

**Fee based services for
SDSU, SDSU IV, SDSURF, and community partner
human subject research at discounted rates**



Jan 1, 2025

Bio-behavioral and Human Performance Services	Human subject physical assessments, DXA scan for bone health and body composition assessments, exercise assessment equipment rental
Biomedical Services	On-site collection and processing of human subject specimens
Community Engagement Services	Community partner introduction, subcontract development consultation
Data Analytic Services	Power and sample size calculation, data management, statistician support
HIPAA-compliant Data Storage	Secure data storage solutions for protected data
Intervention Support Services	Intervention & Implementation Mapping, Focus Group & In-depth Interview Training
Measurement Methods Support	Survey support on the Qualtrics, REDCap Academic, REDCap Cloud, and Ecological Momentary Assessment (EMA) systems
Secure Human Subject Study Management System	Secure web-based tool for tracking participant enrollment status, appointment scheduling, and storing regulatory compliance documents
Sensor Support	Wearable sensors (BioStrap, Fitbit, Garmin, WisePill)

For more information and to request services,
visit <https://healthlink.sdsu.edu/resources-and-services/>
or contact HealthLINK.services@sdsu.edu

Bio-behavioral and Human Performance Services

Human subject physical assessments, DXA scan for bone health and body composition assessments, exercise assessment equipment rental

1. **No authorship discussion required** Space for physical assessments (e.g., anthropometrics, physical fitness assessment). The BBHP Lab is a facility over 800 sq.ft. that houses a data collection and measurement room, a multipurpose area, a waiting area, shared research spaces, and a private restroom with participant lockers.
2. **No authorship discussion required** Body composition and bone health assessments using DXA - the BBHP lab has a new [Lunar iDXA](#) with an advanced technology that provides quality for research-grade projects in bone health and body composition (i.e., fat and lean mass distribution) across all body types.
3. **No authorship discussion required** Standardized training and certification to perform human body and health indicators measurements, and/or fitness assessments (TMST) using evidence-based protocols.
4. **No authorship discussion required** Body measurements collection (height, weight, body mass index (BMI), body circumferences (waist and hip), and health indicators (such as serial blood pressure and heart rate). The list of equipment includes but is not limited to Shorr height measuring boards, Seca floor scales, Gulick II tape measures, OMRON blood pressure monitors, aerobic steppers, metronomes, and POLAR heart rate monitors. Equipment loan services for field research are also available.
5. **No authorship discussion required** Submaximal exercise testing to assess cardiovascular fitness by measuring heart rate and recovery parameters using the Three Minute Step Test (TMST).

Biomedical Services

On-site collection and processing of human subject specimens

1. **No authorship discussion required** Scientific consultation for experimental design and protocols
2. **No authorship discussion required** Configurable spaces for conducting your research activities in a warm and welcoming environment with a bilingual (English/Spanish) Administrative Assistant; on-site storage for your research supplies is available
3. **No authorship discussion required** Biospecimen collection, coding, tracking, and storage (e.g., blood, urine, stool, saliva)
4. **No authorship discussion required** Long-term sample storage
5. **No authorship discussion required** Extraction, cleanup, and storage of DNA/RNA
6. **No authorship discussion required** Primer design, PCR/qRT-PCR, and agarose gel electrophoresis
7. **No authorship discussion required** Processing, packaging and transport of samples for external sequencing
8. **No authorship discussion required** Protein extraction, isolation and purification (desalting & dialysis, sample clean-up, affinity purification)
9. **No authorship discussion required** Enzyme-linked immunosorbent assay (ELISA)
10. **No authorship discussion required** Colorimetric, fluorescent, and luminescent quantification
11. **No authorship discussion required** Our instruments:
 - Cold storage space (+4C, -20C, -80C)

- SpectraMax® M2 Multimode Microplate Reader (ELISA, BCA, etc.)
- BioRad CFX96 Touch Real-Time PCR Detection System (qRT-PCR and PCR)
- QIAcube QIAGEN spin-column kit automation (automates 80 kits for DNA/RNA extraction, purification, isolation, etc.)
- Nikon Eclipse Ti2-E Automated Inverted Microscope (Fluorescence microscopy, H&E, etc.)
- Tokyo Boeki Biolis 24i Premium Chemistry Analyzer (determines the concentration of certain metabolites, electrolytes, proteins, and/or drugs in samples of serum, plasma, urine, and/or other body fluids)
- Agilent HPLC SYS-LC-1260II LC 1260 Infinity II System (Column: 70A NH2, 5um, 4.6 x 250mm)

Community Engagement Services

Community partner introduction, subcontract development consultation

1. **No authorship discussion required** Introduction to a Center partner organization: Formal introduction to a partner organization, sharing of partner research collaboration guidelines (if available), examples of 1) collaboration request, 2) planning document for partner support, 3) patient/population profile request, and providing guidance and follow-up on collaboration requests
2. **No authorship discussion required** Support with development of partner agreements: Feedback on materials, sharing of example subcontract materials (e.g., Scope of Work, budget), Data Use Agreement, Memorandum of Understanding
3. **No authorship discussion required** Consultation for dissemination: Feedback on and sharing of Multi-level Dissemination Plan Worksheet
4. **Requiring Acknowledgement Discussion** Consultation for development of a Community Advisory Board/Committee or engaging with the Center Community Coalition: Feedback on and sharing of example advisory board/committee materials
5. **Requiring Co-authorship Discussion** Consultation to support community engaged research for a project: Quarterly to annual meetings with the project leader to discuss partnership progress, aspects of working with a partner, and methodologies used (e.g., recruitment, EHR)

Data Analytic Services

Power and sample size calculation, data management, statistician support

1. **Authorship or acknowledgement depending on level of involvement** Consultation for research study design (e.g., Randomized control trial [RCT] clustered or with stratification, Experimental, Stepped wedge, Factorial) and randomization techniques (e.g. block, stratification, etc.)
2. **Requiring Acknowledgement Discussion** Data Management: Database design and setup consultation; Training and consultation for data processing; Data cleaning (including sensor data cleaning); Variable transformation (e.g., recode and compute variables); Assistance for data manipulation (e.g., dataset merging, dataset reshape [wide to long; long to wide])

3. Quantitative Data analyses (please note that the HDAG team will expect the data to be cleaned prior to submission for data analysis)
 - **Requiring Acknowledgement Discussion** Power and sample size calculation
 - **Requiring Co-authorship Discussion** Biostatistical data analysis: Comparing means (e.g., t-tests, ANOVA, ANCOVA...etc.); Regression models (e.g., linear, logistics, binary, ordinal, count and other outcomes); Multivariate models; Multilevel mixed effect models (e.g., mixed-effects linear regression, mixed-effects non-linear regression; cluster adjustment for clustered randomized control trials); Repeated measure analysis/Longitudinal data analysis (e.g., Generalized estimating equations [GEE], Generalized linear models [GLM]); Mediation analysis; Complex-weighted survey analysis; Survival analysis; Measurement error models; Analysis using missing imputation

HIPAA-compliant Data Storage

Secure data storage solutions for protected data

1. Data storage and management: the practice of collecting, keeping, and using data securely and efficiently, optimizing the use of data within the bounds of policy and regulation.
 - **No authorship discussion required** Consultation to identify appropriate data classification: Protected Level 1 (**PL-1**)/Confidential (High); Protected Level 2 (**PL-2**)/Moderately sensitive (Medium); Protected Level 3 (**PL-3**)/ Public information (Low)
 - **No authorship discussion required** Secure data transfer (SSH and Globus)
2. IT Technical Support: Assistance to individuals regarding technology-related devices, providing users with answers and resolutions to problems they may be experiencing. IT support can encompass the setup, installation, and configuration of equipment, plus much more.
 - **No authorship discussion required** Procedural guidance and consultation
 - **No authorship discussion required** Software management: Application software is is planned, implemented, monitored and controlled
 - **No authorship discussion required** Account Management: Data access and permissions
 - **No authorship discussion required** Basic IT Trainings: Best practices; File transfer software; Desktop security

Intervention Support Services

Intervention & Implementation Mapping, Focus Group & In-depth Interview Training

1. Developing new interventions or adapting existing interventions
 - a. **Authorship or Acknowledgement dependent on level of involvement** Consultation to decide how to develop a new intervention or adapt an existing intervention, e.g., making adaptations to a different target population, language, culture, setting, or context [~45min-1hour meeting]
 - b. **Authorship or Acknowledgement dependent on level of involvement** Consultation to evaluate the implementation of an intervention, e.g., collecting process evaluation data in your intervention study [~45min-1hour meeting]

- c. **No authorship discussion required** 3-part training series on using Intervention Mapping (IM) [~7 hours for all sessions]
 - i. Training Session #1 covers foundational knowledge about the IM Framework and how the IM Framework can be applied at multiple levels of influence of change
 - ii. Training Session #2 covers intervention planning and design, including how to generate intervention themes, components, scope, and sequence, and adapting intervention materials
 - iii. Training Session #3 covers intervention process evaluation, to examine the extent to which an intervention is delivered as planned
 - d. **No authorship discussion required** Training series on using Implementation Mapping (e.g., [application of Implementation Mapping](#) to a Care Coordination Program at a Federally Qualified Health Center) [~7 hours for all sessions]
2. **Authorship or Acknowledgement dependent on level of involvement** Consulting and training for rapid/qualitative/quantitative/mixed methods analysis from focus groups or in-depth interviews, including consultation to decide which formative research methods to involve in your project, e.g., focus groups, in-depth interviews [45 mins - 1 hour meeting]; written and verbal feedback on guidees (i.e. the moderator's outline) used to conduct focus groups and in-depth interviews [45 mins - 1 hour meeting]
 3. **No authorship discussion required** 4-part training series on conducting and analyzing data from focus groups/in-depth interviews [~9 hours for all sessions]
 - Training Session #1 covers an overview of focus groups/in-depth interviews, stages of a focus group/in-depth interview, and types of questions asked during a focus group/in-depth interview
 - Training Session #2 covers applying effective facilitation techniques, with an opportunity to practice different scenarios and solutions to address challenges during focus groups/in-depth interviews
 - Training Session #3 covers a practice mock focus group/in-depth interview to evaluate trainees on their skill development and their overall ability to conduct focus groups/in-depth interviews
 - Training Session #4 covers Rapid Assessment qualitative data analysis to analyze data from focus groups/in-depth interviews

Measurement Methods Support

Survey support on the Qualtrics, REDCap Academic, REDCap Cloud, and Ecological Momentary Assessment (EMA) systems

1. **No authorship discussion required** Consultation for choosing a survey, scale, or measurement approach: Evaluate and select currently available scales from the literature (literature review must be conducted by the requestor before consultation)
2. **Authorship or acknowledgement depending on level of involvement** Consultation and support for creating a survey, scale, or measurement approach: Assist in developing surveys and multi-item scales
3. **Authorship or acknowledgement depending on level of involvement** Consultation and support for changing a scale (adaptation, translation): Assist in modifying and refining the existing scale to suit target population; Assist in the translation and adaptation of scales via consensus translation panels (i.e., a small-group discussion guided by a

facilitator, to come to an agreement on the cross-cultural equivalence of the original and translated versions of each scale) and/or cognitive interviews (i.e., one-on-one interviews between a trained interviewer and an individual to gather feedback on translated scales)

4. **Authorship or acknowledgement depending on level of involvement** Support for assessing psychometric properties of a scale (e.g., validity, reliability) **(coming soon)**
5. **Require acknowledgement for using the system provided by HLINK/Endowment** Consultation and support for data collection using Electronic Data Capture (EDC) systems (i.e., REDCap Academic, REDCap Cloud, and Qualtrics platforms to collect study data electronically): support selection of the appropriate EDC system for a particular project
6. **Require acknowledgement for using the system provided by HLINK/Endowment** Consultation and support for data collection using Optical Mark Recognition (OMR) software (i.e., paper pencil survey that can be scanned to collect data such as Remark OMR 11): Assist with creating scannable survey/assessment instruments to collect research data
7. **Require acknowledgement for using the system provided by HLINK/Endowment** Training and support for data collection using the ilumivu mEMA system (i.e., collect repeated subject data in real time): Train the research team how to use the ilumivu mEMA application that is part of the ilumivu mEMA system; Assist with building a project in ilumivu mEMA to collect EMA data in a single integrated system (e.g., set up instrument/questionnaires/ scales/surveys, set up EMA schedule); Provide technical support
8. **Authorship or acknowledgement depending on level of involvement** Consultation and training on focus groups for the development of scales and measures (i.e., a small-group discussion guided by a trained facilitator, used to learn more about opinions on a recently developed scale/measure, and to guide future action): Support and/or train teams on how to facilitate focus groups
9. **Authorship or acknowledgement depending on level of involvement** Consultation and training on cognitive interviews for the development of scales and measures (i.e., one-on-one interviews between a trained interviewer and an individual to gather feedback in their understanding, interpretation and answers of each question on a survey): Support and/or train teams on how to conduct cognitive interviews

Secure Human Subject Study Management System

Secure web-based tool for tracking participant enrollment status, appointment scheduling, and storing regulatory compliance documents

1. **No authorship discussion required** Clinical Trial Management Software (CTMS) including centralized calendar, participant interface, visualization across studies, randomization, blinded studies, eHR, electronic data capture, customized survey capabilities and more
2. **No authorship discussion required** Research equipment/supply rental, including but not limited to:
 - Wifi enabled iOS and Android mobile devices
 - Anthropometric/physical measures (e.g., height/weight)
 - Physiological assessments (e.g., blood pressure, heart rate)
 - Fitness assessment (e.g., stair steppers and risers)

1. **No authorship discussion required** Intelligent Sensor System Usage Bootcamp Service: This service is currently available for the BioStrap, Garmin VivoSmart 5, and the WisePill. It includes training on how to set up the intelligent sensor system, how to create an account on the vendors' website, how to use the intelligent sensor system, how to upload/download the intelligent sensor system data from the vendor's website, and considerations for potentially managing large volumes of complex intelligent sensor system data.
2. **No authorship discussion required** Intelligent Sensor System Data Software Selection Advisory Service: This service includes consultation(s) with the Researcher on which software tools we recommend for managing the intelligent sensor system data given their project goals. Commonly used tools include IPython, PySpark, Anaconda, NumPy, Jupyter, Pandas, Matplotlib, Seaborn, SciPy, TensorFlow, and OpenCV.
3. **Requiring Acknowledgement Discussion** Intelligent Sensor System Data Management Advisory Service includes:
 - a. Consultation(s) with the Researcher on the tools and techniques we recommend for loading, cleaning, transforming, re-arranging, and filtering intelligent sensor system data.
 - b. Consultation(s) with the Researcher on the tools and techniques we recommend for performing statistical analysis on intelligent sensor system data.
 - c. Consultation(s) with the Researcher on the tools and techniques we recommend for aggregating and summarizing intelligent sensor system data.
 - d. Consultation(s) with the Researcher on the tools and techniques we recommend for performing ad-hoc querying on intelligent sensor system data.
 - e. Consultation(s) with the Researcher on available machine learning tools and techniques.
 - f. Consultation(s) with the Researcher on the tools and techniques we recommend for plotting intelligent sensor system data.
4. **Requiring Acknowledgement Discussion** Intelligent Sensor System Data Transformation Advisory Service: This service includes consultation(s) with the Researcher on the tools and techniques we recommend for transforming the intelligent sensor system data into a standard, open format.