Figure showing Logo of United States Agency for International Development.

USAID Global Health Supply Chain Program

Technical Assistance, National Supply Chain Assessment Task Order

# **Final Report Template**

NSCA 2.0



logo of PEPFAR

# Cover Page: Length 1 page

* Include an image relevant to the report.
* Include partner logos for the report according to branding and marking plans of funding agencies.
* Include title of report.
* Include date of report.
* Include a disclaimer in the footer of each page from the cover page to the end of the report. Use or adapt the following language, depending on the funder of the assessment: DISCLAIMER: The authors’ views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development (USAID) or the United States Government.

# Empty Page: Length 1 page

* Intended to ensure that printing is appropriate.

# Acknowledgments Page: Length 1 page

## Acknowledgement

* Thank the funder for their support.
* Thank the key partners for their support.
* Thank the team of data collectors.
* Include any additional information required by the client.

## About the Program or Organization under which the assessment is organized (e.g. GHSC-TA, Global Fund initiatives, etc.)

* Example Language for USAID GHSC-TA : The Global Health Supply Chain Program Technical Assistance program serves the health commodity technical assistance needs of USAID, other United States Government agencies, partner country governments, non-governmental organizations and other entities across all health elements (e.g. malaria, and family planning, HIV/AIDS, tuberculosis, and maternal and child health) to meet the evolving challenges in ensuring long-term availability of health commodities in public and private services worldwide. The program also serves to strengthen country supply systems and ensure strategic collaboration to improve the long-term availability of health commodities.

## Brief Description

* Describe the initial award, task order, etc.
  + Include the date for the work period.
  + Include the scope of the work.
* Describe any additional pilots, field assessments, other applications o included in the project.
* Describe what material will be covered in the report.

## About {INSERT NAME OF ORGANIZATION}

* Describe the organization completing the activity.
* Include a link to the organization’s website (If Applicable).

## Recommended Citation

* Include a recommended citation for people who refer to the report contents in other documents.

## {INSERT NAME OF ORGANIZATION}

* Include physical mailing address for the organization.
* Include phone number and fax number for the organization (if applicable).
* Include website for the organization.
* Include logo for the organization.

## Contract Number

* Include a sentence identifying the name of the funder/client and the contract number.

# Contents

[**Final Report Template** 1](#_Toc13058574)

[Cover Page: Length 1 page 1](#_Toc13058575)

[Empty Page: Length 1 page 2](#_Toc13058576)

[Acknowledgments Page: Length 1 page 3](#_Toc13058577)

[Acknowledgement 3](#_Toc13058578)

[About the Program or Organization under which the assessment is organized (e.g. GHSC-TA, Global Fund initiatives, etc.) 3](#_Toc13058579)

[Brief Description 3](#_Toc13058580)

[About {INSERT NAME OF ORGANIZATION} 3](#_Toc13058581)

[Recommended Citation 3](#_Toc13058582)

[{INSERT NAME OF ORGANIZATION} 3](#_Toc13058583)

[Contract Number 3](#_Toc13058584)

[Contents 4](#_Toc13058585)

[ACRONYMS AND ABBREVIATIONS 5](#_Toc13058586)

[Executive Summary – Length 1 page 7](#_Toc13058587)

[Background 8](#_Toc13058588)

[Overview of the Supply Chain Assessment Activity 8](#_Toc13058589)

[Report Overview 9](#_Toc13058590)

[Methodology 10](#_Toc13058591)

[Sampling 10](#_Toc13058592)

[Team Composition and Training 10](#_Toc13058593)

[Procedures 11](#_Toc13058594)

[Capability Maturity Model 11](#_Toc13058595)

[Key Performance Indicators 12](#_Toc13058596)

[Data Management 13](#_Toc13058597)

[Method for Additional Analyses (OPTIONAL) 13](#_Toc13058598)

[Results 14](#_Toc13058599)

[Supply Chain Mapping 14](#_Toc13058600)

[Assessment Results and Analysis- Capability Maturity Model (CMM) and KPIs 15](#_Toc13058601)

[Understanding the CMM Results 15](#_Toc13058602)

[Overall Results (Summary Tables) 16](#_Toc13058603)

[Capability Maturity Model Scores 16](#_Toc13058604)

[Summary Table: Capability Maturity Model 16](#_Toc13058605)

[Select KPIs 16](#_Toc13058606)

[By Functional Module: Overall Capability Maturity Model and KPI Questionnaire Results 18](#_Toc13058607)

[Key Capability Achievements – Module X 19](#_Toc13058608)

[Key Capability Gaps – Module X 19](#_Toc13058609)

[Summary of Results 20](#_Toc13058610)

[Discussion 20](#_Toc13058611)

[Recommendations 20](#_Toc13058612)

[By Level of Service: Overall Capability Maturity Model and KPI Results 20](#_Toc13058613)

[Example- Results for Facility X (Facility = Level of Service) 20](#_Toc13058614)

[Key Capability Achievements – Facility X Level 21](#_Toc13058615)

[Key Capability Gaps – Facility X Lev3l 22](#_Toc13058616)

[Summary of Results 22](#_Toc13058617)

[Discussion 22](#_Toc13058618)

[Recommendations 22](#_Toc13058619)

[Advanced Analysis: Generic Results Section 23](#_Toc13058620)

[Advanced Analysis: Relationship between the CMM and KPIs - Results 23](#_Toc13058621)

[Results of Multivariate Models 23](#_Toc13058622)

[Discussion of Selected Results - Multivariate Analysis 24](#_Toc13058623)

[Limitations 25](#_Toc13058624)

[Areas for Further Investigation 26](#_Toc13058625)

[Summary 27](#_Toc13058626)

[Conclusions 28](#_Toc13058627)

# ACRONYMS AND ABBREVIATIONS

* Insert each acronym used in the document and include the definition for the acronym. The terms listed below are a starting point

|  |  |
| --- | --- |
| **Acronyms** | **Full Form** |
| ACT | Artemisinin-based combination therapy |
| AIDS | Acquired Immunodeficiency Syndrome |
| ARV | Antiretroviral |
| CMM | Capability Maturity Model |
| eLMIS | Electronic Logistics Management Information System |
| FEFO | First Expired First Out |
| GHSC-PSM | USAID Global Health Supply Chain Program - Procurement and Supply Management |
| HIV | Human immunodeficiency virus |
| HR | Human Resources |
| KPI | Key Performance Indicator |
| LMIS | Logistics Management Information System |
| M&E | Monitoring & Evaluation |
| MOH | Ministry of Health |
| NSCA | National Supply Chain Assessment |
| OTIF | On-time-in-full-delivery |
| RDT | Rapid Diagnostic Test (for Malaria) |
| RTK | Rapid Test Kits (for HIV) |
| SCM | Supply Chain Management |
| SOP | Standard Operating Procedure |
| SOW | Scope of work |
| USAID | United States Agency for International Development |

# Executive Summary – Length 1 page

* Include brief overview of the project.
  + What was the purpose of the assessment?
  + What is the context for the assessment- i.e. what prompted the assessment?
  + What was done, on behalf of whom (i.e., client)?
  + How the results will be used; what will the results be used to accomplish?
* Include brief overview of activities completed, including a brief overview of methods.
* Include brief overview of findings.
* Include brief overview of recommendations.

# Background

* Provide general background about the supply chain and health system.
* History of supply chain, supply chain improvement initiatives etc.
* Provide overview of the structure of the supply chain that will be assessed.

## Overview of the Supply Chain Assessment Activity

* Provide description of what this project includes.
* Include a brief outline of the aims of the project.
* Include a description of the project objectives that map on to the overall aims.

# Report Overview

* Include a brief description of what the report intends to accomplish.
* Include a brief description of how the report will be structured.
  + What sections will be included and what will they describe?

# Methodology

* Include a statement about when data were collected, with whom, and with how many of each type of facility in the supply chain. Reference an annex which lists the sites.
* Include a description of each of the levels of the supply chain included in the assessment.
* Include or adapt this sentence to describe what the NSCA 2.0 Toolkit includes:
  + The NSCA 2.0 toolkit is comprised of three primary elements (Table X.): Supply Chain Mapping; the Capability Maturity Model Diagnostic tool, and the Key Performance Indicator Assessment tool.
* Include the table below to provide an overview of the three elements included in the toolkit.

|  |  |
| --- | --- |
| ACTIVITY | DESCRIPTION |
| Supply Chain Mapping | The objective of mapping the supply chain is to obtain an in-depth understanding of the supply chain, including the role and responsibilities of the key actors in the supply chain. |
| Capability Maturity Model Diagnostic Tool | The ***CMM Diagnostic tool*** assesses capability and processes across functional areas and cross-cutting enablers (e.g. HR, financial sustainability, etc.) using interviews and direct observation. |
| Supply Chain Key Performance Indicators | The KPIs include a set of indicators that measure supply chain performance in selected functional areas. |

## Sampling

* Include or adapt the following sentences:
  + The entire country of {INSERT COUNTRY NAME} was the sampling frame for this pilot activity. The NCSA 2.0 was designed with the intent of assessing country level supply chain infrastructure. As such, the entire country of XXX served as the sampling frame for this pilot.
  + Include sampling approach utilized.
* What formula or type of sampling was used? Provide rationale for why this was a good approach to use.
* What was the margin of error?
* What was the confidence level?
* What was the power?
* If the sampling approach was multi-level, describe the specific steps utilized.
* Is the sampling approach random or non-random?
  + Include information on who is being sampled at the facilities included in the assessment.
* Who were the targets at each facility? Administrators? Clinical Staff?
* How many were targeted or estimated at each facility?
* Were the overall targets different based on size of facility or size of district?
  + Include information on how many site visits were completed at each level of the supply chain being assessed.
  + Include information on how many of each type of facility were included in the sample when data were collected.

## Team Composition and Training

* Describe the number and composition of field teams used to collect data for the assessment.
* Include any rationale for how teams were developed.
  + Did you represent different levels of team members to increase likelihood of obtaining key informants and other data sources?
* Include any information on training activities completed by members of the data collection team.
  + How long was the training?
  + What were the key topics covered in the training?
  + Where can someone go to find the training activity outlines (e.g., annexes etc.)?

## Procedures

* Describe how facilities/participants were approached for participation.
* Include any information on why this approach makes sense. For example, in one assessment, district pharmacists were not sent to their home districts to avoid bias.
* Include a statement about the length of the data collection period.
* When a facility/participant agreed to participate in the assessment, describe what the participant did next.
  + Did they complete an interview? Who completed it?
  + Did they provide documentation to the data collection team that was assessed to validate interview responses?
  + Did they allow observation activities by the data collection team?

## Capability Maturity Model

* Describe the Capability Maturity Model Questionnaire
  + What type of interview was it? Semi-structured, close-ended, mixed method?
  + How much time did it take to complete this questionnaire?
  + Describe the types of documentation reviewed.
* Describe how the CMM Questionnaire data were collected.
  + Manually or electronically? If electronically, using what platform and captured on what kind of device?
* Include a table that outlines what functional modules were addressed by each type of facility sampled in the assessment. See table below as an example of one way to set up the table.

TABLE X. CAPABILITY MATURITY MODULE FUNCTIONAL AREA BY LEVEL IN THE {INSERT COUNTRY NAME} SUPPLY CHAIN SYSTEM

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| # | FUNCTIONAL MODULES ASSESSED | FACILITY X | FACILITY X | FACILITY X | FACILITY X | FACILITY X |
| 1 | Strategic Planning and Management |  |  |  |  |  |
| 2 | Human Resources |  |  |  |  |  |
| 3 | Financial Sustainability |  |  |  |  |  |
| 4 | Policy and Governance |  |  |  |  |  |
| 5 | Quality and Pharmacovigilance |  |  |  |  |  |
| 6 | Forecasting and Supply Planning |  |  |  |  |  |
| 7 | Procurement and Customs Clearance |  |  |  |  |  |
| 8 | Warehousing and Storage |  |  |  |  |  |
| 9 | Distribution |  |  |  |  |  |
| 10 | Logistics Management Information Systems |  |  |  |  |  |
| 11 | Waste Management |  |  |  |  |  |

## Key Performance Indicators

* Describe the Key Performance Indicator Questionnaire.
  + How many questions were included in the questionnaire?
  + What type of interview was it? Semi-structured, close-ended, mixed method?
  + How much time did it take to complete this questionnaire?
  + Include that the KPI tool includes the assessment of ten tracer commodities.
  + Include that documentation review was included as part of the tool. Describe the types of documentation reviewed.
* Describe how the KPI Questionnaire data were collected.
  + Manually or electronically? If electronically, using what platform and captured on what kind of device?
* Include a table that outlines what functional modules were addressed by each type of facility sampled in the assessment. Use or adapt the table structure and KPI names below to reflect the actual KPIs collected

TABLE X. KEY PERFORMANCE INDICATORS BY THE LEVEL IN THE {INSERT COUNTRY NAME} SUPPLY CHAIN

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| # | KEY PERFORMANCE INDICATOR (SAMPLE NAMES) | FACILITY X | FACILITY X | FACILITY X | FACILITY X | FACILITY X |
| 1 | Stock Data |  |  |  |  |  |
| 2 | Downstream Delivery |  |  |  |  |  |
| 3 | Human Resource |  |  |  |  |  |
| 4 | Stock Turn Data |  |  |  |  |  |
| 5 | Facility Reporting Rates |  |  |  |  |  |
| 6 | Supplier Fill Rate |  |  |  |  |  |
| 7 | Temperature Excursions |  |  |  |  |  |
| 8 | Forecast Accuracy |  |  |  |  |  |
| 9 | Supply Plan Accuracy |  |  |  |  |  |
| 10 | Vendor On-Time Delivery |  |  |  |  |  |
| 11 | Source of Funds Data |  |  |  |  |  |
| 12 | Prices Paid |  |  |  |  |  |
| 13 | Quality Control Testing |  |  |  |  |  |

Include a table listing the tracer commodities as well. Use or adapt the table below:

TABLE X. TRACER COMMODITIES

|  |  |  |  |
| --- | --- | --- | --- |
|  | PRODUCT NAME | STRENGTH/DOSAGE | PRODUCT CATEGORY |
| 1. |  |  |  |
| 2. |  |  |  |
| 3. |  |  |  |
| 4. |  |  |  |
| 5. |  |  |  |

## Data Management

* Include the following information in this section.
  + How often was information uploaded to a server for storage?
  + Where was it stored?
  + Was data checked for quality? How? How often was the data checked for quality (e.g., daily)? By Whom? What happens if data quality is compromised?
  + How were data protected? Limited access? Secure servers? Password protected?
  + Were data cleaned? How?
  + Were data uploaded or transformed into a format for analysis? Any transcription or translation needed? Uploaded to qualitative data analysis software? Which one? Exported as a csv format or excel so it can be uploaded into a quantitative data analysis software package? Which one?

## Method for Additional Analyses (OPTIONAL)

* If you choose to include additional analyses, include a description of the methods used for these analyses. For example, what type of regression analysis was performed, what variables were included, and which statistical software (STATA, SAS, SPSS, etc.) was used.

# Results

* Include a brief statement about where the data were collected.
  + Example language: Overall, data were collected from X site visits, including X at the central level, X at the district levels, and X at service delivery levels. Data collection was completed at the MOH, referral hospitals (N=X), district warehouses (N=X), and health centers (N=X).
* Include a statement referring the reader to any detailed annexes related to complete lists of facilities assessed, geographic coverage, etc.
* Provide an orientation to how the information in the results section will be presented.
  + Use or adapt the following language: The supply chain map is presented first to show the flow of products and information. An overall table of CMM results, followed by select KPIs provides an overview of the assessment results. Assessment results and findings are then detailed first for each functional module and then for each level of service. Within each module, relevant Key Performance Indicators (KPIs) are presented first, then Capability Maturity Model (CMM) scores. Discussion and recommendations specific to that module or service level follow the presentation of findings.
* OPTIONAL If you choose to include additional analyses include a sentence indicating that regression findings (or findings from other analyses) will also be presented.

## Supply Chain Mapping

* Include a brief statement describing the purpose of the mapping exercise.
  + Use or adapt the following language: The objective of mapping the supply chain is to obtain an in-depth understanding of its structure and processes, including the role and responsibilities of the key actors in the supply chain. This activity included gathering information on the components of the supply chain and how they are inter-connected. Figure X. illustrates the organization and elements within the supply chain system in {INSERT COUNTRY} as well as the flow of commodities and information through the system.
* Include a description of how the supply chain map was developed (e.g., was it developed through a stakeholder workshop as part of the assessment).
* Insert Figure X: This figure should provide an overview of the supply chain system for the country being assessed. It should include all levels down through health centers; product and information flows should be shown separately.
* Describe what is meaningful to take away from the figure (e.g. complexity, informal parts of the supply chain that are not formally noted within the figure, etc.).

## Assessment Results and Analysis- Capability Maturity Model (CMM) and KPIs

### Understanding the CMM Results

* Include basic information about how the capability maturity model score is reached.
  + Include or adapt the following language: The capability and processes were assessed based on a maturity model, adapted from private-sector best-practices to fit the public health context. Within each functional module, each question or item assessed has an assigned maturity level, ranging from ‘basic’ to ‘state of the art’; the overall CMM score for this module is the sum of scores at each maturity level. Table X. provides an overview of each level of maturity, the definition, and the overall contribution of each level to the overall CMM score.
* To produce maturity scores, ‘Basic’ elements constitute 50% of the total score, ‘Intermediate’ items constitute 30% of the total score, ‘Advanced’ items constitute 15% of the score, and ‘State of the art’ items constitute 5% of the score. The scores are not directly interpretable – e.g., a score of 50% does not indicate that all of the Basic items are in place in all facilities but are comparable across the functional areas. Thus, the scores can be used to assess which functional areas have relatively high (or low) capability compared with other functional areas.

Table X. Definitions of Level of Maturity and Contribution to the Overall CMM Score

|  |  |  |
| --- | --- | --- |
| LEVEL OF MATURITY | DEFINITION | MAXIMUM CONTRIBUTION TO THE CMM SCORE |
| Basic | These are the **must-have** policies, structures, processes, procedures, tools, indicators, reports, and resources to operate a supply chain system (e.g. a stock card as a tool for inventory management). | 50% |
| Intermediate | These are not must-haves but are **intermediate** level policies, structures, processes, procedures, tools, indicators (e.g. an excel sheet). | 30% |
| Advanced | These are **nice-to-have** policies, structures, processes, procedures, tools, indicators, reports, and resources to operate a supply chain system (e.g. Rx solution, a dispensing and stock management electronic tool). | 15% |
| State of the art | These are **non-essential,** **state-of-the-art** policies, structures, processes, procedures, tools, indicators, reports, and resources for a supply chain system (e.g., an Enterprise Resource Planning system for stock management and control). | 5% |

* Provide a description of the capability achievements and gaps
  + Include or adapt the following language: Capability achievements and gaps are also presented for each module in tabular form. The Key Capability Achievements tables detail the most significant results related to positive achievement, as defined by the data indicating ≥80% of facilities having implemented the indicator. Similarly, the Key Capability Gaps tables represent the results from a selection of indicators that indicated key gaps within the SCM system, as defined by <20% of facilities having implemented the indicator. The Capability Gaps tables also describe possible solutions for addressing the gaps suggested by the data. The full data analysis on Capability Achievements and Capability Gaps is available for reference in Annex X of this report.

### Overall Results (Summary Tables)

#### Capability Maturity Model Scores

* Include a summary table outlining the CMM scores for each level of facility and functional module. Use or adapt the table below.

#### Summary Table: Capability Maturity Model

TABLE X. AVERAGE CAPABILITY MATURITY MODEL SCORE AND RANGE OF SCORES PRSEENTED BY LEVEL OF FACILITY FOR EACH FUNCTIONAL MODULE

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| MODULE | Facility X | Facility X | Facility X | Facility X | Facility X |
|  | n = XX | n = XX | n = XX | n = XX | n = X |
| Strategic Planning and Management | XX | XX | XX | XX | XX |
| Human Resources | XX | XX | XX | XX | XX |
| Financial Sustainability | XX | XX | XX | XX | XX |
| Policy and Governance | XX | XX | XX | XX | XX |
| Quality and Pharmacovigilance | XX | XX | XX | XX | XX |
| Forecasting and Supply Planning | XX | XX | XX | XX | XX |
| Procurement and Customs Clearance | XX | XX | XX | XX | XX |
| Warehousing and Storage | XX | XX | XX | XX | XX |
| Distribution | XX | XX | XX | XX | XX |
| Logistics Management Information System | XX | XX | XX | XX | XX |
| Waste Management | XX | XX | XX | XX | XX |

* Provide a brief statement with any meaningful information the reader should take from the table.

#### Select KPIs

* Include a summary table outlining select KPI scores for each level of facility and functional module. The table below is an example of nine KPIs. Use or adapt the table below, including the KPIs that proved meaningful in the assessment; none, some, or all KPIs may be included dependent upon the results. KPIs can be presented in multiple tables if needed.

Table X. Select Key Performance Indicator Scores by Level (Average Score with Ranges)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| INDICATOR |  | Facility X | Facility X | Facility X | Facility X | Facility X | Facility X |
| # of Emergency Orders (Emergency orders as % of all orders) |  | X  (X-X) | X  (X-X) | X  (X-X) | X  (X-X) | X  (X-X) | X  (X-X) |
| Stocked-according-to-plan (Tracer Commodities) |  | X  (X-X) | X  (X-X) | X  (X-X) | X  (X-X) | X  (X-X) | X  (X-X) |
| Stock out on Day of Assessment |  | X  (X-X) | X  (X-X) | X  (X-X) | X  (X-X) | X  (X-X) | X  (X-X) |
| Stock out for 182 Day Period\* |  | X  (X-X) | X  (X-X) | X  (X-X) | X  (X-X) | X  (X-X) | X  (X-X) |
| Average number of days per month with stock outs, given that there was a stock out |  | X  (X-X) | X  (X-X) | X  (X-X) | X  (X-X) | X  (X-X) | X  (X-X) |
| % of Routine Orders delivered on or before promised delivery date |  | X  (X-X) | X  (X-X) | X  (X-X) | X  (X-X) | X  (X-X) | X  (X-X) |
| % of Routine Orders delivered within 2 days of promised delivery date |  | X  (X-X) | X  (X-X) | X  (X-X) | X  (X-X) | X  (X-X) | X  (X-X) |
| % of Emergency Orders delivered on or before promised delivery date |  | X  (X-X) | X  (X-X) | X  (X-X) | X  (X-X) | X  (X-X) | X  (X-X) |
| %of Emergency Orders delivered within 2 days of promised delivery date |  | X  (X-X) | X  (X-X) | X  (X-X) | X  (X-X) | X  (X-X) | X  (X-X) |

*\* The first number in this table refers to the average number of days the commodity was out of stock on average across the facilities during the six months of MONTH YEAR through MONTH YEAR. There were XX days in this period. The number in parenthesis is the percentage of days the commodity was out of stock, on average. Thus, 6.6 / 182 = 3.6%*

* Provide a brief statement with any meaningful information the reader should take from the table

### By Functional Module: Overall Capability Maturity Model and KPI Questionnaire Results

* Provide a brief introductory statement to introduce the content coming in the “by functional module” section.
* Include or adapt this language: In the functional module sub-sections below, the following results are presented: Key performance indicators (where applicable), breakdown of CMM scores by level of achievement, key capabilities, key gaps, and tracer commodity figures (where applicable).
* Use or adapt the Module X example below to present results by module.
* The modules are listed here in the order the data were captured: Strategic Planning and Management; Human Resources; Financial Sustainability; Policy and Governance; Quality and Pharmacovigilance; Forecasting and Supply Planning; Procurement; Warehousing and Storage. Findings can be presented in the order they are captured, or they can be presented in the order of which functional modules are most important and/or meaningful to the audience who will read the report.

Example: Module X

* Insert KPI Table if relevant. The following modules should have KPIs: Pharmacy and Stores Management, Distribution, Logistic Management Information System, and Human Resource modules. *Information for these KPI tables can be found in the “KPI non-central analysis template” and the “Central KPI analysis template” workbooks on the “Tables” worksheet after finalized (“Tables” worksheets in each of the analysis templates must be updated after the tool is finalized).*

TABLE X. KEY PERFORMANCE INDICATOR 13: KPI TITLE

FORMAT PROVIDED: HEADERS **AND** STRUCTURE WILL VARY BY KPI

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  |  |  |  |

* Include figure showing Module X CMM scores per Level of Achievement by Level. See the example below for the type of figure that should be inserted here*. Tables for this section can be found in the “Capability Maturity Model Survey Analysis Template” on the “Bar Charts” worksheet:*

Figure X. Module X Capability Maturity Model Score per Level of Maturity for each Level of Service

*Maximum score for basic is 50%; for intermediate is 30%; for advanced is 15%; for state of the art 5%. For instance, if basic portion is actually 45%, it should be interpreted as 45/50. Understanding the CMM Results section provides a more detailed explanation.*

* Include tables for key achievements and gaps that are relevant to Module X. Use or adapt the tables below: *The full list of achievements and gaps information for these tables is available in the “Capability Maturity Model Survey Analysis Template” on the “QbyQ” worksheet.*

#### Key Capability Achievements – Module X

TABLE XX. MODULE X. KEY CAPABILITY ACHIEVEMENTS

|  |  |
| --- | --- |
| INDICATORS FOR FACILITY X LEVEL | % OF FACILITIES ACHIEVED |
| Insert Indicator | XX |
| Insert Indicator | XX |
| INDICATORS FOR FACILITY X LEVEL | % OF FACILITIES ACHIEVED |
| Insert Indicator | XX |
| Insert Indicator | XX |

#### Key Capability Gaps – Module X

TABLE XX. MODULE X KEY CAPABILITY GAPS

|  |  |  |
| --- | --- | --- |
| INDICATOR FOR FACILITY X LEVEL | % OF FACILITIES ACHIEVED | POSSIBLE SOLUTIONS |
| Insert Indicator | XX | Insert possible solutions for this gap |
| Insert Indicator | XX | Insert possible solutions for this gap |
| INDICATOR FOR FACILITY X LEVEL | % OF FACILITIES ACHIEVED | POSSIBLE SOLUTIONS |
| Insert Indicator | XX | Insert possible solutions for this gap |
| Insert Indicator | XX | Insert possible solutions for this gap |

* Insert tracer commodity figures in the Pharmacy & Stores Management, and other modules as relevant

#### Summary of Results

* Include a brief description of the key findings across the tables inserted above.

#### Discussion

* Include a brief description of meaningfulness of the findings. What are the key take-aways that should be considered?

#### Recommendations

* Insert key recommendations that are an extension of a review of both the results and discussion sections.

### By Level of Service: Overall Capability Maturity Model and KPI Results

* Please note: The following template language is meant to provide guidance on how to complete one of the results sections for a level of service. It is expected that there will be a new section that follows this format for each level of service in the supply chain. For this example, Facility X = Level of Service. Examples of the different possible levels of service include the Ministry of Health (MOH, CMS,) Referral Hospitals, District or Regional Pharmacies, Health Centers, etc.), Please used or adapt the tables below.

#### Example- Results for Facility X (Facility = Level of Service)

* Each section should include a key performance indicators table for the Facility X Level of Service. *Source: This information can be found in the “KPI non-central analysis template” and the “Central KPI analysis template” workbooks on the “Tables” worksheets or the “RX” worksheets when finalized*. Use and adapt the table below as needed. KPIs can be presented in multiple tables if needed

TABLE XX. SELECT KPI RESULTS FOR FACILITY X

|  |  |
| --- | --- |
| INDICATORS | Facility X |
| Average # of days per month with stock outs (Overall for Tracer Commodities) | XX |
| % of tracer commodities, out-of-stock on day of visit (Overall) | XX |
| % of orders delivered on promised delivery date | XX |
| % of Emergency orders, out of all orders | XX |
| % of facilities with any stock outs of any of the 10-tracer commodities MONTH *YEAR – MONTH YEAR* | XX |

* Each section should include a table and a figure providing an overview of Facility X Level of Maturity Scores by Module

TABLE XX. FACILITY X CAPABILITY MATURITY MODEL SCORE BY MODULE (AVERAGE SCORE & RANGE) (N=XX)

|  |  |  |  |
| --- | --- | --- | --- |
| MODULE | AVERAGE % | MODULE | AVERAGE % |
| Strategic Planning and Management | XX  (XX-XX) | Procurement and Customs Clearance | XX  (XX-XX) |
| Human Resources | XX  (XX-XX) | Warehousing and Storage | XX  (XX-XX) |
| Financial Sustainability | XX  (XX-XX) | Distribution | XX  (XX-XX) |
| Policy and Governance | XX  (XX-XX) | Logistics Management Information System | XX  (XX-XX) |
| Quality and Pharmacovigilance | XX  (XX-XX) | Waste Management | XX  (XX-XX) |
| Forecasting and Supply Planning | XX  (XX-XX) |  |  |

Figure 17. Example- Service Delivery Point- Level of Maturity by Module Area

*Maximum score for basic is 50%; for intermediate is 30%; for advanced is 15%; for state of the art 5%. For instance, if basic portion is actually 45%, it should be interpreted as 45/50. Understanding the CMM Results section provides a more detailed explanation.*

* Each section should include a key capability achievements and gaps tables for the facility level, organized by functional module. Source Information can be found in the “Capability Maturity Model Survey Analysis Template” on the “QbyQ” worksheet after finalized. Use or adapt the table below as needed.

#### Key Capability Achievements – Facility X Level

Table XX. FACILITY X LEVEL Key Capability Achievements

|  |  |
| --- | --- |
| INDICATORS FOR Module 1-11 | % OF FACILITIES ACHIEVED |
| Insert Indicators | XX |
| Insert Indicators | XX |
| INDICATORS FOR Module 1-11 | % OF FACILITIES ACHIEVED |
| Insert Indicators | XX |
| Insert Indicators | XX |

#### Key Capability Gaps – Facility X Lev3l

TABLE 42. POSSIBLE FACILITY X LEVEL GAPS

|  |  |  |
| --- | --- | --- |
| INDICATORS FOR Module X | % OF FACILITIES ACHIEVED | POSSIBLE SOLUTIONS |
| Insert Indicators | XX | Insert possible solutions for this gap |
| Insert Indicators | XX | Insert possible solutions for this gap |
| INDICATORS FOR ModuleY | % OF FACILITIES ACHIEVED | POSSIBLE SOLUTIONS |
| Insert Indicators | XX | Insert possible solutions for this gap |
| Insert Indicators | XX | Insert possible solutions for this gap |

#### Summary of Results

* Include a brief description of the key findings across the tables inserted above.

#### Discussion

* Include a brief description of meaningfulness of the findings. What are the key take-aways that should be considered?

#### Recommendations

* Insert key recommendations that are an extension of a review of both the results and discussion sections.

### Advanced Analysis: Generic Results Section

If this assessment includes any additional analyses outside of the core report, relevant information for these analyses (method, results, etc.) should be placed here.

If your team specifically is interested in completing a regression analysis, please see the next section (Advanced Analysis: Relationship between CMM and KPIs – Results) for additional guidance on presenting your findings.

If a software system was utilized to complete the advanced analyses conducted, be sure to state which software system was used for analysis (e.g., SAS, SPSS, STATA).

### Advanced Analysis: Relationship between the CMM and KPIs - Results

* If you choose to include a regression analysis option for this assessment, be sure to speak to why regression analyses were included in the assessment and the type of analysis completed
  + Supplement core assessment results
  + Suggest hypotheses for future areas of investigation
  + Use or adapt the following language: To supplement the core assessment results from the NSCA 2.0 toolkit, {INSERT NAME} conducted a regression analysis to further explore the relationship between capability maturity scores and KPI performance (and amongst KPIs). The relationship between capabilities and KPIs was assessed based on a ‘root-cause’ type analysis, including several regression models. This analysis identifies correlations that provide additional insights into the supply chain, and that suggest hypotheses for future areas of investigation.
* Consider if you want to add the following language. If so, use and adapt the following: One would expect that high capability scores would lead to good performance, as measured by the KPIs; however, this is not always the case. Some supply chain modules are found to have low maturity and high performance. This situation can occur because low capability scores present a *risk* to good performance; that risk may or may not be actualized within the timeframe of the assessment or compensatory actions are taken by managers.
* Describe the steps included in the regression analysis.
  + What method was used? Ordinary Least Squares? Others? Why?
  + Which KPIs were identified for inclusion in the model? Why? What were the criteria used to make this determination?
  + How many regression models were run? Were they run for each facility level in the supply chain? For each functional module? Others? Why?
  + What approach was used in the regressions? Stepwise? Other? Why?
  + What was the p-value threshold selected for inclusion of elements in the model? Why?
* Describe the results that that are presented from the regression analysis
* Indicate that each set of results is followed by discussion and related recommendations
  + Address if the regression is intended to show causal relationships or correlated relationships.
  + Address if the sample included in the regression analysis was powered to provide strong insights rather than trending data?
  + Include any guidance on how the results should not be used to avoid misinterpretation.

#### Results of Multivariate Models

* Include a brief description to the results table that will be inserted below
* Insert a table providing a snapshot of the results from the multivariate model. Use or adapt the table below as needed.

TABLE 69. REGRESSION EXAMPLE PERCENTAGE OF OUT-OF-STOCK AND PERCENTAGE OF EMERGENCY ORDERS\*

DEPENDENT VARIABLES

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | EXAMPLE KPI  %commodities out-of-stock on day of visit |  | EXAMPLE KPI  % emergency orders |  |
| TYPE OF FACILITY | Coefficient | P | Coefficient | P |
| Facility X | Comparator |  | Comparator |  |
| MATURITY SCORES |  |  |  |  |
| Module 1 |  |  |  |  |
| KPIs |  |  |  |  |
| KPI 1 |  |  |  |  |
|  |  |  |  |  |

#### Discussion of Selected Results - Multivariate Analysis

* Include a section describing the meaningful take-aways from the multivariate results presented above.
* Include recommendations related to each of the meaningful take-aways pointed out in the discussion.
* Repeat this discussion and recommendation section for each set of results presented in the report.

# Limitations

* Include a list of limitations experienced with the assessment itself. Examples of types of things that may be relevant include:
  + Challenges with data collection (e.g., appointments, electronic vs manual collection, inability to collect data, etc.)
  + Limitations of cross-sectional data vs. longitudinal
  + Translation challenges
  + Topic emerged organically in the assessment that were not formally assessed per the toolkit

# Areas for Further Investigation

* Include a brief overview of areas that would be appropriate for further investigation, given the findings of the assessment.

# Summary

* The summary is intended to bring together the key findings and recommendations in a single section, and provides a space to discuss findings broadly, across functions or levels of service
* Include a brief overview of that activity that was completed and reported on in this document.
* Provide a few key points that summarize the salient findings of the entire document
* Note any common or discordant findings

# Conclusions

* Different from the summary, the conclusions section is an opportunity to connect the findings back to the objectives of the assessment.
* Note how the assessment results address the objectives
* Highlight noteworthy accomplishments or progress.
* Note areas of opportunity, or prioritized actions
* Include a final key take away thought for the reader re: the assessment activity
* Include thank you statements to the client and other key implementers for the assessment.