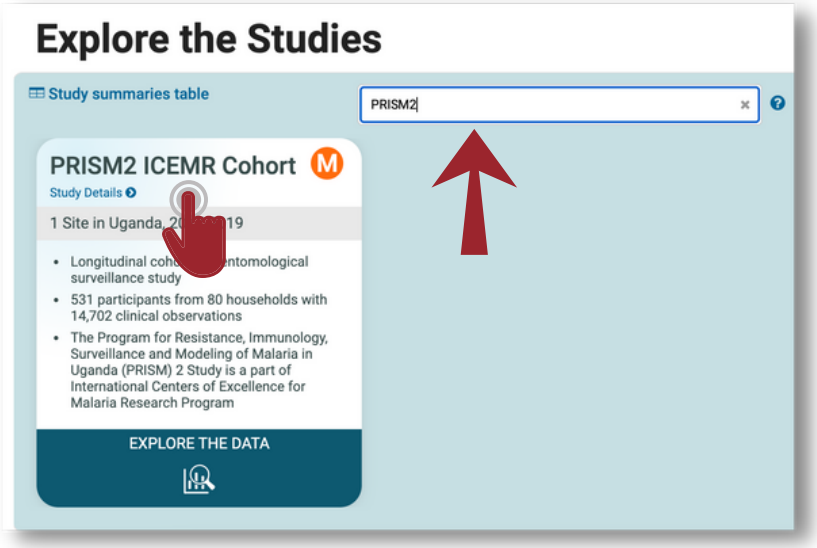
Exercise: Navigating the ClinEpiDB platform

In this exercise, we will use the **PRISM2 ICEMR Cohort study** to navigate through the different features of the ClinEpiDB platform. Type your responses into the grey boxes. Scroll to the end of the exercise for answers.

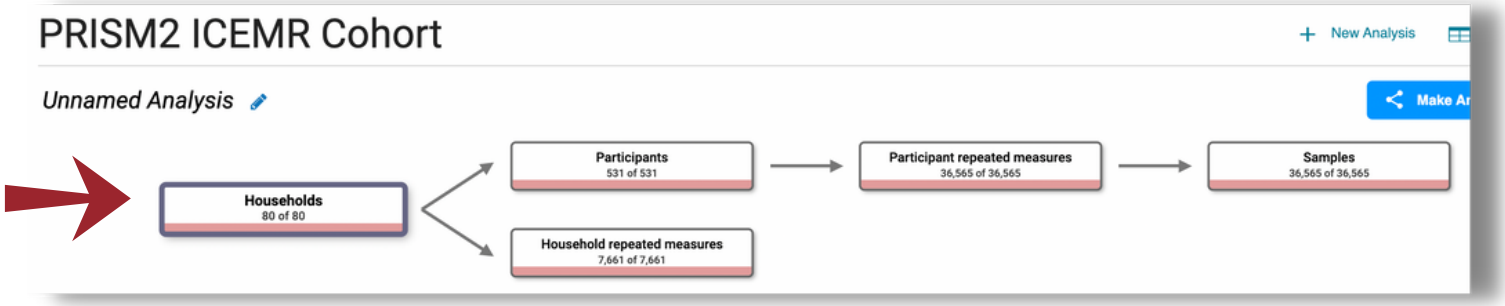
Start at the home page.

In the Find Studies box (red arrow), search for **PRISM2 ICEMR Cohort**.

Locate the **study card** and click on the title of the study to start exploring this dataset.



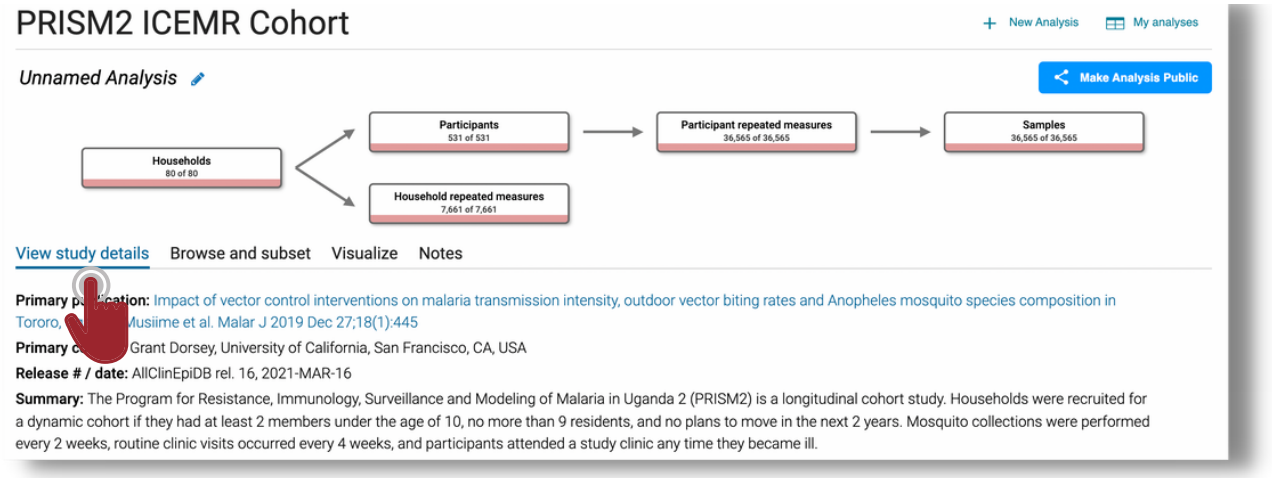
1. Look at the **Dataset diagram** (red arrow) at the top of the page and examine the shape of the data.



a. There are _____ participants in this study.

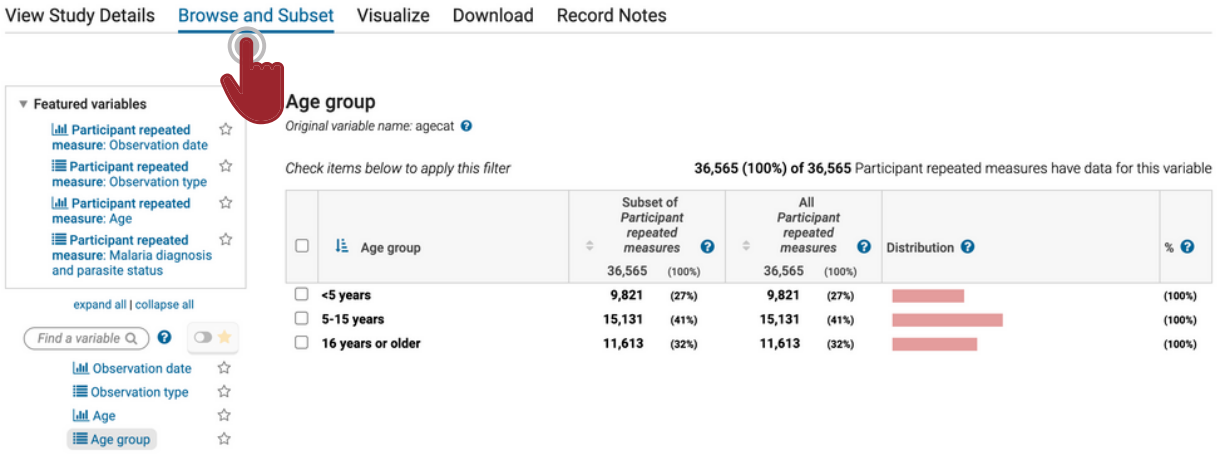
b. There are _____ participant repeated measures (clinic visits + entomology visits) in this study.

2. Click the **View study details** tab, scroll through the page, and answer the following:



a. What was one of the study objectives?

3. Click the **Browse and subset** tab and scroll through the variable tree on the left.



a. What percentage of participant repeated measures are in the <5 years age group?

Hint: You can search for variables in the "find a variable" box in the left sidebar

b. What is the mean height of the participants?

c. Subset on Enrollment and Routine visits. How many of those visits are there?

Hypothesis: Plasmodium infection differs based on age

4. Click the **Visualize** tab -> New visualization, and choose the **bar plot** tool

For the main axis variable, choose **Malaria diagnosis and parasite status**. For facet, choose **Age group.** Under the plot, choose **proportion** instead of count.

a. Which age group had the highest proportion of asymptomatic infection?

Turn to the next page for detailed answers to this exercise!

ANSWERS

1. **Dataset diagram**
    a. There are **531** participants in this study.
    b. There are **36,565** participant repeated measures (visits) in this study.

The dataset diagram at the top of the page is helpful for several reasons. It displays the various types of data collected in the study, such as data on communities, households, participants and samples, and their sample sizes. It indicates whether variables were collected once or at multiple timepoints over the study. Variables collected more than once are placed under "repeated measures". This dataset contains 36,565 repeated measures for 531 participants, which indicates that each participant was observed repeatedly over the course of the study.

2. **View study details** tab
    a. What was an objective of this study?

Objectives:

- Estimating the incidence of malaria, parasite prevalence, and the molecular force of infection among cohort study participants
- Characterizing factors that determine the malarial force of infection
- Determining factors that affect the duration, density, and clinical consequences of blood stage malaria infection
- Assessing the associations between overnight travel and the risk of malaria infection
- Estimating measures of transmission intensity including the human biting rate, sporozoite rate, and the entomological inoculation rate at the household level
- Characterizing the species composition of mosquito vectors and the host source of mosquito blood meals
- Identifing pathogens responsible for non-malarial febrile illness among cohort study participants

The study details page provides a wealth of information about the dataset, including links to publications, a summary of the objectives, study design and methodology, links to study documentation, and a listing of the study team.

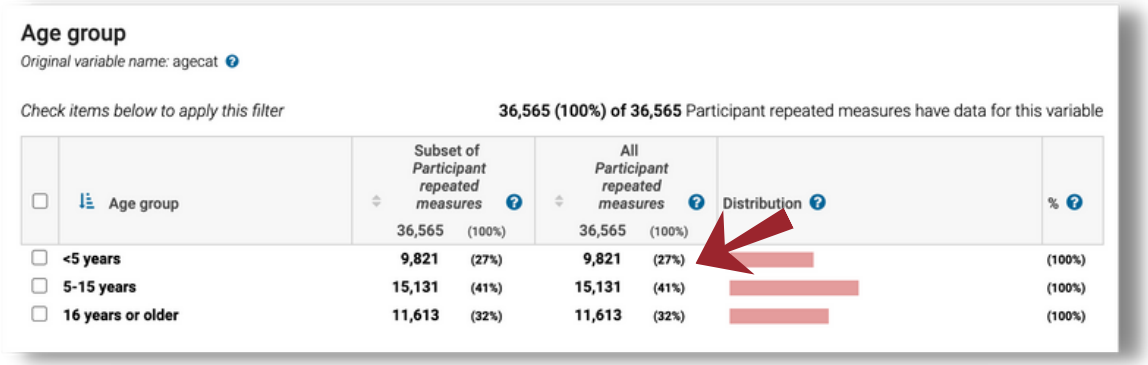
3. **Browse and subset** tab

a. What percentage of participant repeated measures are in the <5 years age group?**27%**

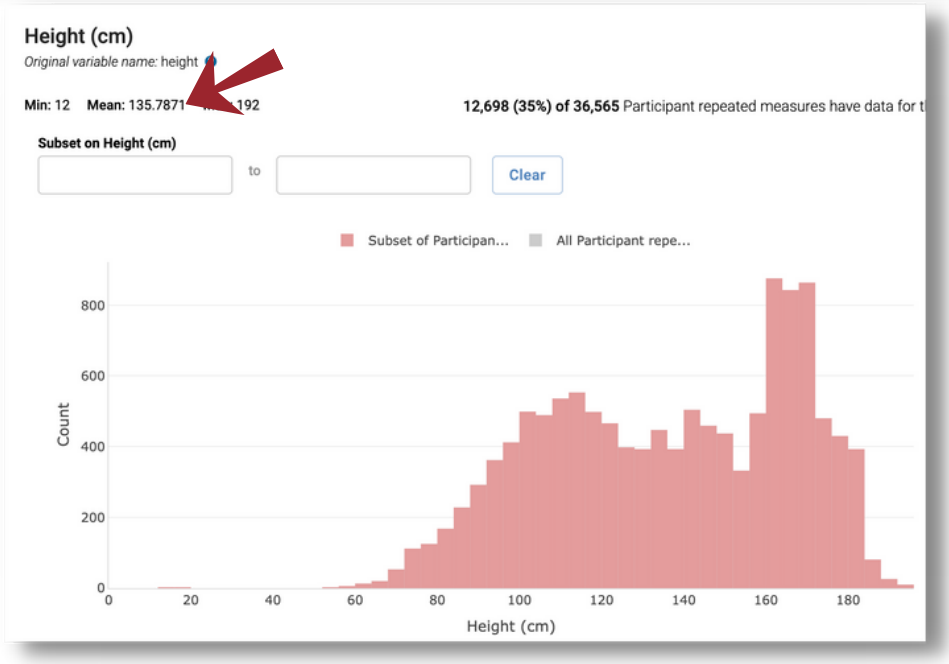
b. What is the mean height of the participants? **135.8 cm**

c. Subset on Enrollment and Routine visits. How many of those visits are there? **12,696**

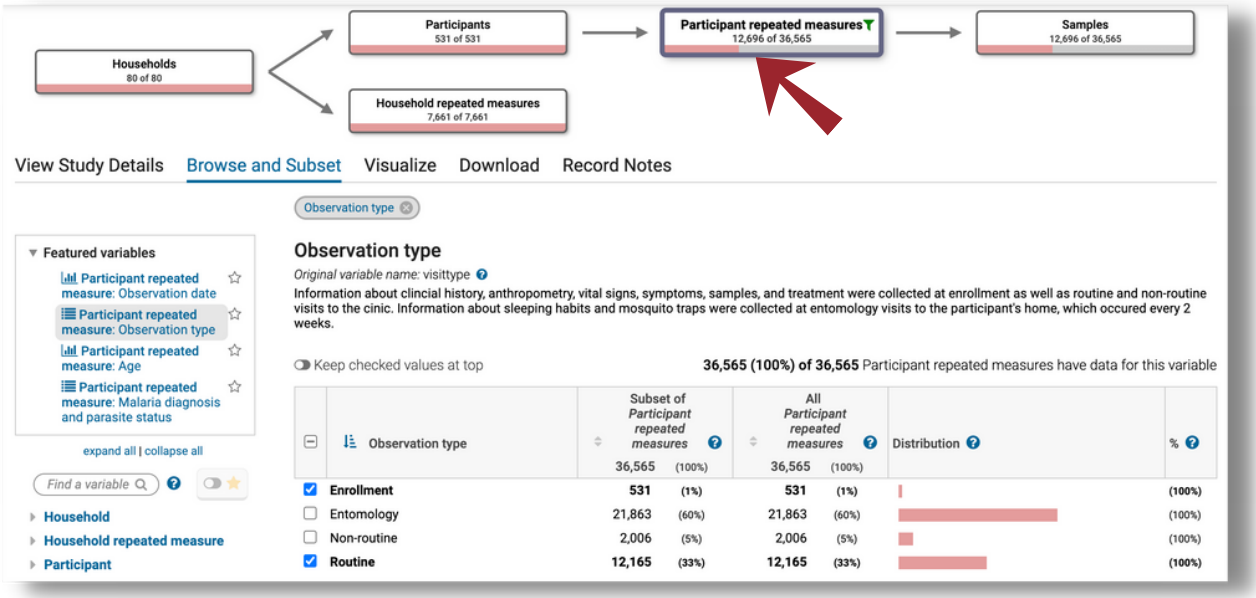
3a



3b

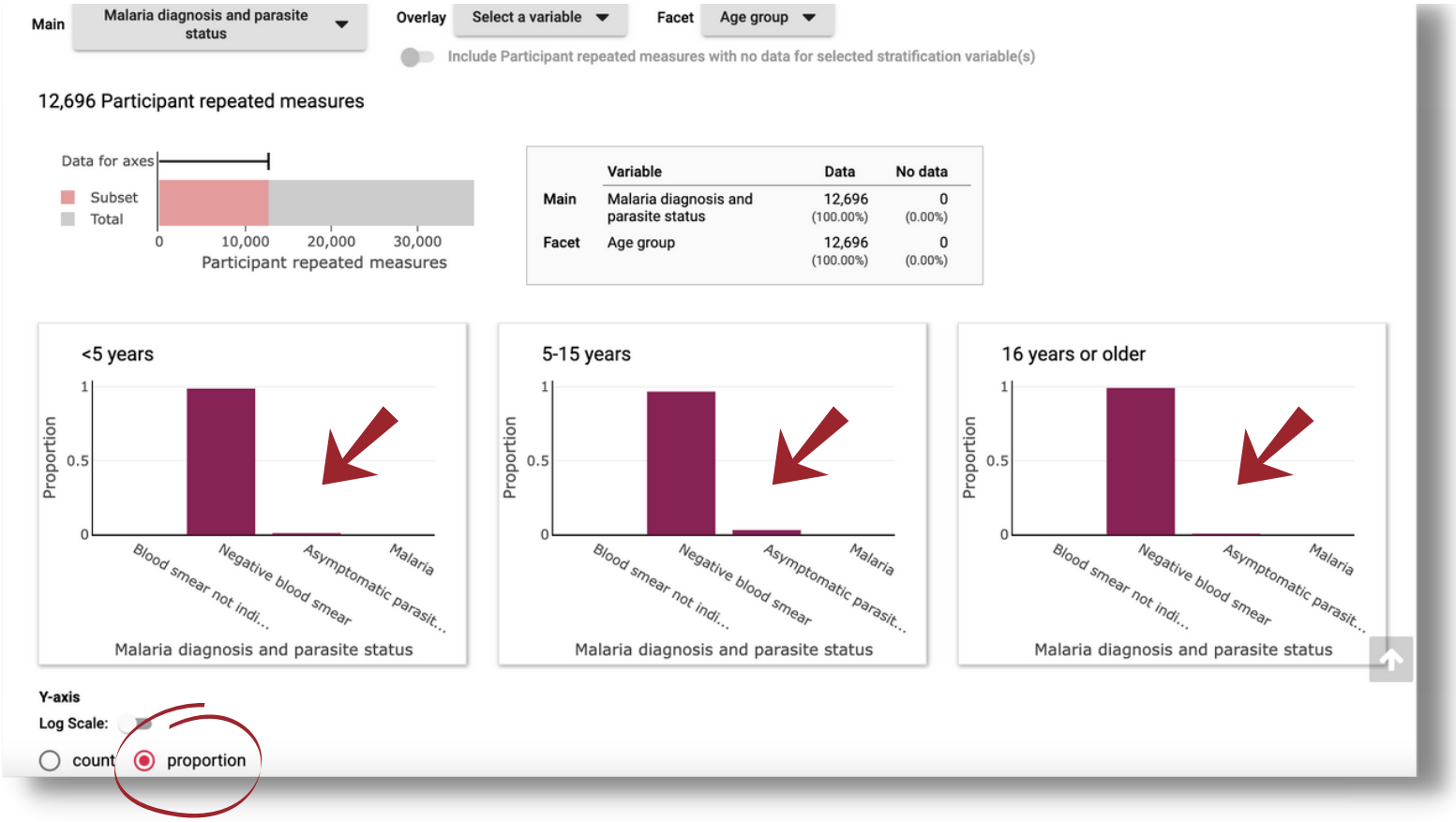


3c



4. **Visualize** tab

   a. Which age group had the highest proportion of asymptomatic infection? **5-15 years**



Thank you for completing this exercise on navigating the ClinEpiDB platform! Please contact **help@clinepidb.org** with feedback or questions.