

All of Us Research Program Fireside Chat Series

Session 4: Research & the All of Us Research Program

February 25, 2021 7:00 PM – 8:00 PM www.NHMAmd.org





Ricardo Correa, MD, EdD, FACP, FACE, FACMQ

Director, Endocrinology, Diabetes, & Metabolism University of Arizona College of Medicine - Phoenix VAMC Phoenix Allies Community Health Clinic

Housekeeping

- Presentations to be followed by Q and A discussion
- Type questions in chat box
- Microphones will be muted
- Recording available next week at www.NHMAmd.org



All of Us Research Program FIRESIDE CHAT SERIES

SESSION 4: Research

Thursday, February 25, 2021 | 7:00 PM - 8:00 PM Eastern Time

PANELISTS



Courtney Wallin, PhD *Outreach Lead*All of Us NIH Division of Engagement



Melissa A. Simon, MD, MPH
Professor and Vice-Chair of Research, Department of Obgyn
Director, Center for Health Equity Transformation
Northwestern University Feinberg School of Medicine



Adrienne Roman, PhD
Research Support and Outreach Project Manager
All of Us Data and Research Center



Paula Lozano, PhDCommunity-Based Research Professional
University of Chicago Medicine

MODERATOR



Ricardo Correa, MD, EdD, FACP, FACE, FACMQ Director, Endocrinology, Diabetes, & Metabolism University of Arizona College of Medicine Phoenix VAMC Phoenix Allies Community Health Clinic

For more information & to register: https://bit.ly/NHMAFiresideChats



Research Hub: Sharing the Value of our Dataset





February 25, 2021 Adrienne Roman, Ph.D. - *All of Us* Data & Research Center Courtney Wallin, Ph.D. – *All of Us* NIH Division of Engagement

Overview

- . Share brief overview of the All of Us program
- . Walk through components of All of Us Research Hub
- . Initiate a discussion

Thank you to our *All of Us* Community and Provider Partner Network





















































































Thank you to All of Us Consortium Partners

The Participant Center

HPO Network

(Health Care Provider

Organizations)





























All of Us New England

BRIGHAM HEALTH

UTHealth

Washington

University

in St.Louis

BRIGHAM AND WOMEN'S HOSPITAL

MASSACHUSETTS

GENERAL HOSPITAL



ASSOCIATION



Blood Bank



COLUMBIA UNIVERSITY

MEDICAL CENTER

HEALTH+ HOSPITALS Harlem

- NewYork-Presbyterian









UC San Diego Health

UCDAVIS

HEALTH

CEDARS-SINAL

UCI Health

USC University of Southern California

RMCs

UCSF

Illinois Precision

California Precision Medicine Medicine Consortium Consortium (CAPMC)

Northwestern Medicine









Froedtert & Medical College of Wisconsin



All of Us Pennsylvania



PARTNERS

BOSTON

#UTHealth

The University of Texas

C. Kenneth and Dianne

Wright Center for Clinical and Translational Research



Trans America









University of Arizona and



New York City

Consortium

























VA Medical Centers

All of Us Wisconsin













Banner Health











TUSKEGEE

FQHCs (Federally Qualified Health Centers)



Sun River Health

















Commun*(ty













Center (DRC)





























The All of Us Research Program: An Innovative Research Effort

- Diversity at the scale of 1 million people or more
- Focus on participants as partners
- Longitudinal design, ability to recontact
- Multiple data types: EHR, surveys, baseline physical measurements, biospecimens, genomics
- National, open resource for all: broadly accessible to all researchers with open-source software & tools
- Security and privacy safeguards for all participant data





All of Us Mission

Nurture relationships

with one million or more participant partners, from all walks of life, for decades



Deliver the largest, richest biomedical dataset ever

that is easy, safe, and free to access



Our Mission

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



Catalyze the robust ecosystem

of researchers and funders hungry to use and support it



Build and maintain a strong *All of Us* Team

capable of achieving the program's mission

Engaging Researchers

- All of Us is committed to engaging diverse investigators to explore and interrogate our dataset.
 - Creating a <u>demographically diverse researcher cohort</u> will promote responsible and ethical use of our data, generate outcomes that return greatest value to our participant communities, and accelerate research impact.
 - Encouraging <u>students and early stage investigators</u> will bring fresh, creative perspectives to the platform and lead to innovative research outcomes.
 - Ensuring access for <u>researchers from various institution/organization types</u> will establish a truly equitable resource for all.

Research Hub

All of Us Research Data Pipeline

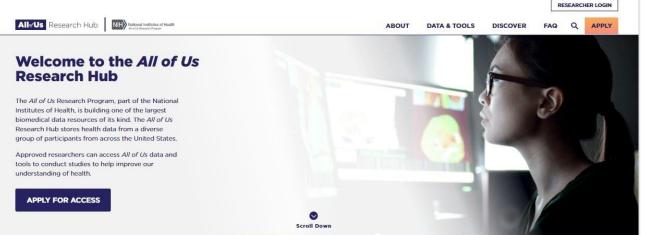
Coming later

Biospecimens

Data Collection from Consented Research Participants Research Hub Data Participant Surveys Curation Electronic Health Records Raw Data **Curated Data** Repository Repository Data Physical Measurements Data Access Harmonization through secure Privacy Google-Cloud-Methodology based platform QA/CC Mobile/Wearable Tech



All of Us Research Hub



Follow along! Go to www.researchallofus.org!



EXPLORE THE NEW COVID-19 PARTICIPANT EXPERIENCE SURVEY



EXPLORE NEW DATA AVAILABLE IN THE DATA

Data Snapshots

Data Snapshots showcase the scale and diversity of the All of Us Research Program participant cohort. The snapshots provide participant demographics, geographic distribution, and more. We update the snapshots



367,000+ **Participants**



233,000+ **Electronic Health Records**



279,000+

Biosamples Received



Research Hub Components





Data Browser



Data Snapshots



Survey Explorer



Help Desk



Data Passport Model



RESTRICTED

Researcher Workbench



Data Dictionary



Concept Set Selector



Cohort Builder



Notebooks



Help Desk

Launched May 2019

Beta Launch: May 2020

Data and Tools

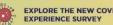
Data Snapshots

Data Browser

Research **Projects Directory**

Apply Page





EXPLORE THE NEW COVID-19 PARTICIPANT



EXPLORE NEW DATA AVAILABLE IN THE DATA

Data Snapshots

Data Snapshots showcase the scale and diversity of the All of Us Research Program participant cohort. The snapshots provide participant demographics, geographic distribution, and more. We update the snapshots daily.



369,000+ **Participants**





235,000+ **Electronic Health Records**



280,000+ **Biosamples Received**



DISCOVER

APPLY

Data & Tools

Research Hub

Data and Tools

Data Snapshots

Data Browser

Research **Projects Directory**

Apply Page

Data and Tools

The All of Us Research Hub includes powerful data and analysis tools to help researchers with their work. As the program grows, more data types and tools will be available for researchers.

Release Timeline





NEXT >

COVID-19 Participant Experience (COPE) Survey

Launched December 2020



DATA BROWSER



The Data Browser provides interactive views of the publicly available All of Us Research Program aggregate-level participant data, including EHR domains, survey responses, and physical measurements.

OPEN THE DATA BROWSER

DATA SNAPSHOTS



The snapshots include data visualizations showing the participant cohort size and attributes, including how many participants are from groups underrepresented in biomedical research.





Home > Data & Tools > Data Snapshots

Research Hub

Data and Tools

Data

Snapshots

Data Browser

Research **Projects Directory**

Apply Page

Data Snapshots

These aggregated, public-facing data snapshots provide an overview of All of Us Research Program participant characteristics and the types of data that we collect from participants.

Note: There are many stages of the All of Us participant journey. More than 453,000 people have registered with the program by creating online accounts at JoinAllofUs.org, beginning the enrollment process. The snapshots below highlight participants in the All of Us Research Program.

The following numbers are approximated to protect participants' privacy. Numbers reflect data collected through February 8, 2021.

Participants at a Glance



This graph represents participants who have consented to join the program and those who have completed all initial steps of the program. The initial steps are consenting, agreeing to share electronic health records, completing the first three surveys, providing physical measurements, and donating at least one biospecimen to be stored at the biobank.

Enrollment Numbers

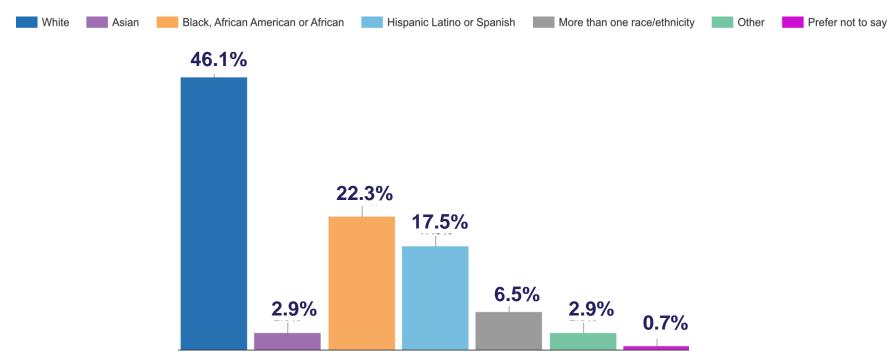
The following numbers are approximated to protect participants' privacy. Numbers are updated as of February 8, 2021.



Selected Data Snapshots

(Updated 2/23/2021)

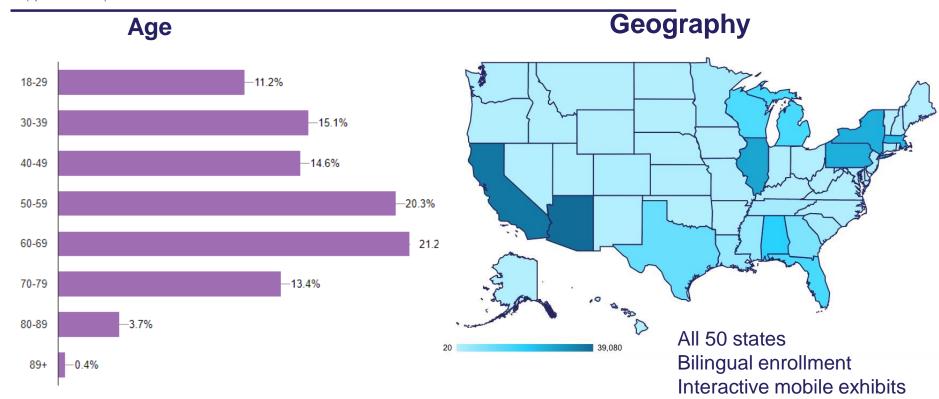






Selected Data Snapshots

(Updated 2/23/2021)





arch Across Data Types .

includes 316,760 participants and is current as of 10/1/2020.







Introductory User Guide Videos

R Domains: 0

anditions 6 14.770

2,000 participants in this domain

ew Top Conditions

Drug Exposures 6

27.311

174,660 participants in this domain

View Top Drug Exposures

Labs & Measurements 6

13.631

182,000 participants in this domain

View Top Labs & Measurements

Procedures 6

27,702

182,000 participants in this domain

View Top Procedures

Data Browser

Data and Tools

Data Snapshots

Research **Projects Directory Apply Page**

Research Hub

vev Questions:

ne Basics

18

estions available

6.760 participants in this domain

is survey includes participant demographic formation.

ew Complete Survey

Overall Health

questions available

316,760 participants in this domain.

Survey includes information about how participants report levels of individual health.

View Complete Survey

Lifestyle o

26

questions available

316,760 participants in this domain

Survey includes information on participant smoking, alcohol, and recreational drug use.

View Complete Survey

Personal Medical History

465

questions available

89,640 participants in this domain

This survey includes information about past medical history, including medical conditions and approximate age of diagnosis.

View Complete Survey

ealth Care Access & Utilization 6

57

jestions available

3,940 participants in this domain

irvey includes information about a irticipant's access to and use of health care.

ew Complete Survey

Family Health History 6

186

questions available

92,080 participants in this domain

Survey includes information about the medical history of a participant's immediate biological family members.

View Complete Survey

COVID-19 Participant Experience (COPE) 6

151

questions available

62,920 participants in this domain

Survey includes information about the impact of COVID-19 on participant mental and physical health.

View Complete Survey



Research Hub

National Institutes of Health

ABOUT

DATA & TOOLS

DISCOVER



scover > Research Projects Directory



Research Projects Directory

Research Projects Directory

Information about each research project within the Workbench is available in the Research Projects Directory below. Approved researchers provide their project's research purpose, description, populations of interest, and more. This information helps All of Us ensure transparency on the type of research being conducted.

At this time, all listed projects are using data in the Registered Tier. The Registered Tier contains individual-level data from electronic health records, survey answers, physical measurements, and Fitbit. These data have been altered to protect participant privacy.

Note: Researcher Workbench users provide information about their research projects independently. Any 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.nih.gov in compliance with the 21st Century Cures Act.

There are currently 370 active workspaces. This information was updated on 1/21/2021.

SORT BY TITLE: ABC | DEF | GHI | JKL | MNO | PQR | STU | VWX | YZ | 0-9

Access to care and ophthalmology outcomes

PROJECT PURPOSE(S)

· Population Health ...

Acute Respiratory Failure Phenotyping

PROJECT PURPOSE(S)

· Disease Focused Research (Acute Respiratory Failure) ...

ADHD

PROJECT PURPOSE(S)

Research Hub

Data and Tools

Data Snapshots

Survey Explorer

Data Browser

Research **Projects Directory**

Apply Page

Research Hub

Data and

Tools Data

Snapshots

Survey

Explorer Data

Browser

Apply Page

How to Apply



DATA AVAILABLE

Explore what data are currently available with the <u>Data Browser</u>, and view the amount of information available with the <u>Data Snapshots</u>. Then, learn about the <u>Data Access & Use</u> Policies and our workbench.



CHECK FOR YOUR INSTITUTION'S AGREEMENT

Check that your institution has signed the Data Use and Registration Agreement. If your institution is not listed, please fill out the form to initiate the process.



REGISTER AS A RESEARCHER

Complete your researcher profile, sign the Terms of Service, and agree to the the Privacy Policy. Please note: a Data Use and Registration Agreement must be in place, and you must have an eRA Commons account.



CONNECT ERA COMMONS

Connect to your eRA Commons account upon applying to the Researcher Workbench.



COMPLETE ALL OF US RESPONSIBLE CONDUCT OF RESEARCHER TRAINING

Understand more about our privacy safeguards and the ethics surrounding the use of participant data.



SIGN DATA USER CODE OF CONDUCT

Sign the Data User Code of Conduct.



APPLY NOW











e secure platform to analyze All of Us data

Research Hub



Researcher Workbench

Ex.

Workspace

Ex. Analysis

Support Hub

2 Diabetics















See all works

Recently Accessed Items

	Item type	Name	Workspace name	Last changed	Dataset
:	Cohort	T2D_survey_any_hbalc	HbA1c Distributions of Type 2 Diabetics	May 14 2020	All of Us Dataset v3
:	Cohort	test	Type 2 diabetes Test with Lou	Apr 28 2020	All of Us Dataset v3
:	Notebook	Medication Sequences Code	Medications pathway (sequences) - Phase 1	Apr 27 2020	All of Us Dataset v3
:	Notebook	test	Feedback	Apr 23 2020	All of Us Dataset v3
:	Notebook	Concept Longitudinality	CDR Characterization	Apr 23 2020	All of Us Dataset v3
	Showing 5 most recent items				

uick Tour and Videos











Beta Phase of the Researcher Workbench

Current components:

- Data: physical measurements, survey data, and some EHR data - much more to come (e.g., genomics, digital health technology)
- Tools: Dataset Builder, Cohort Builder (more to come!)
- Help Resources: FAQs, sample notebooks and workspaces, documentation, Help Desk







Beta Phase of the Researcher Workbench

- All of Us is different from other research programs and launching in beta reflects our program's iterative design.
- © Currently, researchers must be capable of working in R or Python to analyze this data at this time. Additional analytical tools will come later.
- Researchers may apply for access to the Workbench if they:
 - Have an eRA Commons account
 - Are affiliated with U.S. institutions that have signed Data Use and Registration Agreement
- We welcome input from researchers during the beta testing phase to help make the Workbench more robust over time.



To Learn

More...

- Visit <u>ResearchAllofUs.org</u> and <u>JoinAllofUs.org</u>
- Enroll in the Researcher Workbench: https://www.researchallofus.org/apply/
- Request a Workbench Demonstration: https://is.gd/workbenchdemo
- Questions or interested in follow-up conversations? Reach out to:

Courtney Wallin, NIH (<u>Courtney.Wallin@NIH.gov</u>)
Ashley Green, DRC (<u>Ashley.E.Green@VUMC.org</u>)







All of Us Research Program Fireside Chat Series Session 4: Research & the All of Us Research Program

Melissa A. Simon, MD, MPH

Professor and Vice-Chair of Research

Department of Obgyn

Director

Center for Health Equity Transformation

Northwestern University Feinberg School of Medicine



All of Us Research Program Fireside Chat Series Session 4: Research & the All of Us Research Program

Paula Lozano, PhD

Community-Based Research Professional
University of Chicago Medicine



All of Us Research Program FIRESIDE CHAT SERIES

SESSION 1: Precision Medicine

Thursday, July 30, 2020; 3:00 PM; 4:00 PM Eastern Time

SESSION 2: Enrolling Participants

Wednesday, September 23, 2020; 7:00 PM - 8:00 PM Eastern Time

SESSION 3: Seniors

Thursday, December 10, 2020; 7:00 PM - 8:00 PM Eastern Time

SESSION 4: Research

Thursday, February 25, 2021; 7:00 PM - 8:00 PM Eastern Time

SESSION 5: Women's Health

Thursday, May 27, 2021; 7:00 PM - 8:00 PM Eastern Time

For more information & to register: http://bit.ly/NHMAFiresideChats