

HANDS-ON SESSION

GTFCC TOOL FOR THE IDENTIFICATION OF PRIORITY AREAS FOR
MULTISECTORAL INTERVENTIONS (PAMI) FOR CHOLERA CONTROL



GLOBAL TASK FORCE ON
CHOLERA CONTROL

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SESSION CONTENTS



Priority index calculation (outline)

- Data required and data set template
- Epidemiological indicators
- Inclusion of testing indicators
- Priority index



Excel-based tool

- Tool
- Training materials
- Live demonstration



Hands-on session

- Manipulate the tool

PRIORITY INDEX CALCULATION

- Data required and data set template
- Epidemiological indicators
- Inclusion of testing indicators
- Priority index





GLOBAL TASK FORCE ON CHOLERA CONTROL

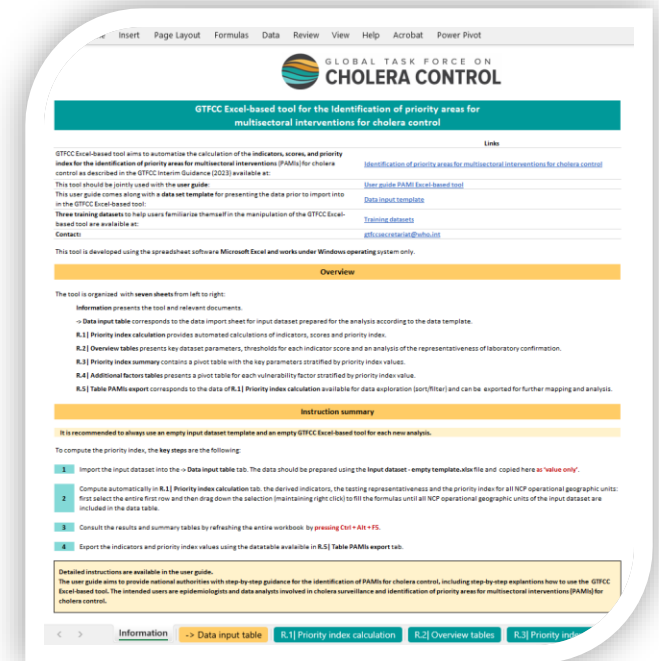
Identification of Priority Areas for Multisectoral Interventions (PAMIs) for cholera control

Guidance Document
2023

Identify priority areas for multisectoral interventions (PAMIs)

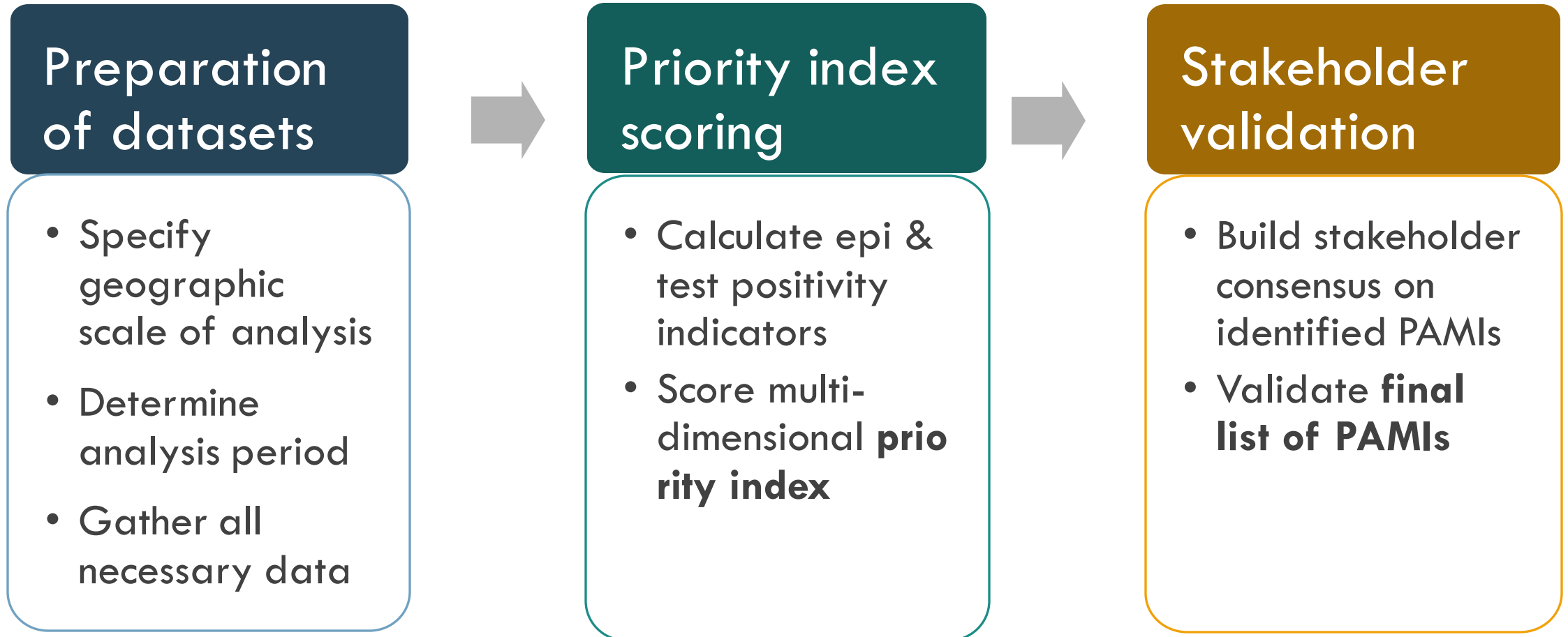
- Guidance
- Excel-based tool for PAMIs analysis

GTFCC EXCEL-BASED TOOL FOR PRIORITY INDEX CALCULATION



IDENTIFICATION OF PAMIS FOR CHOLERA CONTROL

Three-step process



PREPARATION OF DATASETS



Define the administrative level of NCP operational geographic unit
→ **Admin 2 or 3 levels**



Define the analysis period
→ **5 to 15 years**



- Compile annual cholera surveillance and testing data for the calculation of the priority index
- Collect supporting data for the assessment of vulnerability factors (optional)

→ **User guide: definition, nomenclature of required data**

→ **Other resources: Empty template and training datasets**



Data quality check

→ **Dedicated sections in the user guide**

DATA FOR THE CALCULATION OF THE PRIORITY INDEX

Category	Data by NCP operational geographic unit	Periodicity
Administrative	List of NCP operational geographic units	Most recent*
	Geographic units in geospatial vector data (GIS format)	Most recent*
Demography	Population	Annual
Surveillance	Number of reported cholera cases (suspected and tested positive)	Weekly
	Number of reported cholera deaths (suspected and tested positive)	Weekly
Testing for cholera	Number of reported suspected cholera cases tested for cholera (regardless of the testing method)	Weekly
	Number of reported suspected cholera cases tested positive for cholera	Weekly

* If there were any changes in the geometry of the geographic units of the country over the analysis period, refer to the GTFCC user guide.

INPUT DATA: NAMING CONVENTION

- Template available to importing raw data in the tool
- **Follow a nomenclature for variable names: Why ?**
 - The column names are automatically recognized when imported in the Excel-based tool
 - **Need to use a standardized format**
 - All indicators and priority index values calculated for each NCP operational geographic unit

Table 5: Naming convention rules for the headers of the input dataset

Variables	Type	Variables naming convention		
		Prefix	Time stamp	Example (2017 year)
Unique geographic identifier	Text	unique_id	NA	unique_id
First administrative level unit names	Text	admin_1	NA	admin_1
Second administrative level unit names	Text	admin_2	NA	admin_2
Estimated population for each year	Numeric	pop_	y_"YYYY"	pop_y_2017
Number of reported cholera cases (suspected or tested positive)	Numeric	c_	y_"YYYY"	c_y_2017
Number of reported cholera deaths	Numeric	d_	y_"YYYY"	d_y_2017
Number of reported suspected cholera cases tested for cholera (regardless of the testing method)	Numeric	tot_test_	y_"YYYY"	tot_tested_y_2017
Number of reported suspected cholera cases tested positive for cholera (regardless of the testing method)	Numeric	tot_tested_pos_	y_"YYYY"	tot_tested_pos_y_2017
Total number of weeks over the analysis period	Numeric	n_w_period	NA	n_w_period
Number of weeks with at least one reported cholera case (suspected or tested positive)	Numeric	n_w_	y_"YYYY"	n_w_y_2017
Number of weeks with at least one reported suspected cholera case tested for cholera (regardless of the testing method)	Numeric	n_w_test_	y_"YYYY"	n_w_test_y_2017
Location adjacent to cross-border cholera-affected areas or identified PAMIs	Text (Yes/No)	VF_01_prox_chol	NA	Idem Prefix value
Location along major travel routes with transportation hubs	Text (Yes/No)	VF_02_maj_pathw	NA	Idem Prefix value
Major population gatherings	Text (Yes/No)	VF_03_pop_gathering	NA	Idem Prefix value
Areas with high population density or overcrowded settings	Text (Yes/No)	VF_04_overcrowd_sett	NA	Idem Prefix value
Areas with high-risk populations	Text (Yes/No)	VF_05_spec_risk_pop	NA	Idem Prefix value
Hard-to-access populations	Text (Yes/No)	VF_06_remote_unit	NA	Idem Prefix value
Population received oral cholera vaccine more than three years ago	Text (Yes/No)	VF_07_vacc_sup_3yrs	NA	Idem Prefix value
Areas at high-risk for extreme climate and weather conditions	Text (Yes/No)	VF_08_acute_emerg	NA	Idem Prefix value
Complex humanitarian emergencies	Text (Yes/No)	VF_09_complex_emerg	NA	Idem Prefix value
Areas with more than 30% of the population with access to unimproved water facility type	Text (Yes/No)	VF_10_WASH_ind_water	NA	Idem Prefix value
Areas with more than 50% of the population with access to unimproved sanitation facility type	Text (Yes/No)	VF_11_WASH_ind_sanitation	NA	Idem Prefix value
Areas with more than 50% of the population with no handwashing facility on premises	Text (Yes/No)	VF_12_WASH_ind_hygiene	NA	Idem Prefix value

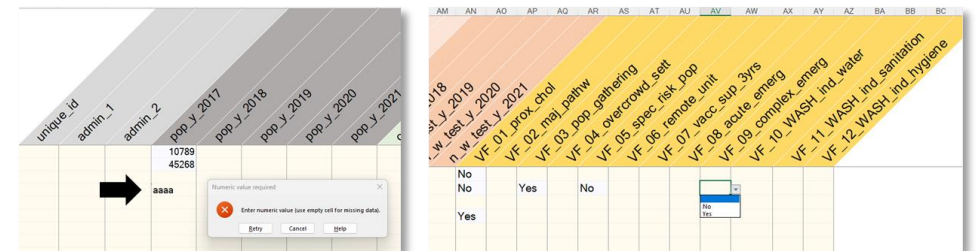
Note. NA: not applicable.

INPUT DATA: TEMPLATE

Column	Category	Label
C	Unique identifier, names of first and second health units	unique_id
D		admin_1
E	Yearly population	admin_2
F		Pop_y_2017
G		Pop_y_2018
H		Pop_y_2019
I		Pop_y_2020
J	Num. of cases	c_y_2017
K		c_y_2018
L		c_y_2019
M		c_y_2020
N		c_y_2021
O	Num. of deaths	d_y_2017
P		d_y_2018
Q		d_y_2019
R		d_y_2020
S		d_y_2021
T	Num. of cases tested	tot_test_y_2017
U		tot_test_y_2018
V		tot_test_y_2019
W		tot_test_y_2020
X		tot_test_y_2021
Y	Num. of cases tested positive	tot_tested_pos_y_2017
Z		tot_tested_pos_y_2018
AA		tot_tested_pos_y_2019
AB		tot_tested_pos_y_2020
AC		tot_tested_pos_y_2021
AD	Num. of weeks over the period	n_w_period
AE		n_w_y_2017
AF		n_w_y_2018
AG		n_w_y_2019
AH		n_w_y_2020
AI	Num. of weeks with suspected cases	n_w_test_y_2017
AJ		n_w_test_y_2018
AK		n_w_test_y_2019
AL		n_w_test_y_2020
AM		n_w_test_y_2021
AN	Num. of weeks with cases tested positive	VF_01_prox_zone_cholera
AO		VF_02_voies_com_maj
AP		VF_03_assemb_popul
AQ		VF_04_zone_sturpeupl
AR		VF_05_pop_spec_risk
AS	Vulnerability factors	VF_06_zone_access_diff
AT		VF_07_vacc_sup_3_ans
AU		VF_08_urgence_aig
AV		VF_09_urgence_hum_comp
AW		VF_10_EHA_ind_eau
AX	VF_11_EHA_ind_essain	
AY	VF_12_EHA_ind_hygiene	

- Example for the period : 2017-2022
- Each row in a table represents one NCP operational geographic unit

Data entry check



PRIORITY INDEX SCORING



Assess, and determine how to address, missing data



Score all indicators



Calculate priority index


EPIDEMIOLOGICAL INDICATORS

Epidemiologic indicators calculated over the study period

Incidence	Cholera cumulative incidence rate in an NCP operational geographic unit (100,000 pop)
Mortality	Cholera cumulative mortality rate in an NCP operational geographic unit (100,000 pop)
Persistence	Cholera persistence = number of weeks with at least one reported suspected cholera case / total number of week (percentage)

Indicators can be manually calculated or computed using the GTFCC excel based tool

EPIDEMIOLOGIC INDICATORS SCORE

Epidemiologic indicators				
	0 point	1 point	2 points	3 points
Incidence	No case	>0 and $<\text{median}$	$\geq\text{median}$ and $<80\text{th percentile}$	$\geq 80\text{th percentile}$
Mortality	No death	>0 and $<\text{median}$	$\geq\text{median}$ and $<80\text{th percentile}$	$\geq 80\text{th percentile}$
Persistence	No case	>0 and $<\text{median}$	$\geq\text{median}$ and $<80\text{th percentile}$	$\geq 80\text{th percentile}$

Distribution thresholds (median and 80th percentile) calculated out of the NCP operational geographic units where at least one cholera case was reported over the analysis period

Exemple For incidence score

- 60 health units
- 10 health units without suspected cholera cases
- 50 health units with at least one suspected case reported
- ! Median and 80th percentile calculated on values > 0

Incidence (100,000 pop/year)			
Median	4.54215		
Percentile 80	15.31534		
Health unit	Value	Rank	Score
health_unit_7887	22.5936	50	3
health_unit_4547	22.5161	49	3
health_unit_9542	21.7963	48	3
health_unit_7425	21.7211	47	3
health_unit_7344	20.0222	46	3
health_unit_9382	18.4849	45	3
health_unit_9167	17.3952	44	3
health_unit_9575	17.3385	43	3
health_unit_6237	15.5815	42	3
health_unit_3431	15.3677	41	3
health_unit_1886	15.1059	40	2
health_unit_6798	15.1047	39	2
health_unit_6393	12.9568	38	2
health_unit_7948	11.9327	37	2
health_unit_6986	9.4203	36	2
health_unit_8655	8.3309	35	2
health_unit_9557	8.3228	34	2
health_unit_6767	7.7845	33	2
health_unit_5187	7.6077	32	2
health_unit_8172	7.3846	31	2
health_unit_8942	7.265	30	2
health_unit_4452	6.7512	29	2
health_unit_9975	6.5049	28	2
health_unit_8693	6.1686	27	2
health_unit_1446	4.6123	26	2
health_unit_8848	4.472	25	1
health_unit_6337	4.145	24	1
health_unit_4461	4.1252	23	1
health_unit_4717	3.9528	22	1
health_unit_4235	3.8484	21	1
health_unit_7188	3.7752	20	1
health_unit_1847	3.165	19	1
health_unit_2784	3.1127	18	1
health_unit_2626	0.9774	17	1
health_unit_7268	0.9708	16	1
health_unit_3414	0.9236	15	1
health_unit_2936	0.8847	14	1
health_unit_1983	0.8825	13	1
health_unit_8259	0.3568	12	1
health_unit_9847	0.3566	11	1
health_unit_1896	0.3559	10	1
health_unit_2416	0.3169	9	1
health_unit_3438	0.2789	8	1
health_unit_7222	0.2742	7	1
health_unit_3671	0.2395	6	1
health_unit_5834	0.2076	5	1
health_unit_2341	0.1535	4	1
health_unit_4582	0.15	3	1
health_unit_3199	0.1037	2	1
health_unit_8476	0.0802	1	1
health_unit_1179	0	NA	0
health_unit_2296	0	NA	0
health_unit_2769	0	NA	0
health_unit_4239	0	NA	0
health_unit_4748	0	NA	0
health_unit_5744	0	NA	0
health_unit_6231	0	NA	0
health_unit_6667	0	NA	0
health_unit_6898	0	NA	0
health_unit_8167	0	NA	0

Rank 41-50: observations between the 80th percentile and the maximum
= 3 points

Rank 26-40: observations with impact between median at the 80th percentile
= 2 points

Rank 1-25: observations with incidence below median and with at least one case reported
= 1 points

No cases reported
= 0 point

PRIORITY INDEX

$$\begin{aligned} \text{Priority index} = & \\ & \text{incidence score} + \text{mortality score} + \text{persistence score} \\ & + \\ & \text{cholera test positivity score (if applicable)} \end{aligned}$$

The priority index is calculated for each NCP operational geographic unit

Index range [0-12] if the four indicators are selected

Exemple Calcul index de priorité

Insufficient representativeness
of weekly testing coverage:
only three parameters

Priority index =
incidence score +
mortality score +
persistence score

Incidence (100,000 pop/year)				Mortality (100,000 pop/year)				Persistence (% of weeks with reported cases)			
Median	4.54215			Median	0.3952			Median	3.0651		
Percentile 80	15.31534			Percentile 80	0.6676			Percentile 80	9.80844		
Health unit	Value	Rank	Point	Health unit	Value	Rank	Point	Health unit	Value	Rank	Point
health unit 7344	20.0222	46	3	health unit 7344	3.4821	40	3	health unit 7344	11.1111	44	3
health unit 9575	17.3385	43	3	health unit 9575	2.9168	39	3	health unit 9575	7.2797	36	2
health unit 9542	21.7963	48	3	health unit 9542	0.4238	24	2	health unit 9542	21.4559	50	3
health unit 6393	12.9568	38	2	health unit 6393	0.7334	35	3	health unit 6393	10.3448	42	3
health unit 8172	7.3846	31	2	health unit 8172	0.6852	33	3	health unit 8172	12.2605	46	3
health unit 7887	22.5936	50	3	health unit 7887	0.1198	5	1	health unit 7887	18.3908	49	3
health unit 4547	22.5161	49	3	health unit 4547	0.5176	26	2	health unit 4547	4.2146	29	2
health unit 9167	17.3952	44	3	health unit 9167	0.4103	23	2	health unit 9167	4.9808	31	2
health unit 3431	15.3677	41	3	health unit 3431	0.3981	21	2	health unit 3431	8.4291	38	2
health unit 7425	21.7211	47	3	health unit 7425	0.3503	18	1	health unit 7425	12.6437	48	3
health unit 6986	9.4203	36	2	health unit 6986	1.2191	38	3	health unit 6986	8.8123	39	2
health unit 4452	6.7512	29	2	health unit 4452	0.8573	37	3	health unit 4452	3.0651	27	2
health unit 9557	8.3228	34	2	health unit 9557	0.537	27	2	health unit 9557	9.9617	41	3
health unit 1886	15.1059	40	2	health unit 1886	0.4083	22	2	health unit 1886	10.3448	43	3
health unit 9382	18.4849	45	3	health unit 9382	0.3201	16	1	health unit 9382	7.2797	37	2
health unit 6767	7.7845	33	2	health unit 6767	0.7784	36	3	health unit 6767	2.682	23	1
health unit 7948	11.9327	37	2	health unit 7948	0.6568	31	2	health unit 7948	6.1303	35	2
health unit 8693	6.1686	27	2	health unit 8693	0.5483	28	2	health unit 8693	3.0651	26	2
health unit 6798	15.1047	39	2	health unit 6798	0.3923	20	1	health unit 6798	12.2605	47	3
health unit 8942	7.265	30	2	health unit 8942	0.1557	6	1	health unit 8942	12.2605	45	3
health unit 6237	15.5815	42	3	health unit 6237	0	NA	0	health unit 6237	3.8314	28	2
health unit 1446	4.6123	26	2	health unit 1446	0.3548	19	1	health unit 1446	3.0651	25	2
health unit 9975	6.5049	28	2	health unit 9975	0.3336	17	1	health unit 9975	5.364	32	2
health unit 5187	7.6077	32	2	health unit 5187	0.2564	13	1	health unit 5187	9.1954	40	2
health unit 8655	8.3309	35	2	health unit 8655	0.1872	10	1	health unit 8655	6.1303	34	2
health unit 2784	3.1127	18	1	health unit 2784	0.7183	34	3	health unit 2784	1.5326	16	1
health unit 6337	4.145	24	1	health unit 6337	0.6632	32	2	health unit 6337	4.9808	30	2
health unit 4235	3.8484	21	1	health unit 4235	0.4475	25	2	health unit 4235	5.7471	33	2
health unit 2626	0.9774	17	1	health unit 2626	0.6516	30	2	health unit 2626	0.7663	11	1
health unit 4461	4.1252	23	1	health unit 4461	0.6346	29	2	health unit 4461	2.682	22	1
health unit 9847	0.3566	11	1	health unit 9847	0.0396	1	1	health unit 9847	3.0651	24	2
health unit 1983	0.8825	13	1	health unit 1983	0.2942	15	1	health unit 1983	1.1494	12	1
health unit 7188	3.7752	20	1	health unit 7188	0.2904	14	1	health unit 7188	2.2989	20	1
health unit 3414	0.9236	15	1	health unit 3414	0.2309	12	1	health unit 3414	0.7663	9	1
health unit 7268	0.9708	16	1	health unit 7268	0.1942	11	1	health unit 7268	0.7663	10	1
health unit 8259	0.3568	12	1	health unit 8259	0.1784	9	1	health unit 8259	0.3831	6	1
health unit 1896	0.3559	10	1	health unit 1896	0.178	8	1	health unit 1896	0.3831	5	1
health unit 8848	4.472	25	1	health unit 8848	0.1132	4	1	health unit 8848	1.9157	18	1
health unit 2936	0.8847	14	1	health unit 2936	0.0737	3	1	health unit 2936	2.682	21	1
health unit 5834	0.2076	5	1	health unit 5834	0.0415	2	1	health unit 5834	1.9157	17	1
health unit 3671	0.2395	6	1	health unit 3671	0.1598	7	1	health unit 3671	0.3831	4	1
health unit 7222	0.2742	7	1	health unit 7222	0	NA	0	health unit 7222	2.2989	19	1
health unit 2416	0.3169	9	1	health unit 2416	0	NA	0	health unit 2416	1.5326	15	1
health unit 3438	0.2789	8	1	health unit 3438	0	NA	0	health unit 3438	1.5326	14	1
health unit 4717	3.9528	22	1	health unit 4717	0	NA	0	health unit 4717	1.1494	13	1
health unit 2341	0.1535	4	1	health unit 2341	0	NA	0	health unit 2341	0.7663	8	1
health unit 1847	3.165	19	1	health unit 1847	0	NA	0	health unit 1847	0.3831	7	1
health unit 4582	0.15	3	1	health unit 4582	0	NA	0	health unit 4582	0.3831	3	1
health unit 3199	0.1037	2	1	health unit 3199	0	NA	0	health unit 3199	0.3831	2	1
health unit 8476	0.0802	1	1	health unit 8476	0	NA	0	health unit 8476	0.3831	1	1
health unit 1179	0	NA	0	health unit 1179	0	NA	0	health unit 1179	0	NA	0
health unit 2296	0	NA	0	health unit 2296	0	NA	0	health unit 2296	0	NA	0
health unit 2769	0	NA	0	health unit 2769	0	NA	0	health unit 2769	0	NA	0
health unit 4239	0	NA	0	health unit 4239	0	NA	0	health unit 4239	0	NA	0
health unit 4748	0	NA	0	health unit 4748	0	NA	0	health unit 4748	0	NA	0
health unit 5744	0	NA	0	health unit 5744	0	NA	0	health unit 5744	0	NA	0
health unit 6231	0	NA	0	health unit 6231	0	NA	0	health unit 6231	0	NA	0
health unit 6667	0	NA	0	health unit 6667	0	NA	0	health unit 6667	0	NA	0
health unit 6898	0	NA	0	health unit 6898	0	NA	0	health unit 6898	0	NA	0
health unit 8167	0	NA	0	health unit 8167	0	NA	0	health unit 8167	0	NA	0

Country stakeholders to validate a final list of priority areas



Participative workshop with multisectoral stakeholders



- Validate the data used for calculation
- Agree on a priority index threshold value
- Assess vulnerability factors (optional)
- Final list of PAMIs for intervention planning



Write report to document methods and outcomes of PAMIs identification



Launch of next steps of NCP development

SUMMARY TABLE IN GTFCC EXCEL-BASED TOOL

Table of key indicators stratified by values of the priority index values

Priority index values	Number of geographic units	Cum. number of geographic units	Rel. % of num. of geographic units	Total population	Rel. % of population	Cum. % of population	Num. of cases	Rel. % of num. of cases	Cum. % of num. of cases	Num. of deaths	Rel. % of num. of deaths	Cum. % of num. of deaths	Assessment of representativeness of cholera testing		
													Average of positivity rate	Mean of number of years	
#DIV/0!	1	1	NA	NA	NA	NA	0	NA	NA	0	NA	NA	0.0	#DIV/0!	NA
Total général	NA		NA	NA	NA	NA	0	NA	NA	0	NA	NA	0.0	#DIV/0!	NA

Geographic units			Population			Cases			Deaths			Test	
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EXAMPLE: PRIORITY INDEX THRESHOLD VALUE: ≥ 10

Summary table of key parameters stratified by priority index values

Priority index values	Number of geographic units	Cum. number of geographic units	Rel. % of num. of geographic units	Total population	Rel. % of population	Cum. % of population	Num. of cases	Rel. % of num. of cases	Cum. % of num. of cases	Assessment of representativeness of cholera testing						
										Num. of deaths	Rel. % of num. of deaths	Cum. % of num. of deaths	Level of representativeness of testing			
													Average of positivity rate	Mean of number of years	Acceptable	Positivity rate
12	2	2	2.0%	482,637	2.2%	2.2%	7,736	16.3%	16.3%	68	10.0%	10.0%	36.3	4.5		
11	5	7	5.0%	1,248,411	5.6%	7.8%	11,019	23.2%	39.5%	105	15.5%	25.5%	37.0	4.2		
10	13	20	13.0%	3,879,279	17.5%	25.3%	19,621	41.3%	80.8%	149	21.9%	47.4%	47.0	4.2		
9	15	35	15.0%	2,685,541	12.1%	37.4%	5,673	11.9%	92.8%	230	33.9%	81.3%	27.7	3.3		
8	2	37	2.0%	379,821	1.7%	39.1%	531	1.1%	93.9%	17	2.5%	83.8%	39.4	3.0		
7	10	47	10.0%	2,285,957	10.3%	49.5%	1,813	3.8%	97.7%	63	9.3%	93.1%	38.4	2.8		
6	11	58	11.0%	2,339,219	10.6%	60.0%	763	1.6%	99.3%	33	4.9%	97.9%	50.3	2.2		
5	5	63	5.0%	963,983	4.3%	64.4%	168	0.4%	99.7%	6	0.9%	98.8%	42.2	2.0		
4	4	67	4.0%	951,679	4.3%	68.7%	87	0.2%	99.8%	5	0.7%	99.6%	12.5	1.5		
3	5	72	5.0%	956,310	4.3%	73.0%	57	0.1%	100.0%	2	0.3%	99.9%	4.4	1.8		
2	6	78	6.0%	1,382,814	6.2%	79.2%	15	0.0%	100.0%	1	0.1%	100.0%	0.0	1.3		
0	22	100	22.0%	4,607,481	20.8%	100.0%	0	0.0%	100.0%	0	0.0%	100.0%	0.0	NA		
Grand Total	100		100.0%	22,163,133	100.0%		47,483	100.0%		679	100.0%		25.8	2.9		

- **20 NCP** operational geographic units are included as initial PAMIs
- These geographic units represent:
 - **25.3%** of the national total population;
 - **80.8%** of the total cholera cases reported over the analysis period;
 - **47.4%** of the total cholera deaths reported over the analysis period.

EXCEL-BASED TOOL INTRODUCTION

- Tool
- Training materials
- Live demonstration



GTFCC EXCEL-BASED TOOL

Spreadsheet
software
Microsoft Excel
and works under
Windows
operating system
only (i.e., macOS
is not supported)

AutoSave Off GTFCC PAMI tool EN.xlsx

File Home Insert Page Layout Formulas Data Review View Help Acrobat Power Pivot

Comments Share

GLOBAL TASK FORCE ON CHOLERA CONTROL

GTFCC Excel-based tool for the Identification of priority areas for multisectoral interventions for cholera control

Links

GTFCC Excel-based tool aims to automatize the calculation of the indicators, scores, and priority index for the identification of priority areas for multisectoral interventions (PAMIs) for cholera control as described in the GTFCC Interim Guidance (2023) available at: [Identification of priority areas for multisectoral interventions for cholera control](#)

This tool should be jointly used with the user guide: [User guide PAMI Excel-based tool](#)

This user guide comes along with a data set template for presenting the data prior to import into the GTFCC Excel-based tool: [Data input template](#)

Three training datasets to help users familiarize themselves in the manipulation of the GTFCC Excel-based tool are available at: [Training datasets](#)

Contact: gtfccsecretariat@who.int

This tool is developed using the spreadsheet software Microsoft Excel and works under Windows operating system only.

Overview

The tool is organized with seven sheets from left to right:

- Information** presents the tool and relevant documents.
- > **Data input table** corresponds to the data import sheet for input dataset prepared for the analysis according to the data template.
- R.1 Priority index calculation** provides automated calculations of indicators, scores and priority index.
- R.2 Overview tables** presents key dataset parameters, thresholds for each indicator score and an analysis of the representativeness of laboratory confirmation.
- R.3 Priority index summary** contains a pivot table with the key parameters stratified by priority index values.
- R.4 Additional factors tables** presents a pivot table for each vulnerability factor stratified by priority index value.
- R.5 Table PAMIs export** corresponds to the data of R.1 Priority index calculation available for data exploration (sort/filter) and can be exported for further mapping and analysis.

Instruction summary

It is recommended to always use an empty input dataset template and an empty GTFCC Excel-based tool for each new analysis.

To compute the priority index, the key steps are the following:

- 1 Import the input dataset into the -> Data input table tab. The data should be prepared using the Input dataset - empty template.xlsx file and copied here as 'value only'.
- 2 Compute automatically in R.1 Priority index calculation tab. the derived indicators, the testing representativeness and the priority index for all NCP operational geographic units: first select the entire first row and then drag down the selection (maintaining right click) to fill the formulas until all NCP operational geographic units of the input dataset are included in the data table.
- 3 Consult the results and summary tables by refreshing the entire workbook by pressing **Ctrl + Alt + F5**.
- 4 Export the indicators and priority index values using the datatable available in R.5 Table PAMIs export tab.

Detailed instructions are available in the user guide. The user guide aims to provide national authorities with step-by-step guidance for the identification of PAMIs for cholera control, including step-by-step explanations how to use the GTFCC Excel-based tool. The intended users are epidemiologists and data analysts involved in cholera surveillance and identification of priority areas for multisectoral interventions (PAMIs) for cholera control.

Information -> Data input table R.1 Priority index calculation R.2 Overview tables R.3 Priority index summary R.4 Additional factors tables R.5 Table PAMIs export

Ready Accessibility: Investigate Count: 5 60%

Import data

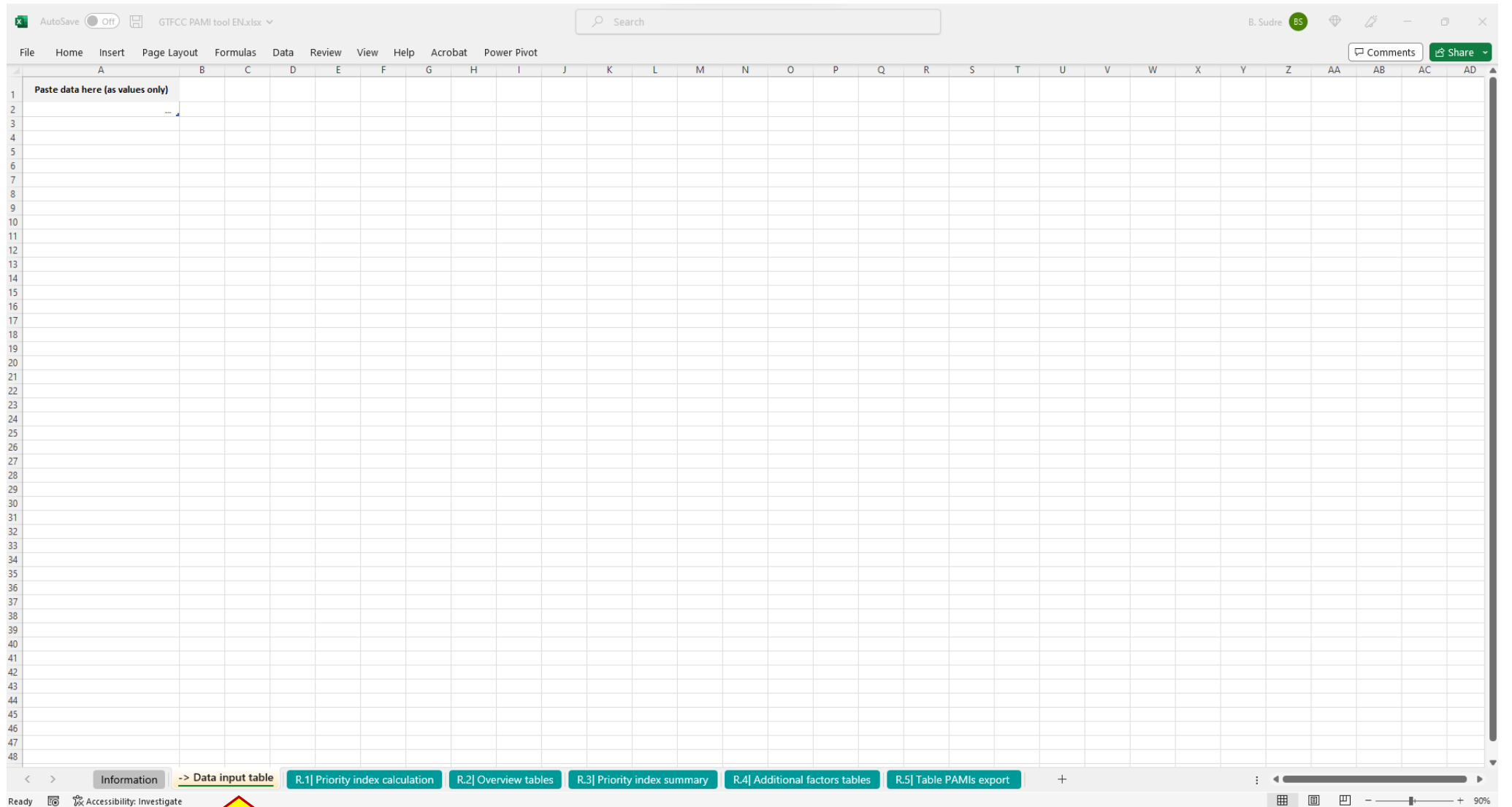
Compute
priority index

General
results

Priority
index table

Vulnerability
factors

Export results



Excel tab where to paste the data (as value) and prepared according to the template
One row = one geographical unit

The screenshot shows an Excel spreadsheet with the following columns (from A to AP):

- Unique_id
- Admin_1
- Admin_2
- Total_week
- Population_sum
- Mean_pop
- Cases_sum
- Deaths_sum
- Tot_tested_sum
- Tot_tested_pos_sum
- Num_week_sum
- Incidence
- Incidence_score
- Mortality
- Mortality_score
- Persistence
- Persistence_score
- Week_testing_coverage
- Positivity_rate
- Test_positivity_score
- Num_years_with_case
- Num_years_with_case_score
- Priority_index
- Vf_01_pfox_chol
- Vf_02_rna_pathw
- Vf_03_pop_gathering
- Vf_04_overcrowd_sett
- Vf_05_spec_risk_pop
- Vf_06_remote_unit
- Vf_07_vacc_sup_3yrs
- Vf_08_acute_emerg
- Vf_09_complex_emerg
- Vf_10_WASH_ind_water
- Vf_11_WASH_ind_sanitation
- Vf_12_WASH_ind_hygiene
- Sum_vuln_factors

The first row (row 1) contains the column headers. The second row (row 2) contains formulas for calculations, including several #REF! errors and division by zero warnings. The spreadsheet is currently displaying the 'R.1| Priority index calculation' tab, which is highlighted with a yellow arrow.

Excel tab with automatic calculation of the indicators, scores and priority index values
 One row = one NCP operational unit

DATA OVERVIEW

Data description *

Number of NCP operational geographic units	1
Study period: start year	#VALUE!
Study period: end year	#VALUE!
Study period: number of years	0
Number of NCP operational geographic units with at least one case	0
Total number of cases	0
Total number of deaths	0
Overall case fatality	#DIV/0!
Total number of suspect cases tested **	0
Total number of suspect cases tested positive **	0
Overall positivity rate **	#DIV/0!

**The totals are calculated for the entire set of geographical unit over the study period*
***Regardless of the testing method applied*

EPIDEMIOLOGICAL INDICATORS

Epidemiological indicator score thresholds

Incidence (100,000 pers.y-1)*	Median	#NUM!
	80th percentile	#NUM!
Mortality (100,000 pers.y-1)*	Median	#NUM!
	80th percentile	#NUM!
Persistence [% of weeks with ≥ one case]*	Median	#NUM!
	80th percentile	#NUM!

**Calculated out of geographic units with indicator value > 0*

Score values by epidemiological indicators

Epidemiological indicator	Score			
	0 point	1 point	2 points	3 points
Incidence	No case	> 0 and < median	≥ median and < 80th percentile	≥ 80th percentile
Mortality	No death	> 0 and < median	≥ median and < 80th percentile	≥ 80th percentile
Mortality	No case	> 0 and < median	≥ median and < 80th percentile	≥ 80th percentile

TESTING INDICATORS

Assessment of representativeness of cholera testing *

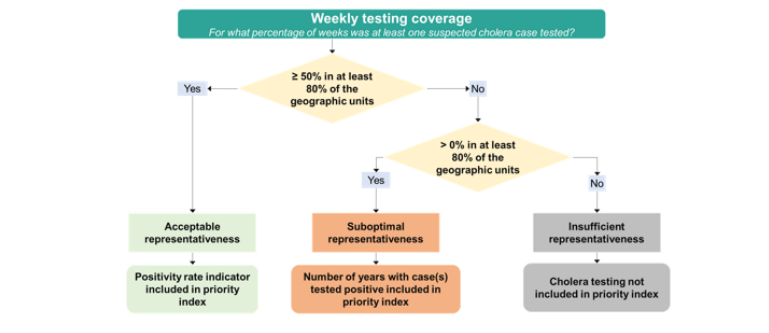
Step 1

Number of NCP operational geographic units with weekly testing coverage ≥ 50%	0
Percentage of NCP operational geographic units (with at least one case) with testing coverage ≥ 50%	#DIV/0!
Is weekly testing coverage ≥ 50% in at least 80% of the NCP operational geographic units of the country?	#DIV/0!
Level of representativeness of testing	#DIV/0!
Inclusion of positivity rate score into the priority index	#DIV/0!

Step 2

Number of NCP operational geographic units with weekly testing coverage > 0%	#DIV/0!
Percentage of NCP operational geographic units with testing coverage > 0%	#DIV/0!
Is the weekly testing coverage > 0 in at least 80% of the NCP operational geographic units of the country?	#DIV/0!
Level of representativeness of testing	#DIV/0!
Inclusion of the num. of years with case(s) tested positive score into the priority index	#DIV/0!

NA: not applicable
**Regardless of the testing method applied*



Score values by testing indicators

Weekly testing coverage	Testing indicator	Score			
		0 point	1 point	2 points	3 points
Acceptable	Positivity rate	0	≤ 10%	> 10% and ≤ 30%	> 30%
Suboptimal	Num. of years with confirmed case(s)	0	1	> 1	NA*
Insufficient	NA*	NA*	NA*	NA*	NA*

**NA: Not applicable*



General results and summary tables

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File Home Insert Page Layout Formulas Data Review View Help Acrobat Power Pivot PivotTable Analyze Design

Comments Share

Summary table of key parameters stratified by priority index values

Priority index values	Number of geographic units	Cum. number of geographic units	Rel. % of num. of geographic units	Total population	Rel. % of population	Cum. % of population	Num. of cases	Rel. % of num. of cases	Cum. % of num. of cases	Num. of deaths	Rel. % of num. of deaths	Cum. % of num. of deaths	Average of positivity rate	Mean of number of years
#DIV/0!	1	1	NA	NA	NA	NA	0	NA		0	NA		0.0	NA
Total général	NA		NA	NA	NA	NA	0	NA		0	NA		0.0	NA

Assessment of representativeness of cholera testing

Level of representativeness of testing	#DIV/0!
Testing indicator score included into the priority index	#DIV/0!

Ready Accessibility: Investigate 85%



Table of key indicators stratified by values of the priority index

AutoSave Off GTFCC PAMI tool EN.xlsx Search

File Home Insert Page Layout Formulas Data Review View Help Acrobat Power Pivot PivotTable Analyze Design

Comments Share

Location adjacent to cross-border cholera-affected areas or identified PAMIs

Priority_index	VF_01_prox_chol
#DIV/0!	1
Grand Total	1

Location along major travel routes with transportation hubs

Priority_index	VF_02_maj_pathw
#DIV/0!	1
Grand Total	1

Major population gatherings

Priority_index	VF_03_pop_gathering
#DIV/0!	1
Grand Total	1

Areas with high population density or overcrowded settings (e.g., urban slums, refugees/ID camps)

Priority_index	VF_04_overcrowd_sett
#DIV/0!	1
Grand Total	1

Areas with high-risk populations (e.g., seasonal workers/fishermen/miners in informal settlements)

Priority_index	VF_05_spec_risk_pop
#DIV/0!	1
Grand Total	1

Hard-to-access populations

Priority_index	VF_06_remote_unit
#DIV/0!	1
Grand Total	1

Population received oral cholera vaccine more than three years ago (two-doses campaign with a coverage for both round >70%)

Priority_index	VF_07_vacc_sup_3yrs
#DIV/0!	1
Grand Total	1

Areas at high-risk for extreme climate and weather conditions (e.g., heavy rains, floods, droughts)

Priority_index	VF_08_acute_emerg
#DIV/0!	1
Grand Total	1

Complex humanitarian emergencies

Priority_index	VF_09_complex_emerg
#DIV/0!	1
Grand Total	1

WASH indicator Water

Priority_index	VF_10_WASH_ind_w
#DIV/0!	1
Grand Total	1

WASH indicator Sanitation

Priority_index	VF_11_WASH_ind_sanit
#DIV/0!	1
Grand Total	1

WASH indicator Hygiene

Count of Unique_id	Priority_index	VF_12_WASH_ind_hygie
#DIV/0!	#REF!	1
Grand Total		1

Information -> Data input table R.1| Priority index calculation R.2| Overview tables R.3| Priority index summary **R.4| Additional factors tables** R.5| Table PAMIs export

Ready Accessibility: Investigate Count: 3 70%



Table of presence/absence of vulnerability factors stratified by values of the priority index

THREE TRAINING DATASETS

Supporting material:

- three training data sets with three different levels of test representativeness



GTFCC PAMI tool Training dataset 1 [Test-Rep Acceptable].xlsx



GTFCC PAMI tool Training dataset 2 [Test-Rep Suboptimal].xlsx



GTFCC PAMI tool Training dataset 3 [Test-Rep Insufficient].xlsx

DEMO

Main steps

1. Open the tool
2. Open a training dataset
3. Copy and paste the data into the tool
4. Compute derived indicators and priority index values
5. Refresh all tables in the tool
6. Consult results

HANDS-ON SESSION

- Classify PAMIs by yourself using the training data sets

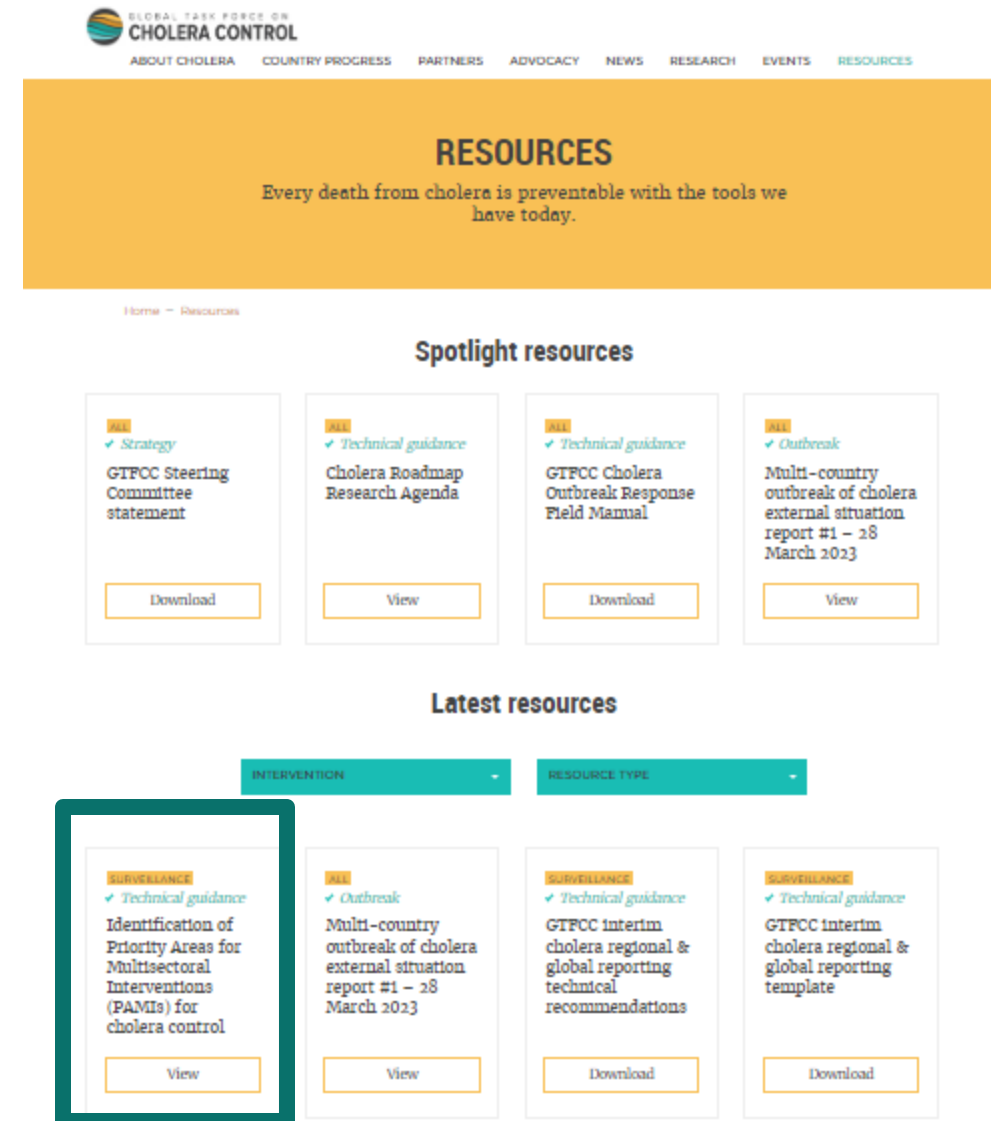


DOWNLOAD

- <https://tinyurl.com/gtfcc-pamis>

or

- <https://www.gtfcc.org/resources/>



The screenshot shows the 'RESOURCES' page of the Global Task Force on Cholera Control (GTFCC). The page features a navigation menu at the top with links for 'ABOUT CHOLERA', 'COUNTRY PROGRESS', 'PARTNERS', 'ADVOCACY', 'NEWS', 'RESEARCH', 'EVENTS', and 'RESOURCES'. Below the navigation is a large orange banner with the text 'RESOURCES' and the subtitle 'Every death from cholera is preventable with the tools we have today.' The main content area is divided into two sections: 'Spotlight resources' and 'Latest resources'. The 'Spotlight resources' section contains four cards, each with a 'Download' or 'View' button. The 'Latest resources' section contains four cards, each with a 'View' or 'Download' button. The first card in the 'Latest resources' section is highlighted with a red border.

GLOBAL TASK FORCE ON CHOLERA CONTROL

ABOUT CHOLERA COUNTRY PROGRESS PARTNERS ADVOCACY NEWS RESEARCH EVENTS RESOURCES

RESOURCES

Every death from cholera is preventable with the tools we have today.

Home - Resources

Spotlight resources

- ALL**
✓ Strategy
GTFCC Steering Committee statement
Download
- ALL**
✓ Technical guidance
Cholera Roadmap Research Agenda
View
- ALL**
✓ Technical guidance
GTFCC Cholera Outbreak Response Field Manual
Download
- ALL**
✓ Outbreak
Multi-country outbreak of cholera external situation report #1 - 28 March 2023
View

Latest resources

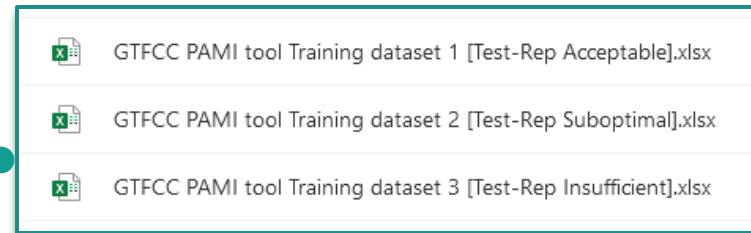
INTERVENTION RESOURCE TYPE

- SURVEILLANCE**
✓ Technical guidance
Identification of Priority Areas for Multisectoral Interventions (PAMIs) for cholera control
View
- ALL**
✓ Outbreak
Multi-country outbreak of cholera external situation report #1 - 28 March 2023
View
- SURVEILLANCE**
✓ Technical guidance
GTFCC interim cholera regional & global reporting technical recommendations
Download
- SURVEILLANCE**
✓ Technical guidance
GTFCC interim cholera regional & global reporting template
Download

MANIPULATE

Main steps

- Open the user guide
- Open the Excel tool
- Open one of the training datasets
- Copy and paste the data into the tool
- Compute indicators and priority index
- Refresh all tables in the tool
- Consult results



User guide: detailed description of the necessary data and the step-by-step use of the tool

LET US HAVE YOUR FEEDBACK

<https://tinyurl.com/feedbackpami>

- Please fill it before lunch
- It is very short
- Survey outcomes will be used this afternoon!

THANK YOU FOR YOUR ATTENTION

