Longitudinal Projects in REDCap

Consider these 3 questions:

1. Will you be collecting the same data multiple times over time throughout the project?
2. Is this a structured study where participants will have a definite amount of visits over a defined period time?
3. How do you want your data to look when you export them?
Question #1: Will you be collecting the same data multiple times overtime throughout the project?

If you will be asking the same questions over a period of time, you may want to consider using the longitudinal module.

In this project, the “Monthly Clinical Data” questionnaire would be asked during all four visits/events of the study so the longitudinal study module was a good fit for this project. If the longitudinal module were not used, the fields/questions on this questionnaire would have needed to be created four times in the online designer or data dictionary in order to allow for these data to be collected.

The questions on the “Monthly Clinical Data” instrument needed to be collected during all four visits/events.
Question #2: Is this a structured study where participants will have a definite amount of visits over a defined period time?

- Longitudinal projects are best used for studies that are very structured and don’t go on indefinitely.
- This is especially the case when the Longitudinal module is used in conjunction with the Scheduling feature.
- All events are created and defined during project development. Once a project has been moved into “Production Mode” longitudinal events cannot not be created or redefined without the assistance of a REDCap administrator.
Question #3: How do you want your data to look when you export them?

In the **traditional data collection model**, each project record is stored independently as a separate row of data, which can be seen when exported.

Below shows a spreadsheet of data for sleep variables that were collected at four time points. The sleep variables needed to be created four times within the REDCap project. Thus, each sleep variable has its own column in the data export.

![Spreadsheet of data](image)
Question # 3 How do you want your data to look when you export them? (cont.)

For **longitudinal projects**, each row of data actually represents that particular time-point (event) per database record.

For example, if four events are defined for the project, one record will have four separate rows of data when exported. The data export will include a column "redcap_event_name" indicating the unique event name for each row. This question in particular should be discussed with the statistician or the person carrying out the data analysis.

Notice that there are multiple rows for each record

Notice that the same sleep variables are only displayed once in the spreadsheet

This column indicates the unique event name
Longitudinal Setup

Enabling longitudinal data collection will allow you to use the same form or survey at multiple events. For instance, you may create a demographics form which you will use at Baseline but then a questionnaire that you may want to use at V1, V2, and V3. If there is one form or survey that will be used multiple times for a participant, you would want to enable longitudinal data collection use.

When you enable the longitudinal data collection, you will have a step on your project setup screen that will allow you to define your events and then designate the forms you will be using at each event.

Click enable if you want a longitudinal database.

When enabling longitudinal data collection, you will see this as an option. You must define your events and then designate the instruments at each event.
Define your Events and Designate Instruments

After you have defined your events, you must designate instruments for events. Check the boxes where you want each form to appear. If you do not check a box for a form, it will not appear when you are entering data. Each form must be attached to at least one event.

Define your Events:
- Title the Event
- Create multiple arms if your project requires this

Designate Instruments for Events:
Select which Data Collection Instrument is used at each Event