



# USAID GLOBAL HEALTH SUPPLY CHAIN PROGRAM

## TECHNICAL ASSISTANCE, NATIONAL SUPPLY CHAIN ASSESSMENT TASK ORDER

### Instructions for Using the KPI Non-Central Analysis Template for Calculating Key Performance Indicators

NSCA 2.0



DISCLAIMER: Development of the NSCA 2.0 toolkit was funded by the United States Agency for International Development (USAID). The authors' views expressed in this publication do not necessarily reflect the views of USAID or the United States Government.

## INTRODUCTION

This document provides step-by-step directions for transferring data from SurveyCTO outputs into a Microsoft Excel-based template. The template is designed for use with the SurveyCTO form “KPI data collection non-central”. The template can take results from the SurveyCTO data collection and automatically calculate key performance indicator (KPI) metrics and produce a limited number of summary outputs and graphics. This document also provides a brief description of these summary outputs and graphics. The KPI outputs and graphics were determined to be ‘standard’ NSCA 2.0 outputs based on consultations with stakeholders and based on the experiences piloting the NSCA 2.0. However, individual assessment may require different analyses, deeper dives or outputs; the template may serve as a basis for developing further analyses and outputs.

The KPIs and supporting indicators to those KPIs calculated in this template include:

- Stocked according to plan
- Percentage of tracer commodity observations with a stockout on day of assessment
- Percentage of tracer commodity observations with a stockout during the reporting period
- Average number of days out of stock for the assessment period
- Average duration out of a stock out, if there was a stockout, for the assessment period
- Stockout rates of one or more tracer products by facility
- Stock accuracy (paper-based and electronic)
- Stock card up to date (paper-based and electronic)
- Wastage from damage, theft and expiry
- Percentage of orders placed by health facilities as emergency orders
- On-time delivery to facility
- Order turnaround time
- Order fill rate
- Number and duration of temperature excursions in cold storage facility
- Percentage of key positions vacant
- Staff turnover rate
- Cost of warehousing operation

- Cost of distribution operation

This document:

- Describes the overall structure and contents of the KPI non-Central Analysis Template (hereafter ‘the template’).
- Provides guidance for moving data from Survey CTO into the template.
- Provides some guidance for modifying the template to suit the particulars of each individual assessment.
- Provides a brief description of the summary outputs and graphics available in the template.

The template is designed to be used for up to 10 different types of facilities / entities of the health system (e.g., health centers, hospitals, warehouses). Note that this is fewer than the companion “CMM Template for Scoring” because ‘non-Central’ KPIs are not collected at central or national level entities such as the Ministry of Health, and, thus, it is anticipated that fewer types of facilities / entities will be needed for this template. Assessments with fewer than 10 types of facilities / entities should be able to adapt the presentation of the results with relatively little difficulty to match the number of types of facilities / entities used in their assessment. Assessments with more than 10 different types of facilities / entities of the health system will need to use more than one template and combine the outputs manually.

Use of the template requires knowledge and comfort with using Microsoft Excel. Basic functions of Excel are not described in this document.

## LIMITATIONS OF THE TEMPLATE

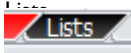
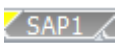

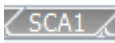
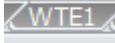
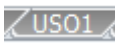

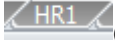
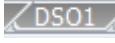

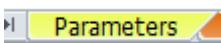
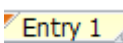
The pre-programmed calculation sheets have set limitations; assessments that exceed these limitations will need to modify the template to accommodate their needs:


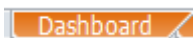

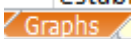
- The template is designed to analyze up to 15 tracer commodities.
- The template can analyze up to 20 upstream orders per entity, per standard NSCA 2.0 guidance for collecting these data.
- The template can analyze up to 5 temperature logs per entity for temperature excursion data.
- The template can analyze up to 15 separate job positions for human resources data (per the standard NSCA 2.0 coding in SurveyCTO).
- The template can analyze up to 20 orders for downstream order data, per standard NSCA 2.0 guidance for collecting these data.
- All cost data need to be entered in the same currency for the template to calculate correctly.

- Limitations in the number of entities (e.g., health centers, district hospitals, regional warehouses) that can be processed are variable by Entry sheet and are further discussed below. These limitations were built into the template to save memory – if all Entry Sheets were able to process 200 different sites, the template’s memory requirements would make the template prohibitively slow to use.

## STRUCTURE OF THE TEMPLATE

The template is divided into five parts, each marked by different color tabs for the individual worksheets within overall template workbook (Table I).

TABLE I: OVERVIEW OF THE TEMPLATE			
TAB COLOR	FUNCTION	INDIVIDUAL WORKSHEETS	NOTES
Black	-Background information to enable other functions within the workbook		Should not be modified; typical users need never use these sheets.
Gray	Calculation sheets used to calculate KPIs for each of up to 10 different types of facilities / entities.	<p>1 through 10 for various indicators:</p> <p> (KPIs related to stocked according to plan)</p> <p> (KPIs related to stockouts)</p> <p> (KPIs related to stock card accuracy)</p> <p> (KPIs related to wastage)</p> <p> (KPIs calculated from upstream order data)</p> <p> (KPIs related to temperature excursions)</p> <p> (KPIs related to supply chain human resources)</p> <p> (KPIs calculated from downstream order data)</p> <p> (KPIs related to costs)</p>	Users typically will not need to modify these sheets. Users may be interested in looking at or using the results from individual entities, and thus may need to access these sheets.
Yellow	Data entry and intermediate results worksheets. There is one worksheet for establishing the parameters of the assessment, and sets of entry/intermediate results worksheets for 10 different types of facilities / entities. Users must make changes to these worksheets to use the template.	Parameters 	Worksheets to establish information needed for analyses or presentation of the results.
		Entry 1 through Entry 10 (lighter yellow) 	The worksheets where data exported from Survey CTO should be entered as well as the survey sample weights.

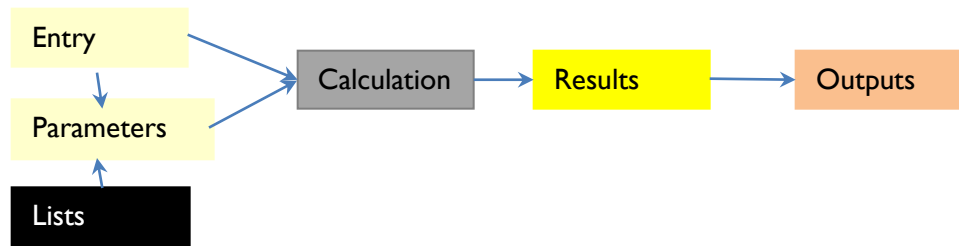
		Intermediate results worksheets R1 through R10 (Darker yellow) 	-Users need to enter the name of the type of facility / entity corresponding to the data entered on the 'Entry Sheet' of the same number  -Provides output tables for the particular type of facility / entity
Orange	Outputs and results across the types of facilities / entities, presented in different ways and at different levels of detail in the different tabs. Users will need to modify these sheets in terms of formatting and presentation.	Dashboard 	High level results across KPIs and types of facilities / entities; highest level of aggregation provided in the template.
		Summary Tables 	Provides final results and ranges for each KPI / type of facility / entity.
		Graphs 	Provides results for stockouts by time and types of facilities / entities for tracer commodities; stocked according to plan by time and types of facilities / entities for tracer commodities; percentage of facilities / entities with stock card up to date by tracer commodities; percentage of stock damaged, lost, and expired for each type of facility / entity by tracer commodities; on-time delivery by facility / entity; emergency orders as a percentage of all orders by facility / entity; and staff turnover ratio by facility / entity.

Note that the color yellow – on both the worksheet tabs and for specific cells in the worksheets themselves – indicate areas where the assessment team will need to enter or alter data.

## INFORMATION FLOWS THROUGH THE TEMPLATE

The data entered in the Entry and Parameter sheets provide the basis for the overall calculations (Figure 1). The data entered into the Data Entry Sheets MUST use the nomenclature provided in the standard NSCA SurveyCTO data collection tool – that is, the response names generated by SurveyCTO (and, thus, the underlying data collection tool) are used throughout the template to calculate results. Altering the names of responses will disable the ability of the tool to function. Extra data / responses can be added to the data collection tool and the template will still function; however, the template will not produce any results for the added data / responses. Analysis of additional data / responses is the responsibility of the analysis team.

**Figure 1: Flow of information through the template**

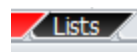


The calculation sheets also require (1) data to be entered in the data entry sheets from Survey CTO, and (2) the information requested on the Parameters worksheet be filled in (in order to ensure the accuracy of the results). Once calculations are completed, they are passed back to the intermediate results worksheets. For the Entry, Calculation, and Intermediate Results worksheets, the numbers at the end of each worksheet indicate a single type of facility / entity. For example, 'Entry 1', '[C\*]1', and 'R1' (where [C\*]1 represents the set of 9 calculations sheets ending in 1) all work together for one type of facility / entity of the health system – data entered on 'Entry 1' are processed on the '[C\*]1' worksheets, and the results passed to the worksheet 'R1'. Note that the names of the tabs can be changed; for example, the names of 'Entry 1' and 'R1' could be changed to 'HC Entry' and 'RHC' if this set of sheets are used for health centers. When changing names of the tabs, we recommend retaining a common root across the worksheets in each set (in the example above, the common root was 'HC') in order to be able to easily cross check data entry, calculations, and results.

Data from the Results worksheets are then passed to the output worksheets for overall presentation.

## DESCRIPTION OF INDIVIDUAL WORKSHEETS IN THE TEMPLATE

### LISTS

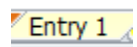


The 'Lists' worksheet contains only the closed options used on the Parameter worksheet for selecting “yes” or “no” to the prompts provided on the Parameters worksheet (Figure 2).

Figure 2: Contents of the List worksheet

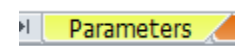
	A
1	Yes
2	No

### ENTRY SHEETS



Entry Sheet 1 through Entry Sheet 10 are largely blank. They are the intended destination for the data exported from Survey CTO. More details on these sheets are provided in the section “Transferring data from SurveyCTO to the template”.

### PARAMETERS



The 'Parameters' worksheet provides a list of options for calculation of some of the KPIs and basic information needed for the presentation of results (Table 2).

TABLE 2: DESCRIPTION OF THE CONTENTS OF THE REFERENCE WORKSHEET		
ROW(S)	CONTENT	CONTENTS
I through 35	Entry of national standards for minimum and maximum stock for calculation of stocked according to plan, by tracer commodity	<p>Rows 4 through 18: If there is a national standard minimum number of months for a particular commodity AND that national standard should be used for the calculation of stocked according to plan, then select 'yes' in column C for that tracer commodity. In column D, specify the standard minimum number of months for a particular tracer commodity.</p> <p>Rows 21 through 35: If there is a national standard maximum number of months for a particular commodity AND that national standard should be used</p>



**TABLE 2: DESCRIPTION OF THE CONTENTS OF THE REFERENCE WORKSHEET**

ROW(S)	CONTENT	CONTENTS
		<p>for the calculation of stocked according to plan, then select 'yes' in column C for that tracer commodity. In column D, specify the standard maximum number of months for a particular tracer commodity.</p> <p>Note that the numbers 1 through 15 reflect each tracer commodity in the order that they were coded in the SurveyCTO data collection tool. Names of the tracer commodity will automatically appear <b>ONLY</b> after data have been entered in the 'Entry 1' worksheet. Analysts can fill this table in once data have been entered in the 'Entry 1' worksheet. Alternatively, analysts may choose to overwrite the formulas in column B by typing in the names of tracer commodities, but this is not recommended since it may result in errors: the calculation sheets require that the order of the tracer commodities here be in the same order as was used in the SurveyCTO tool.</p>
37 through 49	Number of days in a month	<p>The template operates based on the Gregorian calendar, and the number of days in a month is generally set. However, if the assessment takes place in a leap year and the assessment includes February in its historic data collection, then the number of days in February should be changed to 29.</p> <p>The template should work for non-Gregorian calendars by changing the names and number of days per month for the months included in the assessment period IF the same set of names for months has been used in the SurveyCTO data collection tool. (Note the months listed here have to match those in the SurveyCTO data collection tool. The template cannot accommodate more than 12 months.)</p>
51 through 55	Assessment period	<p>Enter the month and year of the beginning of the assessment period followed by the month and year of the end of the assessment. Typically, NSCA 2.0 will assess the six months immediately preceding the month in which the assessment collects data. These months reflect, e.g., the six months for which historic data are extracted from stock cards. (Note the months listed here have to match those in the SurveyCTO data collection tool.)</p>
56 to 67	Standard delivery window	<p>If there is a national standard delivery window (in days) for on-time delivery for each type of facility / entity AND that national standard is to be used for calculating On-time delivery to facility, then select 'yes' in column C, and enter the delivery window in column D. Note that if the delivery window is the same for all types of facilities / entities, the delivery window still needs to be entered in all cells in D58:D67.</p>

## CALCULATION ([C\*]I THROUGH [C\*]I0)

SAP1	SO1	SCA1	WTE1	USO1	TE1	HR1	DSO1	CT1
------	-----	------	------	------	-----	-----	------	-----

Each of the calculation worksheets are structured differently to enable processing of different KPIs (Table 3). The tops of the calculation sheets typically collect and organize the raw data from the entry sheets, followed by calculations to determine the KPIs. On sheets dealing with tracer commodities, this pattern is repeated for each of the tracer commodities. Columns present results for individual entities; these are presented in the same order that they are entered in the Entry worksheet (i.e., the first entity listed in the Entry worksheet will be presented in the first column of entity-specific results in the calculations sheets). No modifications should be made to the calculation sheets.

TABLE 3: CALCULATION WORKSHEETS		
	ORGANIZATION	WHERE TO FIND RESULTS FOR INDIVIDUAL FACILITIES
SAP	In vertical blocks, with calculations for each tracer commodity occupying 34 rows. Individual entities assessed start in column C.	Row 35 for commodity 1 Row 70 for commodity 2 Row 105 for commodity 3 Row 140 for commodity 4 Row 175 for commodity 5 Row 210 for commodity 6 Row 245 for commodity 7 Row 280 for commodity 8 Row 315 for commodity 9 Row 350 for commodity 10 Row 385 for commodity 11 Row 420 for commodity 12 Row 455 for commodity 13 Row 490 for commodity 14 Row 525 for commodity 15
SO	In vertical blocks, with calculations for each tracer commodity occupying 59 rows. Calculations are first done for stock out on day of assessment, and then for days out of stock and any stockout. Individual entities assessed start in column C.	Rows 30; 56-59 for commodity 1 Rows 89; 115-118 for commodity 2 Rows 148; 174-177 for commodity 3 Rows 207; 233-236 for commodity 4 Rows 266; 292-295 for commodity 5 Rows 325; 351-354 for commodity 6

		<p>Rows 384; 410-413 for commodity 7</p> <p>Rows 443; 469-472 for commodity 8</p> <p>Rows 502; 528-531 for commodity 9</p> <p>Rows 561; 587-590 for commodity 10</p> <p>Rows 620; 646-649 for commodity 11</p> <p>Rows 679; 705-708 for commodity 12</p> <p>Rows 738; 764-767 for commodity 13</p> <p>Rows 797; 823-826 for commodity 14</p> <p>Rows 856; 882-885 for commodity 15</p> <p>Row 887 (for Stockout rates of one or more tracer products by facility)</p>
SCA	<p>In vertical blocks, with calculations for each tracer commodity occupying 27 rows. Calculations first done for paper-based stock cards (accuracy and deviance) and then for electronic records. Individual entities assessed start in column C.</p>	<p>Rows 19-20; 24-25 for commodity 1</p> <p>Rows 46-47; 51-52 for commodity 2</p> <p>Rows 73-74; 78-79 for commodity 3</p> <p>Rows 100-101; 105-106 for commodity 4</p> <p>Rows 127-128; 132-133 for commodity 5</p> <p>Rows 154-155; 159-160 for commodity 6</p> <p>Rows 181-182; 186-187 for commodity 7</p> <p>Rows 208-209; 213-214 for commodity 8</p> <p>Rows 235-236; 240-241 for commodity 9</p> <p>Rows 262-263; 267-268 for commodity 10</p> <p>Rows 289-290; 294-295 for commodity 11</p> <p>Rows 316-317; 321-322 for commodity 12</p> <p>Rows 343-344; 348-349 for commodity 13</p> <p>Rows 370-371; 375-376 for commodity 14</p>

		Rows 397-398; 402-403 for commodity 15
WTE	In vertical blocks, with calculations for each tracer commodity occupying 45 rows. Individual entities assessed start in column C.	Row 44 for commodity 1 Row 89 for commodity 2 Row 134 for commodity 3 Row 179 for commodity 4 Row 224 for commodity 5 Row 269 for commodity 6 Row 314 for commodity 7 Row 359 for commodity 8 Row 404 for commodity 9 Row 449 for commodity 10 Row 494 for commodity 11 Row 539 for commodity 12 Row 584 for commodity 13 Row 629 for commodity 14 Row 674 for commodity 15
USO	In vertical blocks, data for each order is assessed, with overall results presented at the bottom of the worksheet. Individual entities assessed start in column C.	Rows 174 - 196
TE	In vertical blocks, data for each temperature log is assessed, with overall results presented at the bottom of the worksheet. Individual entities assessed start in column C.	Rows 81, 89, and 90.
HR	Data for each position is assessed, with overall results presented at the bottom of the worksheet. Individual entities	Rows 67, 71, and 72.

	assessed start in column C.	
DSO	In vertical blocks of 114 rows each, data for each order is assessed, with overall results presented at the bottom of the worksheet. Individual entities assessed start in column C.	Rows 2357 - 2360
CT	Data for each cost item is assessed, with overall results presented at the bottom of the worksheet. Individual entities assessed start in column C.	Rows 24-27

## INTERMEDIATE RESULTS SHEETS



Worksheets R1 through R10 both require inputs from users and present results.

In Cell B1 (“Central Warehouse” in Figure 3), the user must type the name of the type of facility / entity (e.g., health center, district hospital, etc.). Any response is allowed (it does not necessarily have to match terms used in SurveyCTO), but what is typed there will be used throughout the presentation of the results and should be consistent with terminology used throughout the assessment (e.g., for the CMM Survey).

**Figure 3: Inputs required on the intermediate results sheets**

	A	B	C	D	E
1		Name of Level:	Central warehous	Maximum:	5 entities
2		Stock Data			

Cell E1 lists the maximum number of entities that can be processed in the calculation sheet corresponding to the Intermediate Results sheet. The number allowed decreases as the number of the Intermediate Results sheet increases – for example R1 allows up to 200 entities, while R10 allows up to 5 entities. Thus, R1 should be used for the type of facility / entity with the largest sample (typically health centers or similar), while Intermediate Results sheet with higher numbers should be used for national or similar level entities where only one or two entities are included in the assessment.

Cell D7 lists the number of entities that have been entered on the corresponding Entry Sheet.

Figure 4: Example of outputs listed on the intermediate results sheets by tracer commodity

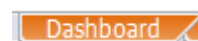
	A	B	C	D	E
1		Name of Level:	SDPs	Maximum:	200 entities
2	<b>Stock Data</b>				
3				Stocked according to plan	Percentage of facilities with stockout on day of assessment
4				Average Stocked according to plan across entities	By commodity
5					
6	#	Product	Product Dosage	SDPs	SDPs
7		Number of entities:		0	0
8	1				
9	2				
10	3				
11	4				
12	5				
13	6				
14	7				
15	8				
16	9				
17	10				
18	11				
19	12				
20	13				
21	14				
22	15				
23				Range: 0% to 0%	#DIV/0!

Figure 5: Example of outputs listed on the intermediate results sheets for that type of facility / entity

Staff turnover rate and staff vacancy rate	
Indicator	
Average number of supply chain positions	N/A
Staff turnover ratio	N/A
Percentage of positions vacant	N/A

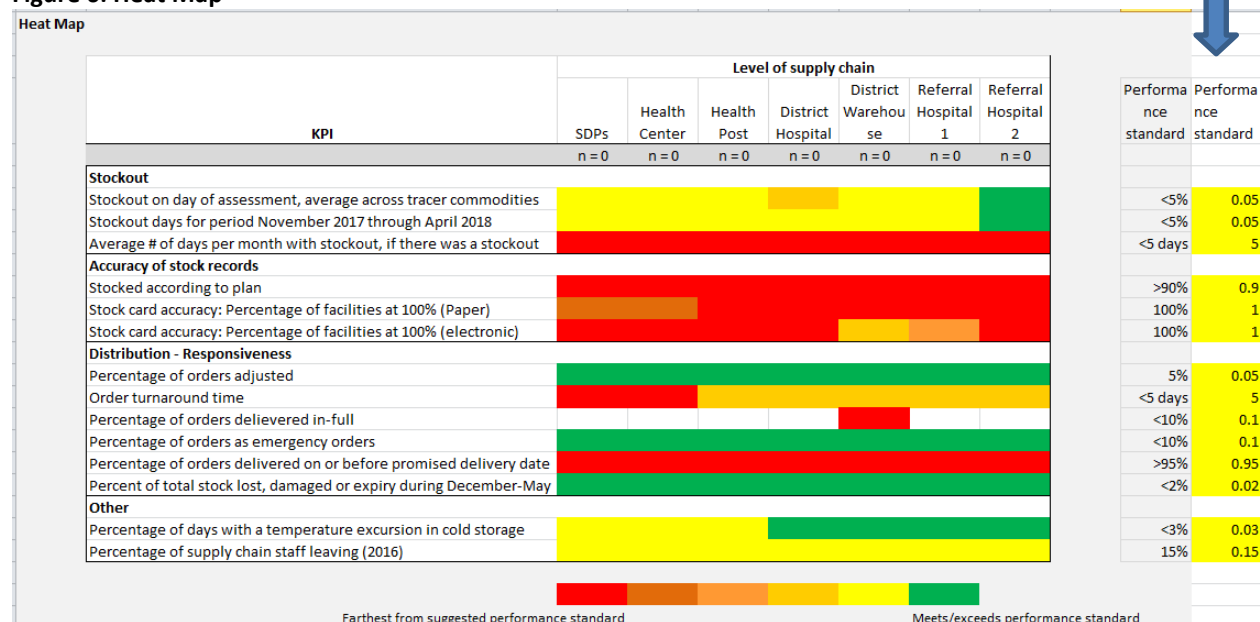
Two types of outputs are presented on the Intermediate Results worksheets. First, results for KPIs that are calculated for each tracer commodity are presented in A2:P23 (Figure 4). Results are presented separately for each tracer commodity, with row 23 presenting summary data across the tracer commodities appropriate for each indicator. Rows 26 through 62 present results for indicators that are not tracked by tracer commodities (Figure 5). Note that results presented in these sheets reflect sample weights (not the simple average across entities; entering sample weights is discussed in the section “Transferring data from SurveyCTO to the template”). These tables will be populated automatically when data are entered into the template.

## DASHBOARD



The dashboard contains two summary outputs: a heatmap and spider graphs.

Figure 6: Heat Map



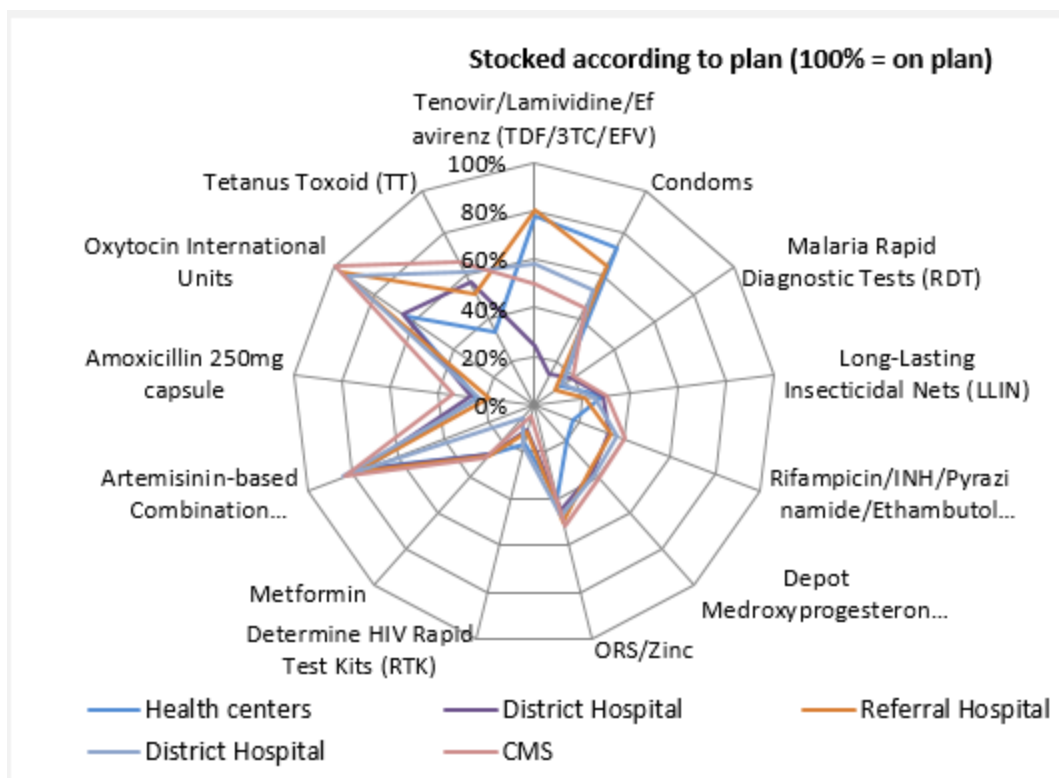
The heat map (Figure 6) is presented for core KPIs (that are calculated in this workbook) for the relevant types of facilities / entities. The heat map converts numbers to colors in 10% increments based on performance standards. The darkest red indicates, for example, a result of more than 50% from the performance standard, moving to yellow (within 10% of the performance standard) and then to green, where the performance standard is met or exceeded. Focusing on presenting results as colors rather than numbers emphasizes looking for large differences between KPIs or modules, which is appropriate for the sample sizes employed in typical assessments.

In order for the heat map to reflect local goals or standards, analysts can change the default performance standards in Column O. Note that Column N converts the numeric goals/standards entered into Column O into text values for presentation (including the units); this conversion should be automatic based on what is entered in Column O. It is recommended, first, that the performance standards be discussed with critical stakeholders in the formation of the assessment and, second, that the performance standards/goals be presented along with the heat map so as to aid the interpretation of the findings.

Note that in the CMM dashboard heatmap, individual results may receive a blue color when the score is higher than the 80% target. For KPIs, the established performance standard can be the maximum value for a particular KPI, and thus in some cases the performance standard cannot be exceeded. Thus, blue colors are not included in the KPI heatmap.

After the heat map is a spider graph (Figure 7) of the results for the tracer commodities selected for the assessment for 3 KPIs assessed across different types of facilities / entities of the health system. The three KPIs assessed are “Stocked according to plan,” “Percentage of tracer commodity observations with a stockout on day of assessment,” and “Average number of days out of stock for the assessment period”. The spider graph *can* highlight differences between types of facilities / entities, but, depending on the results of an individual assessment, may reveal very little useful information. Users may choose to remove certain types of facilities / entities from the spider graph or otherwise format it to meet the needs of the assessment.

**Figure 7: Example of A Spider Graph**



## TABLES



The tables worksheet contains multiple tables providing results for all core and optional KPIs calculated in the template:

- The first twelve tables (Rows 1 through 250) present data for KPIs calculated using the tracer commodity stock data, each by type of facility / entity.
- The final eight tables (Rows 251 through 321) present KPI results for other KPIs, by type of facility / entity.



Note that not all KPIs will be calculated or relevant for all assessments, and that not all KPIs are meant to be calculated at all types of facilities / entities (e.g., cost indicators on rows 295 through 302 and Downstream order data on Rows 283 to 291 are intended only for warehouses). Thus, some tables may not be relevant for some assessments, and some tables will need further formatting before final presentation.

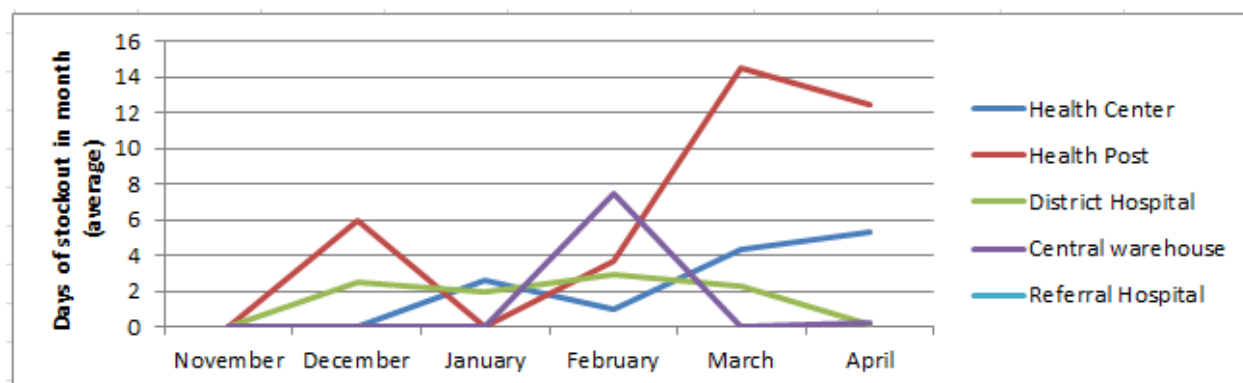
## GRAPHS



The 'Graphs' worksheet allows for:

1. Tracking stockouts by time and types of facilities / entities for tracer commodities (rows 1 through 166). These graphs are intended as a visual aid for inspection of potential associations between stockouts at different types of facilities / entities (e.g., is there a lag between stock outs at higher levels and lower levels, or they occur simultaneously, or is there no apparent relationship?).

**Figure 8: Sample of temporal graph of stockouts for one tracer commodity**



The example in Figure 8, for example, shows that the Central warehouse had stock of the tracer commodity except for a period of about one week in February. Despite stocks at the Central Warehouse, relatively low (6 days or less) levels of stock out existed in the November-January period at other levels of the health system. After the stock out in February at the Central warehouse, there was an uptick in stock outs at health posts and health centers. The reasons for this uptick cannot be ascertained solely from this graph, but can lead the assessment team to seek further explanations.

2. Tracking stocked according to plan by time and types of facilities / entities for tracer commodities (rows 167 through 332). Similar to stockouts presented in Figure 8, these graphs track stocked according to plan across time for each tracer commodity, and allow assessment of whether there is an association between stocked according to plan across different types of facilities / entities.

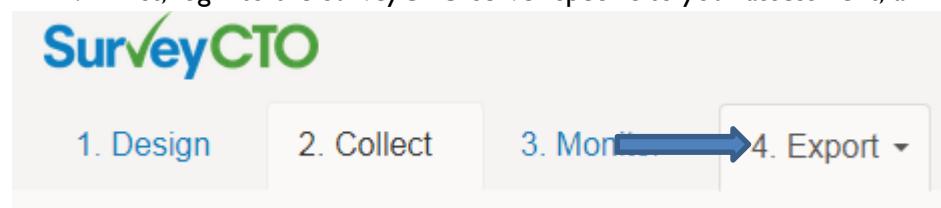
3. Percentage of facilities / entities with stock card up to date by tracer commodities (bar charts on rows 333 through 501). These bar charts are graphic presentations of the same data presented on the Tables worksheet.
4. Percentage of stock damaged, lost, and expired for each type of facility / entity by tracer commodities (bar charts on rows 502 through 670). These bar charts are graphic presentations of the same data presented on the Tables worksheet.
5. On-time delivery by facility / entity (bar chart on rows 671 through 684). These bar charts are graphic presentations of the same data presented on the Tables worksheet.
6. Emergency orders as a percentage of all orders by facility / entity (bar chart on rows 685 through 698). These bar charts are graphic presentations of the same data presented on the Tables worksheet.
7. Staff turnover ratio by facility / entity (bar chart on rows 699 through 712). These bar charts are graphic presentations of the same data presented on the Tables worksheet.

While the analysis template contains these default graphics, users should feel free to create their own charts and graphs as needed to help explain and clarify their findings.

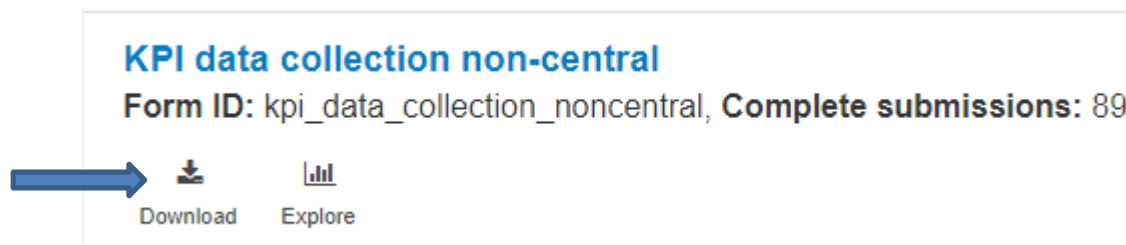
## TRANSFERRING DATA FROM SURVEYCTO TO THE TEMPLATE

The first step in transferring data from SurveyCTO to the template is to download the data from the SurveyCTO website:

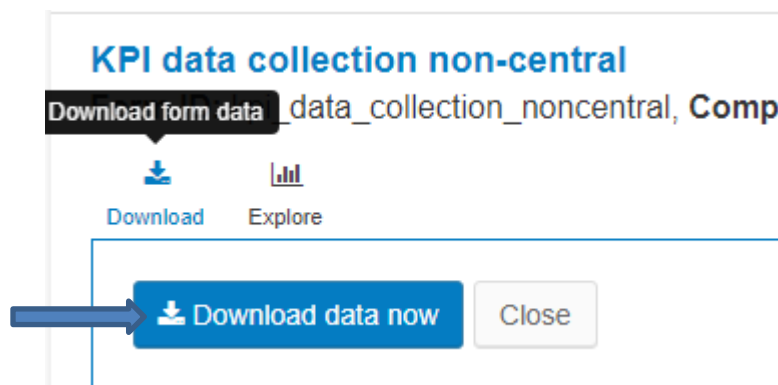
1. First, log into the SurveyCTO server specific to your assessment, and then click the export tab:



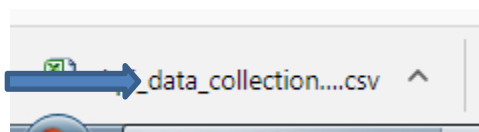
2. Find the KPI data collection non-central section of the export tab and click the 'download' button:



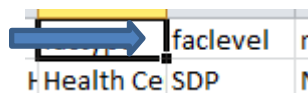
3. Click the "Download Data Now" button:



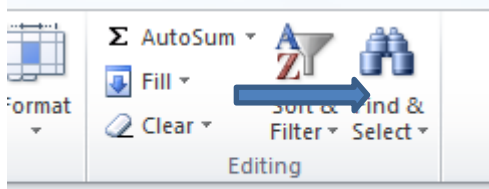
4. In the lower left-hand corner of your screen (depending on the browser), click on the downloaded form:



5. The data should open in Microsoft Excel as a .csv (comma separated values) file. First, filter the data based on the type of entity. To do this click on cell that contains the variable 'factype':

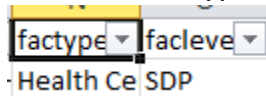


6. Then select the filter button on the Microsoft Excel ribbon:

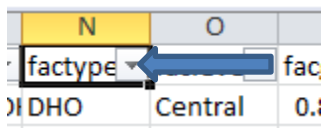


7. Select “Filter” on the subsequent drop down menu.

8. The ‘factype’ cell should now look like this:



9. Click on the single chevron (V-shaped arrowhead) to the right hand side of the cell



10. In the subsequent drop down list, select the type of facilities/entity that you want to copy into the template (note that you may first need to deselect the option to ‘(Select all)’ before selecting the type of facility / entity desired).
11. Select Cell A1.
12. Select all relevant columns and rows that contain data – you should have highlighted all the cells that have data on the worksheet. Copy the selection:

BPW	BPX	BPY	BPZ	BQA	BQB	BQC	BQD	BQE	BQF	BQG	BQH	BQI	BQJ
scdepa	scdepa	scdepa	scdepa	scdepa	scdepa	scdepa	scdepa	scdepa	scdepa	hrebs	instanc	formde	KEY
0	0	0	0							Healthy fa	uuid:849d	1.81E+09	uuid:849d
										The facilit	uuid:fb72	1.81E+09	uuid:fb72
										No filled f	uuid:18a5	1.81E+09	uuid:18a5
										This is a h	uuid:61e1	1.81E+09	uuid:61e1
										No supply	uuid:5b2a	1.81E+09	uuid:5b2a
										Only two :	uuid:b7c1	1.81E+09	uuid:b7c1
										The	uuid:88d9	1.81E+09	uuid:88d9
										The nurse	uuid:9eef	1.81E+09	uuid:9eef
										Store and	uuid:5965	1.81E+09	uuid:5965
										Only nurs	uuid:2cda	1.81E+09	uuid:2cda
										The nursir	uuid:e4f7	1.81E+09	uuid:e4f7
1										Dependin	uuid:c71f	1.81E+09	uuid:c71f
										The facilit	uuid:91e8	1.81E+09	uuid:91e8
										Only have	uuid:f408	1.81E+09	uuid:f408
										The empl	uuid:7be1	1.81E+09	uuid:7be1
										The nursir	uuid:bfb0	1.81E+09	uuid:bfb0
0	0	0								This is a h	uuid:728b	1.81E+09	uuid:728b
										Currently	uuid:ce52	1.81E+09	uuid:ce52
										uuid:3dcd	1.81E+09	uuid:3dcd	
										uuid:181e	1.81E+09	uuid:181e	
0										Enrolled n	uuid:f835	1.81E+09	uuid:f835
										Supply ch	uuid:accd	1.81E+09	uuid:accd
										Newly cre	uuid:a8b9	1.81E+09	uuid:a8b9
										uuid:e249	1.81E+09	uuid:e249	
										uuid:cdf1	1.81E+09	uuid:cdf1	
										Supply ch	uuid:98c6	1.81E+09	uuid:98c6
										The store	uuid:58c1	1.81E+09	uuid:58c1

13. Open (or select) the KPI non-central analysis template:



14. On the appropriate entry sheet (See Table 1) for the type of facility / entity you have copied, select cell **B1**:

	A	B
1	wei	
2		1
3		
4		

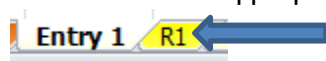
15. Paste the copied data into the template. Tip: You may want to 'wrap' or 'unwrap' text by

clicking the 'Wrap Text' button in the Excel ribbon: Wrap Text

16. Next, fill in column A with the survey weights specific to each facility. Survey weights are calculated automatically in the NSCA 2.0 Sampling Template and can be pasted here if the assessment team used the Sampling Template to select the sample. If another method was used, then the assessment team will need to calculate the sample survey weights. If you are not using survey weights for your analysis, you **must** still fill in column A – Enter '1' in each cell instead of the survey weight. Every entity entered in the data entry sheet requires a number in column A, or the calculation worksheets will not work:

	A	
1	weight	Sun
2		4 ###
3		4 ###
4		4 ###
5		4 ###
6		4 ###
7		4 ###
8		5 ###
9		5 ###
10		6 ###
11	34	###
12	3	###
13	2	###
14	3	###
15	4	###
16		
17		
18		

17. Select the appropriate Intermediate Results worksheet:



18. Enter the appropriate data in Cell C1 on the intermediate results worksheet:

	A	B	C
1	Name of Level:		SDPs

19. Save the Excel workbook – use a different name than what it was previously saved as (if you have not already done so). Note also prior to pasting or after completing these steps, the data need to be cleaned (as described in Annex 15 of the National Supply Chain Assessment 2.0 Implementation Guide) for the results to be valid.

20. Repeat steps 9 through 19 for each type of facility / entity, ensuring that each time you enter the data in a different ‘Entry’ sheet.

**Tip:** If you enter the data iteratively or daily, the number of columns in the downloaded data *potentially* can change. This is because for upstream order data, downstream order data, and temperature excursion data, the number of columns in the .csv file exported from SurveyCTO is dependent on the maximum number (across entities) of orders or temperature logs found. The maximum number found can change as more data is collected. Thus, ensuring that the data/number of columns already loaded in the analysis template matches the newest round of data downloaded from SurveyCTO is necessary before pasting in new data.

## GUIDANCE FOR MODIFYING THE TEMPLATE TO SUIT THE PARTICULARS OF EACH INDIVIDUAL ASSESSMENT


While the template will automatically calculate and produce results based on the steps outlined in the previous section, some additional steps are needed in order for all of the data to be relevant and to enable presentation of the results.

### ADJUST THE NUMBER OF COLUMNS

The worksheets ‘Dashboard’, ‘Tables’, and ‘Graphs’ by default present data in 10 columns – one for each of the data entry, calculation, and intermediate results combinations. However, an assessment may have fewer than 10 separate types of facilities / entities included in the assessment, and display of all 10 columns may be cumbersome or distracting. In those situations, the extra columns should be ‘hidden’.

On the ‘Dashboard’ worksheet, you should adjust the number of columns visible in the ‘Dashboard’ (this step will be repeated across the other sheets: ‘Tables’ and ‘Graphs’)

- a. Select the entire columns that you do not want to see by clicking on the gray letter part of one column and then dragging across the columns to include all of the columns you do not want to see:



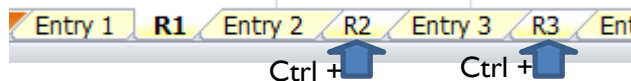
I	J	K	L
Referral Hospital 2	Intermed iate warehou se	National Warehou se 1	Central warehou se 2
n = 0	n = 0	n = 0	n = 0
..	..	..	..
..	..	..	..
..	..	..	..
..	..	..	..
..	..	..	..
..	..	..	..
.....	.....	.....	.....
.....	.....	.....	.....

- b. Right click on the gray area with the letter, and then select “Hide”.

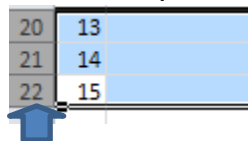
## HIDING THE NUMBER OF ROWS OR ENTIRE TABLES

The template is set up to handle 15 tracer commodities. Individual assessments may choose to include fewer than 15 tracer commodities in their assessment. In this case, having 15 rows in results tables may be distracting or otherwise not desirable. This, in particular, may apply to the intermediate results and Tables worksheets.

- a. To hide rows in the Intermediate Results worksheets, you can select multiple sheets at the same time by holding the control (Ctrl) button and clicking on multiple worksheets. This will allow you to hide the same rows in all the sheets you select at the same time.



- b. Once the desired intermediate results sheets are selected, the unnecessary rows can be hidden in the same way that columns can be hidden: click on the gray borders representing the rows that you want to hide.



- c. Right click on the gray area with the row numbers, and then select “Hide”.

On the ‘Tables’ worksheet, steps b and c need to be repeated for each of the twelve tables in Rows 1 through 250.

Entire tables can be ‘hidden’ in the same way. For example, if temperature excursions are not being tracked for an assessment, rows 53 through 57 on the Intermediate Results worksheets (and rows 304 through 311 on the ‘Tables’ worksheet) should be hidden. Some tables may be hidden on some sheets; for example, the warehousing costs tables (Rows 48 to 52) may be hidden on Intermediate results worksheets that are not presenting results for warehouses.

## TRANSFERRING TO PRESENTATION FORMATS OR WORD PROCESSING SOFTWARE

Some of the tables and figures are very large, and not easily transferable to other software in a way that preserves and/or optimizes the presentation of the results. Solutions to these issues include:

1. Format the output in Excel to satisfaction/needs, and then copy and paste ‘as a picture’ in other software.
2. Limit the amount of data in a single graph. For example, the Spider / Radial graphs on the dashboard should likely present no more than 4 or 5 different types of facilities / entities – assessment teams may choose which types to include in any presentation. Similarly heat maps may exclude central or national level entities to present only lower level entities for comparison.