

# Neuroscience - Digital Neurological Exams

Chris Zallek, M.D.

OSF - Illinois Neurological Institute, Jump Neurohealth Lab

TODAY

## PROBLEM TRYING TO SOLVE

- Access to primary neurological care
- Increasing shortage of neurologists and growing number of people needing neurological care
- Transition barriers for clinicians and health care systems to use digital neurological exam tools to help care for patients

## OUTCOME / GOALS

- Any person can use a smartphone or tablet as a neuro exam measuring tool
- Tools become force multipliers to help clinical teams care for patients
- Accessible, objective exam measurements, documentation, clinical decision support-AI
- Modular toolbox platform for other tools to be adopted in clinical and IT workflows

## THE JOURNEY – PAST, PRESENT, AND FUTURE

- 2017 – measure leg strength changes in people with ALS
- Pivot to addressing access and triage of patients with neurologist shortage
- Digital Neuro Exam (DNE) tool pilot study
- DNE patient study
- Planned: front-end and back-end DNE development, live demo capability, pilot use in research and clinical settings

## DIRECT IMPACT TO PATIENTS / FAMILIES

- Better triage of symptoms or detection of pre-symptomatic changes leads to earlier evaluation and care
- Continuity of care in-person and remotely facilitated