

Case Study / Clinical Evidence  
Weight Loss & Exercise

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## High Levels of Engagement and Motivation; Sustained and Safe Weight Loss; Reduction in Long-Term Complications

A summary of evidence from case studies and clinical studies demonstrates higher levels of engagement amongst patients in weight management programmes resulting in higher completion rates and significant and sustainable weight loss leading to lower risks from long-term conditions and resulting cost savings.



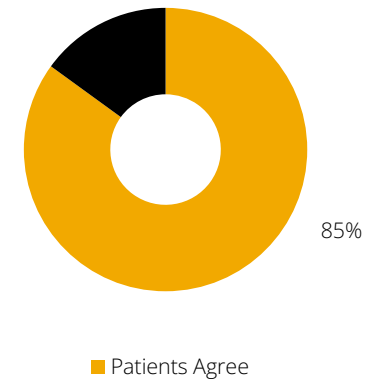
Intelligent health messaging service Florence is proven to enable self-management and facilitate significant behavioural change in patients towards their diet, exercise and lifestyle choices leading to sustainable and significant weight loss, resulting in better patient physical and mental wellbeing, and freed up clinical time and cost savings.

- 85% of patients agreed Florence was a valuable support in their weight management programme
- Florence users are 20% more likely to complete their weight management programme compared to those without the additional support
- Florence encourages higher initial engagement of 60% compared to average 41% in male and 51% in female patients
- Average 16kg weight loss achieved by diabetic patients with associated 33% reduction in HbA1c levels
- Remote weight checks result in saved time and costs for clinicians and patients.

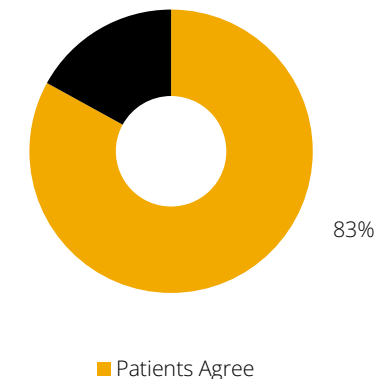
### Ease of use, accessible and supportive motivating tool for patients

Florence is low cost, simple to use and can have a high impact on people's lives. In a recent pilot for NHS Lothian, 85% of patients agreed that they liked using Florence as part of their weight management programme, with 83% recommending Florence as an additional support to the programme. NHS Lothian has revealed success in helping patients to lose an average of 4.8% and 3.4% for men and women respectively and while the pilot study at 8 weeks showed the average weight loss to be 1.3kg for the intervention and control group, the completion rate for Florence users was 20% higher at a 60% completion rate.

"I like using Florence as part of my weight management programme"



"I would recommend using Florence as additional support on the weight management programme"



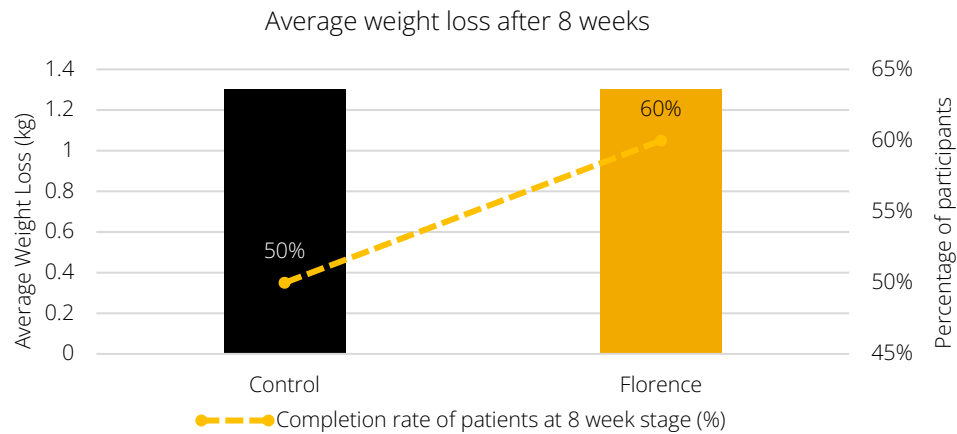


Figure 2: Summary of data at 8 weeks from NHS Lothian pilot study on weight management<sup>1</sup>

The initial engagement rate was 46% and 18% higher in men and women with 60% of patients choosing to sign up for the additional support of Florence “the system is user-friendly and well accepted in our patient group” and more demonstrable behavioural changes were seen in patients on the Florence service. “I was about to get something from my fridge when a text message came through. It made me stop and think do I actually need this....NO! So, I walked away.” Florence provides continued support through the randomly spaced text messages between the monthly weight management sessions with the option to submit weekly weight checks raising engagement and motivation levels of patients. “I don’t go home after a group session now and forget about my weight until the next date.”

According to Laura Bell, Dietetic Assistant Practitioner for NHS Lothian “our patients reported feeling more connected, better supported and more mindful in their weight loss treatment.”

“The Florence pilot in Lothian Weight Management was a demonstrably positive experience for both patients and clinicians.”

The Health & Social Care Northern Ireland initiative has met with similarly positive response, with 1,900 staff members initially signing up for the 12-week digital weight management programme. Colette Brolly, the PHA’s Joint Lead on Obesity Prevention, highlighting the accessibility and ease of use of the programme, said it “offers staff the opportunity to access the weight management programme in their own time and in their own home so staff can be supported at any time they need... Obesity is a major risk factor for heart disease, stroke and some cancers and we want to encourage and motivate those who wish to improve their health and wellbeing.”<sup>2</sup>

### Weight loss improves long-term outcomes

By receiving motivational text messages and the choice of weight check reminders, patients with raised BMIs are encouraged to make positive lifestyle choices in exercise and diet, supporting them to safely lose weight in a sustainable way, leading additionally to significant improvements in long term conditions and their physical and mental wellbeing.

<sup>1</sup> (Bell, 2017)

<sup>2</sup> [Success in the Northern Ireland with Florence](#)

“Flo messages for blood pressure were very motivational and helped me increase my activity levels and improve my diet.”<sup>3</sup>

For example, the average weight lost amongst five diabetic patient case studies was 15.7kg over 6-9 months: daily exercise became part of their routine beyond Florence’s prompts reflecting the positive behavioural change in the patients. The associated improvements in their overall health were also significant with reductions in their HbA1c levels ranging from 13-48%, associated reductions in insulin dosages and other medication, and in one case an improvement in blood pressure from 180/95 to 120/65.<sup>4</sup>

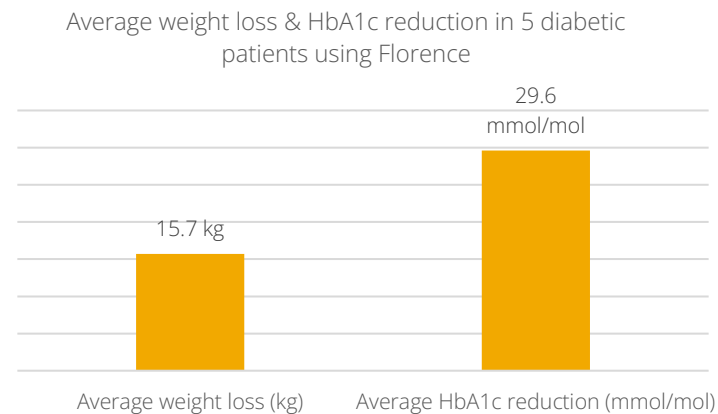


Fig 3: Summary of data from case studies involving five patients with diabetes

Mr and Mrs S signed up to the weight loss and walking protocol, incorporated daily walking into their routine and within three months had lost 17kg between them, reduced their blood glucose levels, and in Mr S’s case his blood pressure, leading his GP to reflect that without his changed behaviour to walking he would not be here today.

Another overweight 65-year-old male, through the positive associations of Dr Who on his Florence text tone, established a routine of waking up and going straight onto the treadmill. Within four months he had built up to an hour’s brisk walk at incline, lost 7kg and 12 cm from his waist measurement and was determined to lose a further 8kg and overhaul his diet.

Another patient Mick, through signing up to Florence, turned his life around, lost 27.8kg in nine months, reduced his HbA1c levels from 79 mmol/mol to 41, stopped taking insulin and got his permanent driving licence back.

“I couldn’t have done it without Florence.”

For clinicians it is an important additional tool to support patients’ recovery. Florence was the motivator of change to Mrs S losing the weight she had put on due to reduced physical activity after a knee operation and one GP noted the benefits of enrolling a recently widowed patient who had lost motivation to exercise and put on weight. Mrs J was “over the moon” to have lost 4kg and the GP observed “it’s been lovely seeing Mrs J become happier during this difficult time.”

<sup>3</sup> (De, et al., 2016)

<sup>4</sup> Case Study – [Patient controls diabetes and reaches weight loss goal, Walking with Nellie helped save life, Patient successfully controls his Type 2 diabetes](#)

The integration of Florence into the pathways for pregnant women at City Hospitals Sunderland as an additional support to help patients diagnosed with gestational diabetes was highlighted in a Care Quality Commission report as “outstanding practice” in helping pregnant women to achieve appropriate weight loss as well as lower blood glucose levels, contributing to the achievement of healthy full-term pregnancies. Dr Rahul Nayar, Consultant in Diabetes and Endocrinology said Florence “has benefited the department incredibly, firstly by uniting the team to improve patient care as a whole, and secondly just by improving the care of the people we’re looking after with diabetes in pregnancy. It has just been amazing.” Mothers have been enabled to “normalise their pregnancies,” and balance a second or third pregnancy with work, childcare and lifestyle, needing to attend fewer face-to-face appointments, reassured in the knowledge their consultant is monitoring their progress and able to up titrate their medication if needed.<sup>5</sup> Dr Rahul Nayar highlighted how one morbidly obese pregnant woman with a family history of Type 2 diabetes was able to lose 4kg, reduce her anxiety (resulting in her cigarette consumption decreasing from 20 to three a day) and achieve a full-term pregnancy and healthy foetal growth. In the 20 weeks she was enrolled on Florence she also needed to attend the antenatal clinic four fewer times than would otherwise have been the case.

### Resources savings made

Clinicians are delighted about the impact Florence has on their patients’ behaviour. The completion rate of patients using Florence as an additional support to weight management programmes is enhanced and initial engagement is high, resulting in clinicians being able to educate their patients on the benefits of managing their weight through exercise and diet on long term conditions and general wellbeing.

A CQC report highlighted Bay Medical Group as an example of best practice for the use of Florence with long term conditions. It highlighted how more responsive the practice could be to patients’ needs with Florence, as remote regular monitoring of weight was far more convenient for the patients negating the need for them to attend the practice between reviews.

Time and costs are freed up by remote weight monitoring for both clinicians and patients, with clinicians able to tailor the messages Florence sends to each cohort. For example, Florence for the HSCNI initiative tracks if there has been an increase of +/- 0.5kg from the previous week and sends extra support messages to staff if there have been increases or static for three weeks. Similarly, if three consecutive weight readings are missed, an automatic option is given to stop submitting weight readings but to still receive the advice and motivational messages thereby still ensuring engagement with the programme albeit at a lower level and maintaining a wider clinical reach.

According to Seonaid Morrison, Advanced Diabetes Nurse for Argyll & Bute Health & Social Care, “our biggest success is having patients report back to us that Florence has been helpful as a reminder to self-manage their condition. Patients who have used Florence tell us that she has kept them on track with changes in their diet and/or exercise, which can really improve their long-term health outcomes.”

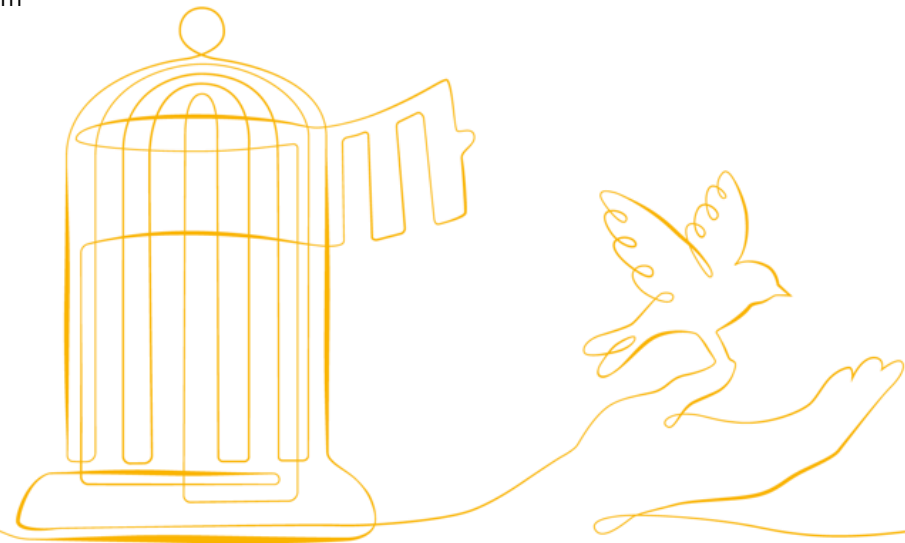
Mairi Wotherspoon, Lead Dietician Specialist Weight Management Service, NHS Highland, sums up the benefits of Florence very effectively: Florence supports the work of the team to help patients to tune into the internal signals of hunger and fullness, to have regular meals, and to recognise whether it is a physical or emotional feeling – text messaging makes people think. Florence is...

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<sup>5</sup> Case Study – [Diabetes in Pregnancy](#)

“...a wonderful aide memoire – it reminds them to think about their internal signals [of hunger and fullness.] It makes them think.”<sup>6</sup>

The weight loss achieved by patients reduces the risk of long-term complications in Type 2 and Type 1 diabetes, as well as lowering blood pressure, which in turn results in less time needed by patients as they learn to self-manage their condition, their anxiety is reduced and importantly their self-esteem is improved resulting in better physical and mental wellbeing. This leads to less clinical time needed and lower costs of prescribing on associated health costs. By engaging patients initially, keeping them motivated and raising the completion rate of patients in weight management programmes the cost savings implications are significant.



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<sup>6</sup>Video – [Using Florence to support weight management](#)

## References

Bell, L. S., 2017. [Simple Telehealth in Weight Management - the Edinburgh Experience](#), s.l.: NHS Lothian November

De, P., Irwin, S., Kaur, J. & Moore, K., 2016. [Use of an Innovative Technology Enabled Care Service \(Tecs\) "Florence" To Empower Patients and Enhance Adherence to Treatments in Diabetes](#). Journal of Nursing & Healthcare, 14 November.1(2)

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