



UNIVERSITY OF WALES

**Trinity Saint David
London**

MSc Public Health and Social Care in Practice

Population Health and Digital Health Promotion

LCHS7007

Component 1

Task 1- Blog

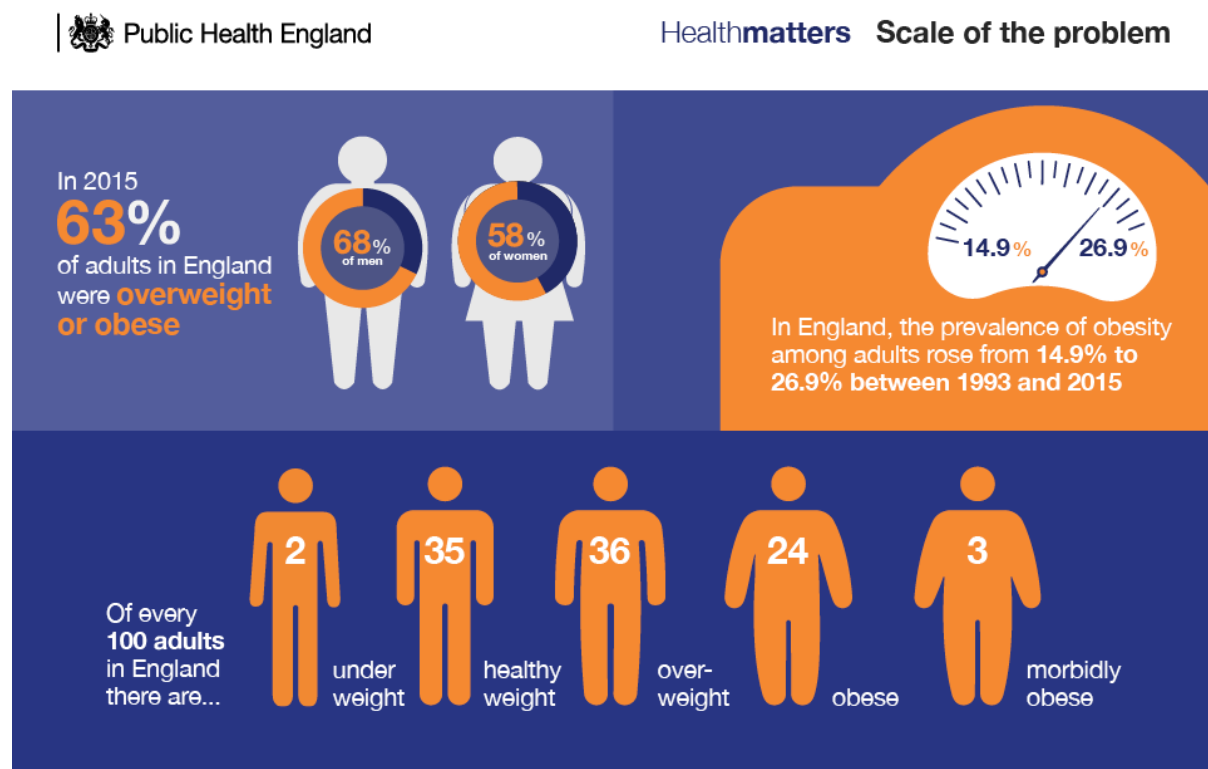
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Blog 1:

Fighting Obesity with Digital Tools: The Role of MyFitnessPal

Obesity ranks as a significant public health issue which affects the United Kingdom during present times. NHS Digital (2023) reports that obesity affects 26% of English adults while 38% of adults meet definitions for being overweight. The epidemic affects the personal health of numerous people throughout the country by increasing rates of type 2 diabetes along with cardiovascular diseases, stroke, and specific cancers. The financial costs caused by obesity reach £6.1 billion per year for the National Health Service (NHS) to treat patients (Public Health England, 2020). Electronic health technologies emerge as promising population-scale solutions because they help diverse populations achieve better behaviour transformations while improving community outcomes.



The mobile application MyFitnessPal is a digital intervention that helps users track their food intake and physical movements. Users can easily access this easy-to-use platform to record

their meals, track calories, monitor macronutrients, and set their weight loss targets while using the barcode scanning feature for nutritional data. Self-monitoring via MyFitnessPal succeeds because this mobile application provides users with an intuitive display system and an extensive database, so many people adopt it. Engagement in self-health management becomes possible through this application, which supports health promotion values such as autonomy with added empowerment features and decision-making powers.



Researchers have established through multiple studies that MyFitnessPal effectively supports users in changing their health behaviours. Laing et al. (2014) performed a 12-week randomised controlled trial demonstrating that consistent smartphone app users reduced their waist measurement and experienced weight loss. According to Hutchesson et al. (2015), while conducting a meta-analysis, it became clear that mobile apps that use self-monitoring, such as MyFitnessPal, help users achieve weight management objectives while maintaining continuous

usage. Research from MyFitnessPal demonstrates that users experienced weight loss when they put effort into tracking their meals because over 88% achieved successful outcomes (MyFitnessPal, 2021). Mobile technologies demonstrate their ability to support individual health responsibility, leading to long-term beneficial health practices.

**Always looking for new friends :)**

Hey everyone ! I have great motivating friends on here , but am always looking for more wink wink. My goals are to increase my exercise and lose ten pounds :)

393 views 13 comments Started by Hudsonsma Most recent by dbllirondog Nov 29, 2021 Success Stories

**Final Destination: 202 pounds lost**

After 16 months I have finally reach my original goal of weighing 13 stone (today I am 12 stone and 12 pounds). It's been hard in many ways because I wasn't just dealing with weight loss at the time. ...

39273 views 301 comments Started by Jztime Most recent by TootlesToodles Nov 28, 2021 Success Stories

**Post yourself in a before garment!**

12 year journey for me, minus 112 lbs.

341 views 2 comments Started by skinny0000 Most recent by BrendaS03 Nov 27, 2021 Success Stories

**Little by Little**

On Nov 3rd I weighed 159.9, I started tracking on Nov 11th, today I'm down 4.4 lbs. Whew! Little by little.

221 views 3 comments Started by mphoodye Most recent by JBanx256 Nov 24, 2021 Success Stories

The popularity of MyFitnessPal exists, and specific constraints limit its use. The application demands that users have the technical competency and an internal drive to succeed because these elements affect user engagement among those lacking both qualities (Fair et al., 2022; Eikey, 2021). The process of self-monitoring offers advantages, but aggressive tracking behaviours have proven to worsen disordered eating symptoms among at-risk individuals (Berry, 2020). Different user groups exhibit differing responses to such technological impacts.

MyFitnessPal should include gamification solutions that create user enthusiasm by implementing challenges, achievement systems, and interactive progress markers to increase its usefulness. Strengthening MyFitnessPal with artificial intelligence-based real-time coaching patterns and establishing peer support through community forums could provide

personal guidance alongside users' social reinforcement networks. MyFitnessPal will maintain its evolution as an inclusive obesity-fighting platform by improving its current failings.

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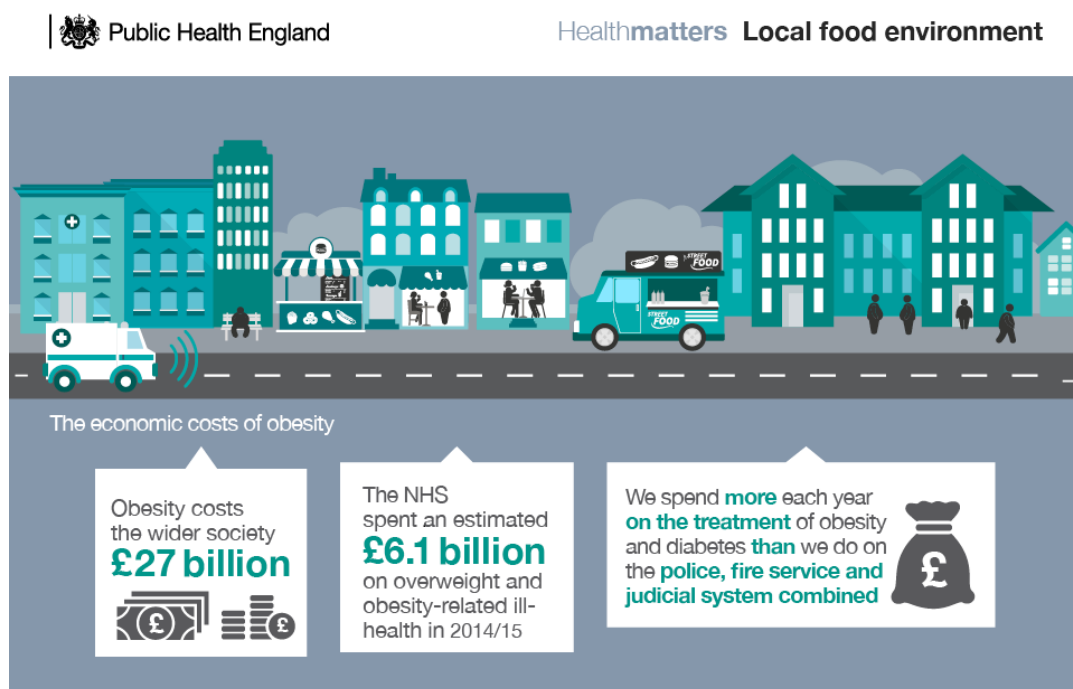
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Blog 2:

Smart Plate & AI Health Coach: A New Era in Combating Obesity

The United Kingdom faces a substantial public health issue from obesity because one-quarter of adults meet the obesity criteria, and obesity or being overweight affects sixty per cent of adults (NHS Digital, 2023). The excessive weight trend affects more than body appearance because it elevates the chances of developing dangerous chronic diseases that include type 2 diabetes, coronary heart disease, and cancer. Public Health England (2020) documented obesity as the cause of 30,000 annual fatalities, while the annual healthcare expenses exceeded £6 billion. Digital weight loss tools used in MyFitnessPal demonstrate effectiveness in self-monitoring for weight management, but users require better automatic solutions to enhance both user experience and prolonged usage.

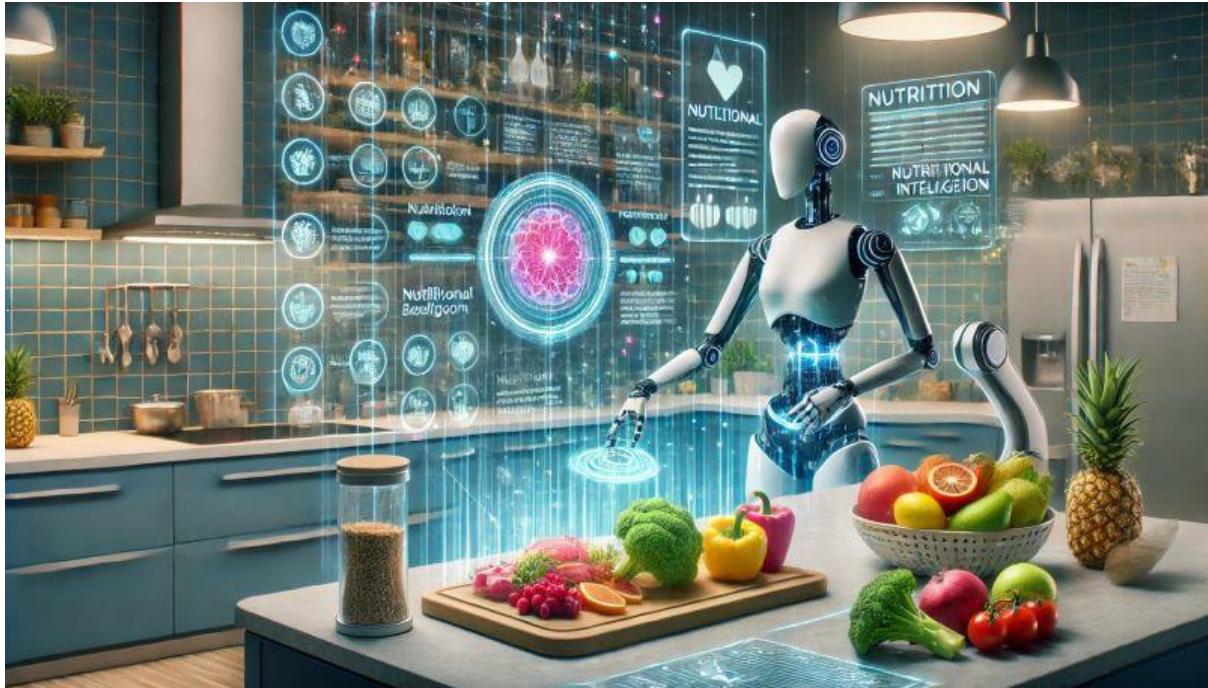


The development of a Smart Plate combined with an AI Health Coach app represents my proposal to improve real-time nutrition tracking alongside person-based behavioural guidance. The Smart Plate connects its food identification system with weight sensors to detect what users eat and determine nutritional values in seconds. Users receive their plate information on a mobile app through wireless transmission, which works as an architecture AI coach. Through its AI Coach, the system delivers on-time notifications, customised motivational assistance, nutritional recommendations, and health-relevant data that match individual fitness preferences (Mincolelli et al., 2023). This system outperforms typical apps by requiring minimal manual entry because it uses passive monitoring alongside smooth user experiences, which results in less user fatigue. In contrast, users become more compliant with time.



The Smart Plate, combined with the AI Coach, implements principles of empowerment, participation, and equity throughout health promotion efforts. The system provides instant feedback during meals, enabling users to select healthy eating options. Still, the AI Coach establishes lifelong eating habits by designating positive reinforcement based on actions. Studies prove that designs that meet individual needs show better outcomes than standardised ones. The research conducted by Lee et al. (2023) demonstrated that custom digital guidance

resulted in improved dietary guideline following and enhanced weight reduction compared to standard methods. Studies demonstrate that passive tracking systems improve health intervention consumption and reduce participant dropouts (Coman et al., 2024).



The groundbreaking nature of this technology encounters various restrictions which affect its overall usage. The primary barrier against this technology development stems from its high expense and unaffordable consumer prices. The adoption of smart kitchen technology remains out of reach for people who belong to low-income groups because it is still new to the market—the ongoing surveillance results in acquiring private healthcare information that makes users worry about their data security. The widespread adoption of such technology requires users to trust AI while feeling at ease and recognising its usefulness (Ladeira et al., 2025). Users tend to hold back from using such platforms when insufficient regulation and transparency measures are in place.

Affordable Smart Plate versions can be produced by developing low-cost materials alongside open-source software. The accessibility of the Smart Plate can be enhanced through its integration with government health programs that receive funding and insurance

reimbursement systems. Data protection through privacy-by-design frameworks and transparent data policies are essential in establishing user confidence in healthcare systems (Thomas Craig et al., 2021). The adoption of AI coaching will gain widespread acceptance when healthcare providers join forces to work with the AI platform because its food guidance matches local dietary standards and public health ambitions.

Digital health promotion receives innovative support through the Smart Plate and AI Health Coach, which offer a cost-effective solution for reaching large audiences. This combined approach of technology precision and behavioural science represents a transformative solution for obesity treatment and lasting healthy lifestyle support for individuals.

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Combating Obesity with Digital Innovation: MyFitnessPal and Health Promotion in the UK

Population Health and Digital Health Promotion
LCHS7007

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1 Background

The healthcare system of the UK faces significant burdens because obesity continues to be a major public health issue that affects 26 per cent of adults (NHS Digital 2023). Type 2 diabetes, together with heart disease and certain cancers, develop as fatal consequences of this condition. Research shows that obesity-related NHS expenses reach more than £6 billion annually, according to Public Health England (2020). Previous interventions by themselves failed to stop the increasing rates of obesity. MyFitnessPal offers affordable digital tools through smartphones that equip users with diet and exercise management skills to decrease obesity prevalence.

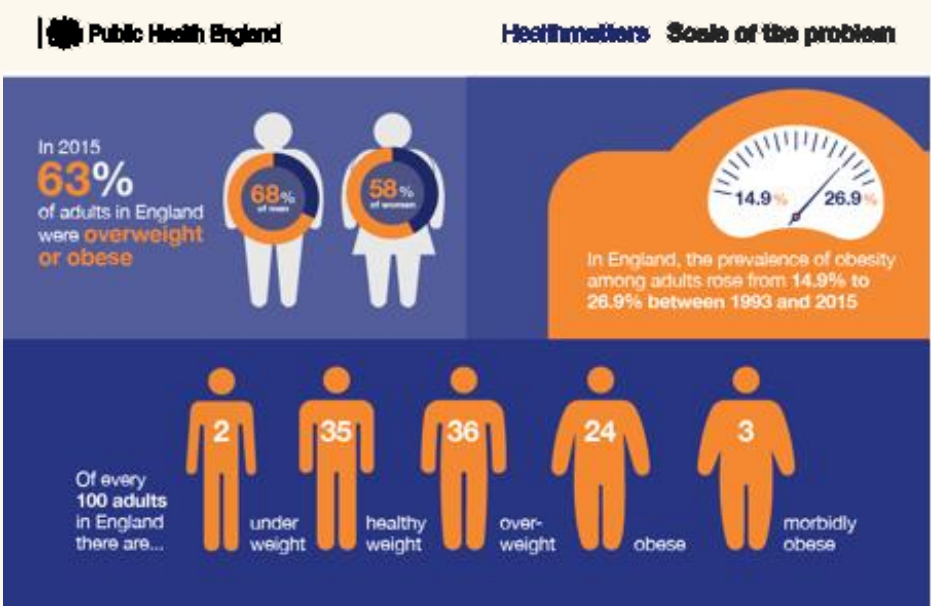


2 Health Promotion Values and Principles

The principles leading the practice of health promotion include empowerment, equity, participation and evidence-based action, according to WHO (2021). MyFitnessPal represents these values through features that let users build health control by monitoring individual diets and setting personalised targets. Users gain authority because the platform helps them base their choices on knowledge, and economically disadvantaged audiences benefit from its free version. Users must actively engage through their health data to fulfil participation. Users seeking digital self-monitoring for better nutrition and physical activity can access evidence-based support thanks to the features derived from behavioural science.

3 Health Promotion Values aBehavioural Change Theory (Transtheoretical Model and Principles

The Transtheoretical Model (TTM), the Stages of Change model, demonstrates that behaviour change happens through six stages: pre-contemplation, contemplation, preparation, action, maintenance, and termination (Prochaska & Velicer, 1997). The MyFitnessPal application enables user support throughout multiple stages of the model. The user preparation stage lets people create exact weight loss goals and set their desired calorie limits. Users at the action stage commit their meals and exercise to the system, offering immediate feedback and displaying their data through visual representations. Behaviour maintenance depends on reminders, progress charts, and motivational notifications users receive during maintenance phase usage. The app minimises relapses by enabling long-term behaviour reinforcement, which is supported by historical tracking and community features.

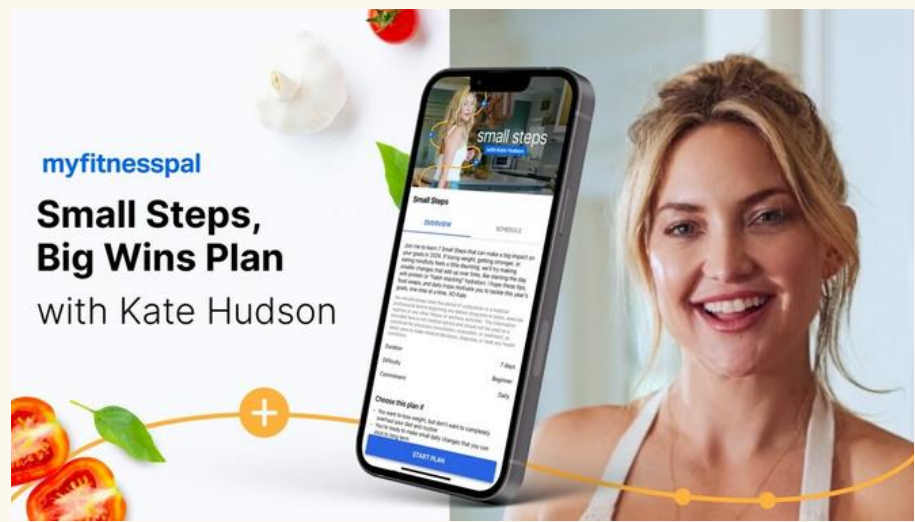


4 Expected Outcome

The deployment of MyFitnessPal as an internet-based health promotion system should enhance user health knowledge while inspiring better dietary behaviours along with sustained weight management practices. According to Berry (2020) and Hutchesson et al. (2015), regularly using MyFitnessPal monitoring platforms makes people more likely to achieve consistent weight loss and sustained lifestyle changes. The population-wide adoption of this system would result in decreased obesity rates while simultaneously decreasing healthcare expenses and producing enhanced health quality for people at risk of obesity-linked medical conditions.

5 Conclusion

MyFitnessPal implements solutions which support national healthcare objectives regarding digital behaviour adjustments and disease prevention strategies. Implementing MyFitnessPal supports public health initiatives by enabling the growth of NHS digital health initiatives and educational programs. MyFitnessPal tools will help build better health systems by promoting digital self-management for lifestyle health issues among populations while maintaining system responsibility and inclusivity.



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