DIGITAL TOOLS TO MEASURE PARKINSON DISEASE
Our perspective of a patient’s illness experience remains episodic and limited to the clinic.
THE USE OF TECHNOLOGY TO MEASURE HEALTH IS RAPIDLY GROWING

Published studies of wearable sensors and smartphones in Neurology through Dec. 2017

Source: PubMed searches of smartphone and wearable sensor studies for neurology and associated conditions on 12/31/2017
NOT ONLY CAN SENSORS TRACK KNOWN MOTOR SYMPTOMS OVER TIME…

Frequency and severity of tremor detected over one hour period

Preliminary
The text reads: "They can also capture novel data objectively and continuously in clinic."

A caption states: "Roche app measures Parkinson's disease fluctuations.

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6A: 
- Gait activity (%)
- Comparisons between HC and PD

6B: 
- #STS/h
- Comparisons between HC and PD

6C: 
- # turns per walking minute
- Comparisons between HC and PD

Source: Lindemann et al., 2017

A quote is added: "This could be the first time that such an app has been used to measure disease and symptom severity in a medicine development program in Parkinson's disease."
WE ARE IN THE MIDST OF A PARKINSON PANDEMIC

Estimated and projected number of individuals with PARKINSON DISEASE, 1990 – 2040

10 million

5 million

2.6 million

6.3 million

12.9 million

1990

2015

2040

Source: The Parkinson Pandemic: a call to action. JAMA Neurology 2017