

Duke Pepper Center

“Physical Performance Across the LifeSpan (PALS)”

Data Use Request

Revised 9.17.2019

Requests for access to the Duke Pepper Center “Physical Performance Across the Lifespan study (PALS)” data should be made to the Duke Pepper Center Internal Operating Committee via email to Dr. Miriam Morey (Miriam.morey@duke.edu) or Dr. Harvey Jay Cohen (harvey.cohen@duke.edu). Each request should be 1-2 pages and include the following elements:

- 1) Proposed title
- 2) Proposed authors/ working group
 - a. Indicate primary author with full contact information
 - b. Indicate potential co-authors unless covered in “c” below
 - c. Indicate Duke Pepper Center PALS study faculty liaison/s
- 3) Objectives
 - a. Specific aims and hypotheses
- 4) Background/ Rationale
- 5) Proposed analysis plan
 - a. Designate the primary analyst
 - b. Indicate whether or not statistical support is needed (a statistician may be assigned to this working group)
 - c. Provide assurance that all data will remain behind the Duke firewall
- 6) List of variables needed from the PALS Data Dictionary available at the [PALS Study](#) website.
- 7) Estimated time by which draft manuscript will be sent to Duke Pepper Center Internal Operating Committee for review (6 months or less)
- 8) Projected Table Shells

Notes:

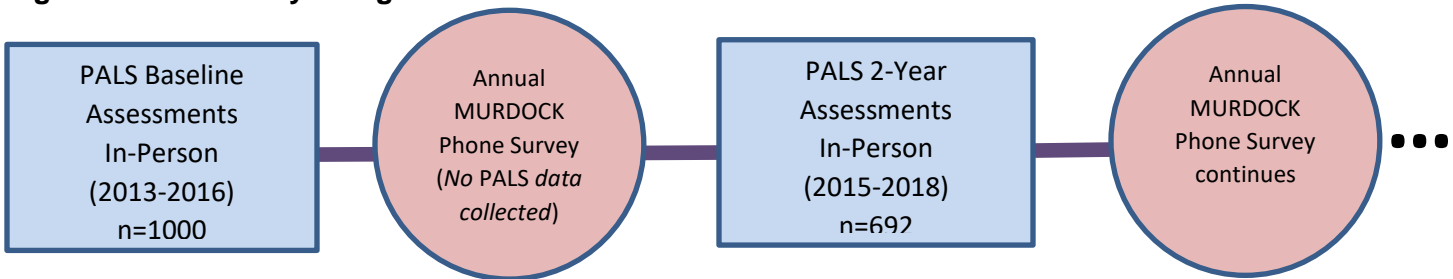
- The Physical Performance across the Lifespan study (PALS) study is often referred to as the “Healthy Aging Study” but we are trying to move away from that designation, which implies only healthy people were recruited. Our published baseline papers use “Physical Performance Across the Life Span”, which we recommend should be used for all further publications. We are now providing an easy acronym for use (PALS).
- Drs. Kristin Newby, Harvey J Cohen, and Miriam C. Morey should be listed as authors in any resulting publications. If accelerometry data are used, Dr. Katherine Hall should be included. If biomarkers are used, Drs. Virginia B Kraus and James Bain should be included also. Analysis core members should be included as well.
- Grant acknowledgements should include the Duke Older Americans Independence Center grant # P30AG028716, the David H Murdock Foundation for Business and Culture, and the Duke CTSA.
- If identifiable data are requested, you will need to be added to the IRB staff listing and complete Duke-required IRB CITI training prior to receiving data.

Standardized Description of COHORT (can be modified as needed)

The PALS study, PIs Dr. Miriam Morey and Dr. Harvey Cohen, is a longitudinal cohort study created by the Duke OAIC (Pepper) Center during a prior funding cycle. The overall objective of the PALS study is to examine patterns of age and sex-related differences in biological markers, physical function, and physical activity across the adult lifespan, and to longitudinally characterize changes in biological markers and the association of these changes with functional aging. (Refs 1, 2) The design of PALS—in particular, the inclusion of young adults—was motivated by the recognition that biological aging occurs across the lifespan, not just among the aged. The recruitment phase for the PALS study was 2013-2016, and the 2-year follow-up data collection phase spans

2015-2018. Study assessments were completed in-person at baseline and at 2-years, with interim MURDOCK telephone surveys conducted yearly (and planned to continue indefinitely) as shown in Figure 1.

Figure 1. PALS Study Design and Data Collection Time Points



Study participants were drawn from the Measurement to Understand the Reclassification of Disease of Cabarrus/Kannapolis (MURDOCK) registry. (Refs 3,4) Study participants were eligible if they were (a) at least 30 years of age; (b) residents of 20-Zip Code region that included Cabarrus and portions of surrounding Counties and the city of Kannapolis in North Carolina for at least 6 months; and (c) provided written informed consent. All potential participants were scheduled for an in-person baseline study visit, during which time informed consent, HIPAA authorization, and study measures were administered.

Enrolled participants (N=1000) were stratified in equal numbers by decade of life with a target of 100 participants per decade divided equally between men and women from age 30 to 59, 200 per decade from age 60 to 79, and all interested participants over age 80. Six participants subsequently rescinded permission for use of data (Visit 1 working n=994).

692 participants completed assessments at Year 2. Most common reasons for not completing Year 2 assessment included 'declined visit' (n=143) and 'unable to contact' (n=116).

Data are collected and managed using REDCap electronic data capture tools hosted at Duke University. Demographic variables (education, race, and ethnicity) are collected by self-report. Other measures include surveys of self-reported health and behaviors, physical performance measures, accelerometry, and blood samples in a non-fasting state that are stored for future investigations.

PALS Sample Publications (as of 9/17/2019)

1. Hall KS, Cohen HJ, Pieper CF, et al. Physical Performance Across the Adult Life Span: Correlates With Age and Physical Activity. *J Gerontol A Biol Sci Med Sci.* 2017 Apr 1;72(4):572-578. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6075535/>
2. Parker D, Sloane R, Pieper CF, Hall KS, Kraus VB, Kraus WE, Huebner JL, Ilkayeva OR, Bain JR, Newby LK, Cohen HJ, Morey MC. Age-Related Adverse Inflammatory and Metabolic Changes Begin Early in Adulthood *J Gerontol A Biol Sci Med Sci.* 2019 Feb 15;74(3):283-289. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6376106/>

MURDOCK Background publications

1. Bhattacharya S, Dunham AA, Cornish MA, et al. The Measurement to Understand Reclassification of Disease of Cabarrus/Kannapolis (MURDOCK) Study Community Registry and Biorepository. *Am J Transl Res.* 2012;4(4):458-470. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3493022/>
2. Tenenbaum JD, Christian V, Cornish MA, et al. The MURDOCK Study: a long-term initiative for disease reclassification through advanced biomarker discovery and integration with electronic health records. *Am J Transl Res.* 2012;4(3):291–301. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3426390/>