and mindfulness) and helps users monitor their overall wellbeing.

Modifying factors
Demographic variables :
Age, Gender, Socioeconomic status
Psychological characteristics:
Personality, Peer-pressure

Perceived susceptibility
Definition: The belief that one is at risk of a health issue
Application: Fitbit provides real-time data to help recognise personal risk (Alyafei and Easton-Carr, 2024)

Perceived severity
Definition: Belief on how serious the consequences of a health problem is
Application: Fitbit helps users observe trends to understand impact of inactivity (Sukeri et al., 2020)

Perceived benefits
Definition: The belief that taking action will improve health
Application: Fitbit shows daily activity, sleep and heart rate improvements which contribute to personalised goals and progress tracking (Alyafei and Easton-Carr, 2024)

Perceived barriers
Definition: Beliefs about obstacles that prevent taking health actions
Application: Fitbit is user-friendly, accessible and affordable (Lau et al., 2020)

Self-efficacy
Definition: Confidence in one's ability to take action and achieve desired outcomes
Application: Fitbit enhances self-efficacy through positive feedbacks and visible progress which makes users feel more capable and confident (Anuar et al., 2020)

Likelihood of behaviour

Cues to action
Definition: Prompts that initiate decision to act
Application: Fitbit offers reminders to move, notifications and celebrations of milestones which acts as cues (Norman and Conner, 2017)

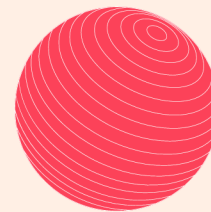


Figure 1.0 The Health Belief Model with Definition and Application (Etheridge, Sinyard and Brindle, 2023)

EXPECTED OUTCOME 6

By using the health belief model and Fitbit, users are more likely to:

- Stay active consistently.
- Improve fitness levels and sleep regimens.
- Reduce risk of chronic illnesses such as obesity and cardiovascular diseases. On a community level, this can lead to improved mental health status, lower healthcare costs and improved health equity.

(Jang and Kim, 2025; Reed, 2024)

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