

All of Us Advisory Panel Meeting



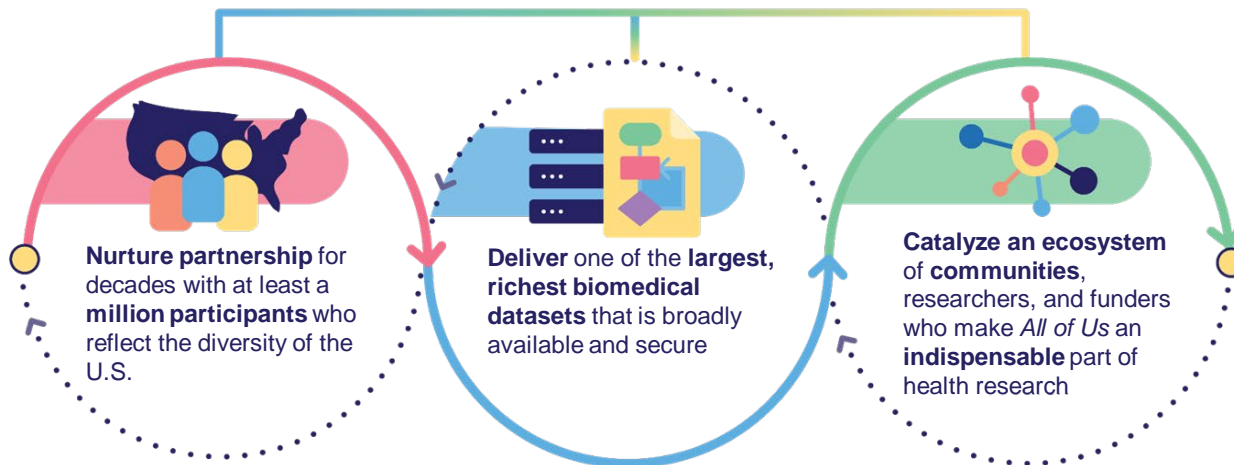
April 27, 2022

Program Updates

Program Mission (small updates)

Our Mission

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



Made possible by a team that maintains a culture built around the program's core values.

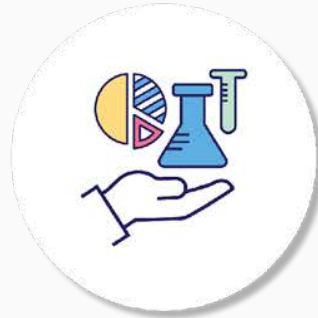
Five Year Goals (For 2026)



Enrollment and retention



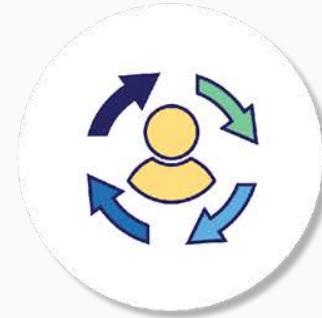
Gathering and curating data and specimens via the core protocol



Ancillary studies



Researcher access and impact



Participant return of value

Five Year Goals

By 2026, we will:



Enroll 1 million participants who reflect the diversity of the US, cover the lifespan, and have shared all baseline elements. Of these participants, 500,000 are actively engaged in the program.



Expand data available for 1 million participants, to include surveys, health data streams, a whole genome sequence, environmental data, and physical measures.



Develop and launch a scalable ancillary studies program that expands the cohort and delivers additional phenotypic, lifestyle, environmental, and biologic data.



Establish a diverse global community of 10,000 researchers productively using *All of Us* data.



Incorporate participant return of value into data collections and assess its impact, including return of information to participants on genomics and EHR.

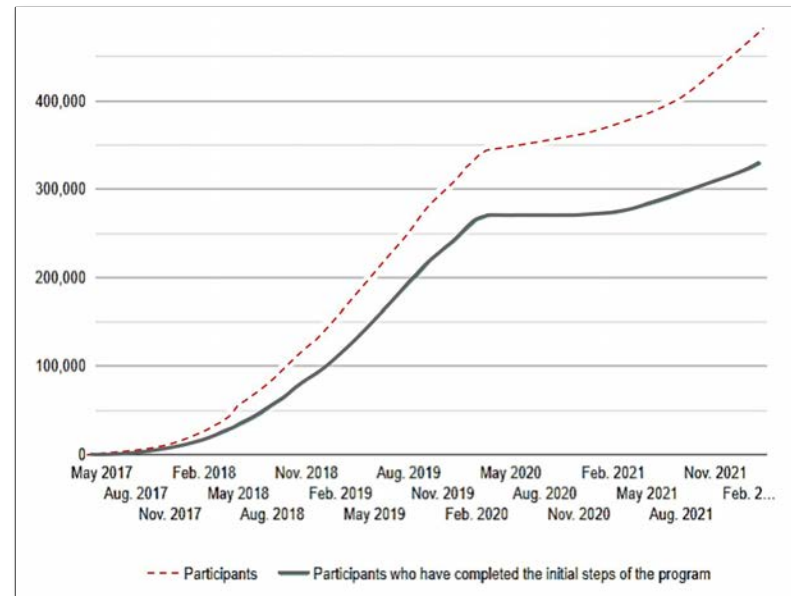
Enrollment Update

487,000+
Participants

293,000+
Electronic Health
Records

334,000+
Participants who have
completed initial steps
of the program

357,000+
Biosamples



Numbers current as of April 26, 2022

Since We Last Met: Controlled Tier + Genomics released into the Research Workbench

Researcher Workbench Controlled Tier Launched on March 17, 2022



98,600+
Whole Genome
Sequences



165,000+
Genotyping
Arrays



**Genomics
Analysis Tools**

Hail and PLINK
in addition to R, Python, and
Jupyter Notebooks



**593,000,000+
Unique Variants**

Includes 100M+ variants
with ≥ 3 occurrences
not seen in gnomAD 3.0
($n = 71,702$)



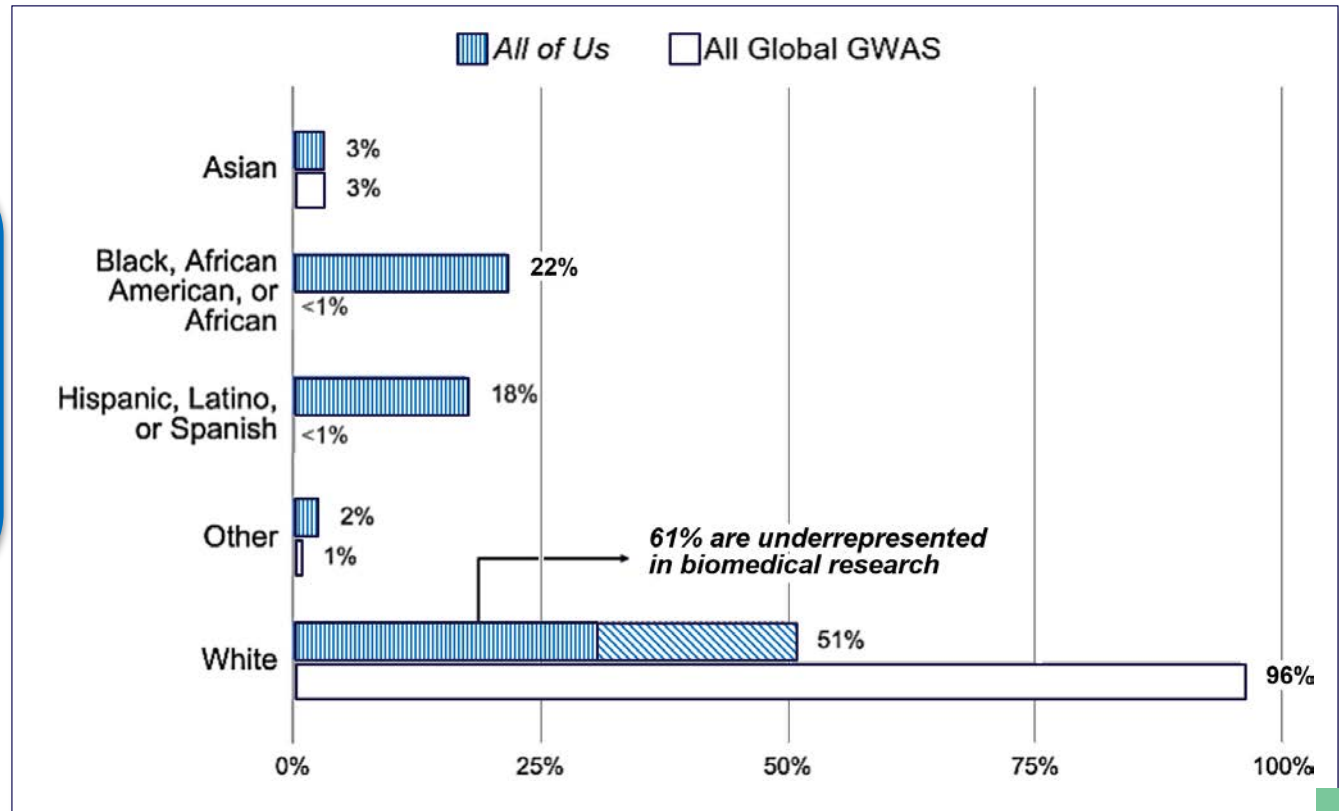
ResearchAllofUs.org/Data-Tools/Workbench/

All of Us' Inclusion of Underrepresented Groups Will Enhance Diversity of Genomic Studies

First genomic data set

~50% diverse by race/ethnicity,

80% underrepresented in biomedical research



Researcher Workbench Users

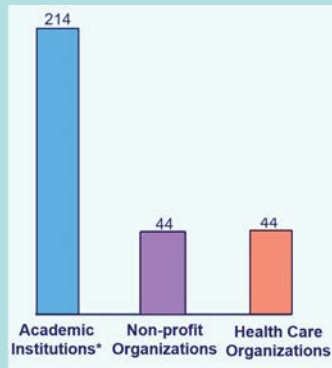
Our Researchers



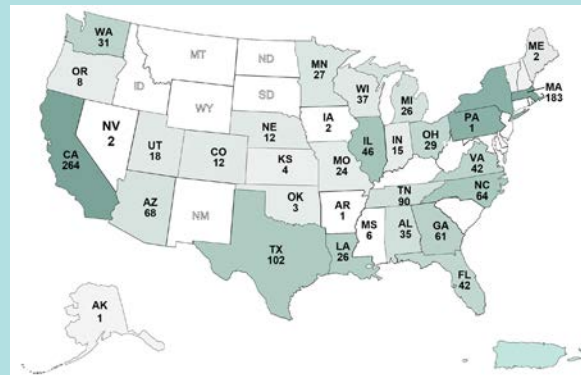
1,940+
Registered
Researchers
across a range of
institutional roles and
career stages



330+
Institutions



*Includes 36 Historically Black Colleges and Universities and Hispanic-Serving Institutions.



Research currently underway



1,430+
Active projects



37+
Publications in peer-
reviewed journals



Top conditions being studied

In the Researcher Workbench include:

- Cardiovascular disease
- Hypertension
- Mental Health
- Cancer
- Diabetes

Controlled Tier Research by the Numbers

The Controlled Tier Research Community



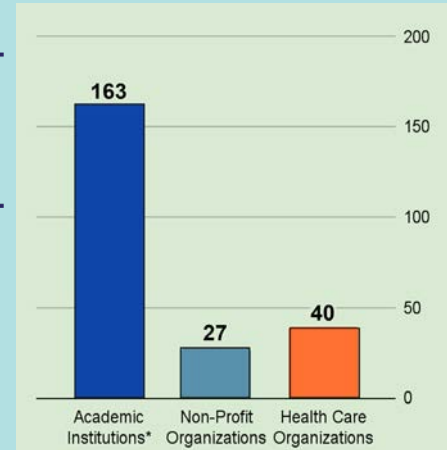
305

Controlled Tier Researchers
across a range of institutional roles and career stages



220+

Institutions have signed Controlled Tier Rider



Figures accurate as of April 19, 2022

Controlled Tier Research Currently Underway



155

Active projects



Career Stages of researchers

Accessing the Controlled Tier Dataset include:

- Early Career
- Fellow
- Mid Career
- Trainee
- Undergraduate
- Project Personnel



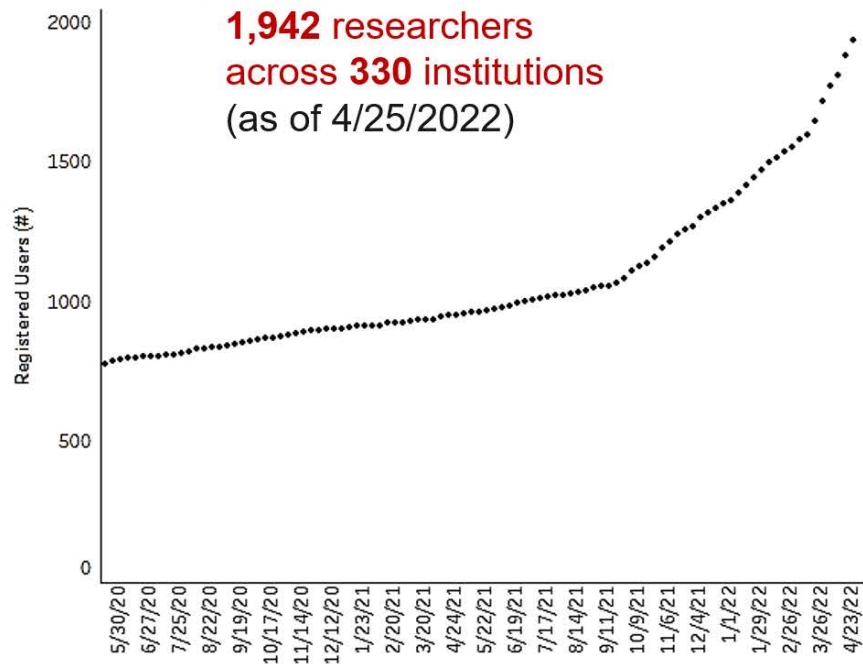
Topics being studied:

In the Controlled Tier include:

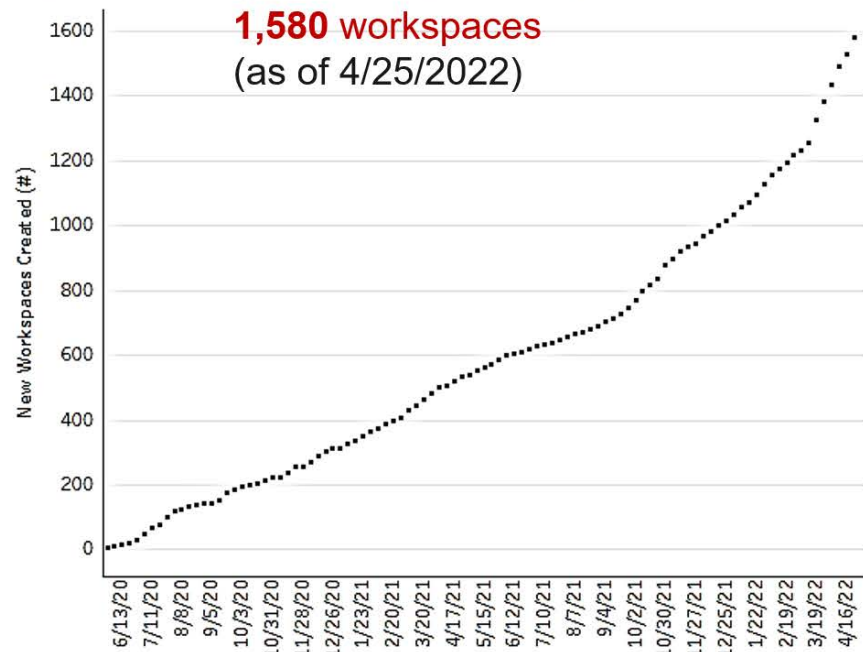
- Genomics
- COVID
- Fitbit
- Mental Health
- Women's Health
- SGM Health
- Kidney Disease
- Glaucoma

Researcher Workbench Usage Increased After the Launch of Controlled Tier

Number of Registered Researchers Over Time



Number of Workspaces Created Over Time



Genomic Data Is Paired With Rich Phenotypic Data

77,000+ With



Whole Genome Sequences



Electronic Health Records



Physical Measurements



Survey Responses

95,000+ With



Whole Genome Sequences



Physical Measurements



Survey Responses

78,200+ With



Whole Genome Sequences



Electronic Health Records

3,500+ With



Whole Genome Sequences



Fitbit Records

Representing >30% of all participant Fitbit records

COVID Data on Researcher Workbench: COVID-19 Participant Experience (COPE) Survey

Nearly 100,000 participants responded to 1 or more of the 6 COPE surveys administered between May 2020 and March 2021

Topics Covered



Social Distancing Experiences



COVID-19 Related Impact



Mood



Substance Use



COVID-19 Related Symptoms



General Well-Being



Stress



Resilience



COVID-19 Related Testing



Social Support



Physical Activity



Discrimination



COVID-19 Related Treatment



Anxiety



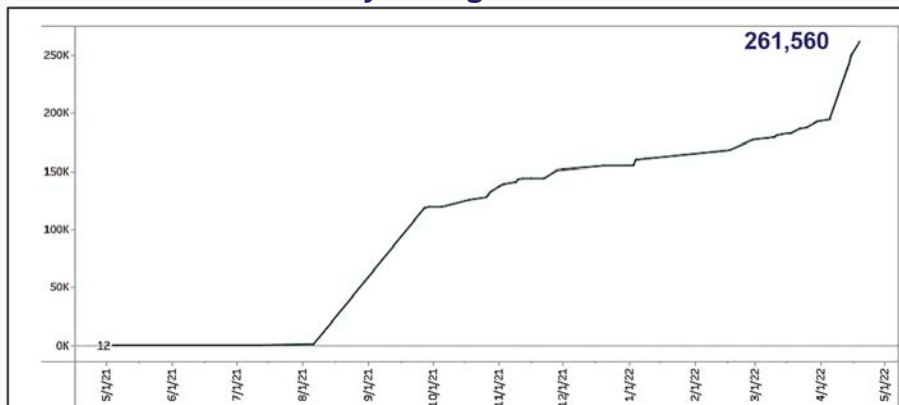
Loneliness



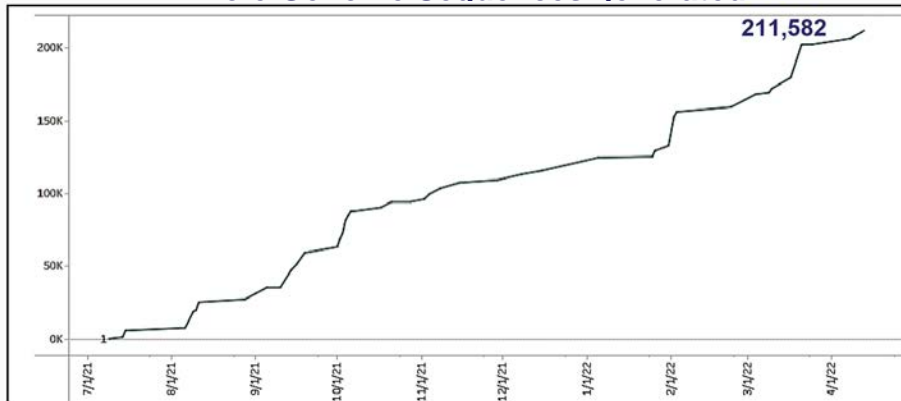
Vaccine Perceptions

Returning Genomic Results to Participants and More to Come

Array data generated



Whole Genome Sequences generated



Non-Health Genetic Traits



Traits



Genetic Ancestry

Currently returning to participants

>76,770 participants have viewed traits or ancestry

Health-Related Genetic Traits



Hereditary Disease Risk



Medicine and Your Health

Launching in winter

Researchers Convention: Minority Student Research Symposium and Science Day

- 930 total registered attendees
- Two-days of live virtual events (March 31st and April 1st):
 - 2 keynotes (Power of Mentorship & Fireside Chat with researchers)
 - 3 plenary sessions
- **Minority Student Research Symposium (MSRS):**
 - 27 student presentations
- **Science Day:**
 - 12 abstract presentations from 48 submissions



Researchers
Convention



Example Projects

Actionable PGx variants

>96% of
participants carry
an actionable
PGx variant
***similar across
all ancestries***

Biological Age as an independent predictor of stroke risk

