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INTRODUCTION

- Preliminary correlation results between Birkeland Current sensor-based ADL Scores (BC-ADL) and traditional Caregiver(CG) ADCS-ADL survey responses
- Describes sensitivity of BC-ADL Score for change detection relative to detectable ADCS-ADL, IADL, BADL Score changes

METHODS

1. N = 117 CG-Care Recipient(CR) Dyads
2. CR MMSE scores of 11-25
3. BC-ADL sensor data collected continuously for up to 18 months per Dyad
4. ADCS-ADL surveys conducted monthly
5. BC-Score required >100 valid BC-ADL measures per 2-week period to be included in analysis
6. Correlation analysis based on positive and negative ADCS-ADL score changes observed

RESULTS

- Preliminary analysis shows the BC-ADL score has significant correlation to the overall ADCS-ADL score and is statistically sensitive to identifying overall ADL changes of >11%.
- The BC-ADL Score is statistically sensitive to identifying IADL changes of > 13% and BADL changes of > 18%.

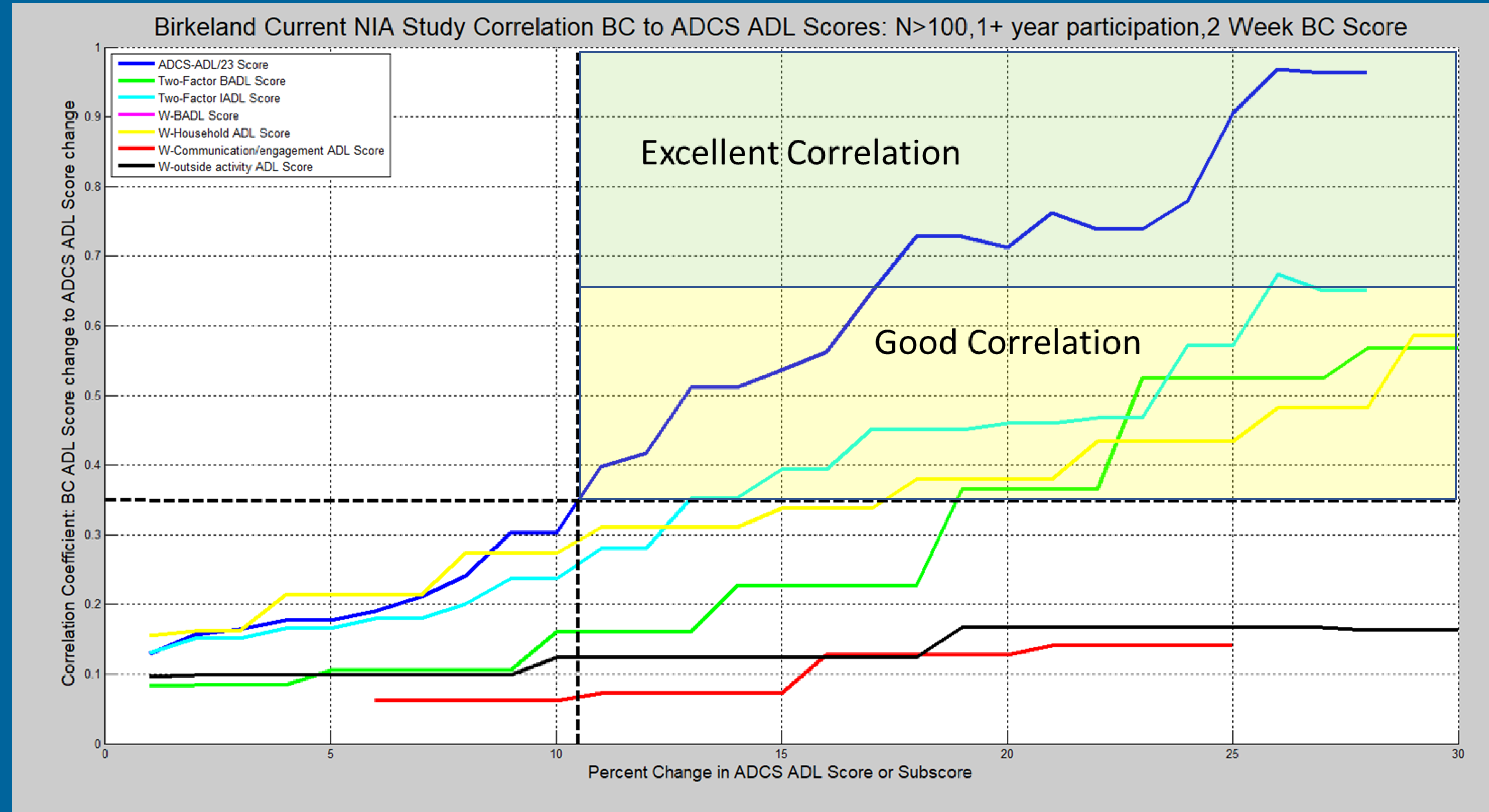
DISCUSSION

- Preliminary analysis suggests that the BC system can independently measure ADL change in representative AD/ADRD populations – Objective 1.2.3 of the Phase II Study.

FINANCIAL DISCLOSURE

- This program was funded in part from a National Institute on Aging SBIR Phase II Grant (R44AG065118).

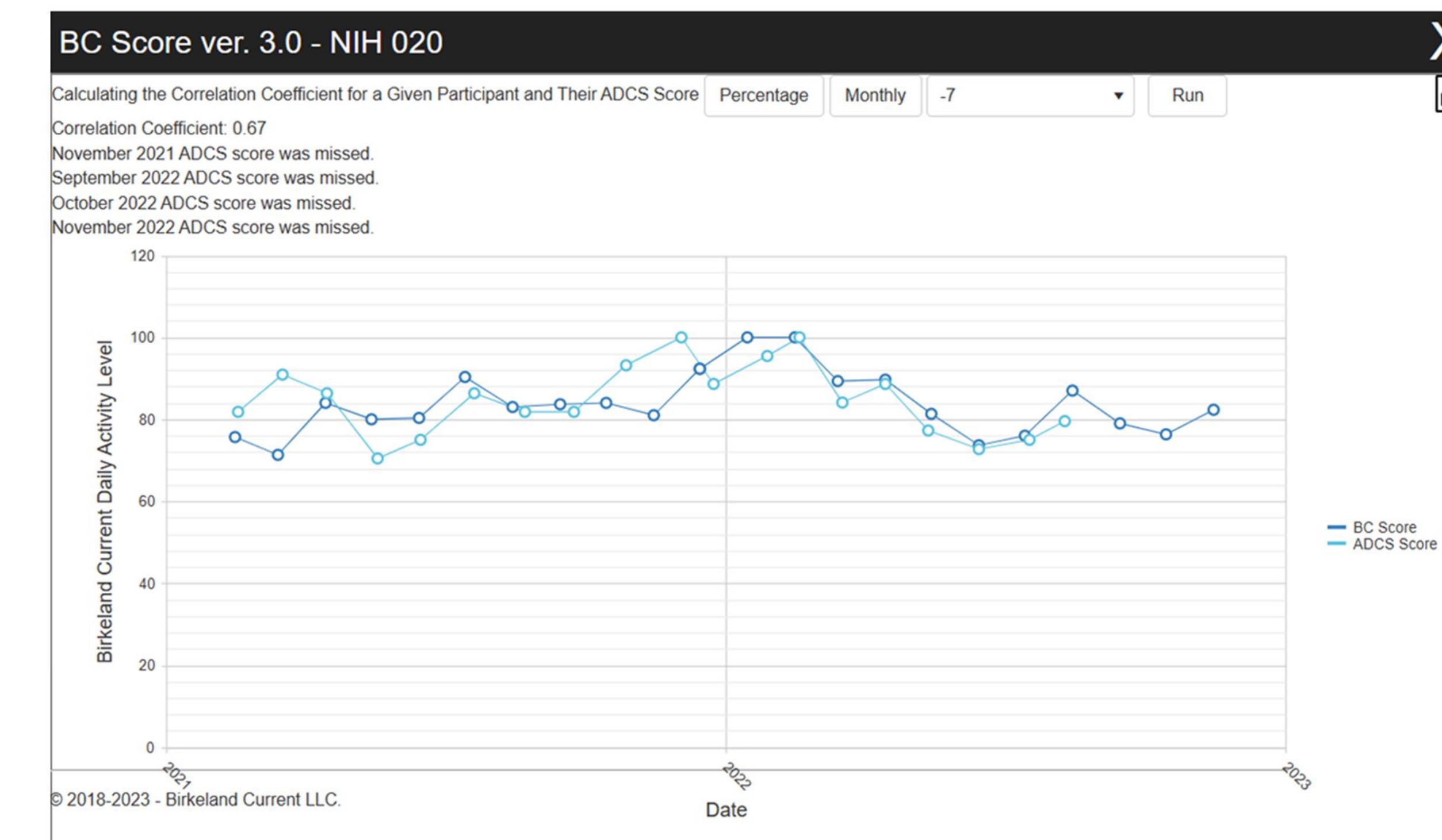
Comparison of Sensor-Based Continuous ADL Assessments to Caregiver ADCS-ADL Survey Results



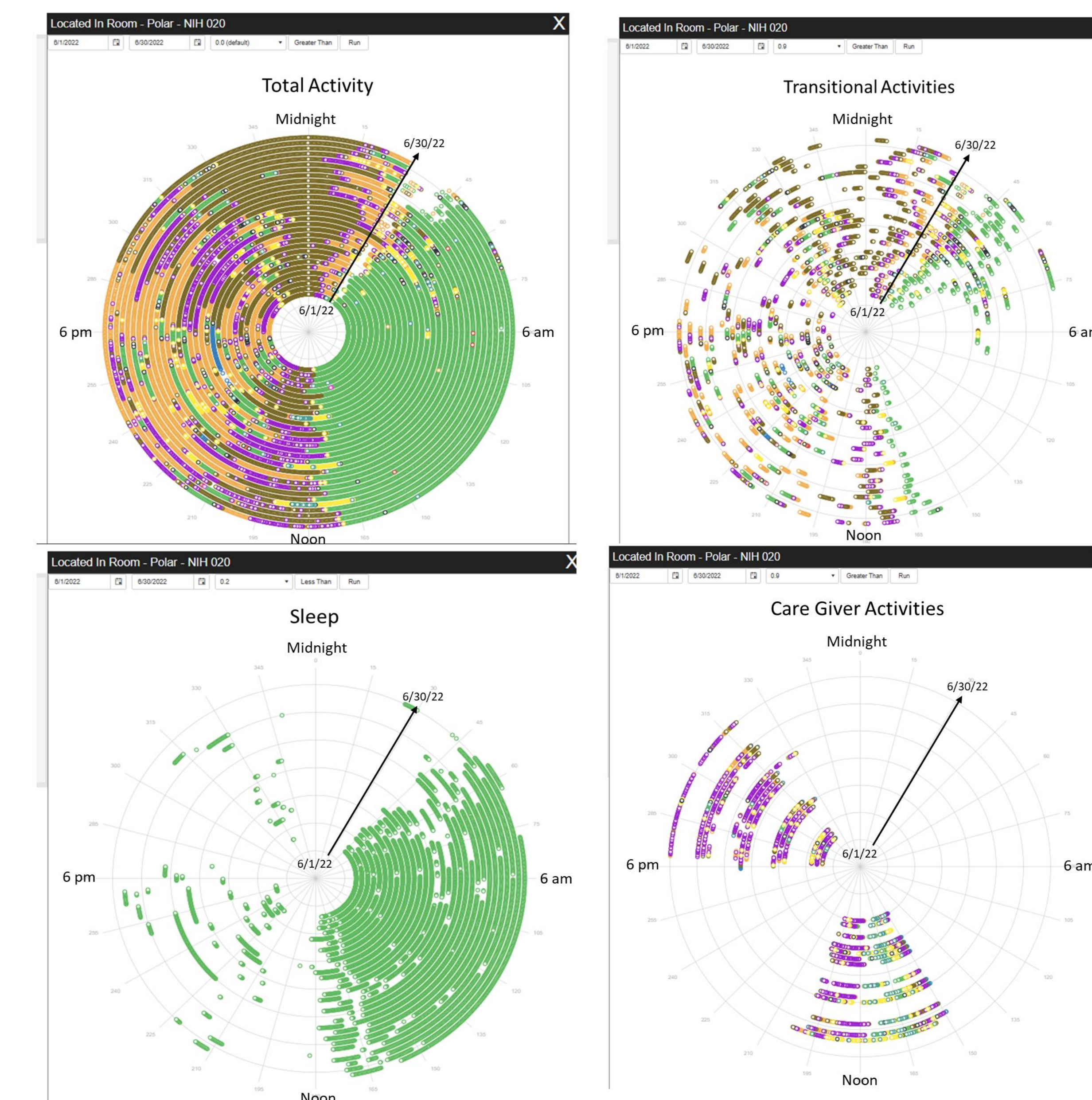
Background home sensors are able to continuously monitor and identify changes in both IADLs and BADLs for older adults with cognitive challenges.



The Birkeland Current Sovrin IoT (Sovrinti) Sensor System



Single Dyad Example of BC to ADCS ADL Scores



Example individual ADL Data (each ring is one day)



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