

Universal Health Coverage Monitoring and Planning Tool



Partners
In Health

User Guide

Version 1, updated 10/18/2018



Nurse Limpho Likotsi examines Mokone Tukiso, a MDR-TB and HIV patient, at PIH-supported Botsabelo Hospital in Maseru, Lesotho. *Photo by Cecille Joan Avila*

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Background

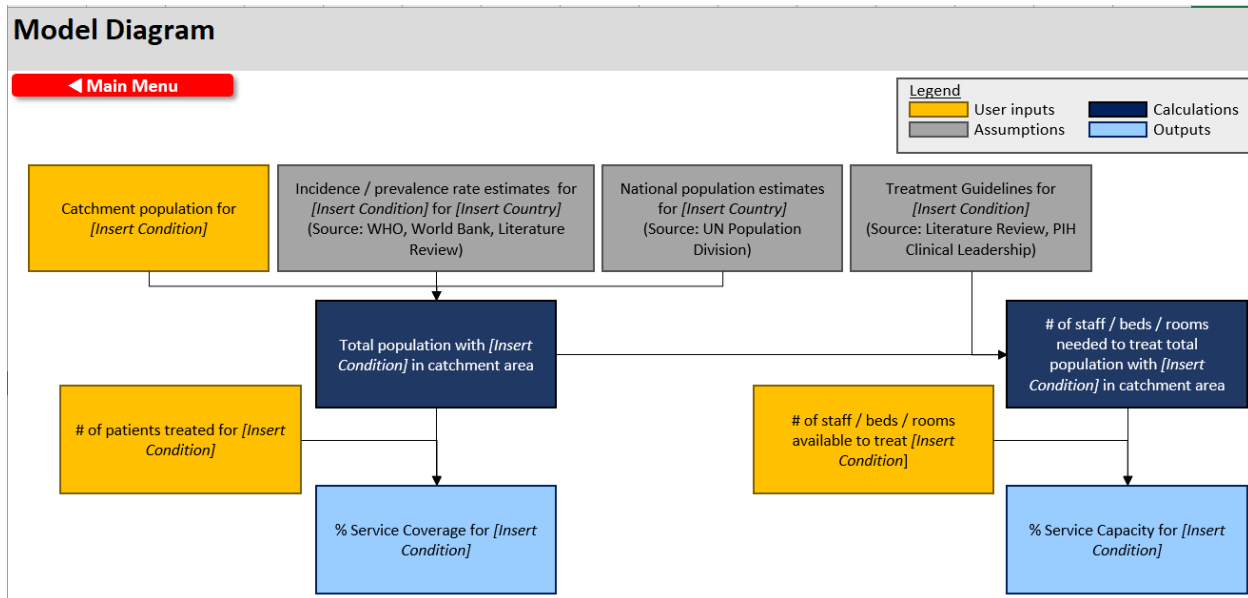
The Sustainable Development Goals call for the achievement of Universal Health Coverage (UHC) by 2030. Consequently, UHC has been a prominent topic within international development discourse with a major focus and progress around the financial protection i.e. equitable insurance schemes and the removal of user fees. Yet, a significant gap remains in monitoring and planning service delivery for the achievement of UHC, and the mechanisms and approach to how UHC will be delivered, from a provider perspective, remains a black box.

To this end, Partners In Health (PIH) has developed and tested a UHC Monitoring and Planning Tool, to plan comprehensive health care delivery and monitor service coverage by linking inputs -staff, supplies, infrastructure- with the burden of disease to support the delivery of care. This user guide describes how to use this model for a particular catchment area; from inputting the data to displaying results.

Introduction

The UHC Monitoring and Planning Tool enables a diverse group of users; ranging from governments entities, including Ministries of Health, to non-governmental health and development organizations, to evaluate progress towards UHC at national or sub-national levels. It builds on the methods presented in the 2017 World Health Organization and World Bank report, "[Tracking Universal Health Coverage: 2017 Global Monitoring Report](#)," which established a framework for monitoring service coverage through tracer indicators and the calculation of a service coverage index. The tool takes user inputs, including catchment population, disease prevalence rates, and clinical recommendations), to project patient volume under UHC (100% population coverage). It also helps health providers properly plan and allocate resource requirements by estimating staffing and infrastructure investments needed to adequately support the patient loads that UHC would entail.

The diagram below gives an overview of the logic of the tool and how user inputs, assumptions from academic sources, and clinical recommendations are combined using simple calculations to yield a mapping of a particular area's progress towards UHC.



Using the Tool

The tool contains three kinds of cells, blue cells, white cells, and gray cells. All data entry must be done in the blue cells, whether direct entry or selection from a drop-down menu. White cells populate automatically and gray cells indicate that data entry is not necessary in that cell due a prior selection. *Note: Entering data into white cells will overwrite the tool's formula and may result in incorrect outputs.*

There are two options on the home screen to “Protect All Sheets” and “Unprotect All Sheets.” When customizing the tool, you should unprotect all sheets in order to access the full backend. However, when distributing the tool for data entry, protecting all the sheets will prevent the user from accidentally making changes that could prevent the tool from working properly. The default password for this function is “uhc”.

Examples of where to enter data: blue cells

General Information	
Current date	10/22/2018
Start date of analysis period	7/1/2017
End date of analysis period	6/30/2018
Country of analysis (select from drop down)	Malawi
Top-level of analysis (select from drop down)	District
Name of District	Neno District
Bottom-level of analysis (select from drop down). If evaluating a single area, please enter the same level of analysis twice (e.g. Top-level = District, Bottom-level = District)	Clinic

Today's date: 10/22/2018

Direct data entry (enter data manually)

Drop-down menu (enter data using drop-down menu - do NOT enter manually)

Examples of where NOT to enter data: white cells and grey cells

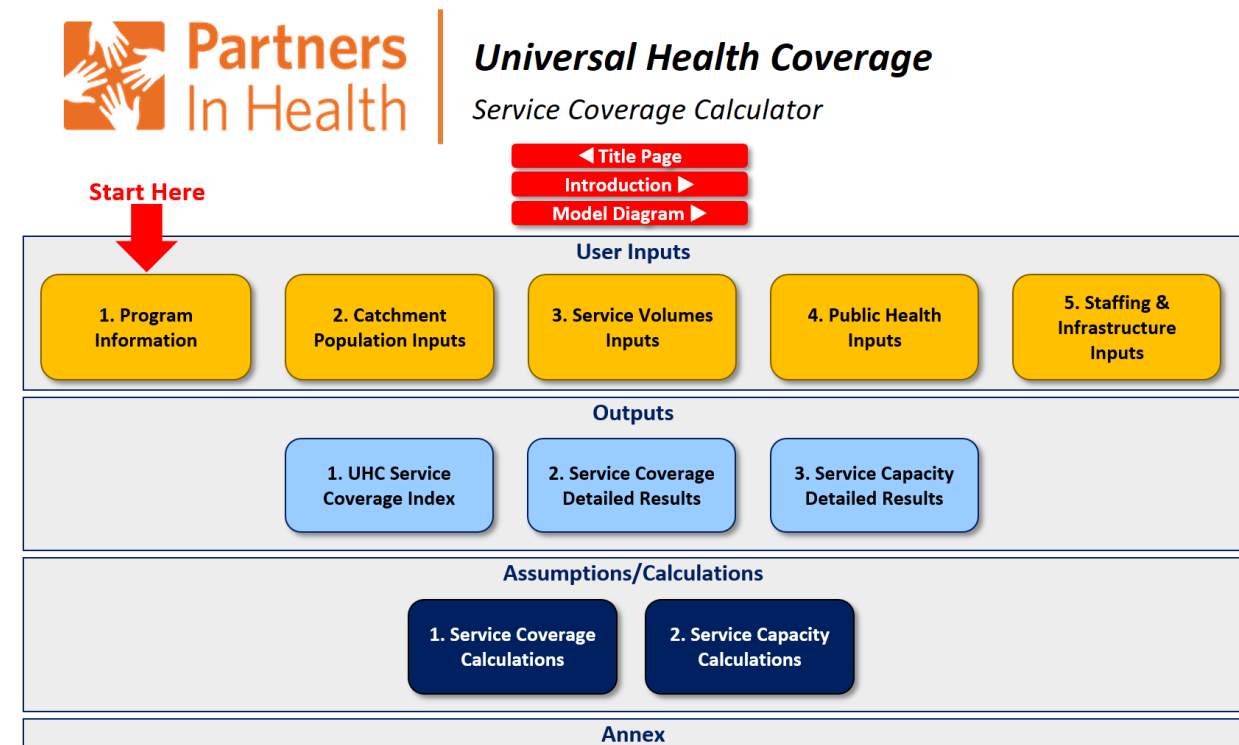
Reproductive, Maternal, Newborn and Child Health											
1. Family Planning											
Family planning	Clinic 1	Clinic 2	Clinic 3	Clinic 4	Clinic 5	Clinic 6	Clinic 7	Clinic 8	Clinic 9	Clinic 10	TOTAL
Catchment population for family planning	10,000	15,000									25,000

White Cells - populate automatically Do NOT enter data or overwrite

Gray cells - indicate that data entry is NOT necessary, due to a previous selection

User Inputs

The first step in using the UHC tool is to input user data into the yellow sections: Program Information, Catchment Population Inputs, Service Volume Inputs, Public Health Inputs, and Staffing & Infrastructure Inputs.



I. Program Information

1. Program Information

[◀ Main Menu](#)

General Information

Current date	10/17/2018	Today's date:
Start date of analysis period	7/1/2017	10/17/2018
End date of analysis period	6/30/2018	
Country of analysis (select from drop down)	Rwanda	
Top-level of analysis (select from drop down)	District	
Name of District	S. Kayonza	
Bottom-level of analysis (select from drop down). If evaluating a single area, please enter the same level of analysis twice (e.g. Top-level = District, Bottom-level = District)	Clinic	

Health Services

For how many clinics will the user be entering data? (enter whole number from 1-50) 9

For which service areas does the user have data to enter (if data not entered, the national average will be used when calculating the service coverage index)

Reproductive, Maternal, Newborn, and Child Health 	1. Family Planning 2. Pregnancy and Delivery Care 3. Child Immunization 4. Child Treatment	Yes Yes Yes Yes
Infectious Disease Control 	1. Tuberculosis Care 2. HIV Care 3. Malaria Treatment	Yes Yes Yes
Noncommunicable Diseases 	1. Cardiovascular Disease Treatment & Prevention 2. Chronic Respiratory Disease Treatment 3. Diabetes Treatment 4. Cancer Detection and Treatment 5. Mental Health and Neurological Disorders Treatment	Yes Yes Yes Yes Yes

Public Health Data

For the District being analyzed, what aggregate health data can the user enter? (if data not entered, the national average will be used when calculating the service coverage index)

Infectious Disease Control 	1. Malaria Prevention 2. Water and Sanitation	Yes Yes
Noncommunicable Diseases 	1. Tobacco Control	Yes
Service Capacity and Access 	1. Hospital Access 2. Health Worker Density 3. Health Security	Yes Yes Yes

- Begin by filling out general information such as the start and end date of the analysis period, and the desired top and bottom levels of the analysis. *Note: In its current version, the areas of analysis are limited to those in which PIH implements, but this can be expanded to include any set of countries, districts, etc.*
- Next, select the health service and public health data areas for which you have data.

2. Catchment Population

Catchment Population Inputs

If the catchment population does not change between services, then please re-enter the same catchment population for each clinical area.

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Reproductive, Maternal, Newborn and Child Health

1. Family Planning

Family planning	Facility 1	Facility 2	Facility 3	Facility 4	Facility 5	Facility 6	Facility 7	Facility 8	Facility 9	Facility 10	Facility 11	Facility 12	Facility 13	Facility 14	TOTAL
Catchment population for family planning	21,685	12,915	10,308	11,575	7,762	17,140	12,958	9,845	13,395	5,409	19,825	15,291	2,239	13,104	173,451

2. Pregnancy & Delivery Care

Antenatal Care (ANC)	Facility 1	Facility 2	Facility 3	Facility 4	Facility 5	Facility 6	Facility 7	Facility 8	Facility 9	Facility 10	Facility 11	Facility 12	Facility 13	Facility 14	TOTAL
Catchment population for ANC	21,685	12,915	10,308	11,575	7,762	17,140	12,958	9,845	13,395	5,409	19,825	15,291	2,239	13,104	173,451
Natural Deliveries	Facility 1	Facility 2	Facility 3	Facility 4	Facility 5	Facility 6	Facility 7	Facility 8	Facility 9	Facility 10	Facility 11	Facility 12	Facility 13	Facility 14	TOTAL
Catchment population for natural deliveries	21,685	12,915	10,308	11,575	7,762	17,140	12,958	9,845	13,395	5,409	19,825	15,291	2,239	13,104	173,451
C-Sections	Facility 1	Facility 2	Facility 3	Facility 4	Facility 5	Facility 6	Facility 7	Facility 8	Facility 9	Facility 10	Facility 11	Facility 12	Facility 13	Facility 14	TOTAL
Catchment population for C-sections	94,343							79,108							173,451

3. Child Immunizations

Child immunizations	Facility 1	Facility 2	Facility 3	Facility 4	Facility 5	Facility 6	Facility 7	Facility 8	Facility 9	Facility 10	Facility 11	Facility 12	Facility 13	Facility 14	TOTAL
Catchment population for child immunizations	21,685	12,915	10,308	11,575	7,762	17,140	12,958	9,845	13,395	5,409	19,825	15,291	2,239	13,104	173,451

4. Child Treatment

Child treatment	Facility 1	Facility 2	Facility 3	Facility 4	Facility 5	Facility 6	Facility 7	Facility 8	Facility 9	Facility 10	Facility 11	Facility 12	Facility 13	Facility 14	TOTAL
Catchment population for child treatment (i.e. suspected pneumonia, malnourishment)	21,685	12,915	10,308	11,575	7,762	17,140	12,958	9,845	13,395	5,409	19,825	15,291	2,239	13,104	173,451

Infectious Disease Control

1. Tuberculosis Care

TB care	Facility 1	Facility 2	Facility 3	Facility 4	Facility 5	Facility 6	Facility 7	Facility 8	Facility 9	Facility 10	Facility 11	Facility 12	Facility 13	Facility 14	TOTAL
Catchment population for TB screening and treatment	21,685	12,915	10,308	11,575	7,762	17,140	12,958	9,845	13,395	5,409	19,825	15,291	2,239	13,104	173,451

2. HIV Care


HIV care	Facility 1	Facility 2	Facility 3	Facility 4	Facility 5	Facility 6	Facility 7	Facility 8	Facility 9	Facility 10	Facility 11	Facility 12	Facility 13	Facility 14	TOTAL
Catchment population for HIV screening and treatment	21,685	12,915	10,308	11,575	7,762	17,140	12,958	9,845	13,395	5,409	19,825	15,291	2,239	13,104	173,451

- For each service area selected, enter the estimated catchment population at each level of analysis. *In the example above, this would be the catchment population of each health facility.*
- If a facility does not offer a particular service, leave the catchment population blank or enter zero.

3. Service Volume Inputs

3. Service Volumes Inputs

◀ Main Menu

 Reproductive, Maternal, Newborn and Child Health

1. Family Planning

	Clinic 1	Clinic 2	Clinic 3	Clinic 4	Clinic 5	Clinic 6	Clinic 7	Clinic 8	Clinic 9	Clinic 10
Family planning										
Number of FP visits, monthly										
% of women attending FP who receive short-acting contraceptives (injections & oral)										
% of women attending FP who receive long-acting contraceptives (implant, IUD, etc.)										

2. Pregnancy & Delivery Care

	Clinic 1	Clinic 2	Clinic 3	Clinic 4	Clinic 5	Clinic 6	Clinic 7	Clinic 8	Clinic 9	Clinic 10
Antenatal Care (ANC)										
Number of ANC visits, monthly										
Natural Deliveries										
Number of natural deliveries by skilled health personnel, monthly										
C-Sections										
Number of C-sections, monthly										
Post-Natal Care										
Number of post-natal visits, monthly										

3. Child Immunizations

	Clinic 1	Clinic 2	Clinic 3	Clinic 4	Clinic 5	Clinic 6	Clinic 7	Clinic 8	Clinic 9	Clinic 10
Fully immunized										
Number of children fully immunized, monthly										
Immunization details										
Number of children receiving monthly										
BCG vaccine (BCG)										
Birth dose of hepatitis B containing vaccine (HepB8)										
3rd dose of hepatitis B containing vaccine (HepB3)										
1st dose of inactivated polio containing vaccine (IPV1)										
3rd dose of polio vaccine, either oral or inactivated polio vaccine (Pol3)										
1st dose of DTP-containing vaccine (DTP1)										
3rd dose of DTP-containing vaccine (DTP3)										
3rd dose of Haemophilus influenza type b containing vaccine (Hib3)										
3rd dose of pneumococcal conjugate vaccine (Pcv3)										
2nd or 3rd dose of rotavirus vaccine, depending on national schedule (RotaC)										

- Input any available monthly patient data, according to the service areas listed.
- If you do not have data for a particular area, simply leave it blank and it will be ignored in the final analysis.
- *Note: Monthly estimated derived from annual data, or other time frames, can be used.*

4. Public Health Inputs

4. Public Health Inputs

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Infectious Disease Control

1. Malaria Prevention

<input style="width: 95%;" type="text" value=""/>	National estimate for Rwanda	User input for S. Kayonza
% of population in malaria-endemic areas who slept under an insecticide treated net (ITN) the previous night	67%	<input style="width: 95%;" type="text" value=""/>

2. Water and Sanitation

<input style="width: 95%;" type="text" value=""/>	National estimate for Rwanda	User input for S. Kayonza
% of households using improved sanitation facilities (i.e. flush or pour flush to piped sewer system, septic tank or pit latrine; ventilated improved pit latrine; pit latrine with slab; or composting toilet)	62%	<input style="width: 95%;" type="text" value=""/>

Noncommunicable Diseases

1. Tobacco Control

<input style="width: 95%;" type="text" value=""/>	National estimate for Rwanda	User input for S. Kayonza
Age-standardized prevalence of adults >=15 years <u>not</u> smoking tobacco in last 30 days (%)	87%	<input style="width: 95%;" type="text" value=""/>

Service Capacity and Access

1. Hospital Access

<input style="width: 95%;" type="text" value=""/>	National estimate for Rwanda	User input for S. Kayonza
Hospital beds (excluding labor and delivery beds) per 10,000 population	16.00	<input style="width: 95%;" type="text" value=""/>

- The public health inputs sheet contains the inputs used to calculate UHC projections. The tool already includes national-level estimates, but this sheet allows the user to enter a more specific estimate for sub-national analyses.
- If no additional information is entered, the national estimates will be used.

5. Staffing & Infrastructure Inputs

5. Staffing & Infrastructure Inputs

Note: For additional human resources management support, please refer to the Workload Indicators of Staffing Need (WISN) tool at http://www.who.int/hrh/resources/wisn_user_manual/en/

◀ Main Menu

1. Health Workforce

1. Health Workforce	Clinic 1	Clinic 2	Clinic 3	Clinic 4	Clinic 5	Clinic 6	Clinic 7	Clinic 8	Clinic 9	Clinic 10
Number of doctors, nurses, and midwives employed										

2. Outpatient Care

1. Family Planning Clinic	Clinic 1	Clinic 2	Clinic 3	Clinic 4	Clinic 5	Clinic 6	Clinic 7	Clinic 8	Clinic 9	Clinic 10
Number of clinic days per week										
Number of outpatient rooms per clinic day										
Number of clinical staff per clinic day										
2. ANC Clinic	Clinic 1	Clinic 2	Clinic 3	Clinic 4	Clinic 5	Clinic 6	Clinic 7	Clinic 8	Clinic 9	Clinic 10
Number of clinic days per week										
Number of outpatient rooms per clinic day										
Number of clinical staff per clinic day										
3. Child Immunizations Clinic	Clinic 1	Clinic 2	Clinic 3	Clinic 4	Clinic 5	Clinic 6	Clinic 7	Clinic 8	Clinic 9	Clinic 10
Number of clinic days per week										
Number of outpatient rooms per clinic day										
Number of clinical staff per clinic day										
4. TB Screenings Clinic	Clinic 1	Clinic 2	Clinic 3	Clinic 4	Clinic 5	Clinic 6	Clinic 7	Clinic 8	Clinic 9	Clinic 10
Number of clinic days per week										
Number of outpatient rooms per clinic day										
Number of clinical staff per clinic day										
5. HIV Testing Clinic	Clinic 1	Clinic 2	Clinic 3	Clinic 4	Clinic 5	Clinic 6	Clinic 7	Clinic 8	Clinic 9	Clinic 10
Number of clinic days per week										
Number of outpatient rooms per clinic day										
Number of clinical staff per clinic day										
6. Cancer Screenings Clinic	Clinic 1	Clinic 2	Clinic 3	Clinic 4	Clinic 5	Clinic 6	Clinic 7	Clinic 8	Clinic 9	Clinic 10
Number of clinic days per week										
Number of outpatient rooms per clinic day										
Number of clinical staff per clinic day										

- Input staffing and infrastructure numbers according to the level of analysis – national or sub-national.

Outputs

After entering inputs, return to the main menu and choose one of the blue sections to review outputs in the following areas: UHC Service Coverage Index, the Service Coverage Detailed Results, and the Service Capacity Detailed Results.

1. UHC Service Coverage Index

This tab is a summary index that shows UHC coverage percentages for each unit of the bottom level of analysis (for example, a clinic) and combines them into a summary number for the top level of analysis (for example, the whole district). It then compares this number to the estimate at that national level in order to give a national reference point for progress made.

2. Service Coverage Detailed Results

This section compares user inputs for actual patient loads to corresponding UHC projections generated and calculates the coverage percentage for each area outlined in the Service Volume tab.

3. Service Capacity Detailed Results

This section compares user inputs for actual staffing and infrastructure to corresponding UHC projections and calculates the coverage percentage for each area outlined in the Staffing & Infrastructure tab.

Assumptions/Calculations

This section contains all of the model's assumptions and calculations. The two tabs correspond to the calculations for patient load projections (coverage calculations) and staffing & infrastructure projections (capacity calculations). Each tab is divided into Assumptions, Inputs, and Calculations. All assumptions made in order to calculate UHC projections are listed as well as their source. Any assumptions listed in a blue box are clinical recommendations for which a source is also listed. The inputs section describes the inputs entered by the user and the calculation section contains the calculations done by the tool using values from the assumptions and user inputs. In order to see a specific calculation, simply double click the cell and the formula as well as the cells used in the formula will appear.

Annex

The final section of the tool is the Annex which contains all of the country level data whether a population statistic or a disease prevalence rate used in the tool's calculations as well as the source of that data.