Case Study / Clinical Evidence

COPD

Self-Management: Better for Patients, Significantly Lower Cost

A summary of evidence from independent clinical studies proves that Florence activates patients resulting in lasting health benefits while substantially reducing hospital admissions and saving clinical time.

Shaping the future of behavioural change by design
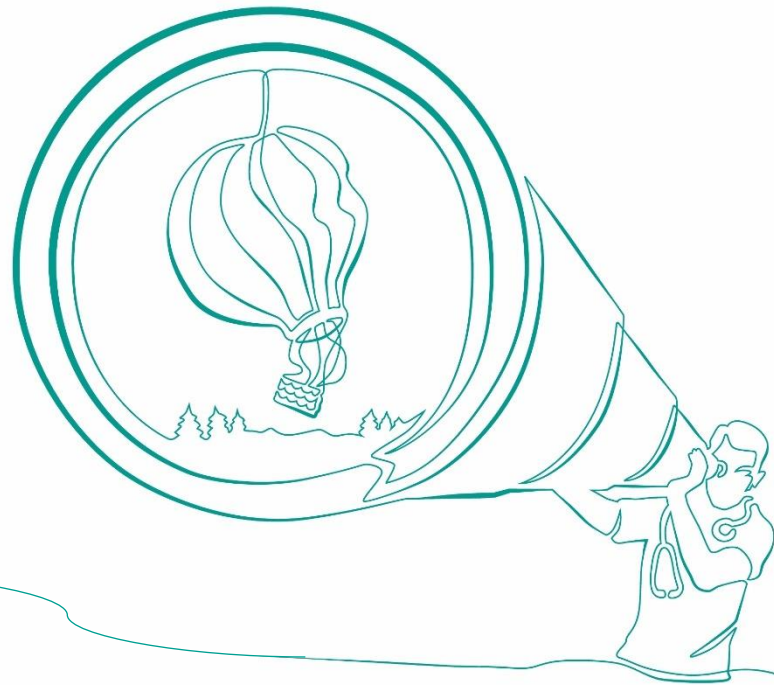
Intelligent health messaging service Florence is proven to enable self-management and facilitate behavioural change for patients with COPD resulting in better health and substantial, tangible cost savings due to the reduction in the use of emergency services, hospital admissions and clinical time.

- 94% of patients agree Florence helps them to manage their own health better, with 81% of patients needing to visit the GP less often as a result
- 66% reduction in ambulance service calls
- 70% reduction in emergency hospital admissions
- 54% of nurses felt their patient contact became more appropriate
- Substantial cost savings, reaching £460 per patient per year; a return-on Florence of ~20x

Enabling self-management and positive behavioural change

Florence delivers precise, psychology-based, two-way health messaging that engages patients continuously to change their behaviours and create better, sustained outcomes. Clinicians consistently report greater level of patient engagement and patients a greater level of control: Florence "helped me to learn to live with the disease and become more involved in monitoring my own health.[1]"

94% of patients believe that Florence helped them manage their health better and 81% of patients acknowledged they needed to visit their GP less often, as their confidence to self-manage their condition increased. 50% of patients saw a real difference in their ability to recognise exacerbations with 39% of telemonitored patients using Florence to inform their clinicians they'd started rescue medication.[2]

Studies by NHS Scotland into the Highlands and West Dunbartonshire showed average 42% and 66% reductions in calls to NHS24 and ambulances, respectively, and a 57% drop in the number of bed days from 51 to 22 in the six months after telemonitoring started, compared to the six-month period before.[3]

"Patients who came to the end of using Florence say they're now in the habit of checking their stats every day. It embeds something into their daily routine. They feel connected, well cared for and not so isolated."[4]

[1] (Cund, et al., 2015)

[2] (Jones, 2018)
[3] (Nils Michael, July 2019)
[4] (Jones, 2018)

67% of patients agree that Florence helped them control their symptoms, with an evaluation by the University of Edinburgh highlighting the "connectedness" Florence provided to her patients.[5] Patients felt reassured and cared for, with timely access to services. "Florence always texts me at the same time and gives me advice on what I should do depending on my SATs. It's like having a doctor on call when I'm not sure whether to take antibiotics and steroids."

Florence's responses and advice to their twice daily readings boosted their understanding and confidence to take personal responsibility. "It has helped me to understand and control my situation a lot more with positive results, as I haven't had to use rescue medication for months."[6]

"Florence helps me manage my own health better"

94%
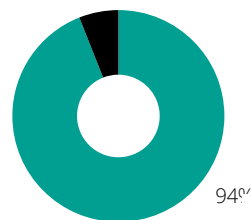
■ Agree

"With Florence I need to visit the GP less often"

81%
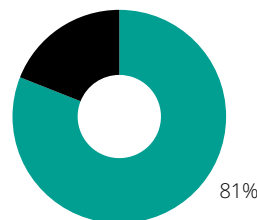
■ Agree

Fewer, more meaningful clinical encounters

The enhanced data feedback through Florence of patients' oxygen saturation levels (SATs) and sputum samples enables clinicians in the first instance to convince patients of the diagnosis to monitor their patients in a responsive but socially unobtrusive way and engage more productively with their patients.[7]

84% of clinical staff agreed Florence helped patients manage their own health, and 45% reported they had fewer contacts with their patient once they started using Florence. They recognised their patient contact was enhanced by having the data to hand and has a noticeable impact on previously poorly controlled patients. "In particular her problem patients appeared to be hospitalised less often, and that they seemed to have better overall control over their condition."[8]

"84% of clinical staff agree that Florence helped patients manage their own health, 45% reported fewer contacts and 54% felt the contacts were more appropriate."[9]

[5] (Wolters, 2018)
[6] (Jones, 2018)
[7] (Wolters, 2018)
[8] (Wolters, 2018)
[9] (Cund, et al., 2015)

Florence is proven to reduce health anxiety in patients by reassuring patients when their SATs are within normal range and advising them of the correct action to take when needed. In NHS Highland, a 60-year old's contact time with the respiratory department was reduced, freeing up much needed staff capacity. "Flo reassured the patient that although they were anxious and felt breathless, their vital signs were actually stable, and Flo would identify any changes."[10]

In North Staffordshire, the reassurance given to a patient submitting her daily oxygen saturation levels enabled them to take the correct medication at the correct time (and a few days earlier than would otherwise been possible by visiting the GP) reducing the frequency of her chest infections, and subsequent surgery attendances and calls to emergency services.

Patients can anticipate and significantly reduce their exacerbations and subsequent hospitalisations leading to an enhanced quality of life for them and significant cost reductions for the NHS. A 54-year-old musician under NHS Lanarkshire saw his hospitalisations decrease from eleven to one after starting Florence. "Having support like this – including the specialist nurses a text away – is all about freedom and retaining independence, which is crucial."

The reassurance and regained quality of life is extended to the patients' loved ones when Florence is used, with spouses describing Florence as a much needed "back up" or "extra nag" in helping them to care for their partners."[12] In Powys, the wife of a patient with severe COPD was able to return to work after using Florence resulted in a noticeable improvement in her husband's health and confidence in managing his condition and in far fewer hospital admissions.

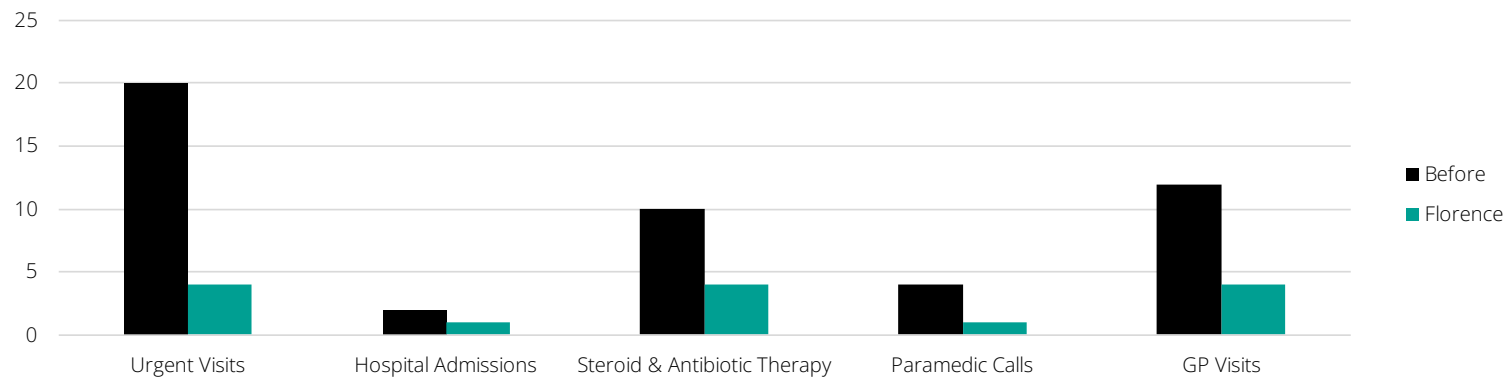Impact of Florence Telemonitoring on One 85 Year old COPD Patient

Figure 2: Clinical interventions 12 months pre and post Flo for one 85-year-old COPD patient.[11]

[10] (Cund, et al., 2015)
[11] (Clark & Birch-Jones, 2013-14)

[12] (Jones, 2018)

Better medication management

Florence is proven to enable patients to better control and understand their condition through the increased recognition of their symptoms and more timely and appropriate use of their medication.
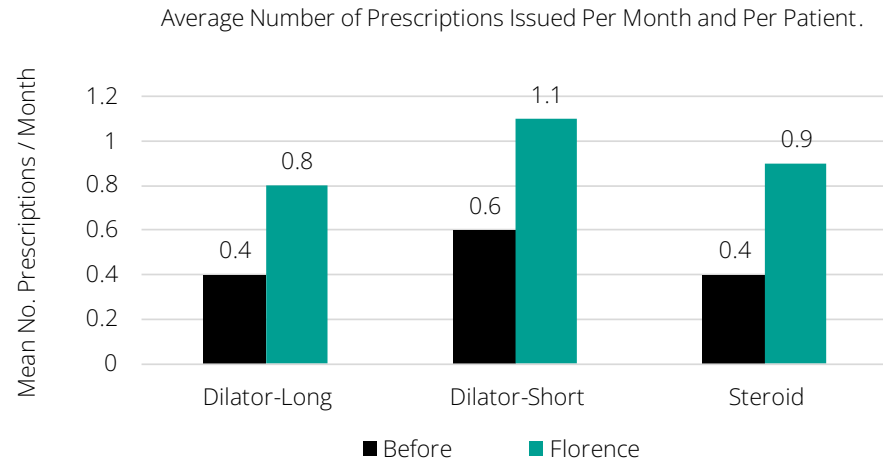
Average Number of Prescriptions Issued Per Month and Per Patient.

Figure 3: Average number of prescriptions issued per month and per patient before and after starting Florence[13]

An evaluation into home and mobile health monitoring in Scotland showed improved medication adherence and how the number of items prescribed to telemonitored COPD patients increased by 3-15% and clinicians report improved engagement by patients in managing their own health.[14] A clinician for NHS Highland reported "I see that a patient has started taking medication, I ask them if they would have done that without Florence prompting them to do so – they say no, they would have left it another few days."

Fewer calls to ambulance services, fewer hospital admissions

While the costs of prescribed medication are higher (ensuring patients take the right medication) these are more than outweighed by the cost savings from avoided NHS24 and ambulance call outs, A&E attendance, and emergency hospital admissions.

Florence Impact on Healthcare Resources
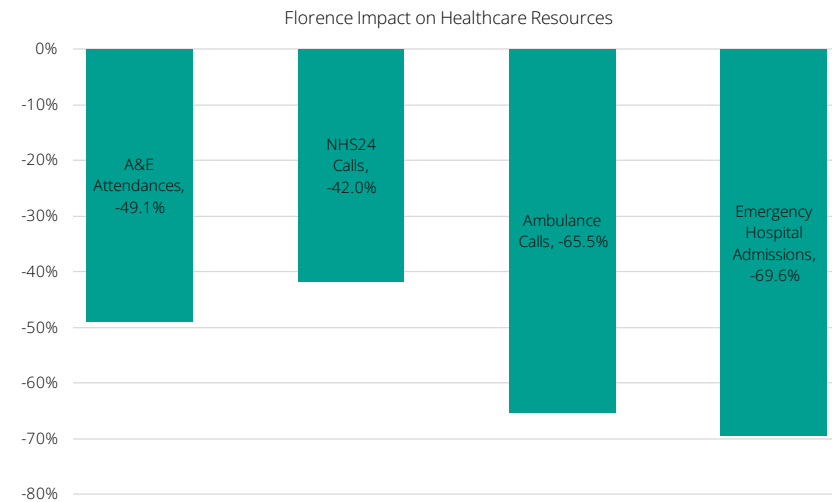
Summary of data drawn from HMHM Evaluation per 100 patients across W Dunbartonshire and Highlands for six months prior to and during Florence.

Figure 4: Florence Impact on Healthcare Resources[15]

NHS Scotland estimated that £23,000 per 100 patients in NHS Highland and £15,000 per 100 patients in West Dunbartonshire was saved because of using Florence compared to the six months previously, with substantial reductions in call outs to NHS24, ambulances and particularly emergency hospital admissions.[16]

[13] (Wolters, 2018)
[14] (Alexander, November 2018)
[15] (Nils Michael, July 2019)
[16] (Nils Michael, July 2019)

In the Highlands case this equates to ca £460 of net savings per patient per year; the equivalent of ca 20 times the cost of Florence. Similar cost savings were identified in the LCIA Test Bed Evaluation with £17,500 savings per 100 patients noted in the six-month intervention.[17]

The significant freeing up of staff capacity usage from fewer unnecessary contacts from increased self-management by COPD patients and better condition control contributes to reduced waiting times for patients and more productive use of time spent with the clinician.

One community nurse highlighted the "culture change" as more clinicians recognise the benefits of integrating Florence to enhance their delivery of care. "Patients who came to the end of using Florence say they're now in the habit of checking their stats every day. It embeds something into their daily routine. They feel connected, well cared for and not so isolated."[18]
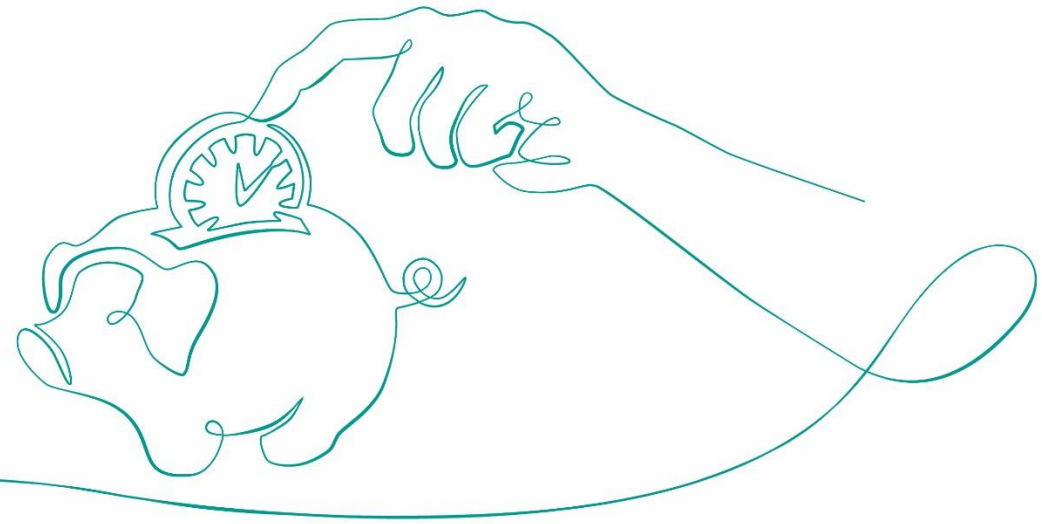
[17] (Milligan, et al., July 2018)
[18] (Jones, 2018)

References

Alexander, D. H., November 2018. Towards scaling up home and mobile health monitoring 2015-18., s.l.: Scottish Government.

Clark, S. & Birch-Jones, J., 2013-14. Flo Simple Health Evaluation Report, Nottinghamshire: s.n.

Cund, A., Birch-Jones, J., Kay, M. & Connolly, P., 2015. Self-management: keeping it simple with 'Flo'. Nursing: Research & Reviews, Vol 5, 2 March, p. 49—55.

Jones, F., 2018. Evaluation of the use of Florence within NHS Highland, s.l.: s.n.

Milligan, P. C. et al., July 2018. LCIA Bed Test: Evaluation Report, s.l.: Lancaster University.

Nils Michael, C. B. H. A., July 2019. Home and Mobile Health Monitoring Evaluation – Economic Case Studies, s.l.: Scottish Government.

Wolters, D. M., 2018. Service Evaluation of Three Telehealth Services for Monitoring Patients with Asthma, COPD, and Heart Failure, s.l.: s.n.

For further information:
(UK) www.getflorence.net or call 0845 50 50 120
(USA) www.generatedhealth.com or call 0238 1239 2132

florence
Intelligent Health Messaging

Powered by **Generated Health**