All of Us Research Hub
Presented to the National Hispanic Medical Association

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Key Definitions & Acknowledgement

- **Researcher Engagement**: Intentional, bidirectional relationship and capacity building with researchers and their communities across all career stages, institution types, and demographics, emphasizing researchers underrepresented in the biomedical workforce (UBW) through ongoing information sharing, collaboration, consultation, empowerment, and support.

- **Outreach**: Unidirectional interaction, such as providing materials and information to an audience.

- **Researcher diversity**: Defined across multiple dimensions, including demographics (inclusive of self-reported race/ethnicity, sex, gender, and SGM status, and disability), career stage, and institution type.

*Source: All of Us Research Program protocol*

Acknowledgement: This event is funded by the Division of Engagement and Outreach, All of Us Research Program, National Institutes of Health. Award Number [Pyxis Partners: OD028404]
WHO WE ARE
Established in 1994 in Washington, DC, NHMA is a nonprofit association representing 50,000 licensed Hispanic physicians in the U.S.

VISION
NHMA's vision is to be the national leader in improving the health of Hispanic populations.

PRESIDENT & CEO
Elena Rios, MD, MSPH, MACP

MISSION
NHMA’s mission is to empower Hispanic physicians to lead efforts to improve the health of Hispanic and other underserved populations in collaboration with Hispanic state medical societies, residents, medical students, and other public and private sector partners.
Today’s Objectives

During today’s presentation, we will

● Learn about the *All of Us* Research Program and the data we offer

● Explore the public-facing Research Hub and its tools

● Examine the steps for registration

● See how to start a research project on the Workbench
All of Us community and provider partner network (as of November 2023)
All of Us consortium members
(beyond community partners, as of November 2023)

The Participant Center
- Scripps Research Translational Institute
- BlueCross BlueShield
- SageBiotechs
- waves
- Denver Health
- Mayo Clinic
- Biomedworks
- core evolution
- New York Blood Center Enterprises
- LifeSouth
- LIFESOUTH Community Blood Centers

Communications & Engagement
- Wonder
- RTI
- University of Washington

HPO Network
(Health Care Provider Organizations)
- All of Us California
  - UC San Diego Health
  - UCI Health
  - UC Davis Health
  - Northwestern Medicine
  - NorthShore University HealthSystem
  - Northwell Health
  - UIC
  - Rush University Medical Center
  - LUSC University of Southern California
  - Cedars Sinai
  - Yale
- University of Arizona and Banner Health
  - University of Pittsburgh
  - Banner Health
- FQHCs (Federally Qualified Health Centers)
  - San Diego Health
  - Sun River Health

All of Us Wisconsin
- Marshfield Clinic Health System
- Gundersen Health System
- University of Wisconsin

All of Us New England
- Boston Medical
- Mass General Brigham

All of Us Pennsylvania
- University of Pittsburgh

Trans America Consortium
- University of Washington
- Mayo Clinic
- Duke
- Vanderbilt University Medical Center
- The Ohio State University Wexner Medical Center
- Yale

New York City Consortium
- Columbia University Irving Medical Center
- Icahn School of Medicine at Mount Sinai
- New York Presbyterian Hospital
- Harlem
- New York-Presbyterian
- Presbyterian

All of Us Southern Network
- COLUMBIA
- LURIE MEDICINE
- UVM HEALTH CENTERS
- UF FLORIDA
- UF HEALTH

All of Us Southeast Enrollment Center
- Emory University
- UTHSC

VA Medical Centers
- VA

Participant Technology Systems Center (PTSC)
- vibrent

Biobank
- Mayo Clinic

Data & Research Center (DRC)
- Broad Institute
- Duke
- Verily

Genomics Partners
- Columbia University
- NorthWestern Medicine
- Johns Hopkins
- UH Health
- HudsonAlpha

Note: These are not approved lockups and should not be repurposed on assets.
Nutrition for Precision Health (NPH)

Cedars Sinai
LSU Health NEW ORLEANS
Mass General Brigham
Northwestern Medicine
UAB MEDICINE
UC DAVIS HEALTH
UCLA Health
THE UNIVERSITY OF CHICAGO
THE UNIVERSITY OF NORTH CAROLINA at CHAPEL HILL
UNC NUTRITION RESEARCH INSTITUTE
One of the world’s largest, most diverse biomedical datasets of its kind

Inviting at least

1 Million people from across the United States

Data available from 413,450+ participants

75% are from communities underrepresented in biomedical research

45% are from racial and ethnic minority groups

Data as of April 2023
Enabling research discoveries that drive more precise approaches to care

Engages people & communities who have been left out of medical research in the past.

Combines biological factors and social determinants on a large, inclusive scale.

Easily accessible to any researcher with a secure internet connection.

Follows participants as they move, age, and grow.
Our Mission

Accelerate health research and medical breakthroughs, enabling individualized prevention, treatment, and care for all of us

Nurture partnerships for decades with at least a million participants who reflect the diversity of the U.S.

Deliver one of the largest, richest biomedical datasets that is broadly available and secure

Catalyze an ecosystem of communities, researchers, and funders who make All of Us an indispensable part of health research

Made possible by a team that maintains a culture built around the program’s core values
Participants included in All of Us research data are diverse.

<table>
<thead>
<tr>
<th>Underrepresented in Biomedical Research (UBR) Categories</th>
<th>Curated Data (% out of 413,457 participants)</th>
</tr>
</thead>
<tbody>
<tr>
<td>At least one UBR</td>
<td>74%</td>
</tr>
<tr>
<td>Non-white race or Hispanic/Latino ethnicity</td>
<td>43%</td>
</tr>
<tr>
<td>Age &gt;= 65</td>
<td>24%</td>
</tr>
<tr>
<td>Less than GED</td>
<td>9%</td>
</tr>
<tr>
<td>Annual Income &lt;= $25k</td>
<td>25%</td>
</tr>
<tr>
<td>Sexual and Gender Minorities</td>
<td>10%</td>
</tr>
<tr>
<td>Disability</td>
<td>10%</td>
</tr>
</tbody>
</table>
Summary of Data Available in the Researcher Workbench

- 413,350+ Survey Responses
- 337,500+ Physical Measurements
- 312,900+ Genotyping Arrays
- 287,000+ Electronic Health Records
- 245,350+ Whole Genome Sequences
- 1,000+ Long-Read Sequences
- 15,600+ Fitbit Records
- 11,350+ Structural Variants

NEW! Sleep Data

Data as of April 2023
Including genomic data

The whole genome sequence dataset includes variation at more than 1 billion locations, which is nearly one-third of the entire human genome.

*Only available in the Controlled Tier

- 312,900+ Genotyping Arrays
- 245,350+ Whole Genome Sequences
- 1,000 Long-Read Sequences

Genomics Analysis Tools
Hail and PLINK in addition to R, Python, and Jupyter Notebooks

Genomic Data Is Paired With Rich Phenotypic Data

- 206,100+ Have Whole Genome Sequences + Electronic Health Records + Physical Measurements + Survey Responses
- 245,100+ Have Whole Genome Sequences + Physical Measurements + Survey Responses
- 206,150+ Have Whole Genome Sequences + Electronic Health Records
- 8,800+ Have Whole Genome Sequences + Fitbit Records

Fitbit data may include physical activity, step counts, heart rate, and sleep data

Data as of April 2023
1. The Basics
2. Overall Health
3. Lifestyle
4. Health Care Access & Utilization
5. Personal Health History and Family Medical History (Revised)
6. Social Determinants of Health (SDOH)
7. COVID-19 Participant Experience (COPE)
8. COVID-19 Vaccines Minute Surveys

Visit the Survey Explorer on ResearchAllofUs.org for more information on survey data.
By connecting biological and social determinants of health data on a large, inclusive scale and following participants as they move, age, and grow, the *All of Us* dataset is driving new insights into health and disease.

**Social Determinants of Health (SDOH) Survey data**

- Neighborhood Safety
- Neighborhood Environment
- Social Support
- Discrimination
- Loneliness
- Health Care Discrimination
- Housing
- Food Security
- Stress
- Spiritual Experiences
- Religious Attendance
- English Proficiency

from 117,750+ responses

*Data as of April 2023*
All of Us released its recurring COVID-19 Participant Experience (COPE) survey to learn more about changes in participants’ daily life, health, and well-being throughout the pandemic. Registered researchers can access the data in the Researcher Workbench and use it as part of an integrated dataset to explore potential associations across a variety of factors, from genetics to geography to mental health.

COPE Survey Data Currently Available in the Researcher Workbench

Nearly 100,200 participants responded to one or more of the six COPE surveys administered between May 2020 and February 2021.

Topics Covered

- Social Distancing Experiences
- COVID-19 Related Impact
- General Well-Being
- Support
- Stress
- Physical Activity
- Substance Use
- Resilience
- Discrimination
- Loneliness
- Vaccine Perceptions

Mental Health

The COPE data represents the biggest infusion of mental health data into the Researcher Workbench so far. Insights include:

- 62% felt bothered by sleeping problems
- 53% felt nervous and anxious
- 94% have someone to love and make them feel wanted
- 95% have someone to have a good time with

*Participants could select multiple symptoms.
All of Us Research Data Pipeline

DATA SOURCES → DATA HARMONIZATION → DATA REFINEMENTS → CURATED DATA REPOSITORY + DATA DICTIONARY
Data: Access Flowchart and Tools

Anyone can visit ResearchAllofUs.org (the All of Us Research Hub) to learn more about the data available for research and explore aggregated participant data and summary statistics, with participant identifiers removed. Public resources include:

- **Data Snapshots**: Aggregated, public-facing overviews of participant characteristics and data types
- **Data Browser**: Interactive preview into the All of Us dataset through public-facing aggregate data
  - Currently includes participant-provided survey responses, physical measurements, data from EHRs and wearables, and genomic data
- **Survey Explorer**: Details the questions included in each of the surveys
- **Research Projects Directory**: Descriptions of each research project within the Researcher Workbench

Registered researchers can access in-depth data and a variety of research tools to conduct a range of studies.

Registered researchers with amended institutional agreements can access all of the data in the Registered Tier plus additional and expanded data types, including genomic data, real dates of health events, ICD codes, more granular demographic data, and more.

Counts in the Public, Registered, and Controlled Tiers may vary based on the lag time associated with the data curation process under the program's rigorous privacy protections.
Data release timeline

**2019**

**Data Browser**
(launched May 2019)

Interactive tool available to the public that provides summary statistics from the program's growing database, allowing researchers to understand the characteristics of our participant population, explore the data types available and plan research questions.

**2020**

**Researcher Workbench**
(launched May 2020)

Released of the first version of the All of Us dataset and the first set of researcher tools for beta testing:
- Survey data
- Physical measurement data
- EHR data

**2021**

**Expansion of data and tools**
(throughout 2021)

Expanded the All of Us dataset with additional survey, measurement, and EHR data:
- Start of genotyping and whole genome sequencing
- Initial return of results to participants
- >1,000K researchers registered

**2022**

**Controlled Tier & Genomics**
(ongoing)

Launch our Controlled tier, available to approved researchers who have taken additional steps and training to access:
- Genomics data
- Individual and granular-level information
Available in Registered and Controlled tiers, with basic information available via our public data browser:
- ACS data linkage
- New surveys

**2023 and beyond**

**Additional data types and tools**
(ongoing)

Expect to enroll 1M participants within 5-7 years of launch and continue to expand the All of Us dataset with new data releases, including over time:
- Assay data
- Additional wearables data
  - Fitbit sleep data
  - Apple HealthKit
- New surveys (e.g., Mental Health & Wellbeing)
- New Linkages to external data sources
- Expanded researcher access
- Ancillary study data

Release new versions of the Researcher Workbench
The Research Hub
The *All of Us* Research Hub

https://www.ResearchAllOfUs.org/
Researchallofus.org is home to *All of Us* data, research tools, & projects.

“The Public Website”

“The Workbench”
Data Snapshot provide an overview of participant data.
Use the Project Directory to view all active projects.

Research Projects Directory

0,964 ACTIVE PROJECTS
This information was updated 2/5/2024

The Research Projects Directory includes information about all projects that currently exist in the Researcher Workbench to help provide transparency about how the Workbench is being used. Each project specifies whether Registered Tier or Controlled Tier data are used.

Note: Researcher Workbench users provide information about their research projects independently. Views expressed in the Research Projects Directory belong to the relevant users and do not necessarily represent those of the All of Us Research Program. Information in the Research Projects Directory is also cross-posted on AllOfUs.gov in compliance with the 21st Century Cures Act.

Search By: Project title: hispanic

49 projects have ‘hispanic’ in the project title

Interdisciplinary approach to understanding obesity in Hispanic populations
We plan to explore the data to formalize a research question about the correlations between obesity and the gut microbiome in Hispanic populations. I also want to formalize a research question about the correlations between obesity, polycystic ovarian syndrome, and...

Asthma genetics in Hispanic and Latino individuals
We will apply population genetics methods such as admixture and IBD mapping to identify genomic regions, and ultimately, genetic variants, that are associated with asthma in Hispanic and Latino individuals in the U.S. Hispanic and Latino individuals are admixed, and...

Hispanic/AMR Workspace
What are the genetic determinants of Alzheimer’s disease in individuals identifying as Hispanic, compared to those who
Use the Project Directory to view all active projects.

Asthma and Social Stressors 2

SCIENTIFIC QUESTIONS BEING STUDIED
I hope to explore associations between asthma severity (categorized as intermittent or persistent) and exposure to environmental and psychosocial stressors, such as community violence, discrimination, and perceived stress. An understanding of this can aid in health promotion for marginalized populations who are often exposed to these stressors, and assist in assessing appropriate interventions (mental health-focused or otherwise).

PROJECT PURPOSE(S)
• Disease Focused Research (asthma)
• Population Health
• Social / Behavioral

SCIENTIFIC APPROACHES
We hope to analyze data from the Social Determinants of Health survey as they relate to the condition of interest (asthma) in the Conditions domain, while potentially controlling for certain demographic variables.

ANTICIPATED FINDINGS
We hope to assess whether there is an association between these adverse social/environmental exposures and experiences with asthma. This will support an understanding of how environmental factors may influence the severity of this disease.

DEMOGRAPHIC CATEGORIES OF INTEREST
This study will not center on underrepresented populations.

DATA SET USED
Registered Tier

RESEARCH TEAM
Owner:
• Prathyshna Raghna Pujari - Undergraduate Student, University of Florida

Collaborators:
• Ruina He - Project Personnel, University of Florida

Request a Review of this Research Project
Read researchers’ peer-reviewed *All of Us* publications

**All of Us Publications**

There are currently **221 publications** and counting.

Inclusion on this list does not constitute endorsement by *All of Us*.

**Featured Publications**

- Hypertension prevalence in the *All of Us* Research Program among groups traditionally underrepresented in medical research
- Reconstruction of private genomes through reference-based genotype imputation

**Browse or Search all Publications**

SEARCH by TITLE

SORT BY: DATE TITLE

- Hypertension prevalence in the *All of Us* Research Program among groups traditionally underrepresented in medical research

- Reconstruction of private genomes through reference-based genotype imputation
Exploring the Data - The Data Browser & Survey Explorer

Follow along: https://DataBrowser.ResearchAllOfUs.org
The Data Browser is an interactive way to view the data.
Explore the Data: The Data Browser

Search Across Data Types

- Search: asthma

Data includes 409,420 participants as of 2/15/2023.

EHR Domains

- Conditions: 68 matching medical concepts, 254,700 participants
- Procedures: 4 matching medical concepts, 242,580 participants

Survey Questions

- Personal and Family Health History: 1 matching survey questions, 185,240 participants
  - Survey includes information about the medical history of a participant and their immediate family members.

View Conditions
View Procedures
View Complete Survey
Explore the Data: The Data Browser

Top 10 Conditions by Descending Participant Counts:

1. Asthma
2. Uncomplicated asthma
3. Exacerbation of asthma
4. Asthma, bronchial hyperreactivity, bronchial hyperresponsiveness, bronchial hyperreactive airway disease
5. Asthma, bronchial hyperreactivity
6. Asthma, bronchial hyperreactivity, bronchial hyperresponsiveness
7. Asthma, bronchial hyperreactivity, bronchial hyperresponsiveness, bronchial hyperreactive airway disease
8. Asthma, bronchial hyperreactivity, bronchial hyperresponsiveness
9. Asthma, bronchial hyperreactivity
10. Asthma, bronchial hyperreactivity, bronchial hyperresponsiveness

Showing top 1-50 of 68 matching medical concepts.

Interested in general health information related to "asthma"? Search MedlinePlus.

1. Asthma:
   - Participants of 50,160
   - 19.66% of 254,700

2. Uncomplicated asthma:
   - Participants of 37,040
   - 14.54% of 254,700

3. Exacerbation of asthma:
   - Participants of 14,780
   - 5.8% of 254,700
Explore the Data: The Data Browser

Conditions | Participants of 254,700 | % of 254,700
--- | --- | ---
Asthma | 50,160 | 19.69%

- Also Known As: Asthmatic, Airway hyperactivity, Bronchial hyperresponsiveness, Hyperreactive airway disease, Bron... See More

- Sex Assigned at Birth
- Age
- Sources

1. Asthma
   - Uncomplicated asthma
   - Acute exacerbation of asthma (disorder)

2. Uncomplicated asthma
   - 37,040 | 14.54%
   - Also Known As: Uncomplicated asthma (disorder)

3. Exacerbation of asthma (disorder)
   - 14,780 | 5.8%
   - Also Known As: Exacerbation of asthma (disorder)

4. Acute exacerbation of asthma (disorder), Asthma attack
   - 13,640 | 5.36%
   - Also Known As: Acute exacerbation of asthma (disorder), Asthma attack
The Survey Explorer hosts all surveys available to participants.
Visit the data roadmap for more information about upcoming data types

Visit the data roadmap for more information about upcoming data types.
How to Register
Registration is easy!

How to Register

**STEP 1**
CONFIRM YOUR INSTITUTION’S AGREEMENT
Before you can create an account, your institution must have a Data Use and Registration Agreement (DURA) in place with All of Us. Confirm DURA.

**STEP 2**
CREATE AN ACCOUNT AND VERIFY IDENTITY
After creating your Researcher Workbench account, you will be asked to verify your identity through Login.gov or ID.me. Learn more.

**STEP 3**
COMPLETE THE MANDATORY TRAINING
The training focuses on conducting responsible and ethical research using the Researcher Workbench. Additional training is required to access the Controlled Tier. Learn more.

**STEP 4**
SIGN THE DATA USER CODE OF CONDUCT (DUCC)
This agreement outlines the program’s expectations for researchers who use the Researcher Workbench and describes how program data may be used. View the DUCC.

allof-us.org/Register

CREATE AN ACCOUNT
See if your institution has an agreement with us for access.

Registered Institutions

Access to the Researcher Workbench is available only to registered researchers with an institutional Data Use and Registration Agreement (DURA). Academic, not-for-profit, and health care institutions can enter into a DURA. Search or browse the list below to confirm if your institution has a DURA in place.

If your institution is listed below, **AND** includes your preferred data tier, **AND** doesn’t require individual agreements

If your institution is not listed below, **OR** doesn’t include your preferred data tier, **OR** requires individual agreements

### Institution

<table>
<thead>
<tr>
<th>Institution</th>
<th>Access Level</th>
<th>Contact at Institution</th>
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</thead>
<tbody>
<tr>
<td>A.T. Still University of Health Sciences</td>
<td></td>
<td>Gayla Sublette</td>
</tr>
<tr>
<td>Abigail Weirner Research Institute at Nationwide Children’s Hospital</td>
<td></td>
<td>Nicholas Michaels</td>
</tr>
<tr>
<td>Above and Beyond Family Recovery Center</td>
<td></td>
<td>Daniel Holstetter</td>
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<td>Access Care Anywhere</td>
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<td>Carissa Bishop</td>
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<td>Acton-Bosborough Regional School District</td>
<td></td>
<td>Deborah Brooks</td>
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<tr>
<td>Adams State University</td>
<td></td>
<td>Benita Brink</td>
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<tr>
<td>A.I. LA Community, Inc</td>
<td></td>
<td>Todd Peramazos</td>
</tr>
</tbody>
</table>

### Key

- : Registered Tier
- : Controlled Tier
- : Individual agreements required by institution
- : eRA Commons required by institution

Quick search - enter your institution’s name
Benefits of Registration

**Resources**

*All of Us* offers data and more.

Registered users have access to:
- Platform and tools
- $300 in initial credit
- User support materials and staff
- Opportunities to showcase work

**Platform Uses**

*All of Us* is for publishing and more.

- Team science
- Dissertation
- Thesis
- Poster presentations
- Class projects
- Self-practice (especially data science)
The Researcher Workbench and how to start a research project
The Researcher Workbench

A secure enclave where researchers access & analyze All of Us data.
Login from the Hub to access your Workspaces.
The Researcher Workbench = secure cloud analysis platform
Within the Researcher Workbench, a researcher (and their research team) collaborate in “workspaces.” The workflow is flexible & collaborative.
No IRB approval needed.

We use a passport model and approve the researcher.
The Workbench landing page

Welcome to the **RESEARCHER WORKBENCH**
The secure platform to analyze All of Us data

### Workspaces

<table>
<thead>
<tr>
<th>Workspace name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genetic Causation of Asthma</td>
<td></td>
</tr>
<tr>
<td>Asthma Demo</td>
<td></td>
</tr>
<tr>
<td>Adults Who Developed Asthma as Adults - Shared Conditions and Habits</td>
<td></td>
</tr>
<tr>
<td>Duplicate of How to Get Started with Registered Tier Data</td>
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</table>

### Recently Accessed Items

<table>
<thead>
<tr>
<th>Item type</th>
<th>Name</th>
<th>Workspace name</th>
<th>Last changed</th>
<th>Dataset</th>
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<tbody>
<tr>
<td>Genom</td>
<td>Amy + asthma</td>
<td>Genetic Causation of Asthma</td>
<td>Jun 8, 2022</td>
<td>All of Us Controlled Tier Dataset v6</td>
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<td>Genom</td>
<td>Impaired asthma</td>
<td>Genetic Causation of Asthma</td>
<td>Apr 8, 2022</td>
<td>All of Us Controlled Tier Dataset v6</td>
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<td>Genom</td>
<td>Asthma concept</td>
<td>Genetic Causation of Asthma</td>
<td>Apr 7, 2022</td>
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<td>Genom</td>
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<td>Apr 7, 2022</td>
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<td>Age + BMI</td>
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<td>Apr 7, 2022</td>
<td>All of Us Controlled Tier Dataset v6</td>
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<td>Genom</td>
<td>asthma cohort 1</td>
<td>Asthma Demo</td>
<td>Sep 1, 2021</td>
<td>All of Us Registered Tier Dataset v5</td>
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<td>Genom</td>
<td>Asthma Demo 2</td>
<td>Asthma Demo</td>
<td>Sep 1, 2021</td>
<td>All of Us Registered Tier Dataset v5</td>
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<tr>
<td>Genom</td>
<td>Asthma Dataset</td>
<td>Asthma Demo</td>
<td>Sep 1, 2021</td>
<td>All of Us Registered Tier Dataset v5</td>
</tr>
</tbody>
</table>

### Quick Tour and Videos

- **Workspace Concepts**
- **Introduction to the Researcher Workbench**
- **Cohort Builder & Concept Sets**
- **Dataset Builder & Concept Sets**
- **Notebooks & Code Snippets**
- **User Support**
Answer questions about your Workspace.

COPE Covid-19 Mitigation Behaviors

PROJECT PURPOSE(S)
- Population Health

SCIENTIFIC QUESTIONS BEING STUDIED
Answers to COPE survey questions regarding adherence to COVID-19 mitigation recommendations will be used to answer the following questions:
1. Do responses vary by demographic characteristics including age, gender, race/ethnicity, household characteristics, employment status, and geographical variables such as urban/rural and state of residence?
2. Are differences in responses by state associated with contemporaneous state mandates regarding COVID-19 mitigation behavior, controlling for other factors identified in #1 above?
3. Do mitigation behaviors change over time?

Identification of variables associated with mitigation behaviors during the current pandemic may help improve further mitigation efforts, including for potential future pandemics.

SCIENTIFIC APPROACHES
Using the datasets and tools within the AuUARP Research Workbench for cohort creation and statistical analyses (including the R statistical program), we will:
1. Generate descriptive statistics on the sample of participants who answered the COPE surveys and compare with those of the overall AuUARP cohort to assess generalizability of findings to the cohort and nationally.
2. Compare responses re: COVID-19 mitigation behaviors by demographic and geographic characteristics overall and between states, using bivariate statistics appropriate for the variable types.
3. Examine responses by level of contemporaneous state mandates regarding mitigation behaviors in multivariable regression models controlling for all other variables found to be associated with these behaviors in 2.
4. Perform a longitudinal analysis of changes in mitigation behaviors for individuals answering all 3 COPE surveys.

ANTICIPATED FINDINGS
We expect to that mitigation behaviors are associated with many different demographic and geographic areas and change over time. Identification of the associated variables will contribute to the understanding of the effectiveness of public health messages and mandates, within demographic, geographic, and temporal contexts.

DEMOGRAPHIC CATEGORIES OF INTEREST
This study will not center on underrepresented populations.

RESEARCH TEAM
Owner:
- Jill Waalen - Mid-career Tenured Researcher, Scripps Research

Request a Review of this Research Project
The Researcher Workbench

A cohort is a group of participants based on specific criteria.

Cohorts

All of Us Participants

Participant ID 1
Participant ID 2
Participant ID 3

Your Cohort
The Researcher Workbench

Datasets
Build a dataset by selecting the variables and values for one or more of your cohorts. Then export the completed dataset to Notebooks where you can perform your analysis.

1. Select Cohorts (Participants)
   - Prepackaged Cohorts
     - All Participants
   - Workspace Cohorts
     - Age + BMI
     - Array + asthma

2. Select Concept Sets (Rows)
   - Prepackaged Concept Sets
     - Demographics
     - All Surveys
     - Fitbit Heart Rate Summary
     - Fitbit Heart Rate Level

3. Select Values (Columns)

Preview Dataset
A visualization of your data table based on concept sets and values you selected above. Once complete, export for analysis.

Select cohorts, concept sets, and values above to generate a preview table.

Create Dataset   Analyze
The Jupyter Notebook is where you will run your analysis.
Support Resources
The Featured Workspaces can help you during your research.
## Our Support Tools

<table>
<thead>
<tr>
<th>Email us questions anytime at <a href="mailto:support@researchallofus.org">support@researchallofus.org</a>.</th>
<th>Zoom in for our live New User Orientation or Office Hours.</th>
<th>User Support Hub</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email us or use our “Help” icon to:</td>
<td>Webinar objectives:</td>
<td>Our User Support Hub provides:</td>
</tr>
<tr>
<td>● Resolve technical issues</td>
<td>● Understand data &amp; data organization</td>
<td>● Articles, videos and tutorials about the Researcher Workbench and <em>All of Us</em> dataset</td>
</tr>
<tr>
<td>● Ask questions about our data or the research program</td>
<td>● Learn how to get started on Researcher Workbench</td>
<td>● Updates on product offerings and new features</td>
</tr>
<tr>
<td>● Give us feedback or make suggestions</td>
<td>● Learn how to utilize the User Support Hub</td>
<td>● Events calendar</td>
</tr>
<tr>
<td>● and more....</td>
<td>● Technical Assistance</td>
<td></td>
</tr>
</tbody>
</table>

**Support@ResearchAllOfUs.org**

**Office Hours -** Weekly on Tuesdays; *bi-weekly on Fridays*

**New User Orientation -** monthly
The Support Hub and Team are here to help you!
Sign up for our bimonthly newsletter

Subscribe to Research Roundup

Stay up-to-date on the latest news and insights from the *All of Us* Research Hub through our bimonthly email newsletter.

[QR Code]
alof-us.org/RRSignup
Join our community of researchers!

Help us connect with other researchers!

Email ashley.e.green@vumc.org if you know of others interested in demos or training sessions

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