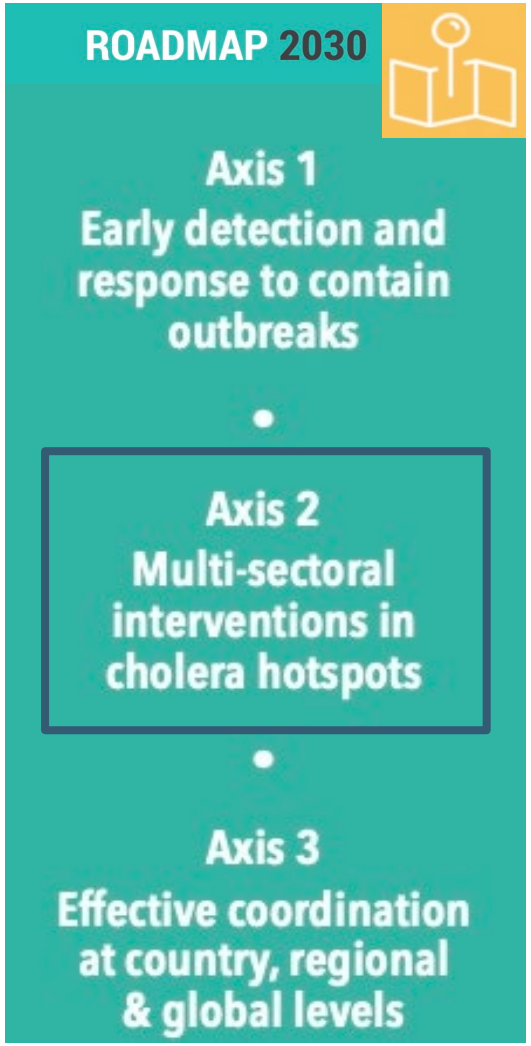
GLOBAL TASK FORCE ON
CHOLERA CONTROL

PRIORITIZATION OF PAMIS FOR OCV USE

13 Oct 2023
10th Annual GTFCC Working Group on Oral Cholera Vaccine

NEED FOR PRIORITIZATION OF PAMIS FOR OCV CAMPAIGN PLANNING WITHIN NCPS



Creation of National Cholera Plan

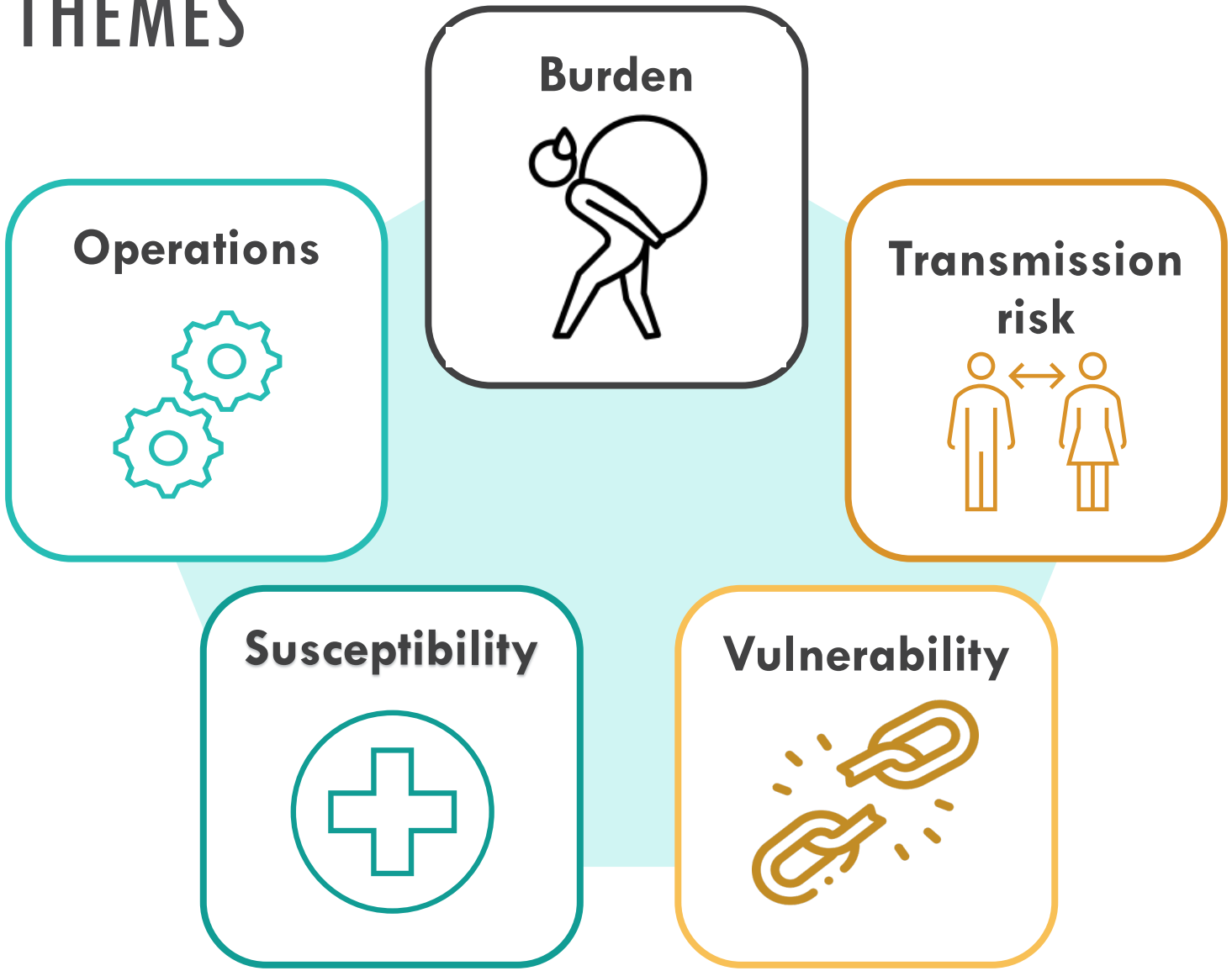
1. Cholera and risk factor data analyzed according to GTFCC guidance
2. Priority areas for multisectoral intervention (PAMIs) identified
3. PAMIs prioritized for 2-dose preventive OCV campaign
4. Multi-year preventive cholera vaccination plan of action (MY-POA) and budget developed

2-YEAR PROCESS TO DEVELOP AND TEST TOOL

Spring 2022

The OCV TWG identified criteria and developed a tool to help countries prioritize their PAMIs for OCV use.

BURDEN AND INCORPORATED OVERARCHING VULNERABILITY CRITERIA THEMES



2-YEAR PROCESS TO DEVELOP AND TEST TOOL

Spring 2022

The OCV TWG identified criteria and developed a tool to help countries prioritize their PAMIs for OCV use.

2022-2023

Tool tested by DRC and Bangladesh.

Populated tool with dummy data to identify areas needing improvement.

IDENTIFIED TOOL COMPONENTS NEEDING IMPROVEMENT

Bugs in tool coding

Population growth and vaccine eligibility not accounted for in predicting vaccination needs

Criteria wording and scoring didn't align with PAMI Identification Tool

Weighted components of the total score needed adjustments to accurately categorize each PAMI

Higher admin levels not included for PAMIs

Lack of automation

2-YEAR PROCESS TO DEVELOP AND TEST TOOL

Spring 2022	The OCV TWG identified criteria and developed a tool to help countries prioritize their PAMIs for OCV use.
2022-2023	Tool tested by DRC and Bangladesh. Populated tool with dummy data to identify areas needing improvement.
Summer 2023	**Based on feedback, we improved user-friendliness and functionality.**

CURRENT VERSION OF TOOL

STEPS TO PRIORITIZE PAMIS FOR OCV CAMPAIGN PLANNING

Data collection

- Epidemiological data
- Vulnerability factors
- OCV campaign history

Scoring

- PAMI Score
- Risk Score
- Susceptibility Score

Operations

- Planned year of campaign rounds
- Required doses
- Consideration for
  - Accessibility
  - Security
  - Regional approach

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INCLUDED DATA ON VULNERABILITY AND TRANSMISSION RISK FACTORS

PAMI information			Step 1: Gather data on mandatory/optional criteria															
			Vulnerability										Risk of transmission and spread					
			Areas with high risk populations (e.g., IDP, refugees, fishermen, urban slums, etc)		Acces to water, sanitation and hygiene (OPTIONAL)						Areas at high-risk for extreme climate and weather (OPTIONAL)		Areas with high population density or overcrowded settings		Area adjacent to cholera-affected areas or identified PAMIs		Areas with recent transmission of cholera in the last 12 months or last cholera season	
UNIQUE ID	Admin Level 1	Admin Level 2	Areas with high risk populations ?	High risk populations score (Yes=4; No=2)	Areas with more than 30% of the population with access to unimproved water facility type	Acces to water score (Yes=4; No=2)	Areas with more than 50% of the population with access to unimproved sanitation facility type	Access to sanitation score (Yes=4; No=2)	Areas with more than 50% of the population with no handwashing facility on premises	Acces to handwashing score (Yes=4; No=2)	Areas at high-risk for extreme climate and weather conditions (e.g., heavy rains, floods, droughts)	High-risk weather score (Yes=4; No=2)	High population density or overcorwded settings	Population density score (Yes=4; No=2)	Area adjacent to cholera-affected areas or identified PAMIs	Adjacent to cholera-affected areas or identified PAMI Score (Yes=4; No=2)	Recent cholera transmission during the last 12 months/last cholera season?	Recent cholea transmission in last 12 months score (Yes=4; No=2)
UniqueID	Admin_1	Admin_2	VF_05_spec_risk_pop	VF5score	VF_10_WASH_ind_water	VF10score	VF_11_WASH_ind_sanitation	VF11score	VF_12_WASH_ind_hygiene	VF12score	VF_08_acute_emerg	VF8score	VF_04_overcrowd_s	VF4score	VF_01_prox_chol	VF1score	transmission	transmissionscore
id_005	admin_1_01	admin_2_00	No	2	No	2	Yes	4	Yes	4	Yes	4	No	2	No	2		
id_013	admin_1_02	admin_2_01	Yes	4	No	2	Yes	4	Yes	4	No	2	Yes	4	No	2		
id_014	admin_1_02	admin_2_01	No	2	Yes	4	No	2	Yes	4	No	2	No	2	No	2		
id_015	admin_1_02	admin_2_01	No	2	Yes	4	Yes	4	Yes	4	No	2	No	2	Yes	4		
id_022	admin_1_02	admin_2_02	No	2	No	2	No	2	No	2	No	2	Yes	4	No	2		
id_025	admin_1_02	admin_2_02	No	2	No	2	No	2	No	2	Yes	4	No	2	No	2		
id_028	admin_1_02	admin_2_02	No	2	No	2	No	2	No	2	No	2	No	2	No	2		
id_030	admin_1_02	admin_2_03	No	2	Yes	4	No	2	Yes	4	No	2	No	2	No	2		
id_033	admin_1_02	admin_2_03	No	2	Yes	4	Yes	4	Yes	4	No	2	No	2	No	2		
id_035	admin_1_02	admin_2_03	Yes	4	Yes	4	Yes	4	Yes	4	No	2	No	2	No	2		
id_038	admin_1_02	admin_2_03	No	2	No	2	No	2	No	2	No	2	No	2	No	2		
id_039	admin_1_02	admin_2_03	No	2	No	2	No	2	No	2	No	2	Yes	4	No	2		
id_048	admin_1_03	admin_2_04	Yes	4	No	2	Yes	4	Yes	4	Yes	4	Yes	4	Yes	4		
id_051	admin_1_03	admin_2_05	Yes	4	Yes	4	Yes	4	Yes	4	Yes	4	Yes	4	Yes	4		
id_053	admin_1_04	admin_2_05	No	2	No	2	No	2	No	2	No	2	No	2	No	2		

HISTORY AND COVERAGE OF PREVIOUS OCV CAMPAIGNS

PAMIs			Step 3: Gather data on OCV Campaign History for each PAMI					
PAMI information			OCV Campaign History					
Selected PAMIs for OCV campaigns from steps 1 to 2			When was the last 2-dose OCV campaign? Month Year		Did the campaign occur within the last 3 years?	What was the last 2-dose campaign's vaccine coverage? (%)	Was the vaccine coverage >70%?	Has there been major population movement since the last 2-dose campaign? (Yes/No)
Unique_ID	Admin_1	Admin_2	OCVcampaign	OCVcampaign	3years	OCVcoverage	coveragescore	popmovement
id_005	admin_1_01	admin_2_005			No		No	
id_013	admin_1_02	admin_2_013			No		No	
id_014	admin_1_02	admin_2_014			No		No	
id_015	admin_1_02	admin_2_015			No		No	
id_022	admin_1_02	admin_2_022			No		No	
id_025	admin_1_02	admin_2_025			No		No	
id_028	admin_1_02	admin_2_028			No		No	
id_030	admin_1_02	admin_2_030			No		No	

STEPS TO PRIORITIZE PAMIS FOR OCV CAMPAIGN PLANNING

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RECOMMENDED PRIORITIZATION BASED ON SCORES FROM BURDEN, RISK, AND SUSCEPTIBILITY

Step 4: Review the following information when developing a multi-year plan									
Scoring							Prioritization		
PAMI score (max=12)	PAMI ranking	Risk score (max=12)	Risk ranking	Susceptibility score based on OCV history (max = 24)	Susceptibility rank based on OCV history	Total score (max=48)	Recommended prioritization	Final prioritization	Reason for decision
PAMIscore	PAMIrank	Riskscore	Riskrank	OCVhistoryscore	Susceptibilityrank	Totalscore	Prioritization	Decision	Reason
9	High	12	High	24	High	45	Very High		
7	Medium	9	Medium	24	High	40	High		
5	Medium	6	Low	24	High	35	Medium		
9	High	8	Medium	24	High	41	High		
0	Low	7	Low	24	High	31	Low		
6	Medium	6	Low	24	High	36	Medium		
4	Medium	6	Low	24	High	34	Low		
9	High	6	Low	24	High	39	High		
11	High	7	Low	24	High	42	High		
8	Medium	8	Medium	24	High	40	High		
0	Low	6	Low	24	High	30	Low		
4	Medium	7	Low	24	High	35	Medium		
7	Medium	11	High	24	High	42	High		
10	High	11	High	24	High	45	Very High		

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DEVELOPMENT OF MULTI-YEAR OCV CAMPAIGN SCHEDULE

Step 5: Using all information from Step 4, develop multi-year OCV plan

OCV Requirements		1st round			2nd round		
Target population (> 1 year old)	Required doses for 2 doses	Required doses for R1	Planned month	Planned year	Required doses for R2	Planned month	Planned year
Targetpop	ReqDose	R1ReqDose	PlanMonth1	PlanYear1	R2ReqDose	PlanMonth2	PlanYear2
278243	565092	278244		2024	278243		2024
590599	1199465	590600		2024	590599		2024
213089	432769	213090		2024	213089		2024
785800	1595903	785800		2024	785800		2024
1501374	3049183	1501375		2026	1501374		2026
1292593	2625163	1292593		2025	1292593		2025

ASSESS KEY OPERATIONAL QUESTIONS

DOCUMENT RATIONALE FOR PLANNING OF OCV CAMPAIGNS

Step 6: Assess key operational questions

Key operational questions			Step 7: Document rationale for planning of OCV campaigns in PAMIs
Has the seasonality of cholera in the PAMI been considered as part of the planned timelines for OCV campaigns?	Have accessibility issues in the PAMI (e.g., security issues, weather patterns or conditions) been considered as part of the planned timelines for OCV campaigns?	Does the country want to consider regional implementation of the campaigns?	Rationale
Seasonality	Accessibility	Regionalimp	comments

RESULTS SUMMARIZE PAMI PRIORITIZATIONS AND REQUIRED DOSES PER YEAR

Prioritization of targeted PAMIs

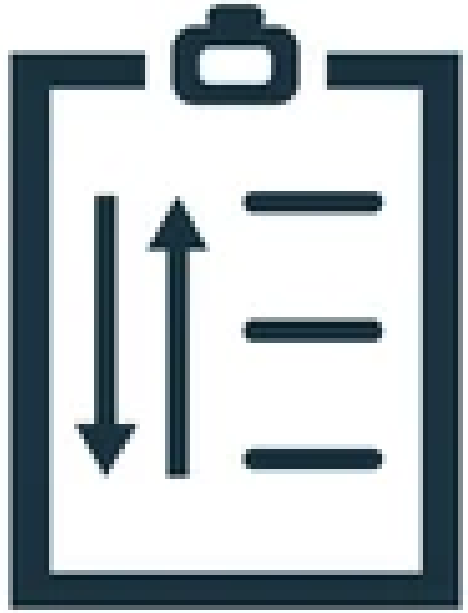
Priority	Total PAMIs	% of PAMIs	Target population in PAMIs	% of total target population in each priority category
Very High	10	10.00%	14,791,266	12.58%
High	31	31.00%	33,767,650	28.72%
Medium	26	26.00%	31,189,365	26.52%
Low	33	33.00%	37,841,799	32.18%
Total	100	100%	117,590,080	100%

Doses requirements and number of targeted PAMIs

	Doses	**PAMI**		
Year	Total requirement	# of PAMIs for first dose	# of PAMIs for second dose	# of PAMIs to be vaccinated
2023	29,582,537	10	10	10
2024	67,535,319	31	31	31
2025	62,378,743	26	26	26
2026	75,683,613	33	33	33
2027	-	-	-	-
Total	235,180,212	100	100	

ONGOING NEED TO PILOT TOOL IN COUNTRIES DEVELOPING NCPS

- Adjust tool based on feedback
- Refine user guide



Thank you

Together we can
#endcholera

GLOBAL TASK FORCE ON
CHOLERA CONTROL

STEP 0: PAMI DATA IMPORTED FROM:

'GTFCC PAMI IDENTIFICATION TOOL TAB R.5 TABLE PAMIS EXPORT'

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	Num_week_test_sum	Incidence	Incidence_score	Mortality	Mortality_score	P
id_005	admin_1_01	admin_2_0(	261	268814.00	53762.8	199	11	114	11	28	22	74.029	3	4.092	3	10.7
id_013	admin_1_02	admin_2_01	261	570585.00	114117	128	20	108	52	12	10	22.433	2	3.505	3	4.6
id_014	admin_1_02	admin_2_01	261	205868.00	41173.6	225	8	114	6	44	39	109.293	3	3.886	3	16.9
id_015	admin_1_02	admin_2_01	261	759171.00	151834.2	634	14	354	47	11	6	83.512	3	1.844	3	4.2
id_022	admin_1_02	admin_2_02	261	1359302.00	271860.4	0	0	0	0	0	0	0	NA	0	NA	0
id_025	admin_1_02	admin_2_02	261	1208896.00	241779.2	185	5	102	24	27	20	15.303	1	0.414	1	10.3
id_028	admin_1_02	admin_2_02	261	942504.00	188500.8	12	0	6	1	3	2	1.273	1	0	NA	1.1
id_030	admin_1_02	admin_2_03	261	548337.00	109667.4	408	19	185	12	40	36	74.407	3	3.465	3	15.3
id_033	admin_1_02	admin_2_03	261	1052119.00	210423.8	1298	27	690	83	92	85	123.37	3	2.566	3	35.2
id_035	admin_1_02	admin_2_03	261	1445433.00	289086.6	389	10	216	39	50	36	26.912	2	0.692	2	19.2
id_038	admin_1_02	admin_2_03	261	1313550.00	262710	0	0	0	0	0	0	0	NA	0	NA	0
id_039	admin_1_02	admin_2_03	261	741124.00	148224.8	62	4	51	3	26	20	8.366	1	0.54	1	10
id_048	admin_1_03	admin_2_04	261	782272.00	156454.4	208	9	114	7	30	23	26.589	2	1.15	2	11.5
id_051	admin_1_03	admin_2_05	261	1710085.00	342017	3131	31	2052	254	73	58	183.09	3	1.813	2	28
id_053	admin_1_04	admin_2_05	261	944154.00	188830.8	266	6	166	23	32	27	28.173	2	0.635	1	12.3
id_054	admin_1_04	admin_2_05	261	834574.00	166914.8	2	1	1	0	1	1	0.24	1	0.12	1	0.4
id_055	admin_1_04	admin_2_05	261	1766489.00	353297.8	79	2	42	8	5	3	4.472	1	0.113	1	1.9
id_058	admin_1_04	admin_2_05	261	1072430.00	214486	0	0	0	0	0	0	0	NA	0	NA	0
id_065	admin_1_04	admin_2_06	261	516248.00	103249.6	4	1	3	0	2	0	0.775	1	0.194	1	0.8

MANDATORY CRITERIA

Category	Prioritization criteria
Vulnerability	Areas with **high-risk populations** (e.g., refugee camps, IDP camps, fishermen) or affected by complex humanitarian emergencies
Transmission risk	Areas with **high population density**/overcrowded settings (e.g., urban slums)*
	Area **adjacent to cholera-affected areas** or identified PAMIs

*Need to justify (e.g., high population density link with poor urbanization services or other risk of transmission amplification)

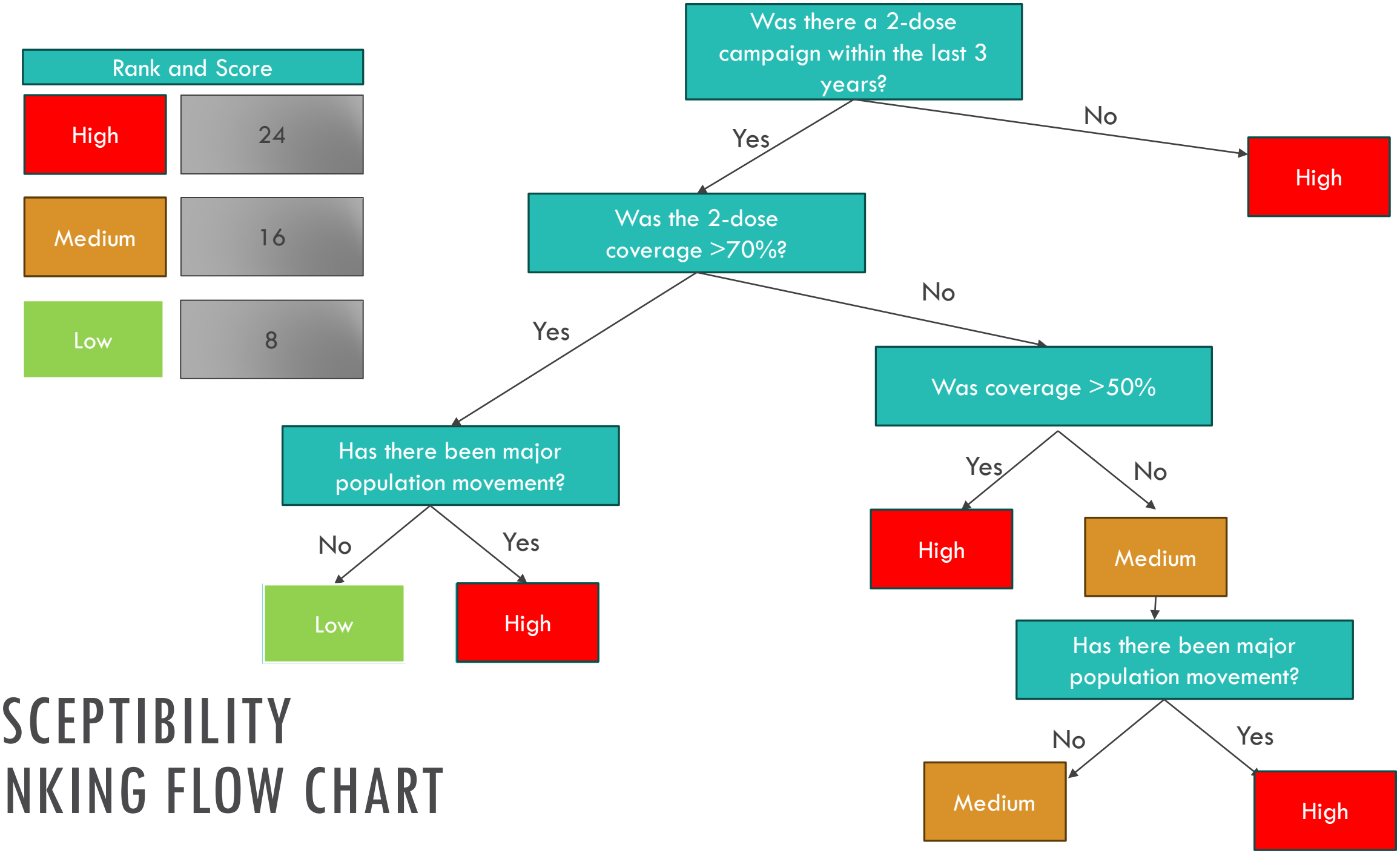
OPTIONAL CRITERIA

Category	Prioritization criteria
Vulnerability	Area with more than 30% of the population not using safely managed drinking **water** services
	Areas with more than 50% of the population using safely managed **sanitation** services
	Areas with more than 50% of the population with **handwashing** facilities with soap and water at home
	Areas at **high-risk for extreme climate and weather** conditions (e.g., heavy rains, floods, droughts)
Susceptibility	Areas with **recent transmission** in the last 12 months/last cholera season

SUSCEPTIBILITY SCORE BASED ON OCV HISTORY

Prioritization criteria
Did the last 2-dose campaign occur within the last 3 years?
Was the vaccine coverage of the last 2-dose campaign greater than 70%?
Has there been major population movement since the last 2-dose campaign?

SUSCEPTIBILITY RANKING FLOW CHART



OPERATIONAL QUESTIONS FOR ASSESSMENT

Prioritization criteria
Areas with **accessibility** issues (e.g., security issues, due to weather patterns, or road conditions?)
Has the **seasonality** of cholera in the PAMI been considered?
Does the country want to consider **regional implementation** of the campaigns?