

Human Resources for Health (HRH) Optimization Tool For Family Planning (HOT4FP)

User Guide for Version I of the Tool (March 2021)

Introduction

Providing client-centered family planning (FP) services requires a strong, well-managed health workforce. In order to deliver effective healthcare—especially to maintain essential primary care and FP services during public health emergencies—it is important for health facilities, national Human Resources for Health (HRH), and implementing partners to use HRH data to determine how to best configure their health workforce and services. With funding from USAID, the Human Resources for Health in 2030 program (HRH2030) team created the HRH optimization tool for family planning (HOT4FP)¹ to increase health workforce efficiencies by identifying and addressing HRH bottlenecks at frontline health facilities. HOT4FP supports comprehensive planning and management of a more adaptive and diverse health workforce for achieving FP2030 goals.

HOT4FP Purpose

HOT4FP helps improve workforce efficiencies by:

- Identifying and correcting HRH imbalances within and across health facilities
- Promoting client-centered services through task-sharing and expanding service delivery beyond facility walls
- Strengthening community engagement and health systems support functions
- Budgeting to address workforce gaps.

HOT4FP Audience

The results from HOT4FP benefit stakeholders at all levels in the health sector:

- National and regional HRH planners and managers to secure funding for addressing HRH shortages, revise guidelines for community-based service delivery, budget realistically for systems support such as supervision, and adjust job descriptions to allow for greater task-sharing.
- District health management teams to identify gaps and balance their health workforce geographically, strengthening task-sharing and community-based service delivery and community engagement, and budget for supervision and additional staff in decentralized settings.
- Clinic managers to assess whether their healthcare workers (HCW) are sufficient and have the right skills set for coping with the client volume, compare coverage for critical FP services and modern contraceptive prevalence rates (mCPR) to national benchmarks, and estimate HRH requirements and costs for scaling up and differentiating service delivery.

HOT4FP Implementation Process

While HOT4FP can be learned and applied within a few hours to a single health facility using the generic version and the HRH efficiency cases ([link](#)), a customization process is recommended for a large-scale implementation in a specific country. In the latter case, implementation of HOT4FP is led by a local

¹ University Research Co. (URC), an HRH2030 partner, led the development of HOT4FP (as well as HOT4PHC and HOT4ART). All tools are available on the HRH2030 website: <https://www.hrh2030program.org/>

HOT support team involving key stakeholders at service provider and administrative levels. It is an iterative process that fosters learning by providing new insights into a country's health workforce, its efficiency challenges, and solutions.

For large scale-implementation, the entire process may take between several weeks to six months, depending on the availability of stakeholders, the ready access to critical data elements (client volume, HRH inventory), the number of facilities involved, and the data issues encountered. If the preconfigured data for client-provider contact times for clinical FP activities and task-sharing practice can be applied without changes, the initial tool validation can be shortened. An upfront training is not required; partners learn during implementation. A training at the end is more beneficial because partners can explore HOT4FP capabilities with their data to identify and find solutions to correct HRH inefficiencies. Implementation can be led by local organization and a small local HOT support team (1-2 persons) with some virtual external support. The local HOT support team helps with data collection and data entry and provides hands-on training.

Time estimates are based on experience from implementing similar tools, HOT4ART and HOT4PHC, in several countries. They account for the lead time for meetings and the time for iterative communication between stakeholders, the local HOT support team, and headquarters support. The following steps are involved. The most intensive interaction with the tool takes place during steps 4 and 6.

1. **Stakeholder engagement to define the strategic importance and implementation plan**
What: share information about HOT4FP; stakeholder meeting; implementation plan
Who: MOH, HRH department, reproductive health department, implementing partners, local HOT support team
Time required: preliminary outreach, preparation, and a 2-hour stakeholder meeting over a 2-week period
2. **Tool validation and adaptation to a country context**
What: convene expert provider groups, adapt HOT4FP & data collection forms
Instruments: HOT4FP validation guide
Who: expert providers, local HOT support team
Time required: 3 expert group meetings (2 hours each) over a 2-week period, adaptation 1 week
3. **Data collection (facility-specific using routine data such as DHIS2 and HRIS where available)**
What: prioritize facilities, gather client volume, HRH, community engagement & support data
Instruments: Service data form, Staff inventory, Community engagement & support activities
Who: MOH, HRH department, clinic managers, implementing partners, local HOT support team
Time required: 2-8 weeks, depending on the number of facilities included and partner responsiveness
4. **Enter data into HOT4FP (1 tool completed per facility)**
What: copy and paste from data collection forms into HOT4FP, adjust task assignments
Instruments: completed data collection forms, single-facility HOT4FP
Who: local HOT support team and partners, headquarters support
Time required: 1-2 weeks, depending on number of facilities included and data issues encountered
5. **Data import and validation**
What: import facility HOT4FPs into one master HOT4FP; identify data issues/outliers
Instruments: finalized data collection forms, HOT4FP
Who: local HOT support team and partners, headquarters support
Time required: 2-4 weeks, depending on data issues and responsiveness to clarify them

6. **Tool adjustments and data re-import**

What: correct any significant data issues in facility HOT4FPs; re-import into master tool

Instruments: facility HOT4FP

Who: local HOT support team and partners, headquarters support

Time required: 1-2 weeks, depending on the number of facilities that need adjustments to their data

7. **Data analysis and HRH situation analysis reports**

What: identify HRH gap, surplus & cost; assess service efficiency; write summary report & PPT

Instruments: single-facility and master HOT4FP

Who: local HOT support team and partners, headquarters support

Time required: 2-4 weeks, including reviews and revisions of drafts

8. **Results dissemination, partner training and next steps**

What: Stakeholder debriefing; tool training; planning solutions to address HRH inefficiencies

Instruments: HOT4FP

Who: stakeholders, local HOT support team and partners, headquarters support

Time required: 2 days for solutions plan; 1-2 stakeholder meetings (2 hrs); and 3-4-day training over 2-4 weeks

Data Utilized to Illustrate Tool Use

The tool was tested in the Dioila district of Mali in November 2020. Its data are modified and utilized to illustrate the use of HOT4FP. These data are for learning purposes only and are not meant to reflect actual health systems performance in Dioila district or Mali. This user guide uses modified data from all 23 health centers to illustrate a district-level application of HOT4FP. Up to the **DASHBOARD**, HOT4FP can be used with data from a single or multiple health facilities; the last few tabs beginning with the **FTE Summary** only apply when HOT4FP is used as a master tool with data from multiple health facilities.

This guide is a step-by-step manual for how to use the tool. Another document presents HRH efficiency cases by providing examples and suggestions on how decision makers may leverage the HOT4FP to identify solution to an inefficient employment of the health workforce. The HRH efficiency cases and tools with illustrative data are available on the [HRH2030 website](https://hrh2030program.org/hot4fp-optimizing-hrh-fp/).²

Getting Started

HOT4FP is an Excel-based tool (Excel 2010 or later). It is open source; there is no password protection, but users should only access the cells designated for data entry. HOT4FP makes extensive use of macros. Macros must be enabled in Excel for the tool to work; and it must be saved as a macro-enabled file with the extension “**.xlsm**”. If ‘Enable Editing’ or ‘Enable Content’ appears on top of the spreadsheet, please click on these to enable full tool functionality. This is an Excel security feature that may show up depending on the user’s computer configuration.

HOT4FP can be applied to a **single health facility** or it can be used as a **master tool** to import and aggregate data from **multiple facilities** at various levels such as districts, regions, or organizations managing facilities in a master HOT4FP. A facility can be a health post, health center, district hospital, or private clinic. The same version of HOT4FP can be used for a single health facility or as a master tool for all facilities, for example, in district; the **Start** tab shows which mode is selected.

² User guides and other materials for the HOT4FP Tool may be found at <https://hrh2030program.org/hot4fp-optimizing-hrh-fp/>

HOT4FP Structure

HOT4FP consists of 3 parts:

1. Tool **customization** for a specific country context on eight sheets, **Set Up and green tabs A – G**, as shown in Figure 1. These sheets are hidden and reserved for the local HOT support team and should not be changed by the tool user.
2. Tool **application** on 9 sheets, **Start and red tabs 1 – 5**, shown in Figure 2. These require essential user input on all visible tabs. Some of these sheets may be hidden depending on the options selected by tool users on the **Start** tab. Furthermore, users can explore two task-sharing scenarios on tab 6, **Task Sharing**, in addition to the initial task assignment on tabs **4.a – 4.d** (task-sharing scenario 1). Tab 7, **Costs**, shows the current salary costs, the potential costs of hiring additional HCW to fill gaps, and costs related to the provision of community-based services, community engagement, and systems support such as supervision and training. Users can set priorities for filling staffing gaps and shortfalls in per diems and travel expenses based on the available budget envelop.

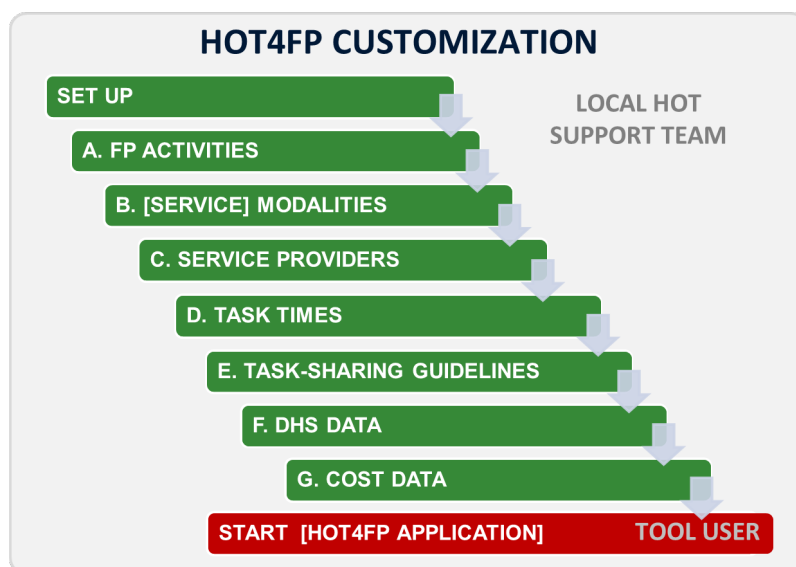


Figure 1. HOT4FP Excel tabs for tool customization (green tabs)

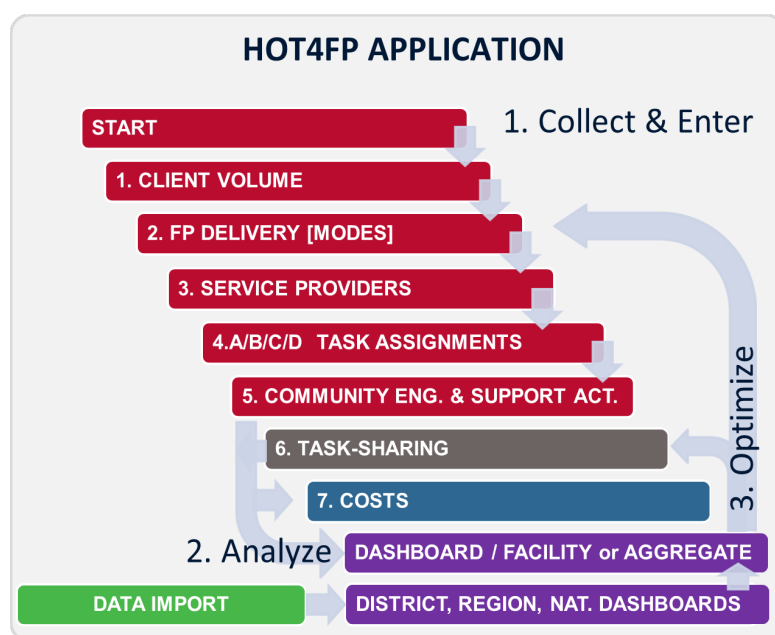


Figure 2. HOT4FP Excel tabs for tool application

- Essential **HRH results** such as FTE shortages or excesses are presented on most tabs to provide immediate feedback about any changes made by users. The **DASHBOARD** and several **multi-facility summary sheets on purple tabs** in Figure 3 provide a detailed analysis of HRH results. If the tool is used for a **single health facility** as selected on the **Start** tab, only the **DASHBOARD** shows. If **multiple facilities** are imported into a master HOT4FP, the **DASHBOARD** and **multi-facility summary sheets** show. In this case the **DASHBOARD** will contain the aggregate data from multiple facilities as indicated on the **Start** tab. This can be the aggregate from all imported health facilities or for a subset of facilities if a filter is selected on the **FTE Summary** tab.

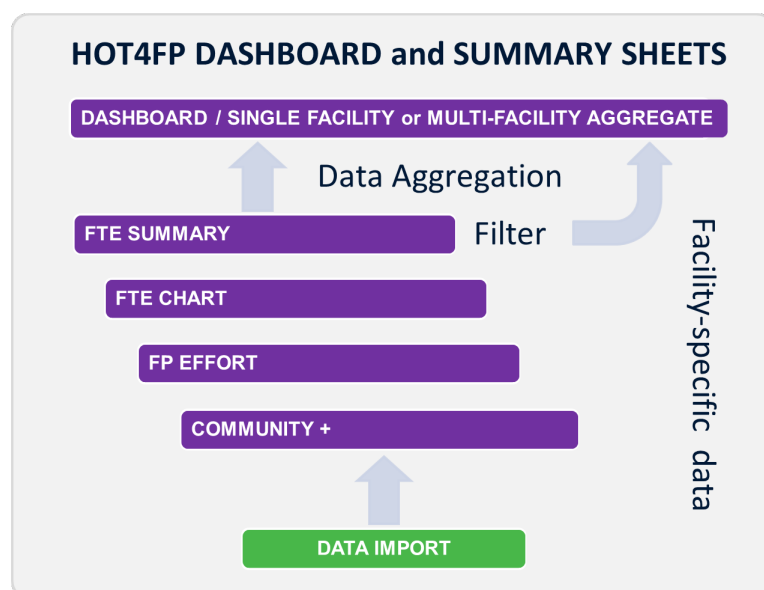


Figure 3. HOT4FP Excel tabs for DASHBOARD and HRH results summary

The following will explain each sheet in detail starting with the **HOT4FP application, DASHBOARD, and multi-facility summary sheets**; HOT4FP customization will be described last, because it is reserved for local HOT support teams.

HOT4FP Application


Throughout the tool, cells that are light green, light blue, light yellow, or light orange, indicate that they allow user input, except on the **DASHBOARD**, where they mostly contrast data in different table columns. Dark colors and white cells indicate protected cells that contain headings, descriptions, and formulas that cannot be changed by the user. **Green** generally indicates current client volume or baseline. **Blue** generally indicates potential client volume scenarios for comparison.

Some of the tabs contain **light green** cells with pre-populated data. It is possible for the user to override these inputs and insert values that are specific to his or her own context.


Light yellow text boxes on each tab contain specific instructions. The user should refer to these instructions before interfacing with the sheet.

Some calculations take time and **progress ">>>"** is displayed in the lower left of the Excel window. Please wait until the process is complete; do not manipulate Excel while it is calculating.

The following description is based on a master HOT4FP with data imported from **multiple health facilities**. It assumes that HOT4FP has been customized to a specific country context, in this case Mali. This user guide is best used with HOT4FP open, because screenshots are not included for all tabs and tables.



START



HRH Optimization Tool for Family Planning (HOT4FP)

HRH Optimization Across Several Facilities in an Area

1. Select which health facilities to include in the tool => All health facilities

2. This tool summarizes data for: All health facilities (23 facilities out of 23 in total)

3. Facility Type:

4. Region:

5. District:

6. Sub-District:

7. Catchment Area Population: 338,677

8. Number of communities in the Catchment Area: 179

9. Include private sector collaboration: ☒ No ☐ Yes

10. Include mobile outreach (if data are available): ☒ No ☐ Yes

11. Organization that manages the facility:

12. Data Source / Year: DHIS2 / 2019

13. Name of User: SYLLA

14. Date the tool was last modified: February 8, 2021

Tool Version

1.000 - Feb 2021

This tool is made possible by the generous support of the American people through the United States Agency for International Development (USAID) under the terms of cooperative agreement no. AID-OAA-A-15-00046 (2015-2020). The contents is the responsibility of Chemonics International and does not necessarily reflect the views of USAID, or the United States Government.

Abbreviations (created automatically) §

All health facilities

Include population and communities in FTE summary ☒

After entering all data click the blue button to save the tool under a new name. Abbreviations will be generated automatically.

Save tool under a new name

§ The abbreviated locations, organization name and facility type must be included in the file name for each completed HOT4FP. This happens automatically when clicking the blue "Save tool" button.

Figure 4. START Tab

START TAB

Tool users begin data entry on this tab shown in Figure 4.

ACTIONS

Only change line 1 if creating a new tool for a single health facility or importing data from multiple facilities into a master tool; do not change when working in a tool with existing data.

Line 1: Select from the dropdown menu in Figure 5. Creates a new tool for a single facility or a master tool with multiple facilities, user will be alerted if existing data will be erased. Do not change if working on an existing tool version. Each selection will trigger a tool action even when the same action is selected, but user can cancel. The table below describes the options available.

Lines 9 and 10: Display or hide options based on country context. This simplifies the interface. The tool contains four FP service modalities, facility, community, mobile outreach, and private sector; the first two will always show.

Using HOT4FP to solve HRH efficiency challenges

6

New tool or data import/export options*		Description of dropdown menu options on line 1 of the START tab
1	New health facility, no aggregation	Creates a new tool for a single health facility by erasing data on tab 1, Client Volume and tab 3, Service Providers . Select “Continue” on the prompt only AFTER completing information about the facility on the Start tab.
2	All health facilities	Imports all tools for single health facilities saved in the folder specified by the user. Simplest way to import data from multiple facilities when the total number is less than 100. Importing more than 100 is possible but takes time.
3	Region	Imports completed tools with the abbreviation for the region on line 5 in the filename. **
4	District	Imports completed tools with the abbreviation for the district on line 6 in the filename. **
5	Sub-district	Imports completed tools with the abbreviation for the sub-district on line 7 in the filename. **
6	Organization	Imports completed tools with the abbreviation for the organization managing the facility on line 8 in the filename. **
7	Facility-type	Imports completed tools with the abbreviation for the facility type on line 3. in the filename. **
8	Any text (enter on the right)	Imports completed tools with any text in the abbreviation on line 1 in the filename. **
9	Restore data from a single health facility	If the tool contains data from multiple health facilities, a new tool with data from each facility can be generated. Can be used to recreate single facility tools after HOT4FP has been updated.
10	Create a new tool for every facility imported previously	To be used after an updated tool version becomes available. This is a two-step process. First, using the latest tool version and an option between 2 – 8, import all data from tools completed for individual health facilities into a master tool. Second, using option 10, recreate tools for the individual facilities.
<p>*Importing data from multiple health facilities, options 2 through 8 above, can take a few seconds to several minutes per completed HOT4FP tool, for example, the import of 100 tools could take less than an hour to several hours. The same applies to data export option 10. It takes about 2-3 minutes per newly created tool or several hours for 100 tools. Excel must not be used or minimized during this time until the entire process is completed, and the popup message disappears. Although users can work with other programs such as email or MS Word, but not Excel, it is best to let Excel run its course over a break or overnight.</p> <p>**Text entered for options 3 through 8 above must match the entire or part of the abbreviation as in the filename.</p>		

Figure 5. Dropdown menu for selecting which health facilities to include in the tool

DATA ENTRY (when used for a single facility; in a master tool these will be populated automatically)

Line 2: Enter the health facility name. Abbreviations are generated automatically but some can be edited.

Line 3: Select the type of facility from the dropdown menu.

Lines 4 through 6: Enter the names for the geographic areas. For Mali, they can be selected from dropdown menus. Abbreviations are generated automatically but some can be edited.

Line 7: Enter the population size of the facility catchment area for frontline facilities. Indicate whether to use population data in FTE summary tabs. Check for frontline facilities. Uncheck for referral facilities to avoid double counting when multiple facilities from a geographic area are imported.

Line 8: Enter the number of villages or communities in the facility catchment area for frontline facilities. Check for referral facilities to avoid double counting when multiple facilities from a geographic area are imported.

DATA ENTRY (when used for a single facility or as a master tool)

Lines 13 and 14: Enter the user's name and date the tool was modified. The date will be part of the filename

1. CLIENT VOLUME

This tab captures annual FP service data shown in Figure 6.

DATA ENTRY

DHIS FP Visit Data

Data Source:	DHIS2				Year:	2019			
NEW CLIENT VISITS by Age Group									
Number of FP-related Visits	Health Center				Community Level				
	10-14	15-19	20-24	25+	10-14	15-19	20-24	25+	Total New Visits
Number of FP consultation sessions in a month									-
Number of new/repeat consultations at Facility									17,229
Number of new/repeat consultations in Advanced or Mobile Strategy									-
No. of new/repeat FP users at postpartum									18,626
LAM	13	277	393	573	-	40	98	118	1,512
Combined oral contraceptives (COC)	-	75	180	225	6	97	188	250	1,021
Progestin-only oral contraceptives (POP)	3	516	920	1,301	14	175	320	453	3,702
Injectable contraceptives (IM)	39	517	650	860	5	217	348	300	2,936
Subcutaneous (SC) Injectables (Self-inject)	-	-	-	-	-	-	-	-	-
Condoms, male	10	313	532	865	-	106	185	230	2,241
Condoms, female	-	15	31	45	-	-	-	1	92
Implant (Jadelle)	146	1,123	1,023	1,368	1	371	488	526	5,046
Implant (Implanon)	32	570	484	567	4	374	458	613	3,102
Fertility Awareness Methods	-	-	-	2	-	-	-	-	2
IUD Copper	-	7	22	99	-	1	4	6	139
IUD Hormonal	-	34	37	101	-	-	4	7	183
Voluntary surgical contraception	-	-	-	37	-	-	-	-	37
TOTAL VISITS	243	3,447	4,272	6,043	30	1,381	2,093	2,504	16,689
	WOMEN								
Number of users benefitting from FP Counseling	-	-	-	-					2,743
Number of users participating in IEC activities									5,624

Figure 6. Portion of the data entry screen for client volume

If used for a single health facility, the first option on line 1 of the **Start** tab, enter the annual service volume for all available service modalities. This can be data from the latest available 12-month period or projections for the coming year. In a master tool all data will be imported and aggregated from multiple health facilities.

DATA SOURCES

National health information systems such as DHIS2.

2. FP DELIVERY

This tab shows the distribution of the client volume across up to four FP service modalities, facility, community, mobile outreach, and private sector; the last two may be hidden depending on the selection on the **Start** tab. When using HOT4FP for the first time, the tool starts in a basic mode showing only the distribution for the current client volume, which is sufficient to see whether there is adequate staff to handle the current client volume. The two graphs will only show data once tab 3, **Service Providers**, has been completed.

ACTIONS

None for the basic, scenario 1, application of HOT4FP.

Optional: To show service modality scenario 2, select one of the “potential client load” options in the light-yellow table (Figure 7). To show modality scenario 3, click the button on top of the sheet. Scenarios 2 and 3 are based on a potential client volume (first light blue column). It will also show additional light blue columns where the user can distribute the potential client volume across available service modalities. The staffing needs for the three scenarios are compared on the **DASHBOARD**.

Optional: Different sources for the potential client volume can be selected by checking one radio button in the light-yellow table. Options 1 through 4 will increase the current client load by different amounts. Option 1 will account for the annual population growth and an estimated annual increase in mCPR. Options 2, 3, and 4 are experimental and add demographic and health survey (DHS)-based benchmarks, which can lead to unrealistically high projections for the moment. In option 5, the user can specify a new volume for each FP activity in column H. Users can switch between options without losing data. Option 1 is a good starting point for potential client volume scenarios 2 and 3. The projection period should be 1 for most tool uses, but can be increased, in which case population growth and annual increases are compounded annually.

Optional: The light blue table at the top of the sheet (Figure 8) gives users additional options for simulating the impact of FP service delivery changes. First, users can select the percent of postpartum women who might adopt an IUD. This is followed by the projection period for estimating the potential client volume, annual population growth, and the estimated annual increase in mCPR. The last two options simulate, when checked, LARC removal (when not reported separately) and postpartum IUD insertion. These options can be checked or unchecked to see the immediate impact on mCPR in the white table on top and on FTEs in the two charts.

Hide or show unused FP activities: This hides all activities with zero clients to simplify the table.

DATA ENTRY

None for the basic scenario 1.

Optional: Enter the title and description for service modality scenarios 2 and 3 (if the latter is shown) in the light blue text spaces.

Optional: Potential client volume in column H for service modality scenarios 2 (also applies to scenario 3)

Optional: Client volume distribution across service modalities for scenarios 2 (and 3, if shown)

DATA SOURCES

The current client volume is taken from tab 1, **Client Volume**.

Potential client volume can be projected by the user based on past trends and national health plans and strategies such as national FP goals.

HRH RESULTS

Please select an option for "Potential Client Load"	
Potential client load option not selected	<input type="radio"/>
1. Current client load + population & modern contraceptive prevalence growth	<input type="radio"/>
2. Benchmark Client Load based on DHS data applied to catchment pop.	<input type="radio"/>
3. DHS Benchmark + population and modern contraceptive prevalence growth	<input type="radio"/>
4. DHS Benchmark + Unmet Need	<input type="radio"/>
5. User-Defined Potential Client Load (enter or edit below)	<input checked="" type="radio"/>

Figure 7. Options for estimating the annual increase in potential client volume

Potential Increase in Number of FP Clients*			
Percent of postpartum women with IUD or Implant insertion (to simulate, check below)	25.0%	<input type="button" value="▲"/>	<input type="button" value="▼"/>
Years to project potential client load	1	<input type="button" value="▲"/>	<input type="button" value="▼"/>
Projected Annual Population Growth		3.0%	
Projected annual increase in modern contraceptive prevalence (select one option)	Slow	<input type="radio"/>	0.5%
	Accelerated	<input checked="" type="radio"/>	2.0%
	User-Defined	<input type="radio"/>	1.0%
Estimate current LARC removal numbers		<input checked="" type="checkbox"/>	
Simulate 25% postpartum insertion of: IUD <input type="checkbox"/> Implant <input type="checkbox"/>			

Figure 8. Additional options for estimating the annual increase in potential client volume

After completing tab 3, **Service Providers**, Figure 9 shows an estimate of the modern contraceptive prevalence rate (mCPR) in the facility catchment area, district or other geographic area for the current client volume. This can be compared to a potential second scenario once a potential client volume has been entered. The national mCPR from the last DHS is provided as a reference. The mCPR is based on permanent methods, oral contraceptives, injectable contraceptives, implants, and IUDs.

REFERENCE VALUES			20.6%	mCPR at current client load
Total no. of postpartum women (DHIS2)	18,626		20.1%	mCPR at potential client load
Unmet need (DHS)	25.7%		18.4%	National mCPR (last DHS)

Figure 9. mCPR estimates under current and potential client volume, DHS shown as reference

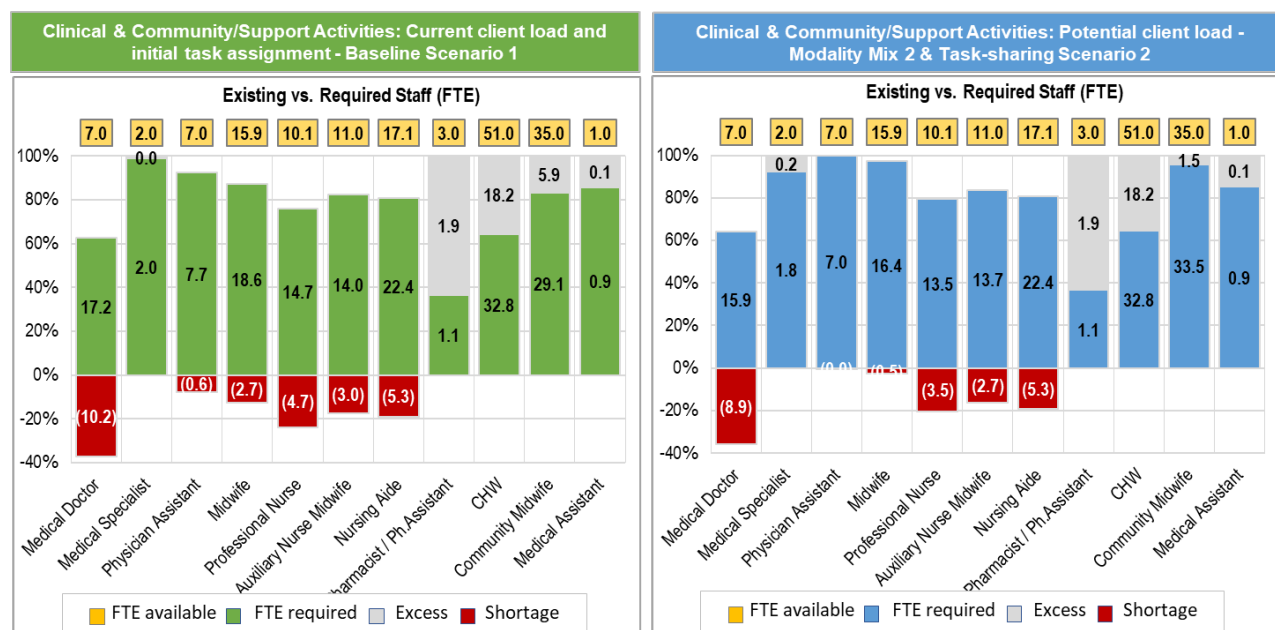


Figure 10. Staffing situation comparing two user scenarios

Two charts in Figure 10 show the staffing situation for the **current** and **potential** client volume as full-time equivalents (FTE): existing FTEs, required FTEs, and FTE shortages or excesses. The charts display the staffing situation for two scenarios selectable by the user on the **DASHBOARD**. Each scenario is based on a different combination of current and potential client volume, FP service modalities, and levels of task-sharing.

A narrative summary on top of the charts shows where the most pressing FTE shortages or excesses are and what actions the user can take.

3. SERVICE PROVIDERS

This tab inventories all service providers at the health facility and their work hours as shown in Figure 11.

ACTIONS

Click the “After entering all information, [CLICK HERE](#) to adjust the tool” button after making changes to this sheet.

Optional: Click “Show hours for part-time staff” only if there are entries in column P, else hide.

Hide or show unused staff: Hides all staff with zero availability or hours to simplify the table.

DATA ENTRY (rows 8 through 32)

Columns D and E: Check whether staff is based at the health facility or in the community. Only mark one column or the other but not both.

Columns F through I: Enter “x” where staff can provide services for each of the four service delivery modalities. Mark at least one column; marks in up to all four columns are allowed. Leave blank for staff not available at this facility.

Column J: Input total available working hours in a week. This includes all clinical FP, primary health care, and administrative tasks.

Column K: Input the average number of hours per week that each type of staff spends on FP service delivery only. The hours for all staff not delivering FP services must be zero.

Column L: Shows the hours worked per week on other clinical tasks and administrative tasks. It is the difference between columns J and K; this is automatically calculated.

Column M: Enter the number of weeks worked in a year for each cadre.

Column N: Enter the total number of service providers for each cadre who are available for FP service delivery (not all staff present may be authorized or skilled to provide FP services). Do not count staff permanently absent (assigned on paper but not reporting for duty).

Column O: Of the service providers in column N, the tool tentatively assigns all these providers as working full-time.

Optional Column P: Enter the number of staff working part-time (less than the hours in column K). Click “Show hours for part-time staff.”

Optional Columns Q through Z: For each part-time staff, enter the hours worked per week on delivering FP services. **Columns Q-Z must be filled for part-time staff to be counted.**

Note: Hours worked per week can be assigned for a maximum of 10 individual staff who work less than indicated in column K; if there are more than 10 in column P, each staff in excess of 10 will be assigned the same number of hours per week as the 10th staff in column Z.

DATA SOURCES

Human resource information systems (HRIS), HR databases, input from facility managers

DATA ENTRY (rows 29 through 33)

Optional: Reserved for staff rotation where staff from another facility is assigned to this facility. Select staff assigned from a dropdown list in column B. Requires the same information as regular staff. Their FTEs are added to regular staff above to calculate available FTEs and FTE shortages or excesses.

Column AB: Shows the full-time equivalents (FTE) available for FP service delivery. FTEs are a combination of full and part-time staff; if all staff are full-time, then FTEs are the same as the number of full-time staff.

Columns AC and AD: Show staffing gaps and surpluses as FTEs for the two scenarios selected by the user on the **DASHBOARD**. Any changes to the service provider inventory are immediately reflected in FTE shortages or excesses in these columns.

This tool summarizes data for:			All health facilities (23 facilities out of 23 in total)											
Service Provider Type For each of the following types of health workers identify the health workers that spend most time on FP (referred to as 'primary FP providers') and enter data for these workers in columns D through N (and P through Z for part-time workers).	Staff Facility-based "F" or Community-based "C"? (mark "x" in one column only)			Total No. of working hours per week	No. of hours worked per week on FP by the 'primary FP provider' and similar FP providers	No. of hours worked per week on other clinical and administrative tasks by the 'primary FP provider' and similar FP providers	No. of weeks worked per year	Total No. of Staff available for FP	Number of staff working similar hours on FP as the 'primary FP provider'	Number of staff working fewer hours on FP than the 'primary FP provider'	Total No. of FTEs available incl. FP, other clinical & admin. services	FTE Excess/ Shortage - Current Client Load	FTE Excess/ Shortage - Potential Client Load	
		Facility	Community											
	F	C												
Medical Doctor	x		x	x	40	1.9	38	47	7.0	7		7.0	(10.2)	(8.9)
Medical Specialist	x		x	x	40	1.0	39	47	2.0	2		2.0	0.0	0.2
Physician Assistant	x		x	x	40	2.0	38	47	7.0	7		7.0	(0.6)	(0.0)
Midwife	x		x	x	40	4.7	35	47	16.2	15	1	15.9	(2.7)	(0.5)
Professional Nurse	x		x	x	40	1.8	38	47	10.0	10		10.1	(4.7)	(3.5)
Auxiliary Nurse Midwife	x		x	x	40	3.7	36	47	11.0	11		11.0	(3.0)	(2.7)
Nursing Aide	x		x	x	40	1.0	39	47	17.0	17		17.1	(5.3)	(5.3)
Pharmacist / Ph.Assistant	x		x		40	2.3	38	47	3.0	3		3.0	1.9	1.9
Lab Technician	x		x		40	--	40	47	0.0			--	0.0	0.0
CHW		x	x	x	40	2.5	37	47	51.0	51		51.0	18.2	18.2
Community Midwife		x	x	x	40	5.9	34	47	34.3	33	1	35.0	5.9	1.5
Medical Assistant	x		x	x	40	1.0	39	47	1.0	1		1.0	0.1	0.1
Enrolled Nurse	x		x	x	40		40	47				--	0.0	0.0
Staff Rotation (choose from drop-down list)														

Figure 11. Service Providers tab

Select how tasks are assigned: As actually done										<== Applies to all modalities											
Show color code for Task Assignments		Current Client Load Actual Modality Mix	Potential Client Load Modality Mix #1	Avg. group size†	Medical Doctor	Medical Specialist	Physician Assistant	Midwife	Professional Nurse	Auxiliary Nurse Midwife	Nursing Aide	Pharmacist / Ph.Assistant	CHW	Community Midwife	Medical Assistant	Activity as % of total time for all providers					
FTE Excess/ Shortage - Current Client Load					(10.2)	0.0	(0.9)	(2.7)	(4.7)	(3.4)	(5.4)	1.9	18.2	5.9	0.1	57% *					
Clinical Tasks					Potential Client Load					(8.9)	0.2	(0.0)	(0.5)	(3.5)	(2.1)	(5.1)	1.9	18.2	1.5	0.1	54% *
Combined oral contraceptives (COC)		1,201	1,201	--	1%	0%	3%	27%	7%	24%	2%	0%	0%	37%	0%	4%					
Progestin-only oral contraceptives (POP)		5,676	5,676	--	1%	0%	3%	28%	8%	16%	5%	0%	2%	38%	0%	13%					
Condoms, male		3,348	3,348	--	0%	0%	0%	5%	3%	14%	26%	0%	1%	50%	0%	1%					
Condoms, female		133	133	--	0%	0%	0%	15%	15%	10%	0%	0%	0%	60%	0%	0%					
Injectable contraceptives (IM)		3,172	3,184	--	0%	0%	0%	28%	7%	33%	2%	0%	2%	28%	0%	8%					
Fertility Awareness Methods		2	2	--	0%	0%	0%	3%	6%	19%	33%	0%	1%	38%	0%	0%					
LAM		1,533	1,533	--	0%	0%	4%	0%	4%	17%	33%	0%	3%	38%	0%	2%					
Implant Insertion		8,456	5,817	--	5%	0%	7%	28%	13%	18%	0%	0%	0%	29%	0%	22%					
Implant Removal		1,983	1,983	--	8%	0%	9%	44%	15%	19%	0%	0%	0%	4%	0%	4%					
IUD Insertion		448	448	--	8%	0%	3%	40%	10%	27%	0%	0%	0%	12%	0%	1%					
IUD Removal		97	98	--	14%	1%	4%	42%	11%	20%	0%	0%	0%	8%	0%	0%					
Tubal Ligation		42	42	--	46%	2%	0%	25%	2%	23%	0%	0%	1%	0%	0%	0%					
Other FP-related Tasks																					
Counseling (New Clients)		3,204	3,204	5	0%	0%	0%	24%	5%	22%	7%	0%	2%	41%	0%	1%					
FP IEC		7,344	7,344	5	0%	0%	0%	21%	3%	33%	4%	0%	2%	37%	0%	1%					

Figure 12. Health facility initial task assignment tab 4.a

4.a TA-FACILITY

On this tab, (see Figure 12 on the previous page), the user assigns each clinical FP task to a specific provider cadre at the health facility level. It is the average percentage of the client volume that is seen by a specific provider cadre. HOT4FP guides task assignment through color coded cells (click the button to see the codes). Darker light green cells indicate that it is recommended that a specific cadre can perform a task per national or international guidelines, whereas lighter light green cells indicate that it is recommended that a specific cadre can assist in performing a task or under supervision only. Gray cells indicate that a cadre is not recommended for performing a task. The guidelines for task-sharing are configured on tab **E, Task Sharing Guidelines**.

ACTIONS

Optional: Select how task assignments are controlled. The option “As actually done” allows users to assign any task to any provider, even if this is not recommended per national and international guidelines. It is the best options for facility-level use of HOT4FP; some facilities will simply not have the required staff. The option “As allowed by task-sharing guidelines” will prohibit the user from assigning a task to a cadre that is not recommended. This is a better option for district health management teams and above when working with aggregate data to explore HRH optimization options through task-sharing. The selected option will apply to all four task assignment tabs, **4.a-d**.

Optional: Select whether to use actual or potential client volume in column AE for calculating the proportion that an activity time takes up overall. This helps focus on activities taking up most of HCWs time when setting priorities for task-sharing.

Hide or show unused FP activities: Hides all activities with zero clients to simplify the table.

Hide or show unused staff: Hides all staff with zero availability or hours to simplify the table.

DATA ENTRY

Column G: For activities that can be done in groups such as health education, enter the group size.

Columns K through AD: Assign a percentage of the client volume to each provider cadre. For activities done by a single provider, the percentages should add up to 100% in column AK. Some activities, such as antenatal care (ANC), are often done by more than one provider and percentages can add up to more than 100%. The total percentage should never be less than 100%.

DATA SOURCES

Service provider expert group consultation, senior health professionals at the health facility

HRH RESULTS

Rows 5 and 6: Show staffing gaps and surpluses as FTEs by cadre for the two scenarios selected by the user on the **DASHBOARD**. Any changes to the task assignments are immediately reflected in FTE shortages or excesses in these rows.

Two charts show the same staffing situation but in greater detail for the two user scenarios as full-time equivalents (FTE): existing FTEs, required FTEs, and FTE shortages or excesses.

Column AE: Shows which tasks take up the greatest percent of service providers’ time. Task-sharing for these tasks will show the greatest impact on staff shortages or excesses.

NOT YET IMPLEMENTED *Columns AL through AN:* This is an experimental feature for facility staff only for quantifying the level of task-sharing and summarizing the task-sharing effort across several activities. The **task-sharing effort index** is the combined score of task-sharing depth and task-sharing intensity. The task-sharing effort index can theoretically range from 0 to 1 with a value close to 0 indicating that little task-sharing is happening for a task; and a value close to 1 indicating that task-sharing is maximized. A value greater than 1 is possible if tasks are assigned to health workers not qualified for a task. **Task-sharing depth** is the proportion of available providers qualified to perform a task (as defined in tab **E, Task Sharing Guidelines**) who are assigned to a task with values ranging from a fraction of 100% to 100% if tasks are shared across all eligible cadres or over 100% if tasks are assigned to unqualified providers. **Task-sharing intensity** is a measure of how uniformly task-sharing happens across cadres. It

is proportional to the inverse of the variance of levels of task-sharing assigned to different providers of a task (using a normalized scale) with values between 0 and 1.

4.b TA-COMMUNITY

On this tab, the user assigns each clinical FP task to a specific provider cadre at the community level. The task assignments follow the same process as described under **4.a TA- Facility**. The following explains additional data needs for this tab.

DATA ENTRY (Figure 13)

Cells G4 to G5: Enter the number of clients seen by a HCW and by a CHW respectively for clinical FP activities such as immunizations during work in the community.

Cells G6 to G7: Enter the number days in a month that a HCW and a CHW respectively spends in the community for clinical FP activities such as awareness campaigns.

The information in cells G4-7 is used to calculate travel-related expenses on tab **7, Costs**. This can include travel times between the health facility and community and within the community, which are entered on tab **5, Community & Support**.

Avg./Min./Max. Travel Time between Facility and Community	120/60/180
Avg./Min./Max. Travel Time within the Community	10/5/20
Avg. number of clients seen by clinic staff in a day in the community for FP clinical tasks	10
Avg. number of clients seen by CHW in a day in the community for FP clinical tasks below	2
How many days a month does clinic staff work in the community?	4
How many days a month does CHW work in the community?	8
Include CHW travel time?	<input checked="" type="checkbox"/> =>

Figure 13. Data entry for community-based FP service delivery

4.c TA-OUTREACH

On this tab, the user assigns each clinical FP task to a specific provider cadre for mobile outreach. The task assignments follow the same process as described under **4.a TA- Facility**. The following explains additional data needs for this tab.

DATA ENTRY

Optional Rows 4 through 8: Select facility-based and external providers that conduct mobile outreach, if applicable, from a dropdown menu. This applies mostly when an external team visits the health facility to provide specialized service not available routinely. The number of clients seen is counted as part of the services delivered by the health facility.

Cells J10 and J11: Enter the number of clients seen per mobile outreach visit and the average number of hours for a mobile outreach visit.

4.d TA-PRIVATE Sector

On this tab, the user assigns each clinical FP task to a specific provider cadre at a private healthcare facility. The task assignments follow the same process, and its structure is identical as described under **4.a TA-Facility**.

5. COMMUNITY & SUPPORT

On this tab, the user performs two tasks. First, Figure 14, the number of events realized and planned per year related to community engagement, supervision, continuing education, and FP commodity supply are entered. Second, Figure 15, the events are assigned to specific service provider cadres – split between cadres based at the health facility and those in the community. Tasks are assigned as the percentage of the event similar to the assignment of clinical tasks above.

Activity	Number of events actually realized in a year PER community	Potential number of events (100% coverage) in a year PER community	Number of communities covered	Number of people per event	Total number of events held in a year in ALL communities	Potential total number of events (100% coverage) in a year in ALL communities	Percent of potential no. of events realized in a year in all communities
Service providers (FTE)							
FTE Excess/ Shortage - Clinical & Community/Support Activities: Current client load and initial task assign							
FTE Excess/ Shortage - Clinical potential client load & Community/Support at 100% - Modality M							
Community engagement - Subtotal days/year/FTE							
Community leadership engagement (e.g., meeting with & training of leaders)	4	4	51	5	194	204	95%
Engagement with community groups (women, farmers, development, etc.)	4	6	51	20	189	306	62%
Youth engagement (meetings with & training of groups)	1	1	51	20	51	51	100%
Home visits	41	104	51	5	2,081	5,304	39%
School Visits	1	1	51	100	61	61	100%
Communication & social mobilization	1	2	72	93	94	144	65%
Group health education sessions	10	12	51	33	520	612	85%
Supervision - Subtotal days/year/FTE							
Supportive supervision of community FP activities and CHWs by facility staff	10	12	72	1	720	864	83%
Supportive supervision of facility staff by district health team	4	4	1	74	4	4	100%
Supportive supervision of CHWs through remote communication (phone, internet) by facility staff between face-to-face contacts	0	0	72	1	0	-	0%
Supportive supervision of facility staff through remote communication (phone, internet) by district health team between face-to-face contacts	0	12	1	1	0	12	0%
Continuing education - Subtotal days/year/FTE							
CHW continuing education & training at district level or facility	1	1	85	1	1	1	100%
Facility staff continuing education & training at district level or above	1	1	74	15	1	1	100%
Resupply & other - Subtotal days/year/FTE							
CHW resupply at facility or district level	9	11	72	1	677	806	84%

Figure 14. Community engagement and systems support activities realized and planned

DATA ENTRY

Column E: Average number of events **realized** per year in ONE community where community-based activities are supported, which usually means that there is at least one community-based worker such as a CHW or community midwife.

Column F: Average number of events **planned** per year in ONE community where community-based activities are supported. This is equivalent to 100% coverage.

Column G (community engagement only): Number of communities covered, which usually is less or equal to the number of communities with at least one community-based worker such as a CHW or community midwife.

Column H: Average number of people reached per event (light green cells only).

Columns N through BA: Assign a percentage of the events to each provider cadre. Percentages do not have to add up to 100%, because multiple cadres may be involved in these activities.

Optional columns BL through BO: Adjust the times required per event (average, minimum, and maximum), if necessary.

Activity	Medical Doctor	Medical Specialist	Physician Assistant	Midwife	Professional Nurse	Auxiliary Nurse Midwife	Nursing Aide	Pharmacist / Ph. Assistant	Medical Assistant	CHW	Community Midwife	Activity as % of total time for all providers	Activity as % of total time for all providers	Avg. time required per event	Min - Max
	7.0	2.0	7.0	15.9	10.1	11.0	17.1	3.0	1.0	51.0	35.0				
	(10.2)	0.0	(6.6)	(2.7)	(4.7)	(3.0)	(5.3)	1.9	0.1	18.2	5.9	Current coverage levels	Potential 100% coverage		
	(12.2)	(0.0)	(0.3)	(2.9)	(3.3)	(3.8)	(5.8)	1.3	(0.8)	12.3	1.2				
Community engagement - Subtotal days/year/FTE	3.6	-	-	0.9	-	-	1.1	-	-	2.2	2.8	7%	11%	Minutes	
Community leadership engagement (e.g., meeting with & training of leaders)	35%	--	--	4%	--	--	--	--	--	94%	84%	1%	1%	60	50 - 70
Engagement with community groups (women, farmers, development, etc.)	--	--	--	4%	--	--	--	--	--	96%	78%	0%	1%	60	50 - 70
Youth engagement (meetings with & training of groups)	--	--	--	4%	--	--	--	--	--	80%	78%	0%	0%	60	50 - 70
Home visits	--	--	--	--	--	--	--	--	--	96%	75%	2%	5%	20	10 - 30
School Visits	20%	--	--	64%	--	--	--	--	--	89%	93%	0%	0%	60	50 - 70
Communication & social mobilization	27%	--	--	24%	--	--	12%	--	--	93%	96%	1%	2%	240	120 - 360
Group health education sessions	--	--	--	1%	--	--	25%	--	--	96%	86%	2%	2%	60	50 - 70
Supervision - Subtotal days/year/FTE	18.8	-	0.0	0.4	-	0.6	0.0	-	-	1.0	1.0	6%	7%	Minutes	
Supportive supervision of community FP activities and CHWs by facility staff	88%	--	--	4%	--	4%	--	--	--	96%	100%	6%	7%	180	120 - 240
Supportive supervision of facility staff by district health team	57%	--	9%	4%	--	--	23%	--	--	--	--	0%	0%	240	180 - 360
Supportive supervision of CHWs through remote communication (phone, internet) by facility staff between face-to-face contacts	--	--	--	--	--	--	--	--	--	--	--	0%	0%	30	15 - 60
Supportive supervision of facility staff through remote communication (phone, internet) by district health team between face-to-face contacts	--	--	--	--	--	--	--	--	--	--	--	0%	0%	30	15 - 60
Continuing education - Subtotal days/year/FTE	5.3	5.0	5.0	5.2	5.3	5.4	5.3	5.0	5.0	5.3	5.3	29%	26%	Days	
CHW continuing education & training at district level or facility	3%	--	--	5%	--	24%	--	--	--	100%	100%	15%	14%	5	2 - 10
Facility staff continuing education & training at district level or above	100%	96%	96%	100%	100%	100%	100%	96%	96%	--	--	13%	12%	5	2 - 10
Resupply & other - Subtotal days/year/FTE	0.0	-	-	-	-	0.0	0.1	-	-	1.0	0.1	1%	3%	Minutes	
CHW resupply at facility or district level	--	--	--	--	--	--	--	--	--	100%	8%	1%	3%	60	30 - 120
Facility resupply at district or above	0%	--	--	--	--	9%	100%	--	--	--	--	0%	0%	240	180 - 360
Total # of current work days per year for cc	28	5	5	7	5	6	6	5	5	9	9	43%	46%		

Figure 15. Community engagement and systems support task assignment, level of effort and activity duration

Optional table CA1 to CX8: This table calculates the number of households to be visited per year in one community. The average number of households per community is given as a reference. The user has three options as shown in Figure 16: (1) set a fixed number; (2) set a percentage of households in a community; or (3) use a needs-based approach. If the third option is selected, up to six criteria can be applied, depending on national guidelines. Figure 17 shows all the calculations required to determine how many households should be targeted annually.

Approach for planning annual home visits (targets are per community, tool will calculate totals for all communities with CHW in the catchment area)		Enter target below
Number of households per community in the health facility catchment area		378
<input type="radio"/>	Annual target set at a fixed number of homes: enter total no. per community *	432
<input type="radio"/>	Annual target set as a percentage of all homes in the community: enter % of all households to be visited	10%
<input checked="" type="radio"/>	Annual number of homes to be visited based on need	Check on right
* If target exceeds the no. of households in a community, this means that several households will be visited more than once in a year		

Figure 16. Three options for calculating household visits

Annual number of homes to be visited based on need: check all that apply		Percent of population targeted	Target population	% with eligible condition	Total no. requiring services	% requiring follow-up by CHW	Total no. requiring home visits	Avg. no. of visits per household	Total no. of visits required
<input checked="" type="checkbox"/>	Pregnant women with complications	4.7%	15,888	10%	1,589	50%	794	1	5
<input checked="" type="checkbox"/>	Sick child under 5 years	18.0%	60,962	10%	6,096	50%	3,048	1	18
<input checked="" type="checkbox"/>	Post partum visits	4.3%	14,631	100%	14,631	25%	3,658	3	62
<input checked="" type="checkbox"/>	FP related visits	1.0%	3,387	100%	3,387	100.0%	3,387	1	19
<input type="checkbox"/>	Specify		-		-		-		-
<input type="checkbox"/>	Specify		-		-		-		-
Total number of households to visit annually for each community with CHW (grey cells are not included in the total)									104

Figure 17. A needs-based approach for estimating the number of households to be visited annually

DATA SOURCES

Service provider expert group consultation, senior health professionals at the health facility

HRH RESULTS

Rows 11 and 12: Show staffing gaps and surpluses as FTEs by cadre for the two scenarios selected by the user on the **DASHBOARD** except for the second scenario, which is based on a 100% coverage (planned events) for community engagement and systems support (clinical activities are the same). Any changes to the task assignments are immediately reflected in FTE shortages or excesses in these rows.

Column K: Shows the percent of planned events that were realized.

Column BB and BC: Show which tasks take up the greatest percent of service providers' time. The first column applies to current coverage levels (events realized); the second column applies to 100% coverage levels (events planned).

Cells H6 to M7: Figure 18 summarizes how much time providers spend on community engagement, supervision, continuing education, and FP commodity supply, and how their time is split between these activities and clinical FP activities for the two user scenarios selected on the **DASHBOARD**.

Provider time divided between clinical activities and community/support by user scenario						
Clinical activities	Community activities	Community engagement	Supervision	Continuing education	Resupply & other	
57%	43%	7%	6%	29%	1%	Clinical & Community/Support Activities: Current client load and initial task assignment - Baseline Scenario 1
54%	46%	11%	7%	26%	3%	Clinical potential client load & Community/Support at 100% - Modality Mix 2 (initial task assignment)

Figure 18. Provider time split between clinical tasks and community engagement and systems support activities

6. TASK SHARING (optional)

On this tab, Figure 19, users can create two task-sharing scenarios – 2 and 3 – in addition to the initial task assignments (scenario 1) on tabs **4.a – d**.

ACTIONS

Select whether to show or hide the third task-sharing scenario by clicking the button to top of the sheet. Users can opt to only display FP activities and staff in use at this facility by clicking the appropriate button on top of the sheet, which simplifies the tables greatly. Shrinking tables takes a moment.

DATA ENTRY

Rows 5 and 7: Enter the title, short name, and description for task-sharing scenarios 2 and 3 (if the latter is shown).

Columns K through BR (CG for mobile outreach): Allocate client volume to service provider cadres in percent for task-sharing scenarios 2 and 3 as needed. The initial task assignments from tabs **4.a – d**, baseline task-sharing scenario 1, are shown as a reference but cannot be changed here.

Note: When first using HOT4FP the task assignments for scenarios 2 and 3 are the same as the baseline task assignments. Users can override these formulas.

HRH RESULTS

Rows 13 and 14: Show staffing gaps and surpluses as FTEs by cadre for the two scenarios selected by the user on the **DASHBOARD**. Any changes to the task assignments are immediately reflected in FTE shortages or excesses in these rows.

NOT YET IMPLEMENTED Columns DA through DI: This is an experimental feature for facility staff only for quantifying the level of task-sharing and summarizing the task-sharing effort across several activities. The **task-sharing effort index** is the combined score of task-sharing depth and task-sharing intensity. The task-sharing effort index can theoretically range from 0 to 1, with a value close to 0 indicating that little task-sharing is happening for a task; and a value close to 1 indicating that task-sharing is maximized. A value greater than 1 is possible if tasks are assigned to health workers not qualified for a task. **Task-sharing depth** is the proportion of available providers qualified to perform a task (as defined in tab **E, Task Sharing Guidelines**) who are assigned to a task with values ranging from a fraction of 100% to 100% if tasks are shared across all eligible cadres or over 100% if tasks are assigned to unqualified providers. **Task-sharing intensity** is a measure of how uniformly task-sharing happens across cadres. It is proportional to the inverse of the variance of levels of task-sharing assigned to different providers of a task (using a normalized scale) with values between 0 and 1.

The staffing needs and task-sharing effort indices for the three task-sharing scenarios are compared on the **DASHBOARD**.

.

6. Tasksharing

Show Task Sharing
Recommendations

Show all
Activities/Methods

Show all Staff

Hide Scenario 3

Go to Next Sheet

Save

Backup this table

Restore Table from
Backup

Name of Task Shifting Scenarios:

Tasksharing Scenario 2

Short Name:

Description:

Reduction charge client des infirmieres obs.

Scen 2

Transfer des taches des infirmieres obstetriennes au sages-femmes

Tasksharing Scenario 3

Scen 3

Health Center																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Show color code for Task-sharing	Current Client Load	Potential Client Load Modality Mix #1	Activity as % of total time for all providers	Medical Doctor			Physician Assistant			Midwife			Professional Nurse			Auxiliary Nurse Midwife			Nursing Aide			CHW			Community Midwife			Activity as % of total time for all providers																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
				Baseline	Scen 2	Scen 3	Baseline	Scen 2	Scen 3	Baseline	Scen 2	Scen 3	Baseline	Scen 2	Scen 3	Baseline	Scen 2	Scen 3	Baseline	Scen 2	Scen 3	Baseline	Scen 2	Scen 3	Baseline	Scen 2	Scen 3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
				FTE Excess/ Shortage - Current Client Load			Potential Client Load			57%			(10.2)			(8.3)			(1.9)			(0.0)			(2.7)				(4.7)			(3.1)			(2.7)			(5.3)			(5.1)			18.2			18.2			5.9			1.5			57%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Clinical Tasks				58%			(8.3)			(0.0)			(1.9)			(0.0)			(2.7)			(4.7)			(3.1)			(2.7)			(5.3)			(5.1)			18.2			18.2			5.9			1.5			57%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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Community Level

Community Level				Current Client Load	Potential Client Load Modality Mix #1	Activity as % of total time for all providers	Medical Doctor			Physician Assistant			Midwife			Professional Nurse			Auxiliary Nurse Midwife			Nursing Aide			CHW			Community Midwife			Activity as % of total time for all providers		
Show color code for Task-sharing	Baseline	Scen 2	Scen 3				Baseline	Scen 2	Scen 3	Baseline	Scen 2	Scen 3	Baseline	Scen 2	Scen 3	Baseline	Scen 2	Scen 3	Baseline	Scen 2	Scen 3	Baseline	Scen 2	Scen 3	Baseline	Scen 2	Scen 3	Baseline	Scen 2	Scen 3			
FTE Excess/ Shortage - Current Client Load						57%		(10.3)			(1.6)			(2.7)			(4.7)			(3.1)			(5.3)			18.2			5.9	57%			
Clinical Tasks Potential Client Load						58%		(8.8)			(0.0)			(1.3)			(3.1)			(2.7)			(5.3)			18.2			1.5	58%			
Combined oral contraceptives (COC)						1,043	1,043	4%	-	-	-	4%	4%	4%	3%	3%	3%	-	-	-	1%	1%	1%	-	-	-	17%	17%	17%	74%	74%	74%	4%
Progestin-only oral contraceptives (POP)						2,168	2,168	13%	-	-	-	4%	4%	4%	8%	8%	8%	-	-	-	1%	1%	1%	-	-	-	19%	19%	19%	68%	68%	68%	13%
Condoms, male						934	934	1%	-	-	-	5%	5%	5%	-	-	-	-	-	-	1%	1%	1%	-	-	-	15%	15%	15%	80%	80%	80%	1%
Condoms, female						2	2	0%	-	-	-	-	-	-	100%	100%	100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%	
Injectable contraceptives (IM)						1,662	1,650	8%	-	-	-	-	-	-	52%	52%	52%	-	-	-	-	-	-	-	-	-	10%	10%	10%	38%	38%	38%	8%
LAM						405	405	2%	-	-	-	-	-	-	5%	5%	5%	5%	5%	5%	6%	6%	6%	-	-	-	25%	25%	25%	60%	60%	60%	2%
Implant Insertion						4,765	7,404	24%	-	-	-	-	-	-	9%	9%	8%	-	-	-	9%	9%	9%	-	-	-	-	-	23%	83%	83%	60%	24%
IUD Insertion						35	35	1%	-	-	-	-	-	-	100%	100%	100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1%	
IUD Removal						7	5	0%	-	-	-	-	-	-	100%	100%	100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%	
Other FP-related Tasks																																	

Figure 19. Tab to develop task-sharing scenarios 2 and 3

7. COSTS (optional)

This tab and Figure 20 show the salary costs for the existing staff. It also estimates the cost – per diem, lodging, and travel – related to the provision of community-based services and for community engagement and systems support activities. Users can provide a budget envelop by funding source for these activities to explore how many more staff can be hired with available funding and what budget gaps remain for per diems, lodging, and transportation.

ACTIONS

Dropdown list in P3: Select whether to show values in local currency or US\$. The line below indicates in which currency cost data have been preconfigured on the hidden tab **G, Cost Data**. Users can switch freely between currencies.

Costing Inputs: Verify transport availability at this facility and adjust where necessary.

Costing Results: Costs are provided for the scenarios selected by the used on the **DASHBOARD** by default. Of salary costs, the user can select a different second scenario by unchecking the checkbox and selecting from the blue dropdown box. For per diems and travel costs, the second scenario is based on 100% coverage for community engagement, supervision, training, and FP commodity supply activities.

Show or hide unused staff: Click the button to simplify staff tables.

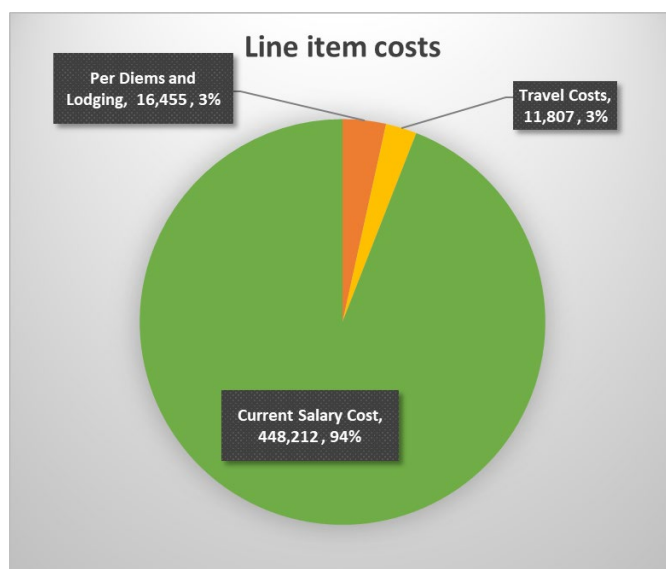


Figure 20. Breakdown of major cost items

	Funds Required (US\$)			Funding Source				Funding Deficit/ Surplus (US\$)		
	FTE available	Scen. 1	Scen. 2	Government	Donors	NGOs	TOTAL	FTE available	Scen. 1	Scen. 2
Salaries, Stipends and Other Types of Financial Support	\$448,212	\$775,344	\$719,389	\$500,000			\$500,000	\$51,788	(\$275,344)	(\$219,389)
Per Diem	\$16,455	\$16,455	\$20,082	\$5,000	\$5,000		\$10,000	(\$6,455)	(\$6,455)	(\$10,082)
Travel Costs/Allowances	\$11,807	\$11,807	\$15,732	\$2,000	\$5,000		\$7,000	(\$4,807)	(\$4,807)	(\$8,732)
Equipment and supplies	\$30,000	\$30,000	\$30,000		\$30,000		\$30,000	\$0	\$0	\$0
TOTAL	\$476,474	\$803,606	\$755,202	\$507,000	\$40,000	-	\$547,000	\$70,526	(\$256,606)	(\$208,202)

Figure 21. Budget envelop and deficit or surplus

DATA ENTRY

3. **Budget Envelop:** Enter available funding sources in Figure 21. Enter the funding available in the second table. These amounts must be entered in the currency displayed.

4. **Additional hiring or purchases:** Specify how many additional staff you plan to hire in column D of the second table.

Purchase vehicles: Complete the first table.

Additional Procurements: The third table can be used for any additional procurements.

HRH RESULTS

Costing Results 1. Total annual personnel costs: Total annual salary costs and costs to close any staffing gaps are shown in Figure 22.

	FTE available	FTE Required		Salary Cost		
		Scen. 1	Scen. 2	FTE available	Scen. 1	Scen. 2
Medical Doctor	7.0	17.2	15.9	\$196,654	\$483,171	\$448,009
Medical Specialist	2.0	2.0	1.8	\$28,072	\$27,764	\$25,935
Physician Assistant	7.0	7.7	7.0	\$49,425	\$53,934	\$49,443
Midwife	15.9	18.6	16.4	\$75,304	\$88,134	\$77,561
Professional Nurse	10.1	14.7	13.5	\$35,303	\$51,653	\$47,443
Auxiliary Nurse Midwife	11.0	14.0	13.7	\$25,732	\$32,668	\$32,026
Nursing Aide	17.1	22.4	22.4	\$19,990	\$26,177	\$26,179
Pharmacist / Ph.Assistant	3.0	1.1	1.1	\$3,572	\$1,309	\$1,309
CHW	51.0	32.8	32.8	\$6,608	\$4,253	\$4,252
Community Midwife	35.0	29.1	33.5	\$7,552	\$6,280	\$7,232
Medical Assistant	1.0	0.9	0.9	\$4,756	\$4,065	\$4,065
TOTAL	1.0	159.5	158.2	\$448,212	\$775,344	\$719,389

Figure 22, Salary costs for 3 scenarios: FTEs available, scenario 1 FTEs required for current client volume, FTEs required for scenario 2

2. Per diems and transportation: The second table shows cost associated with providing services in the communities, community engagement, supervision, continuing education, and FP commodity supply.

Pie chart: Breaks down costs into salaries, per diem and lodging, and transportation allowances.

Bar chart: Shows costs broken down by community service delivery, community engagement, supervision, continuing education, FP commodity supply, and other community activities.

HRH Results

The **DASHBOARD** and several **multi-facility summary sheets on purple tabs** provide a detailed analysis of HRH results. If the tool is used for a **single health facility** as selected on the **Start** tab only the **DASHBOARD** shows. If **multiple facilities** are imported into HOT4FP, the **DASHBOARD** and **multi-facility summary sheets** show. In this case the **DASHBOARD** will contain the **aggregate** data from multiple facilities as indicated on the **Start** tab. This can be the aggregate from all imported health facilities or for a subset of facilities if a filter is selected on the **FTE Summary** tab.

DASHBOARD

- Row 2: To select two user scenarios for comparing HRH results the user can use the radio buttons to choose from a shorter list of essential options or from a longer comprehensive list of potential scenarios. Most users will find the essential list easier to navigate.
- Row 3: Shows buttons that take the user to different parts for the **DASHBOARD** to avoid excessive scrolling. These buttons are repeated throughout the **DASHBOARD**.

ACTION: Select the two scenarios in the green and blue dropdown boxes for comparing HRH results throughout the tool.

The following describes each part of the **DASHBOARD** following the order of button labels.

- User scenarios and charts:** Green and blue bar charts and tables show the essential HRH results for the two scenarios selected by the user. Unused rows in the tables can be hidden with the press of the button on top of the sheet. The remaining information shows the service modality and task-sharing scenarios and their descriptions, previously entered on tab **2, FP Delivery** and tab **6, Task Sharing**.

- **Analysis of provider time:** This is an experimental feature for user scenario 1 only. The first table analyzes how many communities in the catchment area or health district (or another geographic unit) are covered by community-based workers and how well their time is utilized based on the current client volume and current levels of community engagement and systems support activities. This table breaks down the time CHWs spent on specific groups of activities and how close they are to achieving 100% coverage.

The second table performs a similar analysis for facility-based HCWs.

- **FP Method Mix:** Three charts compare the distribution and prevalence rates of modern contraceptive methods. The first chart presents national averages from the last DHS. The second chart, Figure 23, shows the distribution and rates for the current client volume, user scenario 1. The third chart presents results for the second user scenario.

- **Scenario 1 FTE Analysis:** This is an experimental feature for user scenario 1. The first table shows which service providers face the greatest shortage based on the cutoff selected by the user and which other service provider cadres could share a task, both at facility and community levels. This is based on staff availability and eligibility as defined on the hidden tab **E, Task Sharing Guidelines**.

The second table shows which staff have the greatest excesses based on the cutoff selected by the user and which data verification and adjustment steps users can take to ensure data accuracy. In a second step, users can explore task-sharing and changing the service modalities to reduce staff excesses.

- **Scenario 2 FTE Analysis:** same as the Scenario 1 FTE Storyline but for user scenario 2.

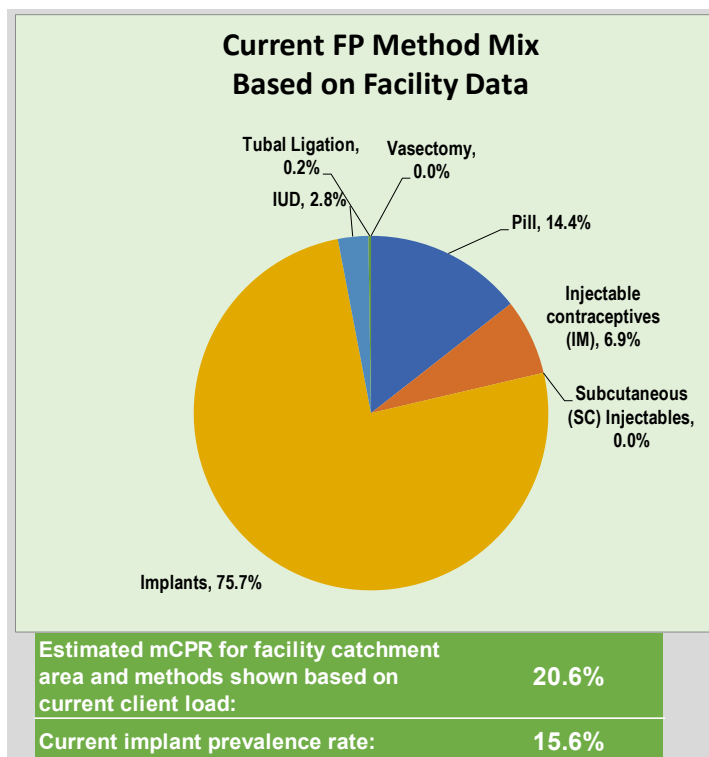


Figure 23. Method mix and mCPR for current client volume, user scenario 1

Up to this point, HOT4FP can be used with data from a single or multiple health facilities; the last few tabs beginning with the **FTE Summary** only apply when HOT4FP is used as a master tool with data from multiple health facilities, as described below.

APPLYING HOT4FP AS A MASTER TOOL

To import data from several health facilities, follow these steps.

Import data from tools completed for individual health facilities

1. Select “New health facility, no aggregation” from the dropdown menu on line 1 to complete HOT4FP for each health facility by, at minimum, entering the catchment area population and community size on the **START** tab, annual client volume on tab **1**, the number of service providers and FP hours on tab **3**, and initial task assignments on tabs **4.a** and **b**. Tab **5** for

community engagement and systems support activities can be preconfigured and applied to all facilities with minor adaptations. Enter the date on the **START** tab and save each completed tool by using the “Save tool under a new name” button on the **START** tab. Accept the default filename and select a folder on your computer where all completed tools will be saved.

2. Save all completed tools in the same target folder on your computer.
3. Select “All health facilities” to import data from all completed tools in the target folder selected under steps 1 and 2. This will work well for about fewer than 120 facilities. For a much larger number of facilities select any other option 3 through 8 for data import and enter the respective label in lines 3-6 or 11, which will selectively import data from a subset of facilities that meet the criteria entered.
4. Users will be prompted several times and asked to select whether the imported data will replace or be appended to data already in the tool. When appending data, the tool can check for duplicates, which will slow the import; it is recommended only for a few facilities, else a complete reimport will be faster.
5. The import procedure will ignore any non-HOT4FP files in the target directory.
6. As the last step, HOT4FP will aggregate the data from all imported facilities and copy these aggregate data into their respective tables on all the red tabs described earlier. Users can use the aggregate data on these tabs to test task-sharing and service diversification and assess their district-wide staffing impact. Such aggregation presents a hypothetical scenario assuming that all health facilities are configured with the same client volume and staff mix. A realistic setup must be created in the tools for individual health facilities because each facility is organized differently. After the individual HOT4FP files have been revised, data must be reimported into a new master tool.

The following tabs will summarize the staffing situation and efficiencies for all or some of the imported health facilities. The latter is done by filtering the imported data in the **FTE Summary** tab. If data are filtered, the aggregation will only include facilities selected and their numbers shown on the **START** tab.

FTE SUMMARY

This and the following HRH results tabs apply only to **multi-facility data imports** into a master HOT4FP; they are hidden when HOT4FP is used for a single health facility (although data from multiple facilities may still be in the tool to create tools for single facilities). These tabs use the Excel pivot table features that allow filtering of health facilities by geographic area and other criteria. At first, all data for all health facilities imported will show, organized by region, district, and sub-district (municipality). To filter facilities, select criteria on the left (orange). By default, only one criteria can be applied at a time, for example, one of the districts. Optionally, two criteria can be selected by changing the dropdown item in cellA2. The filter selected will apply to this and all the following HRH results tabs. To cancel filters, click the “reset all filters” button. Filtering HRH results is the only user action for these tables; no data must be changed here or on the following tabs.

The **FTE Summary** tab shows the FTEs available and shortage or excess for each available service provider cadre. The number of communities (villages) and population size in the facility catchment area as well as the client volume per facility is shown as a reference. The last four columns show the total FTEs available, the average shortage or excess, and their lower and upper bounds. A good staff balance would show average shortages or excesses close to zero.

Separate tables are provided for user scenarios 1 and 2.

FTE CHART

These charts show the same FTE information as the **FTE Summary** but one service provider cadre at a time or all combined for user scenario 1 only. The selection is made from a dropdown box in column B.

FP EFFORT

This table summarizes FP service coverage in the catchment area of each health facility and overall. This includes estimates for unmet need and use of modern methods for current and potential client volumes. Current visits are further broken out by type of FP method and service such as FP counseling and IEC. The table also shows the average number of hours that providers spend on FP service delivery. Lastly, mCPR is shown for current and potential client volume levels.

COMMUNITY+

This table shows the coverage for community engagement, supervision, continuing education, and FP commodity supply activities under current levels of effort. Coverage levels are only calculated for frontline health facilities but not for referral centers. Supervision of community-based workers in health facilities without CHWs will not be applicable (greyed out). Coverage levels may be high if targets for these activities are set low on the **5. Community & Support** tab.

HOT4FP Customization

Tool **customization** for a specific country context is done on eight tabs **SetUp and A. – G. on green tabs**. These sheets are hidden and reserved for the local HOT support team and should not be changed by the tool user. These country-customized settings apply to all health facilities, while the HOT4FP application by tool users is done for individual health facilities.

Set Up

This tab sets the user language for the tool from a dropdown menu. This should be done once before the tool rollout. While the language can be changed at any time after the user has entered data, user input cannot be translated automatically, only the language for the tool interface will change.

A. PHC Activities

This tab customizes the list of clinical FP activities by using country-specific terminology in columns D through H for any of the preconfigured activities in columns B and C. The best approach is to align country terminology with the preconfigured list, because it is tied to the task times in tab **D, Task Times**. Any activities that do not apply would simply not be used. If there are activities not in this list that take up a significant amount of service providers' time it is best to use the undefined activities "Other [Specify]" by replacing their labels in the light green cells. Tools for customizing FP activities can be downloaded and used with service provider expert groups.

Clinical FP activities require additional information:

- Average number of visits per year
- Can this activity be done in a group setting (Y/N)?

For community engagement and systems support activities, users can specify how much of these activities is attributable to FP versus other programs. The percentages are applied to the cost for community-based services, which means that a coverage of less than 100% means that other programs need to make up the difference.

B. Modalities

This tab applies country terminology to the four service delivery modalities and to the four types of health facilities.

C. Service Providers

This tab adapts the health workforce to country terminology. The first 12 service provider cadres follow WHO nomenclature; only the country names in column D and their abbreviations in column F will be used by the tool. These can be in any language. User added staff 13 through 20 need to be mapped to one of the first 12 cadres; this will be used to assign task times and to calculate costs.

The bottom part of the table is only applicable if the facility receives or provides mobile outreach services that involve staff from the outside, such as district or NGO service providers. These, too, need to be matched to one of the first 12 service providers.




D. Task Times

Three task times are required for each clinical activity, the average, minimum, and maximum times. All task times are in minutes for one provider-client interaction. These task times are applied to all service provider cadres across all service modalities. However, times for individual tasks and cadres can be adjusted, but this is not recommended as maintaining hundreds of data points would be very difficult. Moreover, adjusting task times by a few minutes for one provider has very little impact on FTE requirements.

HOT4FP comes prepopulated with task times based on data collected in Mali. These can be used as a first approximation in other countries, but most likely there will be a desire to review and adjust these data based on country-specific practices. The most convenient source for task times reviews are consultations with small expert provider groups. Tools for validating tasks and task times are available for download. This can be done in a few 2-hour sessions managed virtually. A much more expensive and time-consuming method would be time-motion studies with direct observations. The additional gains in precision may not warrant the costs.

E. Task Sharing Guidelines

For each clinical task and community engagement, supervision, continuing education, and FP commodity supply activity a service provider cadre is designated as “recommended,” recommended as “assisting or with supervision only,” or “not recommended.” This

	Recommended
	Assisting or With Supervision
	Not Recommended
	Missing assignment

designation is used to format all tabs with a task-sharing function: tabs **4.a – d**, **5**, and **6**. This will help tool users to assign tasks only to qualified personnel. The designation is done by copying and pasting the appropriate symbols in the table. Tools for customizing FP activities can be downloaded and used with service provider expert groups to determine the level of task-sharing possible following national and international guidelines.

F. DHS Data

This is an experimental tab. Its data are used to establish coverage benchmarks for key FP activities. It uses country-specific DHS data as well as data published in the literature, which may be based on research from other countries. These tables need to be updated once a new DHS or new research becomes available.

G. Cost Data

Tables in this tab capture salary and related information such as hardship allowances, bonuses, housing allowances, and stipends for each service provider cadre. In addition, travel-related information for

providing community-based services and community engagement and systems support activities need to be entered—per diems, lodging and transportation allowances for each cadre. Data can be entered in local currency or as US\$ as selected in cell D2, but it needs to be decided up front and not changed later.

HOT4FP Excel files, users guide, and HRH efficiency cases can be downloaded from:

<https://hrh2030program.org/hot4fp-optimizing-hrh-fp/> These resources present additional analyses beyond what is described in this document.



HRH2030 strives to build the accessible, available, acceptable, and high-quality health workforce needed to improve health outcomes.



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