How to Use the Data Browser

The Data Browser is an interactive tool that allows you to learn more about the data collected as part of the All of Us Research Program. You can explore the survey questions and answers and physical measurements taken at the time of participant enrollment. You can also learn more about the Electronic Health Record (EHR) data. The Data Browser will allow you to see how many of the All of Us participants have certain conditions, survey answers, demographics, and more.
Electronic health records (EHR) contain information about a person’s health. Medical concepts are similar to medical terms; they describe the information in a patient’s EHR, such as a condition they have, a doctor’s diagnosis, a prescription they are taking, or a procedure or measurement the doctor performed. In the Data Browser we refer to conditions, procedures, drugs, and measurements as domains. For example, a patient’s blood sugar can be measured (measurement) during a routine medical examination (procedure). The doctor may diagnose the patient with type II diabetes (condition) and prescribe metformin (drug) to treat the condition.

Let’s explore the conditions domain (red arrow).
Here you can view the top 100 concepts for the conditions domain based on how many participants have been diagnosed with each particular condition. Click on Top 10 Medical Concepts by Descending Participant Counts (red arrow) to see a graph (red box) of the top 10 conditions and how many participants have this condition in their medical record (blue arrow) by hovering your cursor over the condition you are interested in. You can see that the most prevalent condition in the cohort is Pain (at the time this tutorial was created).

Note that there are a few terms on this page that may be new to you. Vocabulary and concept codes are used by the researchers studying these conditions.
Top 10 Conditions by Descending Participant Counts

Showing top 100 concepts for this domain

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Participants of 36,620</th>
<th>% of 36,620</th>
<th>Vocabulary Code</th>
<th>Concept Code</th>
<th>View graphs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pain</td>
<td>22,120</td>
<td>60.4%</td>
<td>SNOmed</td>
<td>22553000</td>
<td>![icon]</td>
</tr>
<tr>
<td>Also Known As: Dolor, Painful, Pain observations, Part hurts, Pain (finding)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2. Disorder due to infection</td>
<td>16,820</td>
<td>45.93%</td>
<td>SNOmed</td>
<td>22553000</td>
<td></td>
</tr>
<tr>
<td>Also Known As: Infective disorder, Infection, Disease due to infection, Infectious disease, Infectious disease (dis) See More ...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Metabolic disease</td>
<td>15,820</td>
<td>43.2%</td>
<td>SNOmed</td>
<td>22553000</td>
<td></td>
</tr>
<tr>
<td>Also Known As: Metabolic disorder, MD - Metabolic disorders, Metabolic disease (disorder)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Mass of body structure</td>
<td>15,600</td>
<td>42.6%</td>
<td>SNOmed</td>
<td>22553000</td>
<td></td>
</tr>
<tr>
<td>Also Known As: Observation of a mass, Lump, Mass, Mass of body structure (finding)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Arthropathy</td>
<td>15,520</td>
<td>42.38%</td>
<td>SNOmed</td>
<td>399269003</td>
<td></td>
</tr>
<tr>
<td>Also Known As: Disorder of joint, Joint disorder, Arthropathy (disorder), Arthritis, Joint disease</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Top 100 Conditions
To see more detail about each condition, click on the graph icon (red arrow) to see graphs showing how many participants of each sex assigned at birth and age (red box) have the particular condition.

Select the “Sources” tab (blue arrow) to discover more details about the condition.
Top 100 Conditions

By clicking on the “Sources” tab, you can see more detailed information about each condition. Conditions are grouped into a hierarchy where there is a top level concept that contains more and more detailed concepts beneath it. You can open the levels by clicking each symbol (red arrows). For our example of “pain”, you can see how many participants have a mention of each specific type of pain in their medical record. Some participants may have more than one type of pain, so they will be counted for more than one medical concept in the hierarchy but not more than once for the same concept. As a result, the total counts for the descendants in the hierarchy may be more than the count for the top level concept.
Surveys

When a participant enrolls in the All of Us Research Program, they complete The Basics survey. The participant may choose to complete additional surveys as they become available throughout the life of the program. You can use this tool to see all of the survey questions and their answer choices. The Data Browser shows the total number of participants that chose a specific answer choice and also shows how many participants of each sex assigned at birth and age group chose that option.

Let’s explore The Basics survey (red arrow).

The Data Browser provides interactive views of the publicly available All of Us Research Program participant data. Currently, participant provided information, including surveys and physical measurements taken at the time of participant enrollment (“program physical measurements”), as well as electronic health record (EHR) data are available. The All of Us Research Program data resource will grow to include more data types over time.

There may be a delay of several months between the time participants consent and the time their record is included in the All of Us data that is visible in the Data Browser. The delay is a result of the time it takes for participant data to be collected, transferred to the Data and Research Center and curated. As a result, the overall participant counts within the Data Browser are lower than the overall enrollment numbers for the program.

In order to protect participant privacy, the data is limited to aggregate counts and summary demographic information for medical concepts, survey responses and physical measurements.
The Basics

Survey includes participant demographic information. Click on each response to view branching logic, and age and gender.

Note: The survey questions appear in the order in which people actually took the survey.

104,440 14
Participants completed this survey  Questions displayed

Question 1
In what country were you born?
See Answers

Question 2
Which categories does your gender identity include?
See Answers

Question 3
What was your biological sex assigned at birth?
See Answers

Question 4
What terms best express how you describe your gender identity?
See Answers

Question 5
Which of the following best represents how you think of yourself?
See Answers

Question 6
What is the highest grade or year of school you completed?
See Answers

Question 7
Have you ever served on active duty in the United States Armed forces, either in the regular military or the reserves?
See Answers

Question 8
What is your current marital status?
See Answers

Question 9
Are you covered by health insurance or some other kind of health care plan?
See Answers

Question 10
What is your current employment status? Please select 1 or more of these categories.
See Answers

Question 11
What is your annual household income from all sources?
See Answers

Question 12
Do you own or rent the place where you live?
See Answers

Question 13
How many years have you lived at your current address?
See Answers

Question 14
In the past 6 months, have you been worried or concerned about NOT having a place to live?
See Answers

The Basics Survey

Here you can see the number of participants who have completed the survey (red circle). You can also download the PDF version of the survey (blue circle) to see all of the questions and answer choices.

Click on “See Answers” to see how many participants chose each answer option. If you would like to see graphs of how many participants of each sex assigned at birth and age have chosen a particular answer, click on the graph icon (blue arrow).

You will also see the concept codes that researchers use when analyzing the data again here. For example, for the question “In what country were you born?” the code is 1586135.
Participants that enroll in the All of Us Research Program may be asked to provide a standard set of physical measurements, including height, weight, body mass index, and waist circumference. The All of Us Research Program data resource will grow to include more data types over time.

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In order to protect participant privacy, the data is limited to aggregate counts and summary demographic information for medical concepts, survey responses and physical measurements.

Program Physical Measurements:

Participants that enroll in the All of Us Research Program may be asked to provide a standard set of physical measurements, including height, weight, body mass index, and waist circumference. The Data Browser allows you to see how many people of each sex assigned at birth or age group had a specific measurement value.

Let’s explore the Program Physical Measurements (red arrow).
Program Physical Measurements: Height

Here you can see the number of male and female participants who are a specific height (measured in centimeters) by placing your mouse over the corresponding bar (blue arrows) or the age that the measurement was taken (lower graph). Height in centimeters is located along the horizontal (x) axis and the number of participants is located along the vertical (y) axis.

Select other physical measurements (red arrows) to see the same types of details about those measurements.
Data Browser

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In order to protect participant privacy, the data is limited to aggregated data sets which exclude personal identifiers and are not linked to medical concepts, survey responses and physical measurements.

Keyword Search

Enter a keyword to search for all of the data about that keyword.

Let's search the term “hypertension.”
There are 64 conditions and 1 procedure that match our search of hypertension. Click on view results (red arrow) to see more information.
Keyword Search: Hypertension

There are 64 different medical concepts that matched our keyword search of hypertension! You can see the number of participants that have the condition appear in their medical record at least one time (red circle). It is common for each condition to be known by other names or terms which you can find by looking in the “Also Known As” section (blue circle).

The Vocabulary Code and Concept Code columns are a reference for researchers. As in the previous searches, you can click the graph icon to see more information about the condition (red arrow).
The Research Support team at the Data and Research Center has provided FAQs, introductory videos and this user guide as resources to help you use the Data Browser.

If you need additional help or have suggestions for improvements, please visit the Help Desk by clicking on the Help button at the bottom of each page (red circle) and fill out the “Contact us” form to provide your feedback.
You’ve completed the tutorial of how to use the Data Browser to explore *All of Us* Participant data. Please explore the data and check back often to see how the cohort continues to grow and change!