



## PRODUCT PILOT



Telea is a digital health start-up co-founded by Clare Meskill, a Speech and Language Therapist (SLT) and Dave Calnan, a software engineer. The Telea platform links SLTs and their clients to enable therapists to provide at-home speech therapy and remotely monitor client progress.

Telea's first product offering focused on people with Parkinson's disease (PD) and their SLTs to improve the SLT service delivery models. The platform empowers people with PD to proactively drive intervention by increasing the quality, quantity and consistency of treatment with high dose, timely, prescribed intervention which they can do at home.

Clinically, it frees up appointments, enhances efficiency and provides remote performance analysis and biofeedback.



## About Health Innovation Hub Ireland

Health Innovation Hub Ireland (HIHI) was established by the Department of Business, Enterprise and Innovation and the Department of Health and is supported by Enterprise Ireland (EI) and the Health Service Executive (HSE) to drive collaboration between the health service and enterprise. We offer companies the opportunity for pilot and clinical evaluation studies, and we provide the health service access to innovative products, services and devices that they may not otherwise be aware of.

HIHI is built on the premise that collaboration with enterprise can benefit patient care, patient pathways

and outcomes. We assess all concepts for healthcare innovation from those on the frontline – ranging from clinician to porter. We encourage healthcare professionals to get in touch with HIHI if they have an idea or solution that would make something in their job work better.



## The Health Challenge

Parkinson's disease (PD) is a neurodegenerative disorder that primarily affects movement. The disease gradually progresses over time and is characterised by a variety of motor and non-motor symptoms, such as tremors, changes in walking patterns, stiffness, as well as difficulties with balance and speech. At present, there is no known cure for Parkinson's disease.

Current treatments focus primarily on managing symptoms rather than addressing the underlying cause of the disease. In Ireland, there are approximately 12,000 people living with Parkinson's disease. While in the US there are one million living with the disease. Speech and communication difficulties are common symptoms of Parkinson's disease. Approximately, 90% of people with PD experience communication changes. People with PD may speak with lower vocal

volume, may develop weakened voice quality, can demonstrate impaired pitch variation and less clarity when pronouncing speech sounds. When Parkinson's disease affects a person's ability to speak, the impact on their lives can be significant. Difficulties in communication can lead to social withdrawal and isolation. Speech changes can have emotional consequences, including feelings of embarrassment, self-consciousness or depression. Family members and caregivers may also be affected by the speech changes in individuals with PD.

Speech therapy plays a crucial role in managing symptoms and improving communication abilities in people with PD. SLTs work with people with PD to improve communication skills, enhance vocal strength and address specific speech-related challenges.

# The Health Solution



The Telea platform lets SLTs prescribe exercises such as warm up, prompt to drink water, sustained vowel phonation, low-pitch and high-pitch drills, functional phrases, verbal problem solving, naming and reading aloud which can then be completed by clients through an app on their phone or tablet. The product is designed to save time for SLTs, improve therapy for clients and reduce times for those on waiting lists for assessment and intervention. Exercises on the Telea platform focus on increasing the client's loudness at vowel phonation of varying pitches, through personalised functional phrases and a range of cognitive tasks. SLTs can access an overview of all their clients utilising the Telea platform. Further details can be found on [www.telea.co](http://www.telea.co)

## HIHI Role

HIHI conducted a pilot of Telea with HSE Community Health Organisation (CHO) 8 with 7 SLTs and 37 of their clients with PD. The pilot was granted ethical approval by MTU. HIHI facilitated process mapping with SLTs and Telea which helped identify challenges and new KPIs, and design a new standard of care. HIHI analysed pilot results (end-user feedback, clients assessments and usage data) and prepared a final project report to disseminate outcomes with stakeholders in CHO8 and other CHOs.



## Outcome Report

Clients with PD had a very positive experience with Telea

- over 95% of clients would recommend Telea to other people with PD and want to continue to use Telea at the end of the pilot.
- there was an 80% reduction in waiting times for SLT assessment and intervention for clients with PD.
- over 80% said Telea had a positive impact on their voice, with the average improvement in voice being 10% across a mix of clinician-rated and patient-reported outcome measures.
- over 80% reported that their adherence with speech therapy exercises improved, with clients completing on average 62 exercises per week.
- 80% of clients found Telea easy to use and were confident in their use of it.

SLTs also had a very positive experience in using Telea

- following the successful completion of the HIHI pilot, CHO8 is working to extend Telea across all of CHO8 over a two year period.
- 100% of SLTs would recommend Telea to other SLTs and their clients with PD and found it easy to use.
- over 85% of SLTs want to continue to use Telea.
- 60% less time was required for a typical treatment plan and 60% fewer home visits were needed.

## Testimonials

*"The value of the HIHI pilot for Telea was immeasurable as it provided an opportunity to gather invaluable feedback directly from SLTs, fostering a collaborative environment where we were able to make real-time changes and improvements based on their insights. This not only enhanced the Telea platform but also ensured it was finely tuned to meet the specific needs of management, therapists and clients in their setting."* Ms. Clare Meskill, Telea CEO

*"The service level outcomes far exceeded our expectations and speak for themselves in terms of cost and time savings, promoting an efficient, high quality service. We are delighted to say we have secured HSE funding to continue and scale up our work with the Telea platform and to expand usage across the CHO8 region."* Ms. Aoife Carolan, Clinical Specialist SLT, Older Persons Services, CHO8

*"From day one, I loved it. I can feel the strength in my voice since I started the app. It is fantastic."* Client with PD, CHO8



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