HRH Optimization Tool for Primary Health Care (HOT4PHC) Minimum and Optional Data Inputs

For Version 1.1 of the Tool (February 2022)

To minimize the need for data entry by the tool's end users, HOT4PHC requires two mandatory levels and one optional level of data input with tool end users who are initially only concerned with Section B. Two district worksheets are available to facilitate the collection of the most critical client volume and HRH data. Data requirements are organized as follows:

I. Initial configuration of HOT4PHC to the country context
II. Site-level data input (data from national databases or tool end users assisted by district worksheets)
III. Optional data elements to use additional tool features
IV. Additional features that can be used with a minimum of remote support and trainingac euismod quam. Integer luctus massa eu erat vehicula dictum. Etiam tincidunt ex ante, eget eleifend metus auctor et.

I. Initial Configuration of HOT4PHC to the Country Context

This initial tool configuration will be done in consultation with country PHC and antireroviral therapy (ART) expert service providers with remote support from implementing partners. A validation guide is available to facilitate the configuration process. The configuration is completed once at the beginning and will apply to all health facilities. The MOH and implementing partners will configure district worksheets for data collection during this phase. Tool end users will only need to provide data listed in Section B with the help of district worksheets.

A. PHC Activities[1]

a) Essential PHC activities – Start with high annual patient/client volume (250+ contacts/year per facility); review and adapt the existing list

b) ART activities – Start with high annual patient/client volume (250+ contacts/year per facility); review and adapt the existing list

c) Differentiated ART service delivery models used in country and annual appointment and drug dispensing frequencies for each ART activity and model; review and adapt the existing table

d) ART indicators – TX_CURR and TX_NEW at minimum; others are optional (see Section C)

B. Service Modalities and Facility Types

a) Confirm or edit prevailing service delivery modalities: facility-based, community-based, mobile outreach, and private sector (the last two are optional)

b) Confirm or edit the types of facilities assessed: health center, referral center, district hospital, and user-defined

C. Service Providers

a) Edit labels for all professional and lay health worker cadres delivering PHC, special programs, and ART services. Group similar cadres.
b) Indicate whether specific cadres are dedicated to special programs or to ART.

E. Task Sharing Guidelines

a) Adjust task-sharing recommendations for all cadres and PHC and ART activities in consultation with an expert service provider group
b) Derive task-sharing estimates (percent) from consultation with an expert service provider group

[1] Header colors correspond to tool tab colors. Letters or numbers correspond to tool tab labels; therefore, letters/numbers may not appear in sequence

II. Site-Level Data Input (Data from National Databases or Tool End Users)

Tool end users will only need to provide data listed in this section either by using simple district worksheets for data collection (recommended for many facilities using MS Excel) or by entering data directly into the tool (if few facilities are involved).

Start

a) Facility name and geographic identifiers
b) Facility catchment area total population for primary care facilities only
c) Number of communities or villages within each health facility catchment area for primary care facilities and referral facilities (the latter can be excluded from aggregation to avoid double counting)

1) Client Volume [from District Worksheet]

c) Annual number of client contacts for each PHC and special programs activity
d) Annual number of clients on ART: TX_CURR and TX_NEW at minimum
e) Approximate (percent) client distribution by ART service delivery model

3) Service Providers [from District Worksheet]

Enter or edit the following information for each health worker cadre:

a) Indicate where the cadre is based: at the facility or in the community.
b) Indicate the service modality to which each cadre is assigned: facility-based, community-based, mobile outreach, and private sector (last two are optional).
c) Total weekly working hours.
d) Hours worked per week to deliver PHC, special programs, and ART services.
    i. Only count hours spent on clinical tasks; do not count administrative and other non-client related tasks.
    ii. Only count hours worked at this facility; do not count hours worked outside. For example, in private practice where dual practice is allowed).
e) Number of weeks worked per year.
f) Total number of staff for each cadre available for PHC, special programs, and ART provision (must be physically available. Do not count absentee staff; must actually deliver services. Do not count all trained staff; only count staff delivering care any given day. Do not count staff that rotate on different days or weeks).
g) Optional: number of part-time staff and weekly hours worked by each.

4) Task Assignment Facility [4a]

a) The tool will make default task assignments automatically based on the type and number of staff who are available and are recommended to perform an activity. Users can work with default values or adjust them where they are grossly under- or over-estimated percent allocations. Any adjustment should focus on high-volume activities; there is little impact on staffing needs for low-volume activities.
b) If adjustments are made, these should be informed by estimates provided by an expert service provider group.

4) Task Assignment Facility [4b]

a) Same as 4a, but covering community-based services.

DASHBOARD

a) Provides a summary of HRH data and the staffing situation. It also allows the comparison of different client volume and task-sharing scenarios. No user input is required on this sheet.

III. Optional Data Elements to Use Additional Tool Featured

Once tool end users have provided the minimum information in Section B, the tool will estimate HRH requirements, shortages, and surpluses at baseline based on the current client volume. Additional data input will increase the accuracy of HRH requirement estimates and expand tool functionality. These optional data elements are listed.

1) Client Volume for Additional ART Services

f) Annual client volume for PHC, special programs, and ART services. For example, PrEP_CURR, HTS_TST, HTS_INDEX, HTS_SELF, and others

2) PHC and Special Programs Delivery [2] and ART Delivery [2a]

a) Select options for or enter potential client volume numbers (targets) to compare HRH requirements at baseline with scenarios of an increased volume
b) Change the client distribution across different service modalities: facility-based, community-based, mobile outreach, and private sector (last two are optional) to compare HRH requirements at baseline with two additional client distribution scenarios

4) Task Assignment Mobile Outreach [4c] Task Assignment Private Sector [4d]

a) If these service modalities are implemented, repeat task assignments as described above

5) Community Engagement and Systems Support Activities

Under PHC Activities [A], edit the list of activities under community engagement, supervision, continuing education and training, drug and commodity supply, and other user-defined activities.

Provide the following inputs for each listed activity:

a) Average number of hours per day that health workers spend on community engagement and systems support activities
b) Average, minimum, and maximum travel times between homes in a community

c) Average, minimum, and maximum travel times between the health facility and communities
d) Annual number of events realized per year per community
e) Annual number of potential events planned per year per community
f) Number of communities or villages covered
g) Average number of people participating in an event
h) Assign a percentage of each task to facility- and community-based staff

Accept or edit the average, minimum, and maximum times required per event

6) Task-Sharing

a) Change task assignment for two additional scenarios to compare the effect of task-sharing between baseline Scenario 1 and Scenarios 2 and 3

D. Task Times

The time per client contact for each PHC activity and service provider is based on expert service provider group consultations in Mali. For ART, they are based on a time-motion study of ART clinics in Uganda and expert provider group consultations in Malawi.

b) If some of these client contact times are substantially different in a country (by more than two minutes), an expert provider group from the country can be asked to provide locally appropriate time estimates to update this database.
c) Each task requires three-time estimates: an average, a minimum, and a maximum.
d) Two different sets of time estimates can be assessed. Shorter times may apply to frontline healthcare workers; longer times my apply to healthcare workers at referral levels who see more severe cases.

F. Demographic and Health Survey Data

Enter data from the latest country Demographic and Health Surveys (DHS) and Population-based HIV Impact Assessment (PHIA) to estimate population coverage for essential PHC services.

G. Cost Data

a) Monthly salaries and allowances for all cadres
b) Per diem and overnight allowances for travel and travel allowances
c) Initial capital costs for vehicles and equipment
d) Annual maintenance costs
e) Annual operating costs for vehicles and equipment

7) Costs

a) Means of transportation for community engagement and systems support activities
b) Annual budget envelops for salaries and allowances, per diems and lodging, transportation, and equipment and supplies

IV. Additional Features That Can Be Used with a Minimum of Remote Support and Training

Data Import from District Worksheets

a) This feature will import facility-level data from district worksheets and generate a separate HOT4PHC tool for each health facility. District worksheets enable the rapid collection of HRH and client volume data. The automated import helps to analyze the HRH situation in hundreds of health facilities.
b) The effect of changes in client volume, service modalities, and task-sharing in a health facility can be explored with the individual tools generated.
c) The import requires that district worksheets adhere to strict formatting rules.

Data Aggregation Across Many Health Facilities

a) This feature will import data from many completed HOT4PHC tools (not the district worksheets used in the previous feature) to explore the aggregate HRH situation at the municipality, district, regional, or national levels.
b) Besides the aggregate, users can compare the HRH situation in individual health facilities as well.

Depending on the number of facilities, the import process will take time. This is best done over a break while the computer is not used for anything else.

Note: HOT4PHC can be configured in English or in French. It is called AVANCE-SSP in French.

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