NACS PLANNING AND COSTING TOOL USER'S MANUAL

VERSION 1.0

September 2018

Recommended Citation

Contact Information

Contents

Abbreviations and Acronyms

$US	U.S. dollar
cm	centimeter
CMAM	community-based management of acute malnutrition
DHO	district health office
DHS	Demographic and Health Survey
FANTA	Food and Nutrition Technical Assistance III Project
FTE	full-time equivalent
HIV	human immunodeficiency virus
HQ	headquarters
kg	kilogram
km	kilometer
l	liter
m^2	square meter
m^3	cubic meter
MAM	moderate acute malnutrition
mg	milligram
ml	milliliter
mm	millimeter
MOH	ministry of health
MUAC	mid-upper arm circumference
NACS	nutrition assessment, counseling, and support
NCST	nutrition care, support, and treatment
QI	quality improvement
RUTF	ready-to-use therapeutic food
SAM	severe acute malnutrition
TB	tuberculosis
USAID	U.S. Agency for International Development
WHO	World Health Organization

1 Introduction and Overview

1.1 Background

This manual accompanies the NACS Planning and Costing Tool. Both the tool and the manual were developed by the USAID-funded Food and Nutrition Technical Assistance III Project (FANTA) to assist countries with integrating nutrition assessment, counseling, and support (NACS) into health services. NACS is a patient-centered programmatic approach to integrating a set of priority nutrition interventions into health care systems and community services. It addresses the management of malnutrition but also emphasizes the central role of prevention. The core components of the comprehensive NACS approach are:

1. Nutrition assessment, based on a patient's medical history, dietary patterns, anthropometric measurements, clinical and biochemical characteristics, and social and economic situation

2. Nutrition counseling, based on assessment results

3. Nutrition support, including provision of specialized food products to treat malnutrition, micronutrient supplements to prevent or treat micronutrient deficiencies, point-of-use water purification products, and/or referral to economic strengthening and livelihood support

The tool complements other NACS resources developed by FANTA and other partners that can be found within the NACS User's Guide: https://www.fantaproject.org/tools/NACS-users-guide-modules-nutrition-assessment-counseling-support.

1.2 Purpose and Audience

The NACS Planning and Costing Tool is designed to help countries and projects plan for NACS services. The tool answers the question, "What is required in human, material, and financial resources to establish and maintain NACS services?" It is designed for use at the national and/or sub-national levels by individuals and organizations responsible for designing, financing, and managing NACS services. The results could be used for many purposes, including to develop an operational or strategic plan to guide scale-up and maintenance of services; advocate for the start-up or expansion of NACS services; promote NACS services; and assist with yearly planning exercises.

1.3 Approach

The NACS Planning and Costing Tool assists with both planning and budgeting. Budgeting focuses on resources that need to be purchased; planning is more comprehensive and deals with the resources employed, even those for which no financing is required. For planning purposes, it is important to know how much therapeutic food, staff, and transport you require, even if the products are donated, staff is provided by another department, or transport will be in vehicles that have already been purchased. Similarly, you might not need to know the cost of vehicle rental if a partner is paying the rental cost, but in planning, cost-effectiveness, or cost-benefit exercises, you might need to know the total cost of transport, which will include vehicle rental. To capture both planning and budgeting requirements, the tool presents the results in terms of quantities of resources required, e.g., hours of person-power and kilometers of travel, in addition to the costs. This approach emphasizes what must be *done* to get the services to work well, rather than simply what must be *purchased*.

Costs are estimated using the activity-based costing approach. The tool uses seven broad activity areas required for NACS—service delivery, training, supervision, commodities, logistics, start-up governance/management, and routine governance/management—and costs out the actions and inputs for each category. For example, the activity category of "service delivery" requires written materials, equipment, personnel, and physical space to conduct consultations with patients. The tool prompts you to define the specific inputs required in each category (e.g., number of weighing scales per health facility), which are multiplied with other factors (e.g., the number of health facilities) to obtain aggregate costs and quantities.

The tool is designed to develop comprehensive estimates of all the resources required for NACS. There may, however, be good reasons for excluding certain costs from the analysis; perhaps because some activity or input is not part of that country's NACS services. Appendix 1 describes different ways to deal with such situations.

The tool makes no assumptions about who is paying for what. This is a question you are encouraged to consider after results are generated by the tool, as discussed in section 6.2.

1.4   Structure

The tool works with Microsoft Excel versions 2010, 2013, and 2016. (Version 2007 and earlier versions are not fully compatible and should not be used.) You need to have a basic understanding of Microsoft Excel to use the tool. At a minimum, you should be comfortable entering information into cells and moving from one worksheet to the next by clicking on the tabs. You do not need to know formulas or any advanced features.

The tool has three sets of worksheets: data entry, calculations (which are hidden), and results. Information is entered into the data entry worksheets (worksheets D1 to D9). The tool processes the information in hidden calculation worksheets and produces results tables (worksheets R1 to R9) (Figure 1).

Figure 1. Overview of the NACS Planning and Costing Tool Structure

DATA ENTRY WORKSHEETS

1. Country characteristics	6. Prices	7. Geographic spread of the services
2. NACS scope	5. Units	8. Population data
3. NACS services	4. Start-up activities	9. Plans for years 2 through 5

Calculations (hidden worksheets)

RESULTS WORKSHEETS

R1	Coverage
R2	Activity and input cost (aggregated)
R3, R4, R5	Activity and input costs and quantities (disaggregated)
R6	Training
R7	Supervision
R8	Start-up
R9	Personnel

1.5   Overview of Information in the Data Entry Worksheets

The NACS Planning and Costing Tool requires you to think through the inputs and activities involved in every aspect of planning—start-up, labor, caseload, commodities, transport, training, supervision, and service delivery—and the scale at which services will be offered. Below is a list of the type of information that you will enter in the tool.

Worksheet D1. Country characteristics[1]

- Name of the country, currency
- Names of the health administrative levels (e.g., province, district)
- Type of health staff involved in NACS service delivery

Worksheet D2. NACS programming[2]

- Areas where NACS will be established
- Target groups
- Nutrition products (type, number of products per storage container, dimensions and weight of the storage containers, how the products will be transported)

Worksheets D3.1 to D3.4. NACS services for each target group at the health service level[3]

- Services offered (assessment, counseling, treatment, tests); how often they are done; and how long it takes health staff to do them
- Average duration of treatment
- Expected number of visits
- Frequency of testing for hemoglobin, blood glucose, and/or uric acid, if done
- Nutrition products given to NACS patients (type, frequency, dosage)

Worksheet D4. Start-up[4]

Whether startup activities have been completed, including:

- Developing guidelines and protocols and determining funding and resources
- Designing logistics, management, and other systems
- Designing and field-testing written materials
- Integrating NACS into pre-service training
- Training national-level master trainers

---

[1] This is basic information which anyone familiar with the country's health services should be able to provide.

[2] Entering data into this worksheet requires some familiarity with NACS and knowing how you plan to implement it in your country: in particular, what groups will be targeted and what the protocols/nutrition plans are for these target groups. You may find it helpful to consult (a) the *NACS User's Guide*, (https://www.fantaproject.org/tools/NACS-users-guide-modules-nutrition-assessment-counseling-support) and (b) the NACS training package (https://www.fantaproject.org/tools/nutrition-assessment-counselling-and-support-nacs-training-materials-facility-based-providers) for examples of care plans.

[3] Entering data into this worksheet requires familiarity with detailed NACS protocols for assessment, counseling, and treatment and how they can be effectively implemented at health service level in your country. You may find it helpful to consult (a) the *NACS User's Guide*, (https://www.fantaproject.org/tools/NACS-users-guide-modules-nutrition-assessment-counseling-support) and (b) the NACS training package (https://www.fantaproject.org/tools/nutrition-assessment-counselling-and-support-nacs-training-materials-facility-based-providers) for examples of care plans.

[4] This is basic information which anyone familiar with the status of NACS in the country should be able to complete.

Worksheet D5. Assumptions[5]

Information to determine quantities and costs, such as:

- Equipment and materials needed
- Number of people to train and length of trainings
- Transport mode for commodities
- Time spent on supervision, quality improvement (QI), information management, and other areas

Worksheet D6. Prices and salaries[6]

Costs of the items detailed in the previous worksheets, such as:

- Transport for commodities
- Space (rental) for trainings and NACS service delivery
- Equipment
- Written materials
- Per diem and refreshments
- Remuneration/salaries
- Nutrition products

Worksheet D7. Geography[7]

Geographic coverage of services, i.e., where NACS services have already been established (before Year 1), where you want to establish them in Year 1, and characteristics about these areas, such as:

- Population sizes
- Distances between administrative levels, e.g., provincial to district headquarters
- Expected number of deliveries of commodities

Worksheet D8. Population data[8]

- Population of the target groups
- Prevalence of malnutrition, HIV, tuberculosis (TB)
- Percent of population with health facility contact
- Percent of population in the NACS catchment area

Worksheet D9. Future years[9]

- Locations of Areas and new health facilities that will be introduced in Years 2-5, if applicable

---

[5] This worksheet demands a considerable amount of detailed information, which someone with familiarity with the health service and NACS program could complete. However, the tool does provide default values for most variables, which simplifies the task if the information is difficult to obtain or time is short.

[6] Potential sources of this information include the administrative departments (human resources, finance) of the health ministry.

[7] Potential sources of this information include the bureau of statistics and demographic and health surveys.

[8] Potential sources of this information include the bureau of statistics and demographic and health surveys. Some of the detailed population data used by the tool is embedded in background worksheets.

[9] This worksheet requires information on the number of new sites into which NACS services will expand in Years 2 through 5, if applicable.

1.6 Limitations of the Tool

Note that the tool has some limitations that you should consider before using it.

1. The tool focuses on outpatient, facility-level delivery of NACS. It does not include inpatient care, community-based services, or outreach, e.g., community-based screening or social and behavior-change interventions.

2. For the "support" part of NACS, the tool includes only the nutrition products, e.g., ready-to-use therapeutic food (RUTF). That is, it does not cover non-nutrition product support, e.g., referral to food security and economic strengthening services. Appendix 2 contains a list of nutrition products included in the tool.

3. The tool allows for costing up to a maximum of 5 years.

4. The tool allows for costing up to a maximum of 50 Areas (e.g., districts) and 10 Group-Areas (e.g., provinces). Sections 4.1 (worksheet D1, panel B) and 4.2 (worksheet D2, panel A) provide guidance on how to define "Areas" and "Group-Areas" and how to approach the exercise if you are costing more than 50 Areas and/or 10 Group-Areas.

5. The tool calculates detailed costs for Year 1 and factors up Year 1 costs for Years 2 through 5 according to increases in population and NACS coverage for those years. Other parameters are assumed to remain the same as in Year 1. As a result, the estimates for Years 2 through 5 may be less accurate than for Year 1. (See section 4.9 on worksheet D9 for further information.)

6. The tool asks you to specify in worksheet D8 if NACS is for everyone or just those with HIV and/or tuberculosis. If NACS is for everyone, the tool assumes that the protocols for people with HIV and/or TB are the same as the protocols for people without HIV and/or TB. For example, if everyone receives NACS services, the tool does not allow you to specify that adults with severe acute malnutrition (SAM) and HIV receive three sachets of RUTF, while those without HIV receive one sachet of RUTF. The tool assumes that the protocol is the same for all adults with SAM.

1.7 Estimated Time and Effort to Apply the Tool

Applying the NACS Planning and Costing Tool should be done collaboratively with stakeholders from multiple levels, e.g., the central ministry of health, provinces, districts, health facilities, and partners. It can be an intensive process, though the tool provides guidance on how to collect the information and contains default values for many variables. See section 2 for guidance on the steps to applying the tool.

The time and level of effort to apply the tool for the first time depend on the extent to which the more significant components are already agreed upon or known. They also depend on the person-power dedicated to collecting the information and completing the worksheets. It is highly recommended that one or two people be dedicated to overseeing the process. If at least one person dedicated 50 percent or more of his/her time to overseeing the process and there was already agreement on the specific nature of the planned NACS services, it is estimated that the application—from preparation and data collection to generation of the results tables—would take 1 to 3 months. Otherwise, the process could take 6 months or more because of the time required for data collection and to hold stakeholder meetings and consultations. While the length of time required may seem daunting, keep in mind that the tool is designed to facilitate important decision-making processes around establishing or expanding NACS, which take time. One person could conceivably fill out the tool by him/herself, but a collaboration among many stakeholders is highly recommended and will lead to stronger NACS services.

Once the tool has been filled in completely and you have generated the results tables, you can update relevant parts periodically, e.g., yearly, to assist with routine planning. The time and effort required to complete the updating process will depend on the extent of the data entry changes that are needed. Assuming the protocols and most aspects of the NACS services stay the same, the main pieces of information that you will need to update are the assumptions, prices, and plans for expansion to new health facilities and Areas (worksheets D5, D6, D7, and D9). This process could take a few days or a few months, depending on how easy it is to obtain the updated information and whether stakeholders have agreed on the revisions.

2   Steps to Applying the Tool

The following steps will guide you through the process of applying the NACS Planning and Costing Tool. The included examples are from Malawi, where the tool was applied in 2017, to support the development of the national NACS—locally known as Nutrition Care, Support, and Treatment (NCST) —operational plan.

2.1   Determine the Core Working Group and Stakeholders

The first step you will want to take is for the MOH to determine who will be the core working group for the NACS planning and costing process and which stakeholders will be involved. The core working group will lead the application.

BEFORE YOU BEGIN, BE SURE THAT YOU:

1) Have confirmed that you have either Microsoft Excel version 2010, 2013, or 2016 installed on your computer (see **section 1.4**)

2) Have confirmed that you are ready to use the tool (see **section 1.5**)

3) Are aware of the tool's limitations (see **section 1.6**)

Their role will include engaging with stakeholders, determining data needs, collecting and validating data, generating results, and developing outputs such as a costed national operational plan. The core working group should be familiar with NACS services (or the plan for NACS services, if they have not yet begun); have a basic understanding of Microsoft Excel; have enough time to dedicate to the application; and,

The Malawi Ministry of Health (MOH) re-established NCST service delivery in 2013, when the MOH piloted new NCST guidelines in 12 health facilities. Services were gradually scaled up as resources became available, and in 2016, the MOH began planning for nationwide scale-up. To assist with the planning process, the MOH used the NACS Planning and Costing Tool, with support from FANTA. The results were incorporated into the National NCST Operational Plan 2018–2022, which provides guidance to district managers on priority district- and facility-level interventions and costs to include in their district implementation plans.

The Malawi MOH identified three point persons in the core working group for the NACS planning and costing process: the MOH Nutrition Department's chief nutritionist, who oversaw the process, and two partner staff members, who helped engage with stakeholders, collect and enter data, and generate and verify the results. The point persons had the following qualifications:

* Experience with NCST and health services at the health facility, district, and national levels
* Good working relationships with the other stakeholders
* Experience with costing and budgeting
* Basic skills in Microsoft Excel
* Facilitation skills
* Analytic skills

The stakeholders consisted of the government agencies and partners supporting NCST: the central MOH, district health offices, and the clinical and community non-governmental partners, including FANTA, the World Food Programme (WFP), Partners in Hope's EQUIP-Malawi project, Baylor College of Medicine, and the Joint United Nations Programme on HIV/AIDS (UNAIDS).

ideally, have experience with costing and/or budgeting. It is a good idea to have at least three or four people in the core working group.

Stakeholders will support the process of defining the scope of NACS in the country and gathering the data. They should be involved in NACS management, advocacy, and/or service delivery. They could include government agencies, non-governmental partners, private entities, and donors.

2.2   Become Familiar with the Tool and Develop a Plan

Once the core working group has been formed, the group should become familiar with the NACS Planning and Costing Tool and the User's Manual. They should go through the worksheets sequentially—first D1, then D2, then D3, and so on (as some worksheets and questions open only if <yes> is selected in a previous question)—and identify which data (a) is already known or can be collected through secondary data collection, (b) can be collected through primary data collection, and (c) requires stakeholder discussion and decisions.

Once they understand the scope of information needed to use the tool, they should develop a work plan for data collection, data entry, and generation and validation of the results. A sample work plan might look as follows:

Activity	Months					
	1	2	3	4	5	6
Gather information and nutrition costing data from background documents and tools, such as: national guidelines and protocols, other costing reports and tools, and health sector plans.	X					
Collect additional information at the central, district, and health facility levels through site visits, observations, and interviews.		X				
Enter information in the tool and identify missing information.		X	X			
Hold stakeholder workshops on the tool, review/validate data collected, and fill in missing information.			X			
Complete the data entry, including collection of additional data, if needed.			X	X		
Review the results tables with stakeholders.				X		
Adjust the plan, if needed, by modifying information in the data entry sheets.				X		
Discuss and validate the draft results with stakeholders.					X	
Incorporate the results into the final budget/plan.					X	X

Once the core working group in Malawi became familiar with the tool, they determined which information:

a. Was already known (e.g., the nutrition services and products offered and the target groups, which were detailed in the national NCST guidelines) or would be obtained through secondary sources

b. Would be collected through primary data collection, e.g., the time it takes a health worker to deliver NCST services and the prices of many items

c. Would be decided upon through a stakeholder workshop, e.g., the number of health facilities in which NCST would be introduced per year per district

2.3   Gather Information and Make Planning Decisions

Once the core working group are familiar with the tool, they should begin gathering the information to fill it in. Data can be *gathered* in any order (but see next step on data *entry*). In general, it will work best to collect the information worksheet-by-worksheet, since each worksheet will require a specific kind of information, which will differ from one worksheet to the next, and each kind may come from different sources.

Key sources of information may include:

- National NACS guidelines/protocols, strategic plans, training documents, and other documents with the specifics of NACS services and roll out
- Prior health and nutrition costing exercises that have costing data
- National health surveys like Demographic and Health Surveys (DHS) or Multiple Indicator Cluster Surveys (MICS)
- Surveys (population-based) that estimate the prevalence of malnutrition, HIV, and TB
- Health information system data on the prevalence of SAM and moderate acute malnutrition (MAM) at health facilities
- Population estimates at the Area (e.g., district) level

The core group may need to visit health offices and facilities and observe NACS service delivery to estimate items such as the time it takes for a health worker to conduct nutrition assessment. The core group may also need to visit other government offices, like the population and statistics bureau, to gather information not contained in secondary sources.

Stakeholder meetings and/or a workshop for stakeholders on the tool are helpful in verifying the information collected, filling in gaps, and making planning decisions, especially on the NACS roll-out, e.g., the number of sites in which NACS will be introduced each year. It is important to involve stakeholders throughout the application to ensure their understanding of the process and results and obtain their buy-in. See Appendix 3 for a sample workshop agenda.

In Malawi, the core working group consulted key informants on the strengths, bottlenecks, opportunities, and lessons learned from the pilot of NCST services. They also gathered information on the implementation of NCST services, supply chain management, quality and coverage of services, and human resources. These data were collected through:

1. Conversations with the MOH Nutrition Department and other stakeholders

2. Visits to four health facilities and one district health office (DHO)

3. Document reviews of the *National Guidelines on NCST for Adolescents and Adults*; the community-based management of acute malnutrition (CMAM) costing tool, which was used in Malawi in 2015, and required similar information as the NACS Planning and Costing Tool; the *National CMAM Operational Plan*; and the Health Sector Strategic Plan

The group entered the information in the tool and determined the gaps that still needed to be filled in ahead of a 5-day workshop, where stakeholders learned how to use the tool, verified the information that had been collected, filled in missing information, and agreed on the 5-year expansion plan. The district nutrition staff brought district-specific information to the workshop, such as the district population, the number of health facilities in the district, those with active NCST services, and those in which NCST services would be introduced over the next 5 years.

The workshop was divided into two parts (see Appendix 3 for the workshop agenda). The first part took place over 3 days and included an overview of the tool and a detailed review of the data entry worksheets. Using a participatory approach, participants practiced entering the information into the tool using the Malawi information that had been collected prior to the workshop. This also gave participants a chance to validate the information and ensure that the estimates were reasonable. Participants broke into groups by health zone to discuss the plans for introducing and scaling up NCST each year, using the district-specific information that they had brought to the workshop. This part of the workshop was focused on *planning* as well as *costing*. It provided a forum through which the district teams took stock of NCST services and determined how the services would be expanded to additional facilities in the district over the 5-year period. By reviewing the details needed in the data entry worksheets, participants not only learned about the tool, they also assessed the full range of planning elements needed for NCST services, from obvious inputs like weighing scales, to less obvious inputs like staff time to prepare for trainings. Participants asked many insightful and practical questions about the tool and how individual pieces of information would be factored into the final results.

The second part of the workshop dealt with the generation and interpretation of the results. The facilitators provided an overview of the results tables, and participants worked in pairs to become more familiar with them. On the final day of the workshop, the group reviewed the entire tool, starting with the data entry worksheets and how this information fed into the results worksheets, and provided feedback on the data and the results themselves.

2.4 Complete the Data Entry, Assess the Results, and Make Changes, as Needed

While data can be *collected* in any order that is efficient and convenient, it should be *entered* into the tool sequentially, starting with worksheet D1, and each worksheet should be completed before moving to the next one. In the "comments/observations" cells, detailed notes on the sources of information and the assumptions behind the numbers should be recorded. This will be vitally important for anyone reviewing the results and wishing to explore the assumptions later. These and many other useful tips are described in section 3, which is devoted to providing advice on how to fill in the data sheets.

Once data entry is complete, the core working group should review the results tables. It is recommended that stakeholders assess the accuracy and relevance of the results; compare the results with available resources; consider ways to reduce costs, if needed; and use the results for advocacy. (See section 6 for guidance.) A validation workshop or similar meeting may be needed to review the results and obtain stakeholder buy-in.

> In Malawi, feedback provided by stakeholders during the costing workshop was incorporated into the tool, and initial results were generated. A review of the results led to the refinement of assumptions (e.g., units to be used for reporting commodity requirements and the frequency and length of training) to better fit the expected scale-up context. Some tasks that were unique or specific to the Malawi context were calculated outside the costing tool by making use of other data and assumptions generated by the tool, such as patient caseload. For example, stakeholders wanted to budget for surge capacity in case of an emergency, but the tool does not accommodate this. Non-emergency patient caseload as generated by the tool was used as a baseline for then estimating requirements with an increased caseload and consequent commodity requirements.

2.5 Finalize the Results Tables

Once the results tables are finalized, they may be copied and pasted into any document. It is recommended that:

- The final file is saved in a safe location that can be easily accessed in the future.
- The core working group review the notes in the "comments/observations" boxes to add any missing information, such as sources and assumptions, which will enable future users to know how the numbers were derived.

> In Malawi, the final budgets generated by the costing tool were inserted into the NCST Operational Plan. This plan will be used by the national government to advocate and mobilize resources for NCST scale-up and by district health management teams to inform the development of their district-specific plans of action, which inform annual district operations, including resource mobilization.

3 General Features and Tips

This section covers a description of the features of the data entry worksheets and general recommendations for working with the tool.

3.1 Features

Become familiar with the following general features of the data entry worksheets:

Color coding indicates the functionality of the different cells, as shown to the right. The light-blue cells (user input) are the only ones you fill in. The edges of the functional part of each worksheet are indicated by a purple margin. Data entry or results cells will not appear beyond those margins.

	User input (light blue)
	Default values (light green)
hyperlink	Hyperlink (orange text)
	Headings (purple and grey)
text	Error (cell outlined in red)

Comment boxes. Guidance on how to complete the cells is built into the tool using comment boxes. They are indicated by a small red triangle in the corner of the cell. You can view them by hovering the cursor over the cell.


Pop-up input message boxes. In some cells, a box pops up automatically when you click in the cell. These are called input message boxes. They provide explanations about the content of the cell. If the message box does not disappear when you move to another cell, hit the <Esc> button.

Warning messages. A warning message will appear if you enter a number that is outside the usual parameters. Hit <OK> if you are sure that you want to use the number you entered, or <Cancel> if you want to enter a different number.
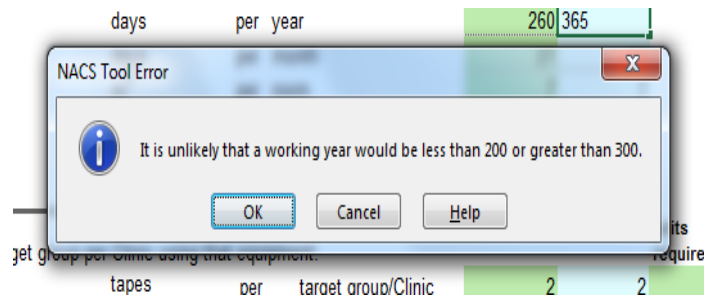
Clear button. The "Clear" buttons at the top of each worksheet will clear the data in that worksheet. If you click the button, a warning message will pop up asking if you are sure you want to clear the worksheet because the command cannot be undone.
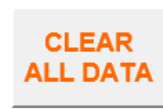
Comment/observations cells. On the right side of the data entry worksheets, there are "comments/observations" cells to write notes, e.g., on your assumptions and data sources, so that you can easily remember the logic behind the original input. If you cannot see your full comment in the cell because the space is too small, you can read it in the formula bar at the top of the worksheet. To elongate the formula bar, hover the cursor over the lower part of the formula bar and drag it down when the cursor becomes a double-headed arrow.
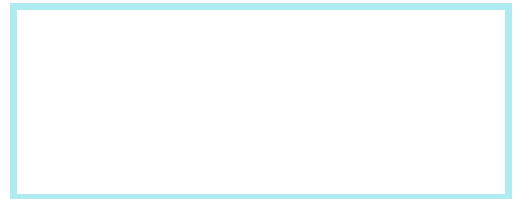
Locked cells and protected worksheets. To prevent users from inadvertently erasing or modifying built-in formulas, the worksheets are password protected, all cells are locked except the light-blue cells in which you enter data, and calculation worksheets are hidden in the background. It is very important to keep these protections in place so that you do not over-ride formulas and/or delete key values and, in doing so, undermine the functionality of the tool.

3.2   Tips

ISSUES THAT COULD CAUSE ERRORS UNLESS DONE CORRECTLY:

1) When setting up the tool, be sure to:

    a) **Enable macros.** When opening the tool, be sure to click "Enable macros" if the question pops up. (If you need to manually enable macros,[10] go to File>Options>Trust Center>Trust Center Settings>Macro Settings, then set Macro Settings to "Enable all macros.") Macros need to be enabled so all the features of the tool will work properly. If they are not enabled, certain elements will not function, and your results may not be generated properly.

    b) **Enable editing.** If you have downloaded a copy of the tool for the first time, you may also have to click "Enable editing" (which may appear at the top of the spreadsheet screen) to enter data.

2) **Be sure to have only one version of the tool open at a time.** The tool is a large file with a lot of codes running in the background. The codes/macros may collide if more than one version is open at a time.

3) **Enter data into all the light-blue cells, unless one of the cells has a corresponding default value in green that you want to keep, or the instructions in this manual state that leaving a cell blank is acceptable**. Failure to complete all required cells may generate errors, create problems in labeling, or lead to inaccurate estimates. It is generally better to enter approximate estimates than no data at all. Entering zero may be appropriate in some circumstance (guidance is provided below), but see Appendix 1 for a discussion on the limitations of excluding quantities or prices.

4) **Do NOT use "cut and paste" or "copy and paste" in the data entry worksheets.** Some of the data entry cells have validation or conditional formatting that generates warnings if an inappropriate value has been entered or that hides irrelevant cells. This formatting is unaffected by normal entry procedures but can be overridden if information is pasted into a cell.

5) **If you enter a value and realize that you want to change it,** simply hit the <backspace> or <delete> button. This will not alter any formulas.

6) **Do not put text where numerical values are required**. This generates error messages.

7) **Fill in worksheets D1, D2, and D3 sequentially** before moving on to subsequent worksheets**,** as much of the information in these first worksheets lays the groundwork for values, structure, and layout for subsequent worksheets. **Then continue progressing systematically through worksheets D4 through D9**.

8) As you progress through the worksheets, if you return to earlier worksheets and change a value, **double-check that the entries you made in subsequent worksheets are still valid and complete**. This is particularly important for *lists* that become drop-down menus in later worksheets and for *fields* that open new fields in other worksheets.

    •   The main drop-down *lists* vulnerable to this problem are:

        -   The **staff list** in worksheet **D1, panel C**, which is used in drop-down menus in worksheets D3 and D6.

        -   The **nutrition product list** in **worksheet D2, panel C**, which is used in drop-down menus in the D3 worksheets.

        -   The **adolescent age categories** in **worksheet D2, panel B**, which are used in drop-down menus in worksheet D3.4.

---

[10] You may need to manually enable macros if you have manually disabled macros previously or if your system administrator set your computer settings to not allow macros by default.

- The **definition of "other" nutritional status** in **worksheet D2, panel B**, which is used in drop-down menus in the D3 worksheets.

  For example, worksheet D1 asks you to name the staff involved in NACS, and this list is used for a drop-down menu in the D3 worksheets. Say you originally entered "nurse" in worksheet D1, and you then selected <nurse> from the drop-down in worksheet D3.1. If, later on, you returned to worksheet D1 and deleted "nurse" from the staff list, you would also need to change "nurse" in worksheet D3.1 to another valid name from the new list; otherwise, the tool will create an error in the results tables. **The main message is: make sure that the selections in the drop-down menus correspond to the most updated lists that created the drop-down menus.**

- The main *fields* vulnerable to this problem are:
  - The **number of Areas** budgeted in the first year in **worksheet D2, panel A**, which opens an equal number of columns in worksheet D7, panel A.
  - The **number of Group-Areas** budgeted in the first year in **worksheet D2, panel B**, which opens an equal number of columns in worksheet D7, panel B.
  - The **key target groups** field in **worksheet D2, panel B**. There are four options, and each opens a corresponding D3 worksheet (D3.1 for pregnant and postpartum women; D3.2 for adults; D3.3 for children under 5; and D3.4 for adolescents and children).

OTHER TIPS

9) **Save frequently.** Don't forget this important step!

10) **Choose any zoom you wish**. You may need to zoom in to see the full numbers if the font is too small.

11) **In places where numerical values are required, you may enter formulas** (e.g., "=10/2"). You are encouraged to write the assumptions behind the formulas in the "comments/observation" cells.

12) **In places where you enter text (e.g., types of health workers), use fewer than eight characters.** This is to avoid messy headings in subsequent worksheets. (This does not apply to the comment/observations boxes, where you can type notes.)

13) **Some drop-down menus allow you to type in your own response.** Generally, however, it is preferable to select from the drop-down list (unless the tool explicitly encourages you to do otherwise).

14) **Do not feel too limited by the particular labels given to activities or inputs.** Consider carefully how closely your category labels match the general features of the categories defined in the tool. For example, your program may not use the terms "training of trainers," "master trainers," or "refresher training," but will almost certainly have activities or individuals that match these labels. Use the comment/observations boxes to note how you are defining a category, e.g., where the tool says, "printed materials," you can note in the comment/observations box that you are defining them as reporting forms.

4   Data Entry Worksheets

This section provides guidance on filling in the data entry worksheets D1 to D9. This guidance is reinforced by row- or cell-specific advice that appears in the comment boxes embedded in the tool. Be aware that this section does not provide row-by-row guidance for every worksheet. Instead, it focuses on the rows and sections that will be less intuitive and/or require deeper explanations than what the comment boxes are able to provide.

4.1   Worksheet D1. Country Background

Worksheet D1 asks for basic information about the country, the structure of its health system, and the categories of staff involved in NACS service provision. This information is used to generate headings, provide conversions of cost estimates from local currency to US dollars ($US), and create drop-down menus for subsequent worksheets.

| **D1** | **Panel A: Country background** |

Panel A asks for basic country information. The information is used to generate headings and labels and to calculate currency conversions throughout the rest of the tool.

A	**Country basics**		**Comments/observations**
	Name of the country	Malawi	
	What is the local currency unit?	Malawi kwacha (MWK)	
	What is the exchange rate - the number of local currency units per one $US?	724.077	

- ■ **INSTRUCTIONS**

1) Select the country name from the drop-down menu in cell H12.

2) Select the name of the local currency from the drop-down menu in cell H13.

3) Enter the exchange rate between the local currency and US dollars ($US) in cell H14. Use an exchange rate from a reliable source and note the date and source in the "comment/observations" cell. If the exchange rate fluctuates greatly, consider taking an annual average.

D1 Panel B: Levels of health administration

Panel B asks about the local names for health administration levels and the number of units in the country. The information is used to generate headings and labels throughout the rest of the tool and to calculate coverage levels.

| B | Levels of health administration | | | | |

Levels	General term used in this Tool	Terms used in your country for these levels	Total number of these in your country	
Basic unit of outpatient health provision (e.g. health centre)	Active Site	health facility	100	Government and faith-based facilities
Lowest level health administrative unit (e.g. district)	Area	district	10	
Intermediate health administrative unit (e.g. state, province, region)	Group-Area	province	4	
Highest level health administrative unit	Central HQ	MOH		

DEFINITIONS

NACS services are provided at sites such as health facilities, but they are managed and supported by an administrative hierarchy, usually within an existing health system structure. This hierarchy is responsible for organizing the provision of supplies, training and supervision, budgeting, planning, monitoring, and reporting. The tool assumes four levels in this administrative hierarchy, defined as follows:

Active Site: the basic unit of outpatient health service provision, e.g., a health center or health facility

Area: the lowest-level health administrative unit, e.g., district

Group-Area: the intermediate health administrative unit, e.g., zone, state, province, or region

Central HQ: the highest-level health administrative unit, e.g., ministry of health

■ INSTRUCTIONS

1) Record the terms used in your country for the hierarchical administrative levels in cells H21 through H24.

   a. If you do not enter country-specific names, the tool will use the default terms throughout the rest of the tool (Active Site, Area, Group-Area, and Central HQ).

   b. The Group-Area level is optional. If there is no Group-Area level—either because it does not exist or because it is not involved in NACS services—choose <no intermediate level> from the drop-down menu in cell H23.

2) Record the total number of units for each level in your country (not just those with NACS services) in cells I21 through I23.

THINGS TO CONSIDER: SELECTING GROUP-AREA

When thinking through whether "Group-Area" is relevant to your context, remember that supervision, planning, training, and storage are all part of NACS services. Therefore, if Group-Area staff perform or are involved in any of these tasks, then Group-Area should be considered in your costing and planning.

D1 | Panel C: Staffing at health facility level

The information in panel C is used to generate a list of the types of health staff involved in providing NACS services at the Active Site level, which is used to calculate personnel costs. The list will appear as a drop-down menu in the D3 worksheets, where you will select the categories of staff that conduct nutrition assessment, counseling, and support activities.

■ INSTRUCTIONS

1) Review the list of default staff categories in column E (cells E32 through E40). Choose whether you will:

   a. Keep any default categories, in which case you should not enter any information in column H (leave it blank)

   b. Replace any default categories with country-specific terms, in which case you should enter the country-specific term in column H

2) If you wish to specify a new category that is not on the default list, you can either:

   a. Enter the new category in cell H41

   b. Replace one of the categories in cells E32 through E40 with the new category by entering the name in the corresponding light-blue cell

THINGS TO CONSIDER: DEFINING STAFF CATEGORIES

Do not worry if the final list includes staff categories not involved in NACS: you can simply ignore irrelevant categories when selecting from the drop-down menu in the D3 worksheets.

You may return to this list and adjust it at any time (e.g., adding a staff category that you overlooked) once you started filling in the D3 worksheets. However, keep in mind that if, after filling out the D3 worksheets, you later return to worksheet D1 and delete a category of worker that you had already selected in the D3 worksheets, you must also remove its selection from the D3 worksheets. Otherwise, an error will be generated.

4.2 Worksheet D2. Scope of NACS Services

Worksheet D2 asks for information on the scope of the NACS services. This information is used to define headings and lists.

THINGS TO CONSIDER

The selections you make here should reflect the structure of NACS services in your country. If those decisions have not yet been made, this tool can help you explore the implications of different choices. Start with what seems a reasonable coverage/scope for NACS in your country, work through the rest of the worksheets, and study the cost implications in the results tables. You can then come back to this worksheet and alter the scope, e.g., introduce or remove targets, increase or restrict coverage, add or remove nutrition products, and see what happens to costs in the results tables.

D2   Panel A: Costing parameters

Panel A asks about the number of Areas and Group-Areas being budgeted. The information is used to generate headings and labels in the rest of the tool.

- ■ **INSTRUCTIONS**

1) Enter the first year for which you are planning/budgeting for NACS in cell H15. This will be considered "Year 1" of your costing exercise.

2) Enter the number of Areas in which NACS will be implemented *in Year 1 only* in cell H16. The tool allows up to 50 Areas across all years of the exercise.

3) Enter the associated Group-Areas in which NACS will be implemented *in Year 1 only* in cell H17. The tool allows for up to 10 Group-Areas across all years of the exercise. (If you selected <no intermediate level> in worksheet D1, you will not be required to enter any data here).

THINGS TO CONSIDER

In worksheet D2, you are only defining the number of Areas and Group-Areas that are implementing services in Year 1. In worksheet D9, you have the option of adding new Areas and Group-Areas in Years 2 through 5. If you plan to scale up in subsequent years, be sure that you will not exceed the number of Areas (maximum 50) or Group-Areas (maximum 10).

If more than 50 Areas or 10 Group-Areas will be implementing NACS over the period covered in your costing, consider subdividing your country into two (or more) regions, so that each has no more than 10 Group-Areas or 50 associated Areas in it by the end of the planning period. Then, treat each of these regions as a separate planning exercise and run the tool separately for each. Only include start-up activities (worksheet D4) in <u>one</u> of the tools so that you do not duplicate these costs (see section 4.4 for what is included in "start-up" activities.)

D2 Panel B: Key target groups

Panel B asks you to define your target groups. This information is used to open relevant D3 worksheets, ask specific questions about the inputs required for each group, and categorize the costs in the results tables.

D2 Panel B1: Key target groups

DEFINITIONS: TARGET GROUPS

Target groups are demographic subgroups that are potentially differentiated by the NACS services they receive. The tool provides 4 default target groups:

1. **Pregnant and postpartum women.** "Postpartum" means the period after the birth to the point specified by the country's protocols (e.g., up to 6 months after birth). In some countries, the category "postpartum women" may be labeled "lactating women." The tool assumes that this group covers the age range of 15 to 49 years. Pregnant/postpartum adolescents 15 to 19 years are included with pregnant/postpartum women; they are not included in the adolescent/child group.

2. **Adults (non-pregnant and non-postpartum)**. This age range starts after the adolescent age range, and goes through the highest age range that you specify, according to the country's protocols. The default starting age for adults is 20 years of age. However, if adolescents/children are included as one of your country's target groups, the adult age range will start with the year after the maximum age for the adolescent/child group. If the protocols have a separate group for elderly people, that group should be considered as part of the "adult" group in the tool.

3. **Children under 5**. This group includes children from birth to 59 months.

4. **Adolescent/children 5 years or over**. This age range is meant to include people older than 59 months and younger than the adult group. It is defined by the user in worksheet D2, panel B1, and can include up to three subgroups, e.g., 5–9, 10–14, and 15–18 years of age.

■ INSTRUCTIONS

1) Select the target groups that are covered by your NACS services by clicking on all the relevant tick-boxes.

   a. Clicking a tick-box triggers the opening of the relevant D3 worksheet for you to complete. For example, ticking "pregnant and lactating women" will open worksheet D3.1.

   b. If NACS services in your country do not cover one of the target groups, e.g., children under 5, do not select the corresponding tick-box.

   Warning: if you de-select a target group by unticking the box in worksheet D2, panel B1, any information already entered in the corresponding D3 worksheet will be lost.

■ ADDITIONAL INSTRUCTIONS FOR THE ADOLESCENT/CHILD GROUP

If you select the target group for adolescents/children, you must define the age range for this group. The tool allows any age range between the ages of 5.0 to 19.9 years.

1) Specify the maximum age for the group in cell I50.

2) The tool allows you to specify up to three age subgroups. Consider any significant differences in the type, frequency, or amount of services or treatment for adolescents and children of different ages. Such differences are likely for dosing nutrition products. For example, if children 5–9 years with SAM

receive a different quantity of therapeutic nutrition product than children 10–14 years with SAM, these subgroups should be separated.

3) If you want to define more than one age subgroup within the adolescent/child group:

    a.   Select <yes> in cell I52.

    b.   Enter the youngest age for that subgroup in cell M55 and the maximum age in cell N55.

    c.   Repeat this process for the additional age subgroups that you would like to define. Complete the rest of the table until you reach the oldest age.

EXAMPLE: DEFINING ADOLESCENT/CHILD AGE SUBGROUPS

For example, consider a country where children 5–9 years of age with SAM receive an average of 2 sachets of RUTF per day and children 10–14 years of age with SAM receive an average of 3 sachets per day. In this case, you would need to define two age subgroups in the tool, as follows:

1) Enter <14> as the maximum age in cell I50

2) Select <yes> in cell I52

3) Enter <5> and <9> in cells M55 and N55, respectively

4) Enter <14> in cell N56

Adolescents or children over 5   (Adol./child)   ☑   yes

Up to what age (in years) are adolescents/children included in NACS?   **14**

Are there significant differences in NACS services for different ages of adolescents/children?   **yes**   Specify the key age groups

	Age in years	
	FROM	TO
age-group 1 (in years)	5	9
age-group 2 (in years)	10	14

D2   Panel B2: Defining "other" nutritional status

Panel B2 asks you to define the "other" nutritional status category *if you plan to include it for costing*. The information you enter will be used as the label for the "other" category throughout the rest of the tool.

Defining "other" nutritional status

The tool assumes that NACS care and treatment protocols may be grouped into four nutritional status categories: normal, SAM, MAM, and "Other." See the comment in this cell and the user's manual for more information on how to define the "other" group.

If you wish to include an "other" group, enter the name here: Obese

DEFINITIONS

The tool assumes that NACS care and treatment protocols may be grouped into up to four nutritional status categories:

1) Normal (no malnutrition)
2) Moderate acute malnutrition (MAM)
3) Severe acute malnutrition (SAM)
4) Other

Definitions of "normal," "MAM," and "SAM" may vary by country, though there are some globally-endorsed definitions that are widely used. Additionally, the acronyms "MAM" and "SAM" are used for all age groups, even though some countries may not use the term "acute" when referring to moderate and severe malnutrition in populations over 5 years of age. See the FANTA *Guide to Anthropometry: A Practical Tool for Program Planners, Managers, and Implementers* for definitions and more information.

The "other" category may be defined by the user. If you choose to include the "other" category in your costing, make sure to use it to refer to a group that receives NACS services *and does not overlap with the normal, MAM, or SAM categories*. For example, "other" could refer to "weight faltering" or "overweight/obese," but should not be used for a group such as "deficient in vitamin A," since individuals in that category might also have SAM or MAM. The tool only allows one "other" group.

An additional consideration for the definition of these groups is that the tool requires you to enter the prevalence for each category in worksheet D8. If the prevalence is not known, you will need to estimate it.

■ INSTRUCTIONS

If you want to include an "other" group for nutritional status, enter the name in cell I61. This label will be used in subsequent worksheets.

THINGS TO CONSIDER

Because the tool aims to estimate the full resource requirements of a comprehensive NACS approach, it assumes you will enter information for the normal, MAM, and SAM categories; however, the "other" category is optional. Though it is discouraged, if you wish to *exclude* the costs of services for the normal, SAM, or MAM categories, the best way to do so is in worksheets 3.1–3.4, panels B and C. In panel B, for any nutritional status category you wish to exclude, choose <not done> as the frequency of assessment, counseling, and testing. However, the first column should be completed with the "duration of the condition" (otherwise, the calculation of the "normal" cases will be incorrect). Then, in panel C, do not include the nutritional status category you wish to exclude in the first column (under "recipient").

D2 Panel C: Nutritional support

Panel C asks for details on the nutrition products. This information is used to generate drop-down lists and labels in subsequent worksheets and to calculate the costs of storage and transport.

Appendix 2 has the complete list of products and details included in the tool. Before you begin to enter information in panel C, you may wish to consult the appendix to determine which products you will include and which, if any, you need to add, based on your country's NACS services. Nutrition products in this panel refer to food products and supplements given to NACS patients. Supplies and equipment that are needed at the Active Sites but not given to patients (e.g., weighing scales) are entered in worksheet D5, panel G.

■ INSTRUCTIONS: SELECTING NUTRITION PRODUCTS (COLUMNS D THROUGH G)

1) Indicate whether NACS includes the provision of nutrition products in cell H67 (<yes> or <no>).

2) If yes, enter the number of nutrition products in cell H69. This will open a corresponding number of rows in the table below. Keep in mind that:

   a. The tool allows a maximum of 18 products.

b. If at any point you require more nutrition products than originally expected, simply adjust the number in cell H69 to add more lines to the table. If you have fewer nutrition products than originally expected, delete the product information from the table and adjust the number in cell H69 so the empty rows no longer appear.

3) In column D of the table, select the nutrition products used in your NACS services from the drop-down list.

   a. You can define each product more precisely by choosing descriptors from the drop-down list in column F. This is particularly important if you use more than one variety of a given nutrition product, for example, both SuperCereal and SuperCereal Plus. (See more examples below.)

   b. To define your own product, select <specify> in column F and type the product details in column G.

   c. If a product is not included in the drop-down list, select <Other> in column D and <specify> in column F and provide a brief description of the product in column G.

   Important note: The products entered in this table form a drop-down list in the D3 worksheets. If you return to this worksheet and alter the list *after filling out the D3 worksheets*, make sure that any product you delete from here is also deleted in D3, or an error message will be generated in the results tables.

EXAMPLES

1) If you want to specify the type of product, for example, that the multi-micronutrients (MultiMicro) are called "sprinkles":

   a. Select <MultiMicro> in column D

   b. Select <specify> in column F

   c. Enter <Sprinkles> in column G

2) If you want to specify different types of a similar product, e.g., that Supercereal (SC/CSB+) is fortified blended food (FBF) for adults and Supercereal Plus (SC+/CSB++) is FBF for pregnant/postpartum women:

   a. In one row, select <FBF> in column D and <SC/CSB+> in column F

   b. In another row, select <FBF> in column D and <SC+/CSB++> in column F

3) If you want to specify different dosages of a product, e.g., if two doses of Vitamin A are needed for different age groups (e.g. 100,000 IU of Vitamin A is given to children under 5 and 200,000 IU is given to children 5–14 years of age:

   a. In one row, select <VitA> in column D and <100,000 IU> in column F

   b. In another row, select <VitA> in column D and <200,000 IU> in column F

■ **INSTRUCTIONS: SELECTING UNITS FOR NUTRITION PRODUCTS (COLUMNS H AND I)**

After you have defined your nutrition products, the tool automatically generates a default unit of measure in column H to measure each product.

1) Consider if you want to change the default unit of measure (see box on Things to Consider).

2) If yes, enter the new unit in column I.

THINGS TO CONSIDER

When deciding which unit to choose, consider these factors:

- In the D3 worksheets, you will enter the quantity of the product to give to NACS patients in whatever unit you choose in worksheet D2. In worksheet D6, you will enter the cost of the product per unit. The results tables will show the total quantity of the product needed in that unit. Consider these factors when choosing which unit to include in worksheet D2, column H. For example, if you use sachets to calculate the amount of RUTF to give to NACS patients, but you use kilograms to calculate the cost and quantity of RUTF to procure, choose whether you could calculate kilograms from sachets if you choose "sachet" as the unit, or vice versa.

- If later on you would like to use a different unit, you can always come back and change it in worksheet D2. However, you will then need to revisit any entries you had already made in the D3 worksheets relating to the quantity of products given to NACS patients (panel C) and in worksheet D6 relating to the price (panel H), to make sure they are still valid.

■ **INSTRUCTIONS: DEFINING CONTAINER DETAILS (COLUMNS J THROUGH O)**

Columns J through O ask about the dimensions and weight of the storage container. This is used to calculate storage and transportation costs.

1) If you do not wish to include one or more of the products in your storage and transportation estimates, leave these cells blank.

2) For each product you wish to include in your storage and transportation estimates, enter the number of units in a container in column J; the dimensions of the container (in centimeters) in columns K, L, and M; and the total weight of the container and the products in column O.

EXAMPLE

Iron tablets come in packets of 20 tablets, which are transported in large boxes containing 100 packets each. The "container" would be the large box of 100. The number of units in a container is defined by the unit of measure selected in column H. It could either be:

1) 2,000 if <tablet> is the selected unit of measure

2) 100 if <packet> is the selected unit of measure

■ **INSTRUCTIONS: SELECTING THE TRANSPORTATION MODE (COLUMN P)**

The tool can only calculate the costs of transporting commodities for one transport mode. It cannot, for example, estimate the cost of transport of RUTF through government-owned vehicles and the cost of transport of CSB+ through a third party, e.g., the World Food Programme (WFP). You will select the primary transport mode in worksheet D5, panel D among three options: hiring vehicles, using your own vehicles, or paying a third party.

In column P, specify if the product will be transported using the primary transport mode by selecting <yes> or <no>. Only the nutrition products for which you select <yes> will be included in the transport and space calculations in the results tables; the products for which you select <no> will not be included.

THINGS TO CONSIDER

If all products are transported with the same primary transport mode, select <yes> for every product. If your products are transported in different ways, select <yes> ONLY for those products that are transported using the primary transport mode.

Later on if you wish to change your responses in this column, you can return at any time and make changes.

4.3   Worksheets D3.1, D3.2, D3.3, and D3.4. NACS Services for the Target Groups

The D3 worksheets ask for details about how nutrition assessment, counseling, and support services are carried out. This information is used to help calculate the quantities and costs of the resources required to deliver NACS services at the Active Site level, e.g., health facility.

It is important to fill out this information as accurately as possible because it is the basis for many calculations, e.g., the amount of nutrition products and number of staff needed.

Additionally, because the choices made in the D3 worksheets affect the layout and headings in later worksheets, it is important to finalize these worksheets before moving on to others.

You will fill out a separate worksheet for each target group that you had defined as relevant in worksheet D2, panel B1:

- D3.1 for pregnant and postpartum women
- D3.2 for adults (non-pregnant and non-postpartum)
- D3.3 for children under 5
- D3.4 for adolescents and children 5 years and over

Only the worksheets for the selected target groups will be visible; the others will remain hidden.

The information for most of the questions in these worksheets will come from your country's NACS protocols.

D3   **Panel A: Services and the staff that provide them**

Panel A records details about NACS services at the Active Site level and the staff that provide them. This information is used to calculate personnel costs.

■   INSTRUCTIONS

1) Select <yes> or <no> to answer the question on whether nutrition assessment, counseling, and support are offered to the target group. Selecting <yes> opens additional cells in Panel A.

2) Select the main person who carries out the activities. Note:

   a.   If the correct staff type is not included in the drop-down list, return to worksheet D1, panel C to add the relevant job title to the list. Note that only 10 entries can be included in worksheet D1, panel C. If the list is already full, choose the worker type that is most similar in terms of salary cost.

   b.   If more than one staff type is involved in any specified task (for example, if health workers and volunteers both help with assessment), select the one more commonly used.

3) Select the main person who assists, if anyone.

4) Enter the amount of time (in minutes) that NACS activities take per individual patient visit.

5) Enter the amount of additional time (in hours) spent on nutrition assessment, counseling, and support (excluding the time spent during individual patient visits), e.g., time spent looking over records or checking stock.

6) Select <yes> or <no> for whether hemoglobin, blood glucose, and/or uric acid are tested. Selecting <yes> opens cells in Panel B specific to these tests.

D3   Panel B: Who receives nutrition assessment/counselling/ testing and how often

Panel B asks for information on the frequency of visits and how often nutrition assessment and counseling and biochemical tests are conducted. This information is used to estimate personnel costs.

■ INSTRUCTIONS: DEFINING VISITS (COLUMNS E, F, G)

1) For SAM, MAM, and "other," record the average duration of treatment (in months) in column E and the number of expected visits per month during treatment in column F. The tool automatically calculates the total number of visits per person over the duration of treatment in column G.

2) For normal nutritional status, in column G:

   a. Record the expected number of health facility visits for NACS services *per year* for adults, adolescents and children 5 years and over, and children under 5.

   b. Record the expected number of health facility visits for NACS service *every six months* for pregnant and postpartum women (it is assumed that the duration of services will be six months for pregnant women and six months for postpartum women).

3) If one of these categories is not applicable to your NACS services (e.g., if your protocols do not cover MAM or if the "other" category is not applicable), enter zeros in that row.

THINGS TO CONSIDER

If, within any given subgroup (e.g., SAM adults), there are differences in the number of visits among different categories of individuals, estimate the likely frequency of visits for each category within the subgroup and develop a weighted average for the number of visits for the whole subgroup. For example, imagine a country with NACS protocols stating that adults with SAM are treated for 2 months, but those without HIV are expected to visit only once per month, while those with HIV are recommended to visit twice per month. If 25% of adults with SAM have HIV and 75% of adults with SAM do not have HIV, the weighted average of visits for all SAM adults in the country would be 1.25 visits per month (= [0.25 x 2] + [0.75 x 1]).

EXAMPLE 1

It is estimated that an adult with SAM will be in treatment for 2 months before being discharged. The adult is expected to go to the health facility for follow-up visits every 2 weeks. The "average duration of treatment" is 2 months. The "number of visits per month during treatment" is 2. The tool will automatically calculate that the "total number of visits expected for each case" is 4 (in the green cells).

	Average duration of treatment (in months)	Number of visits per month during treatment	Total number of visits expected for each case
SAM adults	2	2	4
MAM adults	3	1	3
Obese adults	2	1	2
Normal adults	12	0.33	4

EXAMPLE 2

It is estimated that a child with MAM will be in treatment for 3 months before being discharged. The child is expected to go to the health facility for follow-up visits once per month. The "average duration of treatment" is 3 months. The "number of visits per month during treatment" is 1. The tool will automatically calculate that the "total number of visits expected for each case" is 3.

	Average duration of treatment (in months)	Number of visits per month during treatment	Total number of visits expected for each case
SAM <5's	2	2	4
MAM <5's	3	1	3
Obese <5's	2	1	2
Normal <5's	12	0.33	4

EXAMPLE 3

A pregnant woman of normal nutritional status is expected to go to the health facility for nutritional assessment and counseling 4 times during her pregnancy. The "total number of health visits expected" is 4. The tool automatically calculates that, within an assumed 6-month timeframe, this is the equivalent of 0.67 visits per month (=4/6).

	Average duration of treatment (in months)	Number of visits per month during treatment	Total number of visits expected for each case
Pregnant women			
SAM pregnant	2	2	4
MAM pregnant	3	1	3
Obese pregnant	2	1	2
Normal pregnant	6	0.67	4

- ### INSTRUCTIONS: DEFINING FREQUENCY OF SERVICES (COLUMNS J THROUGH V)

1) Select the frequency of assessment, counseling, and testing from the drop-down menu options in columns J through V. Your choices are <All visits>, <First visit only>, and <Not done>.

   a. "All visits" means that the service is provided at the first visit and at each follow-up visit.

   b. "First visit only" means that the service is provided at the first visit, but not at the follow-up visits.

   c. "Not done" means that the service is not provided at all for the subgroup.

2) If a certain subgroup does not receive a certain NACS service, e.g., nutrition counseling is not offered to adults with normal nutritional status, enter <not done> in the row corresponding to that subgroup.

3) For hemoglobin, blood glucose, and uric acid testing, if only a subset of individuals within a target group is tested, record the percentage of the target group that are eligible for testing. For example, if there is no testing except for hemoglobin, and this is only done when clinical signs of anemia are present (e.g., in 10% of the population), you would record the percentages as follows:

Frequency of ……			
	haemoglobin testing	blood glucose testing	uric acid testing
% eligible	10%	0%	0%
	First visits only	Not done	Not done

D3   Panel C: Who receives nutrition products and how much

Panel C asks for information on who (by nutritional status) receives which nutrition products and how much they are given at each visit. This information is used to calculate the quantities of nutrition products needed for the target population and the related transport and logistics resource requirements.

▪ INSTRUCTIONS

Record all the different combinations of recipient subgroups and the types of nutrition products they may receive, each one on a new row. To ensure the list is comprehensive, be systematic in recording the combinations. It is recommended that you start with one recipient subgroup and record all the products that subgroup may receive before moving on to the next recipient subgroup, following this pattern:

1) In column G, select the recipient subgroup name from the drop-down list and repeat that selection on new rows for as many products as that recipient subgroup may receive.

2) For each row, select a different nutrition product in column J. (If you realize that a nutrition product is not in the drop-down list, go back to worksheet D2, panel C to add it).

3) Enter the quantity of that product given to individuals in that subgroup at each visit in column M.

4) Enter the frequency (either <All visits> or <First visit only>) in column P.

THINGS TO CONSIDER

1) In columns S and T, the tool automatically calculates the quantity of product provided per recipient over the full course of treatment by multiplying the quantity by the frequency of provision. If <First visit only> is selected, the frequency equals 1. If <All visits> is selected, the frequency equals the "Total number of visits expected" in panel B, column G.

2) Pay attention to the unit used (column N). Be sure that the quantity entered in column M corresponds to the unit in column N.

EXAMPLE 1

1) Pregnant women with MAM receive 10 kg of fortified blended food at every visit, and they visit health facilities once per month for 3 months. The information would be entered as follows.

   a. In worksheet D2, panel C, select <FBF> for fortified blended food and maintain the units in kilograms.

Type of nutrition products		Details	Units	Alternative unit of measure *(optional)*
RUTF	(Ready to Use Therapeutic Foo	plumpynut	kgs	
FBF	(fortified blended food)	SC/CSB+	kgs	

   b. In worksheet D3.1, panel B, record <3> for the "Average duration of treatment in months" and <1> for the "Number of visits per month." This gives a "Total number of visits expected" of 3.

	Average duration of treatment (in months)	Number of visits per month during treatment	Total number of visits expected for each case
Pregnant women			
SAM pregnant	2	2	4
MAM pregnant	3	1	3
Obese pregnant	2	1	2
Normal pregnant	6	0.67	4

   c. In worksheet D3.1, panel C, record <10 kg> under "Quantity given" and select <All visits> under "Frequency." This gives an "Estimated quantity of nutrition product per recipient" as 30 kg (=3 x 10).

Recipient	Nutrition product	Quantity given	Units	Frequency	Estimated quantities of nutritional product per recipient	
SAM pregnant	FBF SC/CSB+	4.5	kgs	All visits	18	sachet
MAM pregnant	FBF SC/CSB+	10	kgs	All visits	30	kgs

EXAMPLE 2

Adults with SAM receive 184 grams of RUTF per day (the equivalent of two 92-gram sachets). They receive RUTF on each visit and visit the health facility twice a month for an average of 2 months. The information would be entered as follows.

1) In worksheet D2, panel C, select <RUTF> and maintain the units in kilograms.

Type of nutrition products		Details	Units	Alternative unit of measure (optional)
RUTF	(Ready to Use Therapeutic Foo	plumpynut	kgs	
FBF	(fortified blended food)	SC/CSB+	kgs	

2) In worksheet D3.2, panel B, record <2> for the "Average duration of treatment in months" and <2> for the "Number of visits per month." This gives a "Total number of visits expected" of 4.

	Average duration of treatment (in months)	Number of visits per month during treatment	Total number of visits expected for each case
SAM adults	2	2	4

3) In worksheet D3.2, panel C, record <2.76> under "Quantity given" (184 grams per day /1000 grams per kg x 15 days = 2.76 kg) and select <All visits> under "Frequency." This gives an "Estimated quantities of nutrition product per recipient" of 11.04 kg (=4 x 2.76).

Recipient	Nutrition support	Quantity given	Units	Frequency	Estimated quantities of nutritional product per recipient	
Adults with SAM	RUTF	45	sachet	All visits	180	sachet
SAM adults	RUTF plumpynut	2.76	kgs	All visits	11.04	kgs

EXAMPLE 3

Children 6–59 months with SAM receive an average of 12.5 kg of RUTF during the full course of treatment. Children under 5 with SAM receive RUTF on each visit and visit the health facility twice a month for an average of 2 months. The information would be entered as follows.

1) In worksheet D2, panel C, select <RUTF> and maintain the units in kilograms.

Type of nutrition products		Details	Units	Alternative unit of measure (optional)
RUTF	(Ready to Use Therapeutic Foo	plumpynut	kgs	
FBF	(fortified blended food)	SC/CSB+	kgs	

2) In worksheet D3.4, panel B, record <2> for the "Average duration of treatment in months" and <2> for the "Number of visits per month." This gives a "Total number of visits expected" of 4.

	Average duration of treatment (in months)	Number of visits per month during treatment	Total number of visits expected for each case
SAM <5's	2	2	4

3) In worksheet D3.4, panel C, record <3.125> under "Quantity given" (12.5 kg/4 visits=3.125 kg) and select <All visits> under "Frequency." This gives an "Estimated quantities of nutrition product per recipient" of 12.5 kg.

Recipient	Nutrition support	Quantity given	Units	Frequency	Estimated quantities of nutritional product per recipient	
					Total	Units
MAM < 5's	FBF	5	kg	All visits		
SAM <5's	RUTF plumpynut	3.125	kgs	All visits	12.5	kgs

4.4 Worksheet D4. Start-up

D4 Start-up

Worksheet D4 lists the five key activities (and their component activities) that should be completed at the central level during the start-up phase and asks you to indicate which of these still need to be done by ticking the relevant box. The tool draws on your responses in worksheet D4 and the subsequent inputs in worksheets D5 and D6 to calculate the quantities and costs for inputs for start-up activities that have not been completed. These costs are assigned to Year 1 in the results tables.

■ INSTRUCTIONS

Tick the boxes next to the activities that you would like to include in your costing.

THINGS TO CONSIDER

1) Ticking an activity generates questions about that activity in worksheet D5, panel F.

2) You may return to this worksheet at any time and select or deselect an item.

3) Panel E relates to training at the central level to train master trainers. Trainings at lower levels are entered in worksheet D5, panel C.

4) For each selected item, the tool calculates the costs and quantities of the key components and presents the results in worksheet R8, which displays the resource and cost implications of (where appropriate): (a) paying for the time of the technical experts, facilitators, advisory committee members, and trainees, (b) providing refreshments, space, and per diems for meetings or trainings, (c) compensating the personnel who test the materials and paying for their per diems, and (d) transporting master trainers to the central level for the training.

4.5 Worksheet D5. Assumptions

| D5 | Assumptions |

Worksheet D5 includes many of the key variables underlying the tool's calculations. It provides default values for most of the variables. However, feel free to replace any of these defaults with values that are more appropriate for your country. Guidance on the likely range of values is provided in comments that are visible when the cursor is in the light-blue cells.

DEFINITIONS

Person-day, person-month, and person-year (also known as full-time equivalent [FTE]). In worksheet D5, panels E and F you will be asked to enter information according to person-days, person-months, and person-year/FTE You will also see these units in the results tables.

- A person-day is a unit of measure based on work done by one person working full-time over 1 day or more than one person working part-time over several days, summing to the same amount. The following examples represent 1 person-day:
    - 1 person working full-time for 1 day
    - 2 people working half-time for 1 day
    - 1 person working half-time for 2 days

- A person-month is calculated similarly to a person-day. It is based on work done by one person working full-time over 1 month, or more than one person working part-time over several months, summing to a total of 1 month of full-time work by one individual. The following examples represent 1 person-month:
    - 1 person working full-time for 1 month
    - 2 people working half-time for half a month
    - 2 people working half-time for 1 month
    - 1 person working half-time for 2 months

- Person-years/FTE are also calculated in a similar way as person-days and person-months. A person-year comprises the work done by one person working full-time over 1 year, or the work done by more than one person working part-time for amounts of time that sum to 1 year. The following examples represent 1 person-year or FTE:
    - 1 person working full-time for a year
    - 2 people working full-time for six months
    - 2 people working half-time for a year
    - 4 people working quarter-time for a year

"New" and "established" Active Sites, Areas, and Group-Areas. "New" means "new to NACS in Year 1"; "established" means levels that had already introduced NACS before Year 1, e.g., Active Sites that were already implementing NACS before the first year that is being costed using the tool. This distinction allows you to factor in the extra effort for training, supervision, and management that is required when NACS services are first introduced.

■ **INSTRUCTIONS (GENERAL)**

1) Review the default values in column J (in the green cells) and consider whether they reflect the circumstances of your country and its NACS services.

2) For the default values you wish to change, record an alternative figure in the corresponding light-blue cells in column K.

   - **If no values are entered in the light-blue cells, the tool will use the default values in the calculations.**

   - If you enter a value that seems outside the usual parameters, a pop-up box will ask you, "Are you sure?" Click <OK> if you want the tool to accept your value, or <Cancel> if you want to re-enter the value.

3) If you wish to exclude an item because it is not utilized in your program, enter <0> (zero) in the corresponding light-blue cell (however, see Appendix 1 for guidance on excluding items). Otherwise, the tool will use the default value in the calculations.

THINGS TO CONSIDER

1) If you are satisfied with a rough estimate of costs, you could simply accept all the default values, i.e., enter no data into the light-blue cells. The default values are based on previous program experience with NACS services.

2) Pay attention to the units. For example, do not record the number of hours per month a manager spends working on NACS if the tool asks for "days per year."

D5 Panel A: General

Panel A asks for general information used in costing.

■ INSTRUCTIONS

1) In row 17, enter the size in square meters (m²) of a typical patient consultation room in one of your country's NACS-providing health facilities. This is used to calculate the area in square meters for one-on-one consultations with NACS patients.
2) In row 18, enter the area in m² needed for training venues per day. This is used to calculate the area in square meters for trainings.

D5 Panel B: Service delivery

Panel B asks about equipment and written materials involved in NACS service delivery.

■ INSTRUCTIONS

Enter the information for the items needed for NACS service delivery. If an item is not used to deliver NACS services in your country, enter zero.

> ### THINGS TO CONSIDER
>
> For some items, the tool asks for the quantity *per target group per health facility.* The quantity of equipment is entered *per target group* because this allows the tool to disaggregate the equipment by target group in the results tables, e.g., a certain number of scales for pregnant/postpartum women and a certain number of scales for adults.
>
> There are 4 possible target groups (from worksheet D2): pregnant and postpartum women; adults; children under 5; and adolescents and children 5 years or over. You may need to estimate the average over more than one target group.
>
> **Example 1:** You need 4 child scales per Active Site and you use these scales for 2 target groups—for children under 5 and adolescents and children 5 years and over. For children under 5, you use 1 scale in well-child services, 1 in sick-child services, and 1 in inpatient services. For adolescents and children 5 years and older, you use 1 scale in adolescent services. In this case, the average number of scales per target group is 2 (= 4 scales/2 target groups).
>
> **Example 2:** You need 5 adult scales per Active Site, and these scales are used for 3 target groups. For adults, you use 1 scale in HIV services and 1 in TB services. For pregnant and postpartum women, you use 1 scale in pre-natal services and 1 in post-natal services. For adolescents and children 5 years and over, you use 1 scale in pediatric services. In this case, the average number of scales per target group is 1.67 (= 5 scales/3 target groups).

D5   Panel C: Trainings

Panel C asks about trainings at the Active Site, Area HQ, and Group-Area HQ levels. This information is used to calculate training costs (per diems, venue rental, transport, and materials).

■ INSTRUCTIONS

Consider the trainings you want to cost for each level and include them here, e.g., NACS protocols, data monitoring, QI, and commodity monitoring.

> **THINGS TO CONSIDER**
>
> If you plan to do more than one type of training per level, for example, if you want to plan for a 5-day training on NACS protocols for 20 people and a 3-day training on commodity management for 5 people at all new Active Sites, you may enter the *total* number of participants and the *average* number of days across the trainings. However, be aware that doing this may generate inaccurate estimates of the costs for per diems, transport, and space. For example, if you enter <25> for the number of health care providers to train in row 63, and <4> for the length of the training course in row 65 (which is the average of 5 days and 3 days), the tool will generate 100 trainee-days of per diem (=25*4). The accurate number would be 115 trainee-days (= (20*5) + (5*3)). For transport and space, the tool will assume that transport and space are needed for just one training (for 25 people), instead of two trainings. Still, this work-around of entering the *total* number of participants and the *average* number of days could be used to capture more than one training per level.

D5 Panel D: Logistics

Panel D asks about items related to commodity logistics. This information is used to calculate the resources required for the transport and storage of commodities.

■ INSTRUCTIONS

1) In rows 100–102, specify the maximum height to which boxes can be stored in the store room. The tool calculates the ground area required (in m^2) for storage, using this value and the total volume of the boxes to be stored, which you entered in worksheet D2, panel C.

2) In rows 103–106, the tool asks you to enter the *primary* mode for distributing commodities. Choose among three options: hiring vehicles (renting), using your own vehicles, or paying a third party to transport the commodities.

THINGS TO CONSIDER

1) You can only choose one type of transport mode for each level. If you transport commodities in more than one way for any given level, select the one for which you are most interested in knowing the costs.

2) If you select <use own vehicle> and you wish to include the full cost of purchasing the vehicle in the costing, enter that information in worksheet D5, panel G and worksheet D6, panel D.

3) Remember that you have already specified in worksheet D2, panel C, column P which products are transported using the primary mode.

   a. Review those cells now to be sure you answered <yes> for the products that will be transported using the primary mode you have selected in this panel, and <no> for the products that will not use the primary mode of transport that you have selected here.

   b. Only the nutrition products for which you selected <yes> will be included in the transport and space calculations in the results tables; the products for which you select <no> will not be included. If you have more than one transport mode (for example, if RUTF is transported by your vehicles and fortified blended food is transported by the World Food Programme), you may need to calculate the transport costs separately (not using this tool) for the commodity that is not transported via the primary mode specified in the tool.

D5   Panel E: Governance/supervision/QI at the area, group-area, and central HQ levels

Panel E asks about governance, supervision, and QI at three levels: Area, Group-Area, and Central HQ.

■ INSTRUCTIONS

1) Pay close attention to the units when entering information.

2) In rows 108–111, the tool asks for quantities of written materials for a "documentation package." This refers to a set of materials that managers at the Area, Group-Area, and Central levels need to manage NACS. The tool assumes that this includes a NACS reference manual as well as recording and reporting forms. You can also specify another set of forms in the light-blue cell in row 111.

THINGS TO CONSIDER

Governance, supervision, and QI occur at different levels in the system:

Internal supervision at the Active Site refers to supervision at the Active Site done by senior health staff based at that site.

Supervision at the Area HQ refers to Area HQ staff who supervise Active Sites.

Governance at the Area HQ refers to Area HQ staff activities such as management, planning, reporting, and budgeting.

QI sessions at the Area HQ refers to peer-to-peer learning sessions involving health staff from Active Sites. The tool assumes QI sessions take place once per year and are targeted at personnel from *new* Active Sites (not established ones).

Governance at Group-Area HQ refers to Group-Area HQ staff activities such as management, planning, reporting, and budgeting.

Governance at Central HQ refers to Central HQ staff activities such as management, planning, reporting, and budgeting.

D5   Panel F: Start-up activities

Panel F asks for information on the start-up activities that you selected in worksheet D4. If you did not select an activity, the following sentence will appear: "You stated in worksheet D4 that this activity is not necessary, so it is not included here."

▪ **INSTRUCTIONS**

Enter the information, paying close attention to the units, which include persons, person-months, person-days, and days.

> **THINGS TO CONSIDER**
>
> Row 157 asks about additional preparation/follow-up time of an advisory group as a percentage of meeting time. This refers to significant additional work done by the advisory groups *outside of the actual meeting time* (for example for preparation). For example, if the group invests twice as much time in preparation as at the meeting, record 200%; if half as much time, record 50%; and if no time at all, record 0%. (The default value is 25%, meaning that these extra activities demand one-quarter the amount of time as the meetings themselves.) The percentage chosen here is assumed for all meetings in Panel F.

D5   Panel G: Other supplies, equipment, or commodities provided

Panel G allows you to enter supplies, equipment, or commodities that are part of your NACS services at the Active Site, Area HQ, Group-Area HQ, or Central HQ levels that have not been taken into account in previous worksheets. Record these in this section. Examples might be a water purification system, anemia testing equipment, or a vehicle. You will record the prices of these items in worksheet D6, panel D. Nutrition products that are given to NACS patients should not be included here; they are entered in worksheet D2, panel C.

▪ **INSTRUCTIONS**

1) Record a descriptor name in column D.

2) Record the unit of measure in column E.

3) Select the location at which the item will be utilized in column G, e.g., will it be used at each Active Site, Area HQ or Group-Area HQ.

4) Record the number of units utilized (at each specified location) in column H. Pay attention to the unit of measure here—this will determine how many of these items are costed and at what level. For example, if you include 1 vehicle per district, and you have 5 districts, the tool will cost out 5 vehicles. If you record 0.2 vehicles per district, and you have 5 districts, the tool will cost out 1 vehicle.

5) Record the expected length of life of the item (in years) in column I. The tool uses this information to calculate when equipment needs to be replaced in future years. For example, if a weighing scale has a

lifespan of two years, the tool will assume it should be included in the costing for Years 1, 3, and 5 (of a 5-year plan).

6) Select the term that most accurately describes the main function of the item in column J. The tool uses this information to categorize the item for the results tables.

| D5 | Panel H: Assumptions about the level of effort involved in the activity of information management, including monitoring and evaluation |

Panel H asks about the time that personnel spend on information management, including monitoring and evaluation (M&E), e.g., filling monthly reports, processing data, entering data into a database, and reporting on indicators. This is used to estimate the proportion of personnel costs that go toward information management-related activities.

■ **INSTRUCTIONS**

Enter the percentage of time spent on information management for managers/supervisors (in column E) and clerical support (in column G). For example, if health facility staff spend about 2 hours per week on information management-related activities, the percentage would be 5% (=2 hours/40-hour work week).

4.6   Worksheet D6. Prices and Salaries

D6	Prices and salaries

Worksheet D6 collects data on the prices of inputs used in the provision of NACS services. The tool uses these prices, together with the estimates of the quantities of inputs, to calculate costs, where cost equals the quantity multiplied by the price.

THINGS TO CONSIDER

General

1)   Price information may be found by consulting finance offices, donors, and commercial sources.

2)   Prices for some inputs vary from one part of the country to another: for example, land is often more expensive, and commodities are often cheaper in urban versus rural areas. The tool does not accommodate such variations: select an average price, weighted to reflect where your NACS services are being implemented.

3)   Prices vary depending on the precise nature of the input. Pay attention to the unit specified and ensure that the price is appropriately comprehensive. Consider the cost and the source of the item when identifying the price. If a piece of equipment is going to be imported, the unit cost should cover the cost of the item, shipping, customs, and insurance. Salaries should cover the base pay and benefits.

4)   The price that reflects the value of an input (economic cost) may be different from the price you pay for it (financial cost), which is generally the purchase or market price.[1] Decide which kind of prices you want to use. If you are interested in developing a budget, use financial costs.

5)   Consider recording a price of zero for any NACS input that you do not wish to cost out. However, read Appendix 1 first, and do not overlook the fact that while donors may provide certain inputs, they may also require a contribution (e.g., the payment of duty or insurance).

Training-related

6)   Training costs are made of several elements. In worksheet D6, the tool breaks down the cost as follows: transport (panel B), training venue (panel C), training materials (panel E), per diem (panel F), refreshments (panel F), and remuneration/honoraria (panel G). Your accounting system may work differently, in which case you will need to use judgement about how to cost the various elements. The key point is to avoid double-counting costs while at the same time being comprehensive. For example:

   a.   If the cost for the training venue is $300 per day and includes the cost of refreshments, enter <$300> in panel C for the training venue cost and <$0> (zero) in panel F for the refreshments cost.

   b.   If you have to pay for bottles of water, notebooks, and pens for participants, include them in panel F under refreshments. ("Refreshments" is calculated per trainee and is a useful catch-all category for extras provided to trainees that might not be included elsewhere.)

Note: If meals are included in the venue costs, do not reduce the per diem amount, as the per diem amount is also used for supervision, governance, and logistics. Instead, adjust the venue costs to exclude the meals. For example, say per diem is normally $50 per person per day, but is reduced to $40 per person per day if meals are provided. The venue is $500 per day and this includes meals, and you estimate that, without meals, the venue would be approximately $300 per day. Enter <$50> in the relevant per diem cell in section F and <$300> in the relevant cell under "Training venue" in section C.

---

[1] Commonly this divergence between economic and financial costs occurs when the input is valuable but free (or subsidized) because someone else is paying for it: perhaps a donor is providing nutrition products, or another department in your ministry pays all staff salaries, or you may have invested in NACS equipment in a previous year (e.g., purchased a vehicle already). Economic costs are used in cost-benefit or cost-effectiveness analyses, which involve judging the merits of different investments and working out how to use resources most efficiently. Financial costs are used for budgeting.

D6   Panel A: Currency

Panel A asks which currency you would like to use in recording the prices for goods and in which currency you would like to express the final results. In each case, there are two options: $US or your local currency (as defined in worksheet D1, panel A). You can choose to use different currencies for different purposes: for example, you might decide to record prices in the local currency and show the results in $US. You can change these selections at any time.

■ INSTRUCTIONS

1) In cell F12, choose which currency you wish to record prices in ($US or local currency). It will be easier to complete worksheet D6 if you select the currency you use to pay for most of your resources; usually, this is the local currency. The option you select becomes the heading for the light-blue data entry cells in panels B through H. Be sure you enter the prices according to the selected currency.

2) In cell F14, choose the currency in which you want the results to be presented. Be guided by the audience for your results and use the currency that will be most useful to them.

3) Prices change over time (usually increasing), so it is important to specify in cell K12 the year to which all your prices refer. This should be the most recent year for which you can get reliable pricing for most inputs (usually the previous year).

THINGS TO CONSIDER

If the currency in which you record the prices (cell F12) and the currency in which you express the results (cell F14) differ, the tool automatically converts the prices using the exchange rate you defined in worksheet D1, panel A.

D6   Panel B: Transportation

Panel B asks for data related to the cost of transportation for personnel (in panel B1) and commodities (in panel B2).

> **THINGS TO CONSIDER**
>
> 1. The price of transportation is based on (a) running costs, which principally refer to fuel, oil, routine maintenance, tax, and insurance; and (b) daily rate for hiring vehicles if you plan to hire a vehicle.
>
> 2. Vehicle drivers often have good estimates of the transport running costs, or your organization may have an official reimbursement rate per km per person which you could use. Otherwise, construct an estimate of the full running cost per km using information from vehicle workshops, government finance offices, or hiring companies.
>
> 3. The choices you make here will determine how the transport costs are calculated and labeled in the results tables. Appendix 4 presents an explanation of the transport units used in the results tables. You may wish to consult the appendix when making decisions on which units to select in panels B1 and B2.

D6   Panel B1: Transportation of personnel (running costs)

Panel B1 collects data related to the transportation costs of personnel involved in supervision and training.

■ INSTRUCTIONS

1) For transport of personnel between Active Sites and Area HQ and between Areas and Group-Areas HQ (rows 20 and 21), enter a cost per kilometer per person. The tool uses data on the distance between locations (entered in worksheet D7) to calculate the total transport cost. For example, if 3 health workers each travel 100 km round-trip for a training course and the cost per km per person is $1.00, the tool will calculate the total transport cost as 3 x 100 x $1.00 = $300.

    Note that the tool asks for the value *per kilometer per person*. If the cost you obtain relates to more than one person, you will need to calculate an average per person amount. For example, if the cost per km of a vehicle is 60 cents per km, and there are, on average, 3 passengers in the car, the cost *per km per person* is 20 cents (60/3=20). If public transport is used, estimate an approximate cost per km per person based on the fare divided by the distance travelled in kilometers.

2) For transport of personnel between Group-Area HQ and Central HQ (row 22), choose between <km per person>, which is cost per kilometer per person, the same method used in rows 20 and 21, or <return journey>, which refers to the round-trip cost of the overall trip for a single person. This is a convenient option if public transport is used and a fare is paid, e.g., for airplane or bus tickets. If the round-trip ticket cost varies across the Group-Areas, enter an average cost.

D6   Panel B2: Transportation of commodities

Panel B2 asks for data related to the cost of transport of commodities. Remember that in worksheet D5, panel D you specified the transport mode between each level. Here, you enter the prices. If you do not want to include transport costs in your budget, you may enter zeros, but see Appendix 1 for a discussion on the limitations of excluding these kinds of costs and quantities

- **INSTRUCTIONS**

1) Record the running cost of vehicles and the unit used. If the transport mode is "hired vehicle," also record the cost to hire the vehicle per day. Do this separately for each trajectory: for travel from the Central HQ to the Group-Area HQ, from the Group-Area HQ to Area HQ, and from the Area HQ to the Active Sites.

2) The drop-down menus allow you to choose one of six options, depending on how you pay for your commodity transport. You have two options in columns H (blank or <km per>) and three options in column I (<cubic meter>, <metric ton>, and <vehicle load>). These options can be combined, allowing you to specify any of the following units for transport running costs:
    a. per cubic meter
    b. per metric ton
    c. per vehicle load (which means one delivery round of the commodities)
    d. per km per cubic meter
    e. per km per metric ton
    f. per km per vehicle load

    For example, if your running costs are calculated per kilometer per metric ton, you would select <per km> in column H and <per metric ton> in column I. If your running costs are calculated only per metric ton, you would select the blank cell (the first option in the drop-down menu) in column H and <per metric ton> in column I.

3) If the cost you pay for transportation of commodities is a total cost which is not disaggregated by all levels or distance, e.g., if you pay a cost-per-metric ton to transport commodities from the Central HQ to the Active Sites, avoid double-counting by recording that cost only once (in row 26), and recording <0> in rows 28 and 30.

D6   Panel C: Space (rental costs)

Panel C asks about cost to rent space for NACS service delivery, trainings, and storage. If you do not want to include rental costs in your budget, you may enter zeros, but see Appendix 1 for a discussion on the limitations of excluding these kinds of costs and quantities.

- **INSTRUCTIONS**

1) For NACS service delivery and storage, enter the rental cost in square meters *per year*. Space for service delivery refers to the office space needed to conduct activities such as nutrition assessment, counseling, and treatment. Space for storage refers to the space needed to store commodities.

2) For the training venue, choose from the drop-down menu either <square meters per day> or <room per day>, depending on whether it is easier for you to provide estimates of the cost per room or the cost per square meter, and enter the associated cost.

D6 Panel D: Equipment

Panel D asks about the purchase cost of equipment used in NACS. Pay close attention to the unit, e.g., per tape, per scale, etc.

■ **INSTRUCTIONS**

Enter the cost of the relevant NACS equipment. If an item is not relevant to your services or you do not wish to include the cost in your costing, enter zero. For example, if you do not target children in your NACS services and therefore do not need child scales, enter zero in that row. It is advisable to read Appendix 1 if you are unsure whether to record a price.

D6 Panel E: Written materials (printing and binding costs)

Panel E asks about printing and binding costs for written materials. Pay attention to the unit, e.g., per manual, per package, etc.

■ **INSTRUCTIONS**

1) In row 82, enter the cost of printing and binding the NACS reference manuals that are kept at the Active Sites.

2) In rows 83 to 97, record the cost of printing the different components of the "basic documentation package" for Active Sites, nutrition store managers, and NACS managers. You can calculate this in one of two ways: record either the cost of printing and binding the package *as whole* (in which case you enter the total cost in rows 83, 89, and 94) or the cost of printing and binding *each document* in the package (in which case you select <individual pricing> from the drop-down menu in rows 83, 89, and 94, and enter the cost of each document).

3) In rows 98 to 100, enter the cost of printing NACS treatment cards/charts, commodity acknowledgement forms, and supervisory checklists.

4) In rows 101 to 110, enter the cost of printing training materials.

D6 Panel F: Per diem and refreshments

Panel F asks about per diem. These costs do not include transport (transport was entered in panel B). The tool uses this information to calculate per diem and refreshments for travel related to governance (for Central and Group-Area staff), supervision (for Area staff supervising Active Sites), and training (for all levels).

■ **INSTRUCTIONS**

1) In rows 113 to 116, enter the cost of full per diem for an overnight stay (including lodging, meals, and incidental expenses) at each level.
2) In cell H119, select <yes> or <no> to the question of whether partial per diems are given for travel that does not involved an overnight stay. If <yes>, enter the cost of the partial per diem in cell J120. The tool asks for one partial per diem value, which will be applied to all levels; if the partial per diem varies by level, use an average.
3) In cell J123, enter the cost of refreshments per person, e.g., tea and snacks, for meetings and trainings. You may wish to include the cost of stationery or other items routinely provided to trainees or advisors at meetings or training sessions.

D6 Panel G: Remuneration: Salaries (total annual gross salary)

Panel G asks about salaries and honoraria for typical NACS functions.

■ **INSTRUCTIONS**

1) In column I, choose from the drop-down menu the staff category that most closely resembles the type of worker that conducts the function specified in column D. (The drop-down menu is copied from worksheet D1, panel C, column E). If the staff category does not appear in the drop-down menu, you can enter your own choice of an appropriate name.
2) Enter the salary in column J. Salaries should be the annual gross salary, including the base pay and benefits (since the benefits are not entered elsewhere in the tool).
3) For health facility staff (rows 144 to 153), be sure to record salaries for any staff selected in the D3 worksheets in panel A. Although you do not need to record the salaries of any staff who do not appear in the D3 worksheets, it would do no harm and be safer if you provided salary data for all listed staff categories.
4) In rows 160 to 165, record the amount given *per training day* (for trainers) or *per day* (for advisory committee members involved in start-up activities). If any category is not relevant, simply leave the value as <0.00>.

D6 Panel H: Nutrition products

Panel H asks about price of nutrition products. The list of products comes from worksheet D2, panel C.

■ **INSTRUCTIONS**

Enter the unit price, which should include the purchase price, shipping, and handling. Pay attention to the units—be sure the price you enter corresponds to the specified unit.

4.7 Worksheet D7. Geography

Worksheet D7 collects information for the Areas in panel A and for the Group-Areas in panel B on characteristics that are likely to vary, such as: name; population; number of sites (with and without NACS); distance and time to sites; frequency of delivery of commodities; and accommodation and travel arrangements for trainees. This information is used to create appropriate labels for the results tables, to calculate quantities of both commodities and transport, and to factor up costs in Year 1 to future years.

This worksheet pertains only to Year 1. Information on new Areas in subsequent years will be recorded in worksheet D9.

D7   Panel A: Area-level geographic data

D7   Panel A1

Panel A1 asks for information on population and Active Sites within each Area in Year 1. The number of columns should correspond with the number of Areas that you specified in worksheet D2, panel A.

▪ INSTRUCTIONS

1) In rows 16 and 17, enter the names of the active Areas, and the Group-Areas to which the Areas belong.

   - If a Group-Area name is missing from the drop-down list, return to worksheet D2, panel A to add it.

   - You may wish to organize the information by Group-Area, i.e., list the active Areas within one Group-Area, then list the Areas in the second Group-Area, etc., like this example, where (in the first row) Chitipa, Karonga, Likoma, Mzimba N, Mzimba S, Nhkata Bay, and Rumphi correspond to (in the second row) the North Group-Area; and Dowa, Nhkotakota, Ntchisi, and Salima are in the Central East Group-Area:

District 1	District 2	District 3	District 4	District 5	District 6	District 7	District 8	District 9	District 10	District 11
Chitipa	Karonga	Likoma	Mzimba N	Mzimba S	Nkhata Bay	Rumphi	Dowa	Nkhotakota	Ntchisi	Salima
North	North	North	North	North	North	North	Central East	Central East	Central East	Central East

2) In row 18, enter the population for each Area. The total population for all Areas is summed in cell H18.

3) In row 19, enter the number of Active Sites in each Area.

4) In row 20, enter the number of Active Sites with *established* NACS services (where NACS was already introduced *before Year 1*).

5) In row 21, enter the number of Active Sites with *new* NACS services (where NACS will be introduced *in Year 1*). Do not include sites that will introduce NACS *after* Year 1; these sites will be entered in worksheet D9. Note that you may choose to define an established site as "new" if you want it to have the extra support that would typically go toward a new site.

6) In row 22, the tool automatically calculates the percentage of Active Sites offering NACS by adding the number of established and new sites and dividing them by the total number of sites in the Area. This gives you an idea of your Year 1 coverage.

D7   Panel A2

Panel A2 asks about distance, time, and overnight stays for travel within each Area.

■ INSTRUCTIONS

1) In rows 24 and 25, enter the average *distance* in kilometers from the Active Sites to the Area HQ (row 24) and from the Area HQ to the Group-Area HQ (row 25). This refers to the overland travel distance, not the distance "as the crow flies." The overland travel distance is used to calculate the costs of transporting both commodities and personnel (e.g., supervisors). One way to estimate distances is by using technology such as Google maps. Ministry drivers will also usually have a good idea of distances.

2) In rows 26 and 27, enter the average *time* that it takes to travel from the Active Sites to the Area HQ (row 26) and from the Area HQ to the Group-Area HQ (row 27). Again, this refers to overland travel.

3) In row 28, select <overnight> if health providers stay overnight when traveling for trainings at the Area HQ level, or <commute> if they do not stay overnight. This information is used to calculate per diems.

4) In row 29, select <overnight> if Area HQ staff stay overnight when traveling for trainings at the Group-Area HQ level, or <commute> if they do not stay overnight. This information is used to calculate per diems.

D7   Panel A3

Panel A3 asks about delivery of commodities. Panel A3 will not appear if your NACS services do not include nutrition support (i.e., you selected <no> to the question in worksheet D2, panel C, cell H67, "Will NACS include providing nutrition products to any of the target groups?").

■ INSTRUCTIONS

1) In rows 35 and 36, enter the average number of deliveries per year between the administrative levels—Active Site, Area, and Group-Area.

2) In row 37, select any levels that are bypassed, i.e., if the commodities are not stored at a given level while being transported. The tool uses this information to be sure that storage costs are only included for the levels where the commodities are stored.

   - If no levels are bypassed, select <none by-passed>.
   - Otherwise select the level that is bypassed. Then, record the same number of deliveries both to and from that level: the tool will assume that the vehicle will pass through that level without stopping when it calculates distances. This means that:
     - If Area is bypassed, the numbers in rows 35 and 36 should be the same.
     - If Group-Area is bypassed, the numbers in rows 36 and 64 should be the same.
     - If Central HQ is bypassed, the numbers in rows 63 and 64 should be the same.
     - Note that if these numbers should be the same but are not, the value in one of the cells will turn red to alert you to the mistake (or a message will appear in cell G66).

   For example, if your country includes health facilities, districts, and provinces, and your commodities are transported 4 times per year from the MOH to the provinces and 6 times a year directly to the health facilities, you would select <district> in row 37 (meaning that the commodities bypass the

district) and enter <6> in rows 35 and 36 and <4> in row 64. (Row 64 is the average number of deliveries to each Group-Area HQ from the Central HQ—see next section on Panel A4.)

3) In row 38, indicate whether delivery rounds involve separate trips to each facility or a single round trip. <Separate visits> assumes the vehicle returns to the Area HQ after visiting each Active Site. <Round trip> assumes the vehicle makes one continuous round trip, i.e., the vehicle delivers the commodities to all health facilities before returning to the Area HQ. Keep in mind that:

- A round trip will generally be quicker and cover less distance, but it will require a larger vehicle than separate visits.

- If you select <round trip>, the tool estimates the total distance of the trip by assuming that all the Active Sites are positioned the same distance (the average distance) from the Area HQ and are equal distance from each other.

D7 Panel A4

In Panel A4, the tool automatically estimates the distances (in row 39) and times (in row 41) to make a complete delivery to all NACS Active Sites in the Area, based on the distance values you entered Panel A2 and whether delivery occurs via a round trip or separate deliveries.

■ INSTRUCTIONS

1) Review the estimated distance in kilometers in row 39. If you have a better estimate, enter the value in row 40. If the distance seems about right and/or you are happy using the tool's estimate, leave the cells in row 40 blank.

2) Review the estimated time in hours in row 41. If you have a better estimate, enter the value in row 42. If the time seems about right and/or you are happy using the tool's estimate, leave the cell in row 42 blank.

D7   Panel B: Group-area-level geographic data

Panel B asks for Group-Area information on distance, time, overnight stays, and delivery of commodities in Year 1.

D7   Panel B1

Panel B1 asks for information on distance and time for each Group-Area you specified in worksheet D2, panel A.

■ INSTRUCTIONS

Enter the distance (in row 59) and time (in row 60) to travel from the Group-Area HQ to the Central HQ. This information is used to estimate the distance and time to transport commodities (those you specified in worksheet D2 as being transported through the primary transport mode) and personnel (if transport of personnel is by owned or rented vehicles, as specified in worksheet D6 row 22) between the two levels.

D7   Panel B2

Panel B2 asks whether staff stay overnight or commute daily for trainings and management/supervision visits. This information is used to estimate per diems.

■ INSTRUCTIONS

1) In row 61, select <overnight> if Group-Area HQ staff stay overnight when traveling for trainings at the central level, or <commute> if they do not stay overnight.
2) In row 62, select <overnight> if Group-Area HQ or central HQ staff stay overnight when traveling for management/supervision visits to the Group-Area or Area levels, or <commute> if they do not stay overnight.

D7   Panel B3

Panel B3 asks about deliveries of commodities to the Central HQ and Group-Area levels. This information is used to estimate transport and storage.

■ INSTRUCTIONS

1) In row 63, enter the average number of deliveries per year to the Central HQ level.

2) In row 64, enter the average number of deliveries per year to the Group-Area level from the Central HQ.

4.8 Worksheet D8. Population Data

Worksheet D8 gathers epidemiological and demographic information to generate estimates of the annual number of visits for different target groups. "Number of visits" is a key determinant of, among other things, the quantity of nutritional products required, and the level of effort needed from health facility staff providing NACS services. Since it is not an easy variable to estimate directly, panel A derives approximations using national-level data, which are more likely to be readily available. These estimates of the number of visits automatically populate the green cells in panel B3, which you have the option to change.

D8 **Panel A: National statistics (to derive district-level estimates in panel B)**

Panel A collects national level data on (a) the size of each demographic group, (b) the number in each nutritional status category for each demographic group, and (c) the proportion of each group with access to health facilities. This information is used to estimate the number of visits in panel B3. Population sub-groups not targeted by your NACS services (as defined by you in worksheet D2) are not visible and will not require your inputs.

D8 **Panel A1**

Panel A1 asks for an estimate of the total population, from which the tool automatically generates estimates of the number of individuals in each population subgroup.

■ INSTRUCTIONS

1) **Row 17.** Enter the most recent estimate you have of the country's total population size in cell G17. This figure is generally available from the government's office of statistics. From this number, the tool automatically generates estimates of the size of population subgroups (in the green cells) using data (hidden in a background worksheet) from a UN country-specific database.[11]

2) **Row 18.** If you have better estimates for the number of individuals in any subgroup, enter those in the appropriate light-blue cells in row 18; if not, leave those cells blank. If numbers are entered in row 18, they will override the values in the green cells in row 17. Note that the tool will generate an error message if you enter numbers that cause the total of all the values in row 17 (based on the green cells) to be greater than the total population size you recorded in cell G17.

---

[11] United Nations World Population Prospects 2015 Revision (https://esa.un.org/unpd/wpp/). The tool accesses information on population projections for the specified country and base year.

D8   Panel A2

Panel A2 asks for data on the population-based prevalence of SAM, MAM, normal, and "other" in each demographic subgroup.

■ **INSTRUCTIONS**

1) **Prevalence of SAM, MAM, and "other" (rows 22–24).** Enter data on the population-based prevalence (percentage of the population at a point in time) of SAM, MAM, and "other" in rows 22–24.

   - The tool calculates the prevalence in the "normal" category by subtracting the sum of percentages of SAM, MAM, and "other" from 100.

   - If you have an "other" category, it should not overlap with the SAM and MAM categories, i.e., all the categories should be mutually exclusive (see section 4.2 on worksheet D2, panel B for more information). If you have not defined an "other" category, enter <0> (zero) as the prevalence.

   - Data on SAM and MAM prevalence is usually available for children under 5 years of age from Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS), or similar sources. The nutritional status of adult women is also frequently included in DHS surveys. However, information for older children/adolescents and men is often unavailable and advice from experts with knowledge of public health nutrition may need to be sought.

2) **Incidence correction factor (row 26 and 28).** The tool gives the option of entering a value for a so-called incidence correction factor to take into account estimates of new cases arising during a time period (in the tool, it is one year). You may provide estimates of the incidence correction factor for both SAM and MAM for different target groups; the tool's default value for this factor is zero. Incidence correction factors (sometimes referred to as 'incidence factors') are often used by programs that address nutrition in emergency situations or implement community-based management of acute malnutrition (CMAM) for children under 5. In the context of CMAM, an incidence correction factor of 1.6 has sometimes been used. However, the appropriate value for the incidence factor depends on the dynamics of the nutrition situation in a given setting.

D8   Panel A3

Panel A3 asks for data on the population-based prevalence of HIV and TB, including prevalence of HIV among adults with TB (i.e., the overlap between the two diseases). This information helps improve the accuracy of health facility contact estimates.

■ **INSTRUCTIONS**

1) **HIV and TB prevalence (rows 30 and 31)**.

   - If there is no information on the population-based prevalence of HIV and/or TB for a specific population subgroup, enter <0> (zero).

   - If, in the case of women, HIV prevalence data is only available as an average percentage across all women, use that value for all three groups of women (postpartum, pregnant, and other adult women).

- Data on HIV prevalence is found in some nationally-representative household surveys, such as DHS; some national or international sources, e.g., WHO, may also have information on HIV and/or TB prevalence.

2) **Is NACS for everyone? (row 33).** The answer to this question has important implications for the results. In some programs, NACS services are only offered to those with HIV and TB. For each subgroup, you are asked whether or not NACS is provided to everyone. If you select <No> to this question, only individuals with HIV and/or TB will be taken into account in the costing estimates.

D8 Panel A4

Panel A4 includes a series of questions to generate estimates of the number of individuals in each target group who have contact with health facilities and would therefore have potential access to NACS services.

■ INSTRUCTIONS

1) **Percentage of subgroup with health facility contact (row 35).**

   - **IMPORTANT: BE SURE TO FILL OUT THIS ROW with the most accurate estimates you can provide**! It is *essential* to enter some estimate for *all* relevant target groups. This is a critical factor in calculating case load estimates.

   - Estimates of the percentage of the general population with health facility contact are often available for pregnant and postpartum women. This may not be the case for other population subgroups. Obtain estimates by asking for expert opinion or using your best judgement, if necessary. If different sources suggest different values, choose the percentage that best reflects expected NACS service coverage, i.e., the percent of the subgroup with access to NACS services. You may wish to consider entering the desired NACS service coverage as your estimate.

   - Because of the uncertainty surrounding estimates of health facility contact by various subgroups, this is a good variable to play around with when reviewing the results tables (to see the implications for changing values).

2) **Percentage of adult HIV and TB patients with health facility contact (rows 36 and 37).**

   - Because many countries have better information about contact with health services for those who are HIV positive or TB positive than for the general population, panel A4 asks specifically for information about these groups to help refine estimates of health facility contact. Try to fill in this information even if NACS is available to everyone and not just those with HIV or TB.

   - Information on the percentage of individuals with HIV and TB with health facility contact can be ascertained by looking at national or international sources of information or getting expert opinion on the proportion who are receiving antiretroviral or TB therapy. If there is no information, enter <0> (zero).

D8 Panel B: Population statistics by area

Panel B automatically generates Area-specific estimates of the population in the NACS catchment areas (in panel B1), the expected number of cases (in panel B2), and the expected number of Active Site visits (in panel B3). It does this using the data from panel A, together with data from worksheets D1 and D7. You can, if you choose, selectively override some of the calculations, but otherwise you are not required to do anything in panel B.

■ INSTRUCTIONS (OVERALL FOR PANEL B)

1) Review panel B1 and change the coverage percentage (row 57) if you feel you have more accurate estimates for any of the Areas.

2) Review panels B2 and B3. In panel B3, if you have more accurate estimates for any Area, change the estimated numbers of visits by entering data in the corresponding light-blue cells (which will override the default value in the green cells). Otherwise, leave the cells as they are.

D8 Panel B1

Panel B1 reflects the total population from worksheet D7, cell H18 (that is, the sum of the population in each of the Areas that you entered in worksheet D7, row 18), and the estimated percentage and number of the population in the NACS catchment areas.

■ INSTRUCTIONS

1) **Total population in the Area (row 56).** The total Area population is automatically copied by the tool from worksheet D7, row 18.

2) **Estimated percentage of the population in the catchment area of NACS facilities (row 57).** The value in green is the percentage of health facilities in the Area that offer NACS. It is copied from worksheet D7, row 22. This is used as a proxy for the percentage of people in the catchment area of NACS sites. If you have a more accurate estimate of NACS coverage, record it in the light-blue cells. For example, if an Area has 10 health facilities and 5 have NACS, the estimated percentage of the population in the catchment area is 50%. However, if you know that the 5 health facilities with NACS cover over 50% of the population (for example, if the 5 NACS health facilities are large and cover about 75% of the population), enter 75% in the corresponding light-blue cell in row 57.

3) **Population within the catchment area of NACS facilities (row 58).** This value is automatically calculated by multiplying the total population in the Area (row 56) by the estimated percentage of the population within the catchment area (row 57).

D8 Panel B2 and B3

Panels B2 and B3 are related. Panel B2 shows a list of the annual number of cases by target group in the NACS catchment area. Panel B3 shows the numbers of "first visits" and "all visits" by target group in the NACS catchment area. To understand their relationship, it will be helpful to describe panel B3 first and then the relationship between panels B2 and B3.

Panel B3

In Panel B3:

- "First visits only" refers to the number of first-time patients that the Area expects to see over the course of one year.

- "All visits" refers to the total number of patient visits (including first-time visits) that the Area expects in one year.

The number of visits is calculated from three sources:

1) The D3 worksheets, panel B (where you chose how often target groups are assessed, counseled, and tested), and panel C (where you chose how often target groups are given nutrition products).

2) The population data from worksheet D8, panel A (all rows).

3) The population within the catchment area for NACS from worksheet D8, panel B1 (row 56).

Relationship between panels B2 and B3

Panel B2 is related to panel B3 as follows:

- The number of cases in panel B2 is the same as the number of "first visits" in panel B3. The logic is: a person coming to the health facility for his/her first NACS visit is considered one case. For example, if a health facility expects to receive 100 new NACS patients in a year, that would equal 100 cases.

- In panel B3, if the number of "first visits" has not been defined,[12] the number of cases in panel B2 is calculated by dividing the number of "All visits" in panel B3 by the number of contact-visits in the D3 worksheets in panel B (under the "Total number of visits expected for each case" column).

■ INSTRUCTIONS

1) Review the estimates in panel B2 (number of cases) and panel B3 (number of visits) for all categories (normal, SAM, MAM, or other).

2) After reviewing panels B2 and B3, you may wish to reexamine the values entered for nutritional status prevalence (rows 22 to 24) and the incidence factor (rows 26 and 28) and decide if any of these need to be revised.

3) If you are happy with the estimates in panel B2 and panel B3, leave the light-blue cells in panel B3 blank (do nothing).

---

[12] This happens if you specify in panel B in the D3 worksheet that the services are done at "all visits" (and no services are done at the "first visits only"). Similarly, it is possible that a target group in worksheet D7, panel B3 shows "first visits" but not "all visits" if you specify in panel B in the D3 worksheet that the services are done at "first visit only."

4) If you have more accurate estimates on the number of visits and/or cases than those generated by the tool—for example, if you know from your health information system data that the number of visits for people with SAM and MAM is higher or lower than what the tool shows—enter your estimates in the corresponding light-blue cell in panel B3. An entry in that cell will override the default value in the green cell (and corresponding changes will automatically appear in panel B2).

If you enter values for "first visits only," carefully consider if you also want to change "all visits" proportionally (by multiplying the value entered for number of "first visits only" by the number of contact-visits from worksheet D3, panel B)—because the tool will not automatically do this. For example, say the tool generates 100 "first visits" and 400 "all visits" for SAM adults (meaning that 100 new patients are expected and each is expected to make 4 visits during treatment). If you think the number of "first visits" is closer to 200, enter <200> in the corresponding light-blue cell. The number of "all visits" will still be 400 unless you change it, so if you think a better estimate is 800, enter <800> in the corresponding light-blue cell.

THINGS TO CONSIDER

1. The duration of treatment is specified in panel B in the D3 worksheets (first column of the table) for each target group. For example, the duration might be 2 months for MAM. The tool assumes that after 2 months, recovered MAM patients will receive all the services that are offered to people with normal nutritional status (that is, services will not stop after the completion of MAM treatment). Hence, people with MAM will contribute both to MAM visits (and cases) and to normal visits (and cases). Similar assumptions are made for SAM and "other" patients.

2. The tool asks for population figures in two places: worksheet D7, panel A1 and worksheet D8, panel A1. Though the two total population figures might match, the two figures do not have to be the same; the tool does not prevent you from entering different numbers. The tool uses the population figures in worksheet D8, panel A1 to calculate the numbers in each population subgroup (this includes assumptions about the number of pregnant/postpartum adolescents who are included with pregnant and postpartum women, as well as estimates of the numbers of adolescents/children in each of the age group). The tool uses the relative sizes of these population subgroups (shown in panel A1 of worksheet D8), combined with the Area population from worksheet D7, to estimate the number in each population subgroup in each Area. The population figures in worksheet D7, row 18 are used to calculate populations in the catchment area of NACS facilities in worksheet D8, panel B1, which in turn are used to calculate the numbers of cases (in panel B2) and visits (in panel B3). Therefore, if you change the population figures in worksheet D8, panel A1, the number of cases and visits in panel B2 and panel B3, respectively, will not change (because they are linked to the population in worksheet D7).

4.9   Worksheet D9. Future Years

Worksheet D9 gathers information about the plans for expansion of NACS for up to 4 years beyond Year 1. The tool uses this information, together with the detailed estimates for Year 1 from worksheets D1 to D8, to calculate the resources and costs for subsequent years.

HOW COSTS AND QUANTITIES ARE FACTORED IN YEARS 2–5

To calculate costs in subsequent years, Year 1 quantities and costs are factored up in proportion to (a) the increase in the numbers of Active Sites (new and established), Areas, and Group-Areas and (b) population increases (based on the UN population database, as described in section 4.8, panel A1, for resources that are assumed to be used in direct proportion with population growth, e.g., nutritional products and their storage and transport. The basic parameters for service delivery, which you defined in worksheets D3 and D5; all the prices (worksheet D6); and the average times and distances (worksheet D7) are assumed to be the same in years 2-5 as they are in Year 1.

The tool does not include an inflation factor for subsequent years,[a] and the exchange rate is assumed to be fixed across the years. The prevalence figures in worksheet D8 are also assumed to be the same.

If you feel these are not valid assumptions and that there will be important differences in the way that NACS services will operate in the future (other than increases in the numbers of Active Sites, Areas, and Group-Areas, as well as in population), you may wish to re-run the tool separately for each year. (If you re-run the tool separately for each year, only include start-up activities (worksheet D4) in one of the versions.)

[a] Costs are expressed in "real" terms, i.e., without adding in inflation. The advantage of this is that it avoids adding more uncertainty into the estimates and allows for year-to-year comparisons that are not distorted by inflationary components.

D9   Panel A

Panel A asks for the number of years you want to include in the costing.

■ INSTRUCTIONS

Select the total number of years you want the NACS plan to cover. If you choose <1>, no more information is required (you do not need to fill in the rest of the worksheets) because Year 1 costs are already calculated from the data in worksheets D1 through D8.

D9   Panel B

Panel B asks about the number of new Areas and Group-Areas that you plan to add in subsequent years. The total (including those specified for Year 1) must be no more than 50 Areas and 10 Group-Areas. If there are more, see the section on worksheet D2, panel A for suggestions on what you could do.

■   INSTRUCTIONS

Record the number of new Areas (in column F) and Group-Areas (in column G) that will introduce NACS services after Year 1, for each year of your plan. If NACS services will be introduced in Active Sites within the Areas *already listed* in worksheet D7 (i.e., not in *new* Areas), enter zeros in panel B and record the numbers of new facilities in panel D. You will not need to enter any information in panels C or E.

D9   Panel C

Panel C gathers the names of new Group-Areas in years 2 through 5, if applicable.

■   INSTRUCTIONS

If you stated in panel B that there will be new Group-Areas in years 2 through 5, enter the names here.

D9   Panel D

In panel D, name any new Areas into which NACS will expand and select from the drop-down menu the Group-Area they belong to.

■   INSTRUCTIONS

1) Record for all Areas, *including those active in Year 1*, the number of new Active Sites in each year of your plan. Be sure you scroll across to the right, to the end of the table and complete all the light-blue cells: new Areas appear at the end of the row.
2) Do not enter numbers (other than zero) into red-shaded cells. If your NACS services expand into new Areas in later years, there will be cells in panel D that are shaded red. These cells relate to the years before the NACS services started in those Areas. Leave them empty.

D9   Panel E

Panel E calculates the percentage of all health facilities in each Area that will offer NACS by the end of the costing period. This gives you an idea of your coverage. The calculation is made by dividing the number of Active Sites with NACS by the end of your costing period by the total number of Active Sites. For example, if a given Area has 10 sites, and you plan to introduce NACS in 1 site per year over 5 years (for a total of 5 sites), the percent in row 35 would be 50 percent. If, in this same scenario, 2 sites had already been established before your costing period, the total sites by the end of your costing period would be 7 (=2+5), or 70 percent.

5   Results Worksheets

5.1   Overview of the Results Worksheets

The tool has nine results worksheets—R1 to R9—presenting data on the quantity and/or cost of resources for NACS services, based on information you entered in worksheets D1 to D9. Worksheets R1 to R5 present the total cost and quantity of NACS services across all years, levels, inputs, and activities. Worksheets R6 to R9 focus on specific activities, e.g., training, supervision, start-up, and personnel. Worksheet R1 is the only one that includes information other than cost and quantity; it summarizes service coverage. In some worksheets, you can use filters to narrow the results in various ways (see section 5.3).

Each results worksheet disaggregates cost and quantity in different ways. You will find some worksheets more useful than others, depending on your planning and budgeting procedures and the stage at which you are at when you apply the tool. Table 5.1 summarizes the type of results in and features of the worksheets. To understand which tables will be useful for you and how they are organized, it will be helpful to understand how the data are disaggregated, as described in the next section.

5.2   How the Data Are Disaggregated

The tool can present the results in a disaggregated way because each resource used in NACS is labeled according to the following:

1)   The activity it is used for

2)   The type of input it is

3)   The target group(s) it is used for

4)   Where in the health service hierarchy it is used

5)   When (in what year) it is employed

This labeling allows for data to be organized in different ways, as reflected in the different structures of the results tables. The labeling also enables the use of the filters (see section 5.3). For example, R4 shows the cost of NACS services, organized by Area, and the kind of inputs that are used; it also allows you to filter by target group.

Background on labeling

For NACS services to work effectively, many tasks must be undertaken. The tool takes those tasks with a common purpose and groups them into eight **activity categories** (see Table 5.2). Each activity is realized by employing combinations of different inputs, i.e., the raw materials from which activities and services are created. The tool groups these inputs into six broad **input types** (see Table 5.2). There are many different elements within these broad input categories. The tool refers to these as **input details** (see Table 5.2). (Appendix 5 shows how the activity, input type, and input detail categories are related.

NACS addresses nutritional issues in up to four different **target groups** (see Table 5.2). Many of the NACS resources, particularly those used at the level of the health facility, e.g., nutritional products, can be specifically allocated to one of these groups. However, some serve a more general purpose, e.g., those required for training.

Resources for NACS are employed at different **levels** in the health service—from the basic health facility level to the national ministry of health level. The tool labels each resource by where in the hierarchy it is used, and it then groups the resources in three slightly differently ways to allow the data to be organized geographically by location, by level, and by Group-Area (see Table 5.2).

5.3 How to Use the Filters

Filters allow you to vary the content of the results tables to focus on a subset of the original data. For example, in worksheet R2, if you select <supervision> from the filter labeled "Activity," only supervision-related costs and quantities will appear in the table.

To use the filters:

1. Click on the downward arrow to the right of the light-blue cells and select the item that interests you.

Activity	(All)
Inputs	(All)
Input detail	(All)

2. Choose <All> if you want to keep all categories.

3. To select more than one subcategory, click on the downward arrow; click <Select Multiple Items> in the drop-down menu; and click the items of interest.

Things to keep in mind:

1. **You can use more than one filter at a time**. Each filter potentially narrows the scope of the results further. For example, in worksheet R2, if <training> is selected under the activity filter and, at the same time, <personnel> is selected under the input filter, the results table displays only those personnel costs associated with training activities (not the personnel costs of supervision or service delivery, for example, and not the transport or documentation costs of training, either).

> Remember that you entered country-specific terms for "Active Site," "Area," "Group-Area," "Central HQ" in worksheet D1, panel B. In the results tables, the country-specific terms will appear.

2. **Some row headings might disappear if you select a certain filter**. If this happens, it means that there is no associated cost or quantity for the specific filter(s) you've selected.

3. **Be sure to check your filter selections before interpreting your results tables**. If any filters have been selected, be aware that you are only seeing the results specified by the selected filters.

5.4 Approach to the Results Worksheets

It is recommended that you approach the results worksheets as follows:

1. **Review the nine results worksheets** to identify which one presents the results in the most useful way for your purposes.

2. **Examine the choices available with the filters** (Table 5.2) and identify those combinations of filters that will focus on the resources of particular interest to you.

3. Experiment with the **different filters**.

4. If you wish, you can **copy and paste the tables into another document**. Simply highlight the cells; copy them using the Excel commands; and paste them into another document.

Table 5.1 Summary of Results Tables

The type of results found in each worksheet and the filters available for each are summarized in the table below.

Worksheet	Description	Filters	Notes/comments
Worksheet R1 Coverage and costs of NACS services by year	**Panel A:** National population statistics **Panel B**: NACS program coverage (a subset of panel A)—health services and population receiving NACS services **Panel C**: NACS coverage—panel B as a percentage of panel A **Panel D:** Total and unit costs of NACS	None	The population "with access to health services" refers to those with health facility contact (from worksheet D8, panel A4); and the population "living in an area with NACS services" is based on the proportion of sites with NACS services compared to all sites within a given area (worksheet D8, panel B1).
Worksheet R2 Cost of resources for NACS	Disaggregated by • Central HQ • Group-Area • Group-Area HQ • Areas • Year	• Activity • Input • Input detail	Because input details are highly specific, be careful to specify the activity or input type correctly. For example, if you are interested in the cost of adult MUAC tapes but you accidentally apply the <training> activity filter or the <space> input category (neither of which pertain to adult MUAC tapes), the table will not show any results.
Worksheet R3 Quantity and cost of resources for NACS	Disaggregated by • Activity • Detailed input • Year	• Location • Target group • Group-Area	Worksheet R3 does not allow you to break down results for an Area by Active Sites and Area HQ. Use worksheets R4 and R5 for that. In the filter's drop-down menu, all target groups will appear, even those not identified as part of your NACS services (in worksheet D2). However, if you select a target group that does not provide NACS services, the costs will appear as zero.
Worksheets R4 and R5 Cost (R4) and quantity (R5) of resources for NACS	Disaggregated by • Activity • Location (Area, Group-Area HQ, and Central HQ) • Detailed input There is a separate table for each year.	• Level • Target group • Group-Area	Worksheets R4 and R5 have the same structure but different content: costs appear in Worksheet R4; and quantities appear in Worksheet R5. Use the hyperlinks at the top of the page to jump down to the tables for different years.

Worksheet	Description	Filters	Notes/comments
Worksheet R6 Quantity and cost of resources for NACS training	Disaggregated by • Detailed input • Year • Level of training: Active Site-level training for health care providers, Area-level training for managers, and Group-Area-level training for managers	• Location	Central HQ-Level training can be found in Worksheet R8, under start-up costs. The costs for a specific Group-Area's HQ can be obtained by selecting (a) <Group-Area HQ> in the "location" filter and (b) the specific Group-Area in the "Group-Area" filter.

Worksheet R7
 	
Quantity and cost of resources for NACS supervision
	Disaggregated by
	• Detailed input
	• Year
	• Type of supervision:
	  - Internal supervision by Active Site staff
	  - Supervision of Active Sites by Area HQ staff
	  - QI activities run by Area HQ staff for Active Site staff
		• Location	"Supervision" refers to three types of activities at the Active Site: (a) internal supervision by Active Site staff, (b) supervision by Area HQ staff, and (c) QI sessions run by Area HQ staff for Active Site staff. Supervision-like activities conducted at higher levels in the system are categorized in the tool as "routine governance."

Worksheet R8
 	
Quantity and cost of resources for NACS start-up (Year 1 only)
	Disaggregated by
	• Input
	• Sub-activity
	  - Policy and budget development
	  - Design and establishment of systems
	  - Design and field-testing of written materials
	  - Integration of NACS into pre-service training
	  - Training of national-level master trainers
		No filters	All start-up costs are assumed to occur in the first year. If any start-up activities occur after Year 1 in your country, move their costs to the appropriate year manually when preparing budgets and reports.
			
			Blanks or zeroes indicate activities that do not need to be carried out and/or should not be included in the costing (as you indicated in worksheet D4).

Worksheet R9 Quantity and cost of NACS staff (Year 1 only)	Disaggregated by • Type of staff • Their main activities • Location (Area, Group-Area HQ, and Central HQ) There are separate tables for quantity and cost.	• Activity • Target group • Level	The first table shows the LOE in full-time person-years/FTE. The second table shows the costs associated with this LOE.

Table 5.2 Summary of Data Disaggregation and Filters

Data disaggregation and filters

1. The **activity filter** allows you to see the cost of a specific activity. Any one (or combination) of eight different activities can be selected:

   - Logistics
   - Routine governance
   - Service delivery
   - Supervision
   - Training
   - Commodities
   - Start-up governance
   - Information management

2. The **input filter** allows you to see the cost of a specific type of input. Any one (or combination) of seven different input types can be selected:

   - Commodities
   - Equipment
   - Personnel
   - Space
   - Transport
   - Written materials
   - Other materials

3. The **input detail filter** allows you to see the cost of a specific input. Any one (or combination) of 35 detailed inputs can be selected. Each is essentially a sub-category of one of the input types. For example, salaries and refreshments are both sub-categories of "personnel." Most input details are unique to a specific activity category. For example, "adult height measures" is unique to the "service delivery" activity category. However, some cut across categories—for example, "refreshments" appears in both "start-up governance" and "training and supervision."

4. The **target group filter** allows you to see results for specific target groups. Any one (or combination) of four different target groups can be selected, along with a "general" category:

   - Under 5s
   - Adolescents/children
   - Pregnant/postpartum women
   - Adults

5. The **level filter** presents the data separately, according to the level at which the costs are incurred. It allows you to select any one (or combination) of the following:

   - Active Site (grouped into Areas; the tool does not display results by individual Active Site)
   - Area HQ
   - Group-Area HQ
   - Central HQ

6. The **location filter** creates Area costs (a combination of the Area HQ and the Active Sites in that Area) and puts the remaining costs to either Central HQ or a combined Group-Area HQ category. It allows you to select any one (or combination) of the following:

   - Area
   - All Group-Area HQs aggregated (not a specific Group-Area HQ)
   - Central HQ

7. The **Group-Area filter** creates Group-Area costs (a combination of the Group-Area HQ costs and the costs of all the Areas, including the Active Site costs, in that Group-Area). The remaining costs are Central HQ costs. It allows you to select any one (or combination) of the following:

   - Group-Area
   - Central HQ

6   Interpreting and Using the Results

Once the results are generated, it is recommended that you do the following:

- Assess the accuracy and relevance of the results
- Create a new budget and compare it with available resources
- Consider ways to reduce costs
- Use the results for advocacy

6.1   Assess the Accuracy and Relevance of the Results

Check your country-specific data. Examine each of the results worksheets. Are the results reasonable? If they look surprising, go over the values you inserted in worksheets D1 to D9 carefully. Take special care with the units in which you expressed the information. Check and resolve any alerts and error messages. Additionally, some discrepancies in the results tables may be caused by the formatting of decimal places, e.g., if the result is less than 1, but the cell is formatted to show values without decimal points, the value may appear as a zero

Understand how the costs are calculated. The calculation worksheets are not displayed in the tool. However, Appendix 5 (which shows how the input details—which are essential for calculating quantities and costs—relate to different input types and activities, and how they are costed) and Appendix 6 (which describes how the tool derives key variables used in the cost calculations from basic data provided in the D worksheets) both provide an overview of how the important cost components are calculated.

Revise built-in assumptions. Consider whether the assumptions in worksheet D5 are appropriate for your country. You can change them if necessary, but be aware that many of the values reflect current understanding of what constitute good NACS services and thus, these values should be changed only after careful consideration. For example, it may be tempting to reduce the number of staff trained or the length of training, but doing so is risky. Without adequate training, providers will not have the confidence or competence to implement NACS. Only consider reducing the number of days for training if you plan to have more frequent and intensive supervision.

Deal with uncertainty. You may be uncertain about some variables. Take advantage of the tool's ability to recalculate results easily when you enter new data. Identify a plausible range of values for any uncertain variable and run the tool twice, first with the minimum and then with the maximum value. If the two values generate significantly different results, either seek additional information to make a more precise estimate or, if that requires too much effort, choose an intermediate value that reflects the most likely scenario.

Modify estimates to take spare capacity into account. The tool calculates as comprehensively as possible the resources required for implementing NACS. However, you may not need to include all these resources in your budget. Some resources could be essentially costless to the NACS service if the system already has spare capacity. For example, if the health managers at the Area HQ are not very busy, they may be able to take on NACS duties without additional personnel or without hiring as many staff as may be indicated in the tool. Similarly, vehicles traveling to the Area HQ or Active Sites for other services may be able to deliver NACS commodities at the same time, thus reducing costs to the NACS program. Identify any inputs and Areas where health resources are not effectively used and investigate the

feasibility of deploying them for NACS. Be careful not to propose deflecting health resources to NACS away from a valuable current use. If any identified spare capacity can be used for NACS, you may wish to adjust the value of those specific costs downward in your budget to reflect this.

6.2   Create a Budget and Compare It with Available Resources

Take the tool's calculations, map out any reductions you have identified because of sharing or integration, and prepare a budget. Compare the budget with the resources you have available or that you expect to receive from all (potential) sources—government, donors, the United Nations, NGOs, community-based organizations, and/or the community. Do this for the budget as a whole and for each main activity and input. Consider who will provide what is needed and when, whether the support will be in-kind or financial (or both), and whether there are any requirements, e.g., requirements to purchase goods from specified sources.

Does this analysis suggest there may be shortfalls in available resources or finances? Donors often specify inputs, activities, or regions that they are prepared to support, making some inputs, activities, or Areas more difficult to finance. Identifying those Areas and inputs is an important part of planning for NACS. You will need to devote special efforts to securing funding or resources for any potential implementation bottlenecks.

If your available or accessible resources do not match the requirements identified by the tool, consider modifying the planned NACS service and reducing your budget, developing an advocacy strategy to mobilize greater resources, and/or developing a revised plan for scale-up.

6.3   Consider Ways to Reduce Costs

Try to avoid cutting activities or inputs completely. NACS involves a package of interrelated activities and cutting any of these may impede service delivery. For example, buying nutrition commodities alone is of little value to NACS services if there is no funding for their transport and storage. Likewise, if health providers are not adequately trained or supervised, the standard of care can deteriorate and undermine the effectiveness of the services.

A much better approach to reducing costs is to restrict the geographic coverage (the number of Areas or Active Sites within those Areas providing NACS services) while leaving the package intact. When resources are limited, providing adequate services to fewer Areas or Active Sites is a better option than maintaining coverage with sub-standard services.

Experiment with a few different scenarios. Explore the effect on costs (total costs and the costs of specific activities and inputs) of changing the number of Active Sites in worksheets D7 and D9 (after completing any additional light-blue cells that become visible). The tool is well suited to this kind of experimentation.

6.4   Use the Results for Advocacy

The results of the tool are likely to reveal that implementing NACS requires significant investment. This information may be persuasive in advocacy for more support for NACS. A strong case can be made for the accuracy and relevance of the cost estimates, which (1) are generated objectively and comprehensively (with no attempt to minimize or disguise the costs), (2) embody assumptions based on current understanding of what works best technically, and (3) take the country's unique circumstances into account.

Appendices

Appendix 1. How to Be Selective in Your Planning/ Costing

The tool is designed to calculate the quantity of <u>all</u> the inputs involved in implementing NACS so that a comprehensive picture of the resource requirements will be available in the results tables. You may, however, wish to exclude certain costs from your analysis, perhaps because certain activities or inputs are not part of your NACS services or because someone else is paying for them. There are different ways to deal with this:

1. The first step is to use the choices offered in the tool to **define the scope of the NACS services** as accurately and specifically as possible, so that major, irrelevant cost elements are not included in your results (such as costs for geographic areas, target groups, or services that are not covered by your program). This is mostly done in worksheet D2 (where you specify the number of districts and the type of targets); in worksheets D3.1 to 3.4 (where you specify which NACS services are provided at the health facility level); and in worksheet D4 (where you indicate which start-up activities have not been done and need to be included).

2. Within the scope defined in the previous step, there may still be **elements you wish to exclude** from your planning and costing because they will not be part of your NACS services. Think carefully before excluding any elements: NACS only functions properly when a well-designed package of activities (reflected in the content of the tool) is implemented. However, there may be components which you judge to be expendable. If this is the case, record a value of zero for the <u>quantity</u> of those specific inputs in the relevant cells in worksheet D5. This will remove those inputs from both the quantity and cost calculations. This is an appropriate approach if you are sure that the inputs will not be utilized at all in your program.

3. There may be **resources** used in your services but **paid for by someone else** that do not need to be included in your budget. There are two ways to deal with this. One is to record a <u>price</u> of zero for those inputs in worksheet D6. The other is to record the full market price for those inputs and then, upon reviewing the results tables, identify the unwanted cost elements and manually remove them when preparing your budget. The first approach may seem simpler, but the second approach does have advantages: you may wish to know the costs (even if you are not paying them currently) for negotiation purposes or future consideration. More importantly, because the tool uses some prices for calculations across many different activities, recording "zeros" as prices may create misleading costs elsewhere in the budget.

    > **For example,** the salary for store guards (worksheet D6) applies across all levels in the system. If, in your program, volunteers guard the stores at health centers but not at the district and zone levels, it would be inappropriate to record a salary of "zero" for store guards. Although there is no need to budget for them at the health center level, they still have to be paid at the district and zone levels. It is better to include the store guard salary, and then, when reviewing the results, identify the costs associated with guards at the health facility level and remove them manually.

Finally, bear in mind that while you may not have to pay for the input this year, you may have to later on if current resources become unavailable. For example, donors may withdraw support; or staff or vehicles loaned from other programs may cease to be available. In general, it is easier to remove a cost from your final budget later than to add one.

Recording a <u>quantity</u> of "zero" is NOT generally recommended for unbudgeted (but used) items. Doing this will result in the loss of important information about the quantity required, information that will be crucial for *planning,* even if it is irrelevant to your budget. The only time you might consider entering a quantity of "zero" is if you have no other way of excluding items from your budget (e.g., in cases where using a price of "zero" is inappropriate and extracting the cost from the results tables is problematic).

For example, if you do not wish to include storage costs for some commodities in your budget (but for others, you do), record "zeros" for the dimensions of the storage containers for the products you wish to exclude in worksheet D2, panel C, which effectively eliminates the storage costs for those products without affecting either overall product quantity or storage quantity for other products. Otherwise, it is not possible to have a storage cost for some commodities but not others because each level has only one storage cost and that cost is applied to all products.

Appendix 2. List of Nutrition Products Included in the Tool

The following table shows the nutrition product options in worksheet D2, panel C.

Type of products		Details
Column D	Column E	Column F
RUTF	Ready-to-use therapeutic food	• Plumpy'nut • Locally-produced • (specify)
FBF	Fortified blended food	• SC/CSB+[13] • SC+/CSB++[14] • UNIMIX • (specify)
RUSF	Ready-to-use supplementary food	• Plumpy'sup • Locally-produced • (specify)
Deworm	Deworming medication	• Albendazole • Mebendazole • (specify)
Iron	Iron supplements	• & folic acid • $FeSO_4$ • (specify)
VitA	Vitamin A capsules	• 200,000 IU • 100,000 IU • 50,000 IU • (specify)
FolicAcid	Folic acid	• (specify)
MultiMicro	Multiple micronutrients	• (specify)
WaterTrt	Water purification treatment	• Water guard • (specify)
FdBaskt	Food baskets	• (specify)
FdVouch	Food vouchers	• (specify)
Zinc	Zinc tablets	• (specify)
VegOil	Vegetable oil	• (specify)
Other	Other product specified by the user	• (specify)

---

[13] Supercereal/CSB+
[14] Supercereal Plus/CSB++

Appendix 3. Schedule for the Malawi Stakeholder Workshop

The following is the schedule used for the stakeholder workshop in Malawi. The purpose of the workshop was to:

1. Train participants on the NACS Planning and Costing Tool
2. Discuss and agree on planning information that will be used in the tool
3. Analyze the results generated by the tool

Day 1	
Time	Agenda
09:00 – 09:10	Welcome, opening remarks, participants introduce themselves.
09:10 – 09:30	Review the agenda and logistics (per diem, etc.).
09:30 – 10:30	Introduction to the tool • Overview of the tool's purpose and structure • Key dimensions: inputs, activities, levels • Key features: color coding, comment boxes, worksheet protections, etc.
10:30 – 11:00	Break
11:00 – 12:30	Uploaded tool onto participants' computers Worksheets D1 (background) and D2 (NACS target groups)—presented the worksheet and participants entered information from the case study.
12:30 – 13:30	Lunch
13:30 – 15:30	D3 worksheets: panels A, B, and C in D3.1 (NACS services)—presented the worksheets and participants entered information from the case study. This session also included more detailed discussions on the information in the case study and the NCST protocols.
15:30 – 16:00	Break
16:00 – 17:00	D3 worksheets: panels A, B, and C in D3.2 and D3.4—participants entered the information from the case study.
17:00	Facilitator's meeting to review the day and plan for the next day.

Day 2	
Time	Agenda
08:20 – 08:30	Recap
08:30 – 08:45	Worksheet D4 (start-up)—reviewed the worksheet and participants entered information from the case study.
08:45 – 09:00	Worksheet D5 (assumptions)—reviewed the worksheet.
09:00 – 10:15	Worksheet D5—broke into 4 groups to review and validate the data collected (from the case study).
10:15 – 10:45	Break

10:45 – 12:00	Worksheet D5—report-out from the group work. Went line by line in plenary to gain consensus on the information.
12:00 – 13:00	Worksheet D6 (prices)—reviewed the worksheet and broke into 4 groups to review and validate the data collected (from the case study).
13:00 – 14:00	Lunch
14:00 – 15:00	Worksheet D6—report-out from the group work. Went line by line in plenary to gain consensus on the information.
15:00 – 15:50	Worksheet D7 (geography/district-specific information)—reviewed the worksheet.
15:50 – 16:00	Break
16:00 – 17:00	Worksheet D7—broke into groups to fill in district-specific information. Asked participants to determine the number of public, CHAM, and private health facilities.
17:00	Facilitator's meeting

Day 3	
Time	**Agenda**
08:55 – 09:00	Recap
09:00 – 10:30	Worksheet D7—facilitators followed up with the groups to fill in any incomplete district-specific information.
10:30 – 11:00	Break
11:00 – 12:30	Worksheet D8 (population data)—reviewed the worksheet and participants entered information from the case study.
12:30 – 14:00	Lunch
14:00 – 15:30	Worksheet D9 (future years)—reviewed the worksheet and broke into groups by zone to determine the scale-up plan.
15:30 – 16:00	Break
16:00 – 16:30	Worksheet D9—report-out from group work. Participants shared their scale-up plans.
16:30	Facilitator's meeting to review the day, compile the information for D7 and D9, and plan for the next day.

Day 4	
Time	**Agenda**
08:00 – 08:30	Recap
08:30 – 09:30	Follow-up of district-specific information to fill in the gaps for D7 and D9.
09:30 – 10:30	Introduced the results tables and reviewed the R2 worksheets.
10:30 – 11:15	Break
11:15 – 12:15	Reviewed R3, R4, and R1 worksheets.
12:15 – 13:00	Participants reviewed results worksheets and gave feedback (in pairs).
13:00 – 14:00	Lunch
14:15 – 14:30	Plenary session to report the feedback obtained and present 1 new results table created in response to the participants' feedback.
14:30	Facilitator's meeting to clean up and complete D worksheets.

Day 5	
Time	Agenda
09:00 – 10:00	Participants uploaded the revised D worksheets to their computers and were given time to review D7 and D9 to be sure district-specific information was correct. Reviewed some of the changes to the other worksheets and participants were given time to go through them to provide feedback.
10:00 – 10:30	Workshop evaluation
10:30 – 10:45	Closing remarks
10:45	Tea and depart

Appendix 4. Explanation of Transport Units

The tool allows you to specify the transport modes and units of measurement for commodities and personnel in worksheet D5, panel E and worksheet D6, panel B. The "input detail" in the results sheets (which will contain either (a) vehicle use or (b) transport running costs) and the associated units depend on which options you chose in those worksheets. The following table describes the units in more detail:

Units	Explanation
Input detail: Vehicle use	
Days	This unit applies to transport via hired (rented) vehicles and refers to the number of days needed for the hired vehicles.
Input detail: Transport running costs	
Person km	The unit applies to the transport of people and assumes that existing vehicles are used. It is calculated by dividing the running cost per km by the average number of passengers carried at one time by the vehicle. For example, if the running cost is 60 cents per km, and there are, on average, 3 passengers in the car, the transport running cost is 20 cents per person per km.
Cubic meter (m^3)	This unit applies to the transport of commodities and is calculated according to the physical space (m^3) occupied by those commodities in a vehicle.
Cubic meter km	This unit applies to transport that is calculated according to two factors: how far the commodities need to go (km) and the space that the commodities will occupy in the vehicle (m^3). It is calculated by multiplying the physical space (m^3) required by the commodities by the distance (km) they will be transported. For example, if 10 m^3 of vehicle space is needed to transport the commodities and they need to be transported for 25 km, the "cubic meter km" is 250.
Metric ton (MT)	This unit applies to transport that is calculated according to the weight of the commodities.
Metric ton km	This unit applies to transport that is calculated according to two factors: how far the commodities need to go (km) and the weight of the commodities (MT). It is calculated by multiplying the weight by the distance. For example, if 1 ton of RUTF needs to be transported over 100 km, the "metric ton km" is 100.
Vehicle load	This unit applies to transport that is calculated according to the number of round-trip deliveries.
Vehicle load km	This unit applies to transport that is calculated according to two factors: the number of round-trip deliveries (vehicle loads) and the distance traveled per round trip. It is calculated by multiplying the number of vehicle loads by the distance. For example, if RUTF is delivered 5 times per year and each round trip is 100 km, the "vehicle load km" is 500.

Appendix 5. Description of Input Details by Activity and Input Category

The table shows how input categories relate to activity groups and which detailed inputs belong to each input category. It also references the sources of data used to make cost calculations.

Activity category	Input category	Input detail description (and sources of data for cost estimates)
Commodities	Commodities	Nutrition products, as defined in worksheet D2, panel C.
Information management	Personnel	Salary costs for staff undertaking information management tasks. Calculated from data in worksheet D5, panel H and worksheet D6, panel G.
Logistics	Materials	Written materials (labeled "commodity registration, management guide, stock reports" in the results tables). Calculated from data in worksheet D5, panel D, rows 91–95 and worksheet D6, panel E, rows 89–93.
	Personnel	Salary costs for staff for logistics tasks (e.g., to drive vehicles, guard stores). Calculated from data in worksheet D5, panel D, rows 98–99 and worksheet D6, panel G, rows 155–157.
	Space	Space required for storage of nutrition products (labeled "storage" in the results tables). Calculated using product measurements defined in worksheet D2, panel C; average storage room size, as defined in worksheet D5, panel D, rows 100–102; and the amount of nutrition products needed based on the number of cases/patients. Space requirements are calculated for all nutrition products that are defined in worksheet D2, panel C and have specified dimensions.
	Transport*	Transport of nutrition products, including both "transport running costs" and "vehicle use." Calculated, depending on the choice of mode of transport (as defined in worksheet D5, panel D, rows 103–106), as some combination of: product dimensions and weight, as defined in worksheet D2, panel C; the amount of nutrition products needed, based on caseload; and distance to the Active Sites, Area, Group-Area, and Central HQ as defined in worksheet D7. Transport costs are only included for nutrition products that use the "primary mode of transport," as defined in worksheet D2, panel C.
Start-up governance	Materials	Written materials associated with training master trainers (labeled "trainee materials"). Calculated from data in worksheet D4 and worksheet D6, row 110.
	Personnel	"Salary," "honoraria," "refreshments," and "per diems" for staff and advisors for start-up governance activities, as defined in worksheet D4.
	Space	Space for meetings and trainings related to the start-up activities selected in worksheet D4.
	Transport*	Costs of transporting ("transport running costs") master trainers to a training course at Central HQ. Calculated from worksheet D5, row 253 and from data on the distances between the Areas and the Central HQ per worksheet D7.
Routine governance	Materials	Written materials provided to managers overseeing new and established Active Sites, Areas, and Group-Areas (labeled "management documentation package" in the results tables). Calculated from data in worksheet D5, panel E, rows 108–111 and worksheet D6, panel E, rows 94–97.

Activity category	Input category	Input detail description (and sources of data for cost estimates)
	Personnel	Salary for staff undertaking routine governance activities at Active Sites, Areas, and Group-Areas. Calculated from data in worksheet D5, panel E and worksheet D6, panel G.
		Full and partial per diems paid to managers during governance visits at <u>established</u> Active Sites, Areas, and Group-Areas, as defined in worksheet D5, panel E (number and length of governance visits).
	Transport*	Transport of managers to support routine activities at established and new Active Sites, Areas, and Group-Areas, as defined in worksheet D5, panel E (number of governance visits) and worksheet D7 (distance to Active Sites, Areas, Group-Areas, and Central HQ). Transport costs under the start-up governance activity category are labeled "transport running costs" in the results tables.
Service delivery	Equipment	Equipment, as defined in worksheet D5, panel B, rows 22–45; worksheet D5, panel G; and the D3 worksheets, panel B (for blood, glucose, and uric acid tests).
	Materials	Written materials used at the Active Site level, as defined in worksheet D5, panel B, rows 47–56. Written materials under the service delivery activity category are labeled "health facility documentation pack, treatment cards, commodity forms" in the results tables.
	Personnel	Salaries for staff involved in service delivery at the Active Site level, as defined in the D3 worksheets, panel B.
	Space	Space required for individual patient consultations, as defined in worksheet D5, panel A, labeled "space" in the results tables.
Supervision	Materials	Written materials used by managers at supervision visits to Active Sites, Areas, and Group-Areas, as defined in worksheet D5, panel E. Written materials under the supervision activity category are labeled "supervisory checklists" in the results tables.
	Personnel	Salaries for managers conducting supervision activities at Active Sites, Areas, and Group-Areas, as defined in worksheet D5, panel E.
		Full and partial per diems paid to managers during supervision visits to Active Sites, Areas, and Group-Areas, as defined in worksheet D5, panel E (number and length of supervision visits).
	Space	Space required for QI activities, as defined in worksheet D5, panel E, rows 129–135. Space under the supervision activity category is labeled "venue" in the results tables.
	Transport*	Transportation for managers conducting supervision activities at Active Sites, Areas, and Group-Areas, as defined in worksheet D5, panel E (number of supervisory visits) and worksheet D7 (distance to Active Sites, Areas, Group-Areas, and Central HQ). Transport costs under the supervision activity category are labeled "transport running costs" in the results tables.
Training	Materials	Written materials required for trainings at Active Sites, Areas, Group-Areas, and Central HQ as defined in worksheet D5, panel C, rows 80–89. Written materials under the training activity category are labeled "trainee materials" in the results tables.
	Personnel	Salaries for trainees and trainers, as defined in worksheet D5, panel C.
		Full and partial per diems paid to trainers and trainees during trainings at Active Sites, Areas, and Group-Areas, as defined in worksheet D5, panel C (number and length of trainings).

Activity category	Input category	Input detail description (and sources of data for cost estimates)
	Space	Space required for trainings at Active Sites, Areas, Group-Areas, and Central HQ as defined in worksheet D5, panel A and worksheet D6, panel C. Space under the training activity category is labeled "venue" in the results tables. The unit will either be "m^2 per day" or "rooms per day," depending on what you selected in worksheet D6, rows 42–44. Note that training for Active Site staff is assumed to take place at the Area level; therefore, space is not costed at the Active Site level.
	Transport*	Transportation for those conducting and attending trainings at Active Sites, Areas, Group-Areas, and Central HQ as defined in worksheet D5, panel C (average number of trainings) and worksheet D7 (distance to Active Sites, Areas, Group-Areas, and Central HQ). Transport costs under the training activity category are labeled "transport running costs" in the results tables.

*See Appendix 4 for additional explanation of transport units.

Appendix 6. Derivation of Some Key Variables that Determine Costs

The table below shows how key variables used in the cost calculations are derived from basic data in the D worksheets. The additional notes at the end explain some of the assumptions and procedures used to calculate less straightforward costs, e.g., costs for storage and equipment costs.

General

This variable…		is a function of…	which is entered in this worksheet
A.	Number of cases (e.g., number of SAM pregnant women)	Total population	D8
		% of target group in the population (e.g., % of pregnant women in the population)	D8
		% of target group with specific nutritional status (e.g., % of pregnant women with SAM)	D8
		Incidence correction factor	D8

Commodities/Transport/Service Delivery

This variable…		is a function of…	which is entered in this worksheet
B.	Quantity of nutrition products (e.g., kg of RUTF)	Quantities of product given per visit	D3.1 to D3.3 (panel C)
		Number of visits per person	D3.1 to D3.4 (panel B)
		Numbers of cases	See item A
C.	Volume to store nutrition products *See note below about additional assumptions*.	Quantities of products (e.g., kg)	See item B
		Volume per kg of products	D2 (panel C)
		Frequency of deliveries	D7 (panels A and B)
D.	Transport of nutrition products (km)	Quantities of products (e.g., kg)	See item B
		Distances between sites	D7 (panels A and B)
		Frequency of deliveries	D7 (panels A and B)
E	Transport of people for training and supervision	Number of visits/trips (for training or supervision) per facility	D5
		Distance per visit/trip	D7
		Number of facilities	D7
F.	Time spent on NACS services (e.g., assessments for pregnant women)	Number of minutes spent on each service	D3.1 to D3.4 (panel A)
		Number of times the service is provided per person (e.g., number of assessments for a pregnant woman)	D3.1 to D3.4 (panel B)
		Number of cases (e.g., number of pregnant women)	See item A

Training

The costs of training Active Site staff are driven by the number of Active Sites (new and established), which you specified in worksheet D7, panel A. If you increase the number of sites, your training costs will increase.

This variable…		is a function of…	which is entered in this worksheet
G.	Personnel and materials	Number of Active Sites (new and established)	D7, panel A
		Number of people to train per site	D5, panel C
		Length of training	D5, panel C
H.	Space	Number of person-training days	See item G
		Space required in training setting	D5, panel A
I.	Transport	Number of person-training days	See item G
		Distance between the Active Sites and Area HQs	D7

Storage Volume

Storage volume is calculated using the following simplified assumptions:

1. Total quantities of commodities are divided equally among the total number of deliveries during the year. For example, if annual consumption of RUTF is 1000 kg and there are 4 deliveries per year, the quantity of each delivery is 250 kg.

2. The amount of space required for storage at a specific storage location is equal to the average size of the delivery either *to* that point or *from* that point, depending on which is larger.

3. All delivered commodities are completely consumed before the next delivery.

4. Deliveries are stored before being distributed to lower levels (except in cases where a level is bypassed).

Capital Goods

Capital goods are resources with a useful life of more than one year. There are two ways of dealing with these costs in plans and budgets. One is to record the investments made in the years the capital goods are purchased and replaced. Another is to prorate the costs over the lifetime of the capital inputs to calculate annual costs. (This is done without taking interest rates into account, by simply dividing the total cost by the useful life of the good, a method known as "straight-line depreciation.")

1. **For equipment such as weighing scales**, the tool assumes that purchases are made in the first year and then, not again until the end of the expected life of the equipment (defined in worksheet D5). For example, if weighing scales cost $100 and have an estimate length of life of three years, the tool would record a cost for scales of $100 in Years 1 and 4 (and zero in Years 2, 3 and 5).

2. **Vehicles are another potential capital cost for the NACS services.** Purchased vehicles are recorded in worksheet D5, panel G and are treated in the same way as other equipment (see previous point). If vehicles are hired, the tool asks for the "hire cost per day" (in worksheet D6, panel B2). If a third party is paid for transport, the tool assumes that the price charged by them covers both running costs and the daily hire charge (the combined cost will be recorded under the recurrent costs and the vehicle hire cost will be recorded as zero). The tool then combines this cost per day with estimates of the number of days vehicles will be used each year to transport commodities (derived from the estimated number of hours per delivery round and the number of delivery rounds).