



### BACKGROUND

- Physical activity (PA) behaviour change is part of the Tier 3 & 4 obesity care pathways. Increased PA prior to bariatric surgery is linked to better patient outcomes and improved physical and mental health, regardless of weight loss.
- Barriers to PA behaviour change for people with obesity include having multiple comorbidities, pain, fatigue, low self-efficacy and experiencing weight stigma.
- Clinical staff within bariatric services will advise people with obesity to increase PA, but few are able to create personalised PA plans, & exercise specialists are a limited resource.
- Digital therapeutics have the potential to provide accessible, scalable PA behaviour change support but have not been implemented within a multi-disciplinary weight management service outside of research studies.

### METHODS

A clinically validated digital PA prescription service - EXI - was implemented into the Tier 3 and 4 weight management services within two NHS Trusts.

A specialist practitioner was appointed to support staff and patients' adoption of the digital solution.

Partnership working between NHS and EXI staff was employed to develop methods for successful integration of the digital therapeutic into existing care pathways. Processes were developed collaboratively and iteratively, through a process of active learning.



### EXI

### EXERCISE INTELLIGENCE

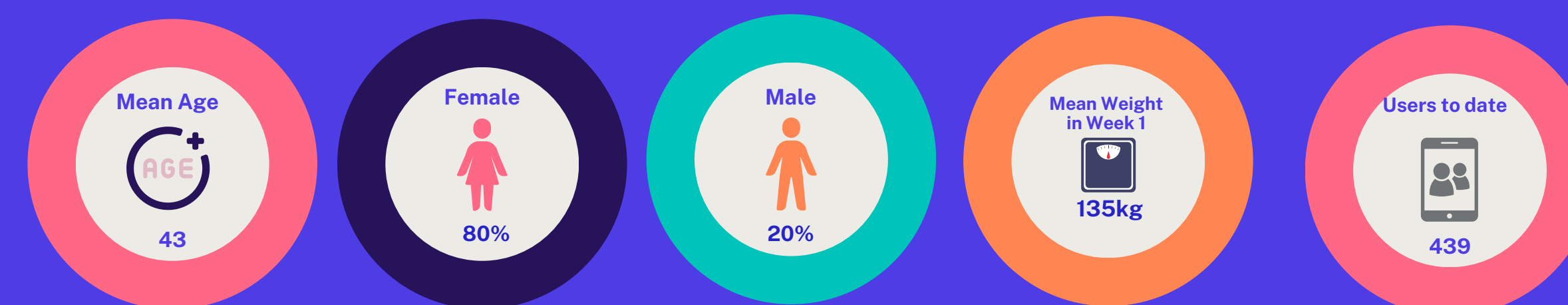
EXI is a Software As a Medical Device (SaMD) platform delivered through a smartphone app and secure clinician data portal. Created specifically to support people living with long term health conditions, and inactive people at risk of health conditions, to increase their physical activity.

Creates personalised, achievable, progressive PA prescriptions based on current health status & activity levels, starting with as little as 3 x 10 minutes of low intensity per week.

Secure data portal allows clinical staff to monitor patients' progress on PA and health metrics e.g. resting heart rate, 6 minute walk test.

Behavioural science embedded throughout, including goal setting, self-monitoring, social support & rewards.

### RESULTS



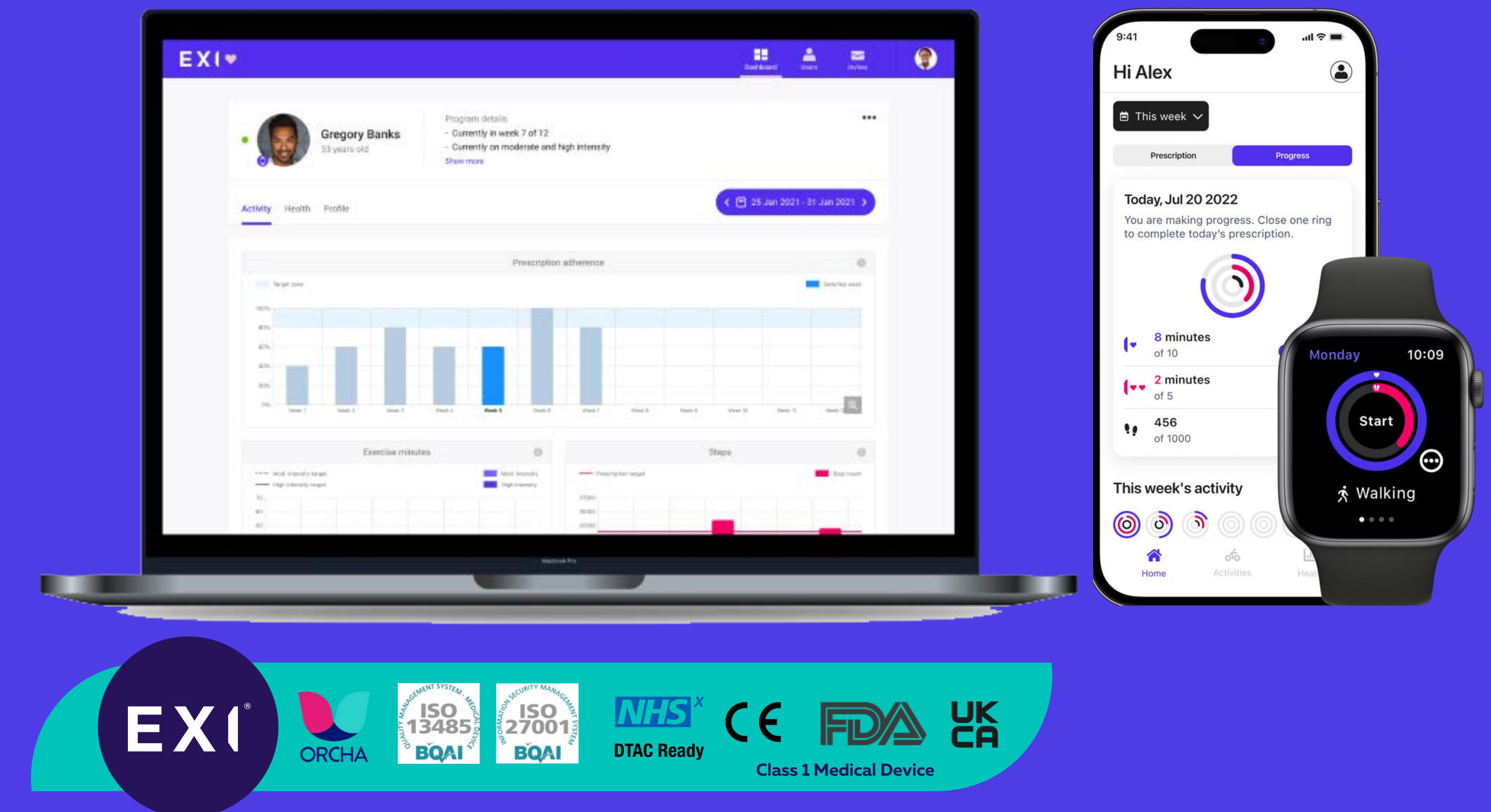
The learning process identified the following as success factors for increasing uptake of the digital service: Simplifying the invitation & onboarding processes, providing clear patient support materials, training on processes for key staff, and interactive webinars for staff and patients.

For users with wearable devices who recorded data at week 6, weekly activity minutes increased significantly compared to week one (N=50, t= -2.207, p<0.05). The mean increase was 93 minutes (79%).

For users who self-reported weight at week 6, there was a significant decrease in weight compared to week one (N=39, t= 3.948, p<0.001). The mean decrease was 2.23kgs (2%).

**Feedback from patients:**  
 "So far so good. Enjoying the sessions"  
 "Simple and easy to use"  
 "I like the structure of daily goals. I don't give up on something when I have committed to it, so EXI makes me see it through."

**Feedback from staff:**  
 "It is a single tangible resource I can offer patients who have physical activity as a goal, regardless of where they are located or what their specific needs are."  
 "I use the data I can see to reinforce patients' self-reported behaviour change."  
 "The patient's EXI data can help make the case for surgery. It shows they are committed to making changes, and are more physically able to cope with the surgery."



### CONCLUSIONS

Tier 3 & 4 weight management services are in high demand. EXI provides valuable proactive support for patients on the waiting list for face to face support from a multi-disciplinary team, enabling hundreds of patients to start a PA journey.

Throughout the patient journey the EXI data portal empowers clinicians to make informed decisions regarding patient care.

A specialist exercise practitioner role provides valuable support for patients who are less tech savvy or have very complex needs.

Partnership working has produced a template for large scale implementation of digital PA solutions into NHS weight management pathways, including those for bariatric surgery & GLP-1 agonist medications.

### For more on EXI

Email: [lou.atkinson@exi.life](mailto:lou.atkinson@exi.life)  
 Follow: @EXITherapeutics  
 Visit: [www.exi.life](http://www.exi.life)

