**ICPI Tool Style Guide** April 6, 2016

OVERVIEW

Over the last year, PEPFAR has been setting targets and entering into DATIM since early last year. With a wealth of HIV/AIDS programmatic results down to the site level quarterly, DATIM is an extremely useful resource to support data-driven decision making and help build capacity necessary towards achieving epidemic control. DATIM has features, such as its built in pivot table and visualization that helps get a view of the data. This view, however, is just a peak into the data and can be rather limiting.

Agencies, TWGs, and ICPI workstreams need to get more than a glimpse at this data; they need to use this information to evaluate progress and make strategic decisions. As a result, we are seeing an influx in “tools” and “dashboards” to make sense of complex and ample data across numerous operating units and indicators. This is a great step towards data-driven decision making. One drawback is the lack of coordination and, as a result, a lack of uniformity in the creation of these tools.

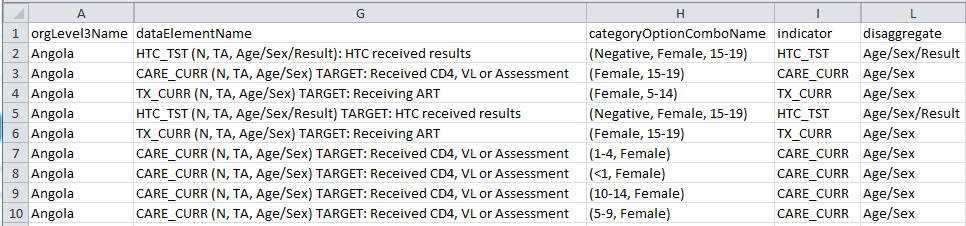
An optimal solution would be to coordinate efforts, designing visual tools and dashboards in a similar fashion. Adopting a uniform structure and overall style has a number of benefits including a similar SQL pull for each product to get large scale data out of DATIM and improved collaboration across ICPI analysts.

Given the widespread use of Excel given accessibility and skillsets, this document outlines style and structure guidance for developing dashboards and tools in Excel.

STRUCTURING RAW DATA

The best place to start at the onset of developing a tool is with the data itself. Whether you pull the data yourself out of the DATIM Data Genie or request the data through a SQL pull from someone in the Data Management Group, the data should be structured in a similar manner where you have your observations by row and indicators as your columns.

Figure 1: Raw Data Structure



When developing a dashboard, there are a number of key indicators you will likely make use of.

* orgLevel\*Name – Each level of the OU hierarchy is assigned a number starting with 3. The national/regional level starts at orgLevel3Name for all OUs. The organization level vary country to country, but as you increase on the numeric scale you identify smaller and smaller sub national units (SNU). It’s a good idea to know at what level each OU is setting target at, i.e. their priority level SNU. This information can be found on the [DATIM Support page](https://datim.zendesk.com/hc/en-us/articles/206855986-GIS-OU-Hierarchy-Guide).
* uidlevel\* - UID is the unique identifier used in spatial mapping, but also is good to use to ensure you are not aggregating two different SNUs in different regions , i.e. a country could have two separate districts called Centerville, one located in the North Province and one in the South Province.
* period – Knowing the time period you are drawing on is a key component of your dataset. It is important to realize that the output from DATIM is reported in calendar year unlike most of the rest of PEPFAR reporting. So, the second quarter of fiscal year 2016 (January to March 2016) would be reported as “2016Q1”. Most of the major indicators are reporting on a quarterly basis, but some are reported only semi-annually or annually. Check out the [MER Indicator Quick Reference Guide on DATIM Support](https://datim.zendesk.com/hc/en-us/articles/206630535-FY-2015-APR-Guidance-and-MER-Indicator-Quick-Guide) for more details. This reference guide will also provide you with guidance on how to report indicators at the end of the year, e.g. aggregating all four quarters or taking the fourth quarter’s results. Lastly, if you are working with targets, they are reported once a year. The period for 2016 targets would be recorded as “2015Oct”
* dataElementName – This field is a bundle that provides all data element pieces concatenated together: indicator, numeratorDenom, type, disaggregate, resultTarget, categoryOptionComboName. It is often much more useful to use each of the data elements pieces rather than this one that combines them all together.

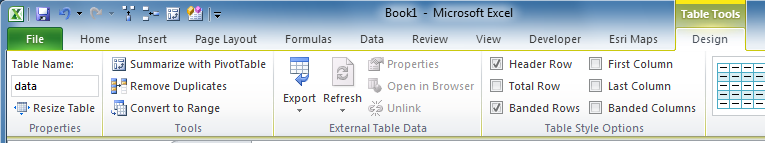
Figure 2: Pieces of the dataElementName



* indicator – This element provide which indicator is reported in the line, e.g. HTC\_TST, PMTCT\_ARV, TX\_CURR.
* numeratorDenom – This element is either “N” for numerator or “D” for demonimator. You will typically be using the numerator for most of your work.
* type – This element is not frequently used as you tend to combine DSD and TA results.
* disaggregate – This element comes in a number of shapes and sizes, varying indicator to indicator. Indicators can be reported as the full numerator or can be broken out into various parts such as by age, sex, result and combinations of those. It is also important to note that these disaggregates can also have aggregates such has “<15” and “15+”
* resultTarget – This element indicates whether the data element is result or target. “TARGET” is written into the data element name if it’s a target; the absence “TARGET” indicates the data element is a result.
* label – This element describes the indicator more clearly rather than just using the abbreviations. This element will be rarely used in typical analysis.
* categoryOptionComboName – This element is tied to the disaggregate. If there is no disaggregate, i.e. it’s just the numerator entered, the categoryOptionComboName would be “default”. If the disaggregate were Age/Sex, the categoryOptionComboName could look like “(Female, 5-14)”.It is important to note that the order of the categoryOptionComboName can vary across and within indicators, so you can see “(Female, 5-14)” or “(1-4, Female)”.
* value – This element provides the target or result value.

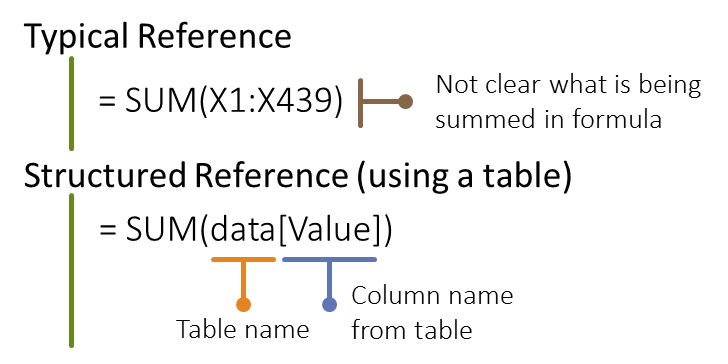
With the relevant indicators loaded into Excel, you should set up the data as a Table. To do so, you will need to highlight all the rows and columns containing data (Ctrl + \*) and navigate on the top ribbon to Insert > Tables > Table Structuring.[[1]](#footnote-1) After setting up the table, you should navigate in the ribbon to Design > Properties > Table Name, and change it to “data”.

Figure 3: Changing Table Name



The benefit of setting up your raw data as a table and renaming it comes from the ability to use structured references. This adjustment is incredibly important because it allows you to more easily reference your data in a formula and improves the readability of your formula for others.

Figure 4: Utilizing a structured reference



Now that you have your data structured using a table, you have the proper base for starting to build your tool.

EXCEL SETUP

The best place to start at the onset of developing a tool is with the data itself. Whether you pull the data yourself out of the

1. To remove the table formatting, make sure you have selected a cell within the table and navigate on the ribbon to Design > Table Styles > Clear. [↑](#footnote-ref-1)