The future of health begins with you.
What is precision medicine?

Precision medicine is an emerging approach for disease treatment and prevention that takes into account individual variability in lifestyle, socioeconomics, environment, and biology.

Precision medicine is health care that is based on each person. It is made up of three factors:

- **Environment**
  - Like where you live

- **Lifestyle**
  - Like what you eat

- **Biology**
  - Your genes and family history

**precision medicine:**
the right treatment for the right person at the right time
The All of Us Research Program is a historic, longitudinal effort to **gather collect and study data from one million or more people** living in the United States to **accelerate research and improve health**. By taking into account individual differences in **lifestyle, socioeconomics, environment, and biology**, researchers will uncover paths toward delivering **precision medicine** – or individualized prevention, treatment, and care – for all of us.

“All of Us is among the most ambitious research efforts that our nation has undertaken!”

*NH Director Francis Collins, M.D., Ph.D.*
Mission and Objectives

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

Catalyze a robust ecosystem
of researchers and funders
hungry to use and support it

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

Deliver the largest, richest
biomedical resource ever,
making it as easy, safe, and free to use as possible
Innovative Aspects of *All of Us*

- **Diversity at the scale of 1 million people:** demographically, geographically, medically, and especially those underrepresented in biomedical research.

- **Diversity of data types collected longitudinally:** clinical, environmental, genetic, behavioral, socioeconomic.

- **Focus on participants as partners:** included in governance, invited to co-invent systems and give input into the science, choice to receive all data and information back.

- **National, open resource for all:** open to the public and all researchers, open source software & tools.

*All of Us* learns from and partners with other large research programs; sharing knowledge and data is key!
<table>
<thead>
<tr>
<th>Kinds of Questions this Resource May Help Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>How can we prevent the chronic pain that affects more than 100 million people across the U.S. each year?</td>
</tr>
<tr>
<td>Or develop better pain medicines that aren’t addictive?</td>
</tr>
<tr>
<td>Or develop better treatments for diabetes, which affects almost 10% of Americans—or prevent diabetes altogether?</td>
</tr>
<tr>
<td>Or develop more cancer cures that will work the first time, so we can skip painful trial-and-error chemotherapy?</td>
</tr>
<tr>
<td>Or slow or even stop different kinds of dementia?</td>
</tr>
<tr>
<td>Or drive local disparities interventions that work sustainably?</td>
</tr>
</tbody>
</table>
What are the potential activities asked of participants in the current protocol?

<table>
<thead>
<tr>
<th>Enroll, Consent and Authorize EHR</th>
<th>Answering Surveys</th>
<th>Physical Measurements*</th>
<th>Provide Biosamples*</th>
<th>Wearables and Digital Apps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recruiting 18+ years old initially; plan to include children later</td>
<td>Six initial surveys: The Basics, Overall Health, Personal Habits, Health Care Access &amp; Utilization, Family Medical History, Personal Health History</td>
<td>Blood pressure</td>
<td>Blood (or saliva, if blood draw is unsuccessful)</td>
<td></td>
</tr>
<tr>
<td>Online, interactive consent</td>
<td>Additional surveys will be released on an ongoing basis.</td>
<td>BMI</td>
<td>Urine specimen</td>
<td></td>
</tr>
<tr>
<td>Includes authorization to share Electronic Health Record (EHR) data</td>
<td></td>
<td>Heart rate</td>
<td>Biosamples will be stored at the program’s biobank</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Height</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hip circumference</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Waist circumference</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Weight</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Based on diverse sampling and capacity

Pilots under development: richer EHR data, health apps, fitness wearables, and return of genetic info
Understand the whole person: example data types that All of Us may collect

Environmental
- Highway proximity
- Chemical exposures
- Air pollution
- Water quality
- Weather
- Occupational hazards
- Zip code

Biological/Clinical
- Metabolomics
- Mental health
- Medications
- Electronic health records
- Proteomics
- Genomics
- Microbiomics

Social
- Upbringing
- Education level
- Family structure
- Stress
- Access to care
- Financial means
- Size of social network
- Religion

Behavioral
- Exercise
- Eating
- Drinking
- Self-report
- Drug usage
- ADLS
- Smoking history
- Routines
How will *All of Us* lead to discoveries?

**Participants Share Data**
Participants share health data online. This data includes health surveys and electronic health records. Participants also may be asked to share physical measurements and blood and urine samples.

**Data Is Protected**
Personal information, like your name, address, and other things that easily identify participants will be removed from all data. Samples—also without any names on them—are stored in a secure biobank.

**Researchers Study Data**
In the future, approved researchers will use this data to conduct studies. By finding patterns in the data, they may make the next big medical breakthroughs.

**Participants Get Information**
Participants will get information back about the data they provide, which may help them learn more about their health.

**Researchers Share Discoveries**
Research may help in many ways. It may help find the best ways for people to stay healthy. It may also help create better tests and find the treatments that will work best for different people.
Asian Engagement and Recruitment Core (ARC)

- The Asian Health Coalition is one of five *All of Us* Community Engagement Partners that serve diverse communities and help people join and stay in the program. Some also engage and educate health care professionals about the program.

- The ARC is a proactive network of dynamic partnerships that represents Asian American, Native Hawaiian, and Pacific Islander populations across the U.S.

- The goal of the ARC is to shape and implement the *All of Us* Research Program strategy and roadmap to create culturally appropriate, cost-effective, and scalable education and outreach for Asian Americans, Native Hawaiians, and Pacific Islanders.
Asian Engagement and Recruitment Core (ARC)

- The ARC is composed of seven community-based organizations with the Asian Health Coalition as the lead and two national organizations.
- The Asian Health Coalition will train its fellow ARC partners, lead community discussions, and provide input on All of Us engagement strategies and educational materials.
“We all want our kids to live healthier lives than we did.”
—Steffinie
Why Is the Asian American community Important to All of Us?

Asian Americans, like many other groups, have often been left out of research. As a result, we know less about their health and ways to provide them with the best care. The All of Us Research Program wants to change this. By joining All of Us, Asian Americans can help ensure their community is included in health studies. These studies could help researchers understand health conditions that are more common in the Asian American community. What they learn could lead to more tailored approaches to preventing and treating those conditions.

All of Us is working with community partners to educate Asian Americans about the program and how research has potential benefits for their families and future generations.

Why should I join?

Research may help:

- Find the best ways for people to stay healthy.
- Create better tests to see if people are sick or at risk of getting sick.
- Make new discoveries that could advance precision medicine.
Asian Americans, Native Hawaiians, and Pacific Islanders (AANHPIs) are among many minority groups that have often been left out of clinical trials and biomedical research. The All of Us Research Program – an effort led by National Institutes of Health (NIH) – seeks to change this by gathering data from one million or more diverse individuals living in the United States.

By joining All of Us, AANHPIs can help ensure they are represented in health studies that may help researchers understand health conditions that are more common among their specific communities, such as hepatitis B. What researchers learn from data collected through All of Us could lead to more tailored approaches to preventing and treating those conditions, as well as better treatment and disease prevention for all of us.