**Overview**

This page will guide you to design an app that makes reporting easier. If one builds the app first and then thinks about the data export later, data reporting and analysis are often difficult. Much of the work to build reports in Excel can be done on CommCareHQ rather than in Excel. However, this requires upfront time investment to tweak the app to get the data in the right format and with the right variables. There are two main key points to keep in mind:

**Key Point 1:** Understand the metrics you need before you start building your application

**Key Point 2:** Design your app to make reporting easy

To put it another way:

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**The Key Indicators Worksheet**

The worksheet will guide you through thinking about what you want to do with your data and which data you will need easily accessible in the exports. The key indicators worksheet lays out some of the key questions to consider: “what you want to know, why, and what are the actions you can take with real-time data? You should ask yourself: now I have this info so what?” It is easy to think that you will figure out what to do with the data later, but it is a very useful exercise to go through that exercise at an earlier stage. The worksheet is available in the info box above.

**Before You Deploy the App**

The steps below outline how you can take these two key points into account during app building.

1. **Define your metrics.** Fill out the “key indicators” worksheet. Make sure that the “key indicators” worksheet is reflected in the app worksheet. In other words make sure that there are questions or hidden values which will generate the data required for the indicator.
For example, consider an application used by CHWs to do diarrhea consultations at a health hut. One of the indicators we want to look at is the number of cases of diarrhea seen per month per case de sante (health hut) broken down by sex.

2. **Create Demo Data in Excel.** In the demo data we will want a column with the name of the patient (A), one with the sex (B), one with the health hut (E), one with the date of the consultation (K); these are the info we need for the indicator we selected.

3. **Build a mock-up dashboard off the demo data.** We can use the demo data and build a pivot table and graph showing the number of diarrhea consultations at the health hut per month broken down by sex. The value of a mock-up dashboard off the demo data is that you can preview how the data will look and can double-check that the data are visualized as per your expectations.
4. **Create your app.** Build an app shell with the questions which generate the data that you need in the exports. So in our example we want to make sure that we have a question about the name, one about the sex, one about the health hut and one about the date. If we won’t have these questions asked in the app we can have them as hidden values (in the case of the health hut we can load the health hut into a hidden value).

6. **Export Data from the App.** These data should look like the raw data in step 2. If they do not, revisit the configuration of your application.

7. **Build the Dashboard off app data.** To do this you can follow [Tutorial: Create an Excel Dashboard](#).