

SNS COLLEGE OF PHARMACY AND HEALTH SCIENCES



Affiliated To The Tamil Nadu Dr. MGR Medical University, Chennai
Approved by Pharmacy Council of India, New Delhi.
Coimbatore -641035

COURSE NAME : SOCIAL AND PREVENTIVE PHARMACY (BP 802 T)

B.PHARM. VIII SEM / IV YEAR

UNIT II: TOPIC 1 :GENERAL PRINCIPLES OF PREVENTION AND CONTROL OF CHOLERA

DESIGN THINKING

Empathy: Understanding Community Needs



Community Interviews, Surveys, & Observations

- Understand Needs, Challenges, & Local Context
- Synthesize Findings, Determine User Needs

Define: Pinpointing the Problem



Synthesize Findings

- Determine User Needs & Root Causes
- Formulate a Clear Problem Statement

Focusing Our Efforts for Effective Solutions

DESIGN THINKING

IDEATE



- Generate Diverse Ideas
- Encourage All Voices
- Focus on Quantity & Creativity (e.g. Water Filters, Community Health Workers)

PROTOTYPE AND TEST



-  Build Low-Cost Solutions (e.g., Water Filters, Toilets)
-  Gather User Feedback & Iterate
-  Pilot in the Community & Monitor Results

Evolve: Sustain & Scale Community Solutions



Implement Sustainable Programs

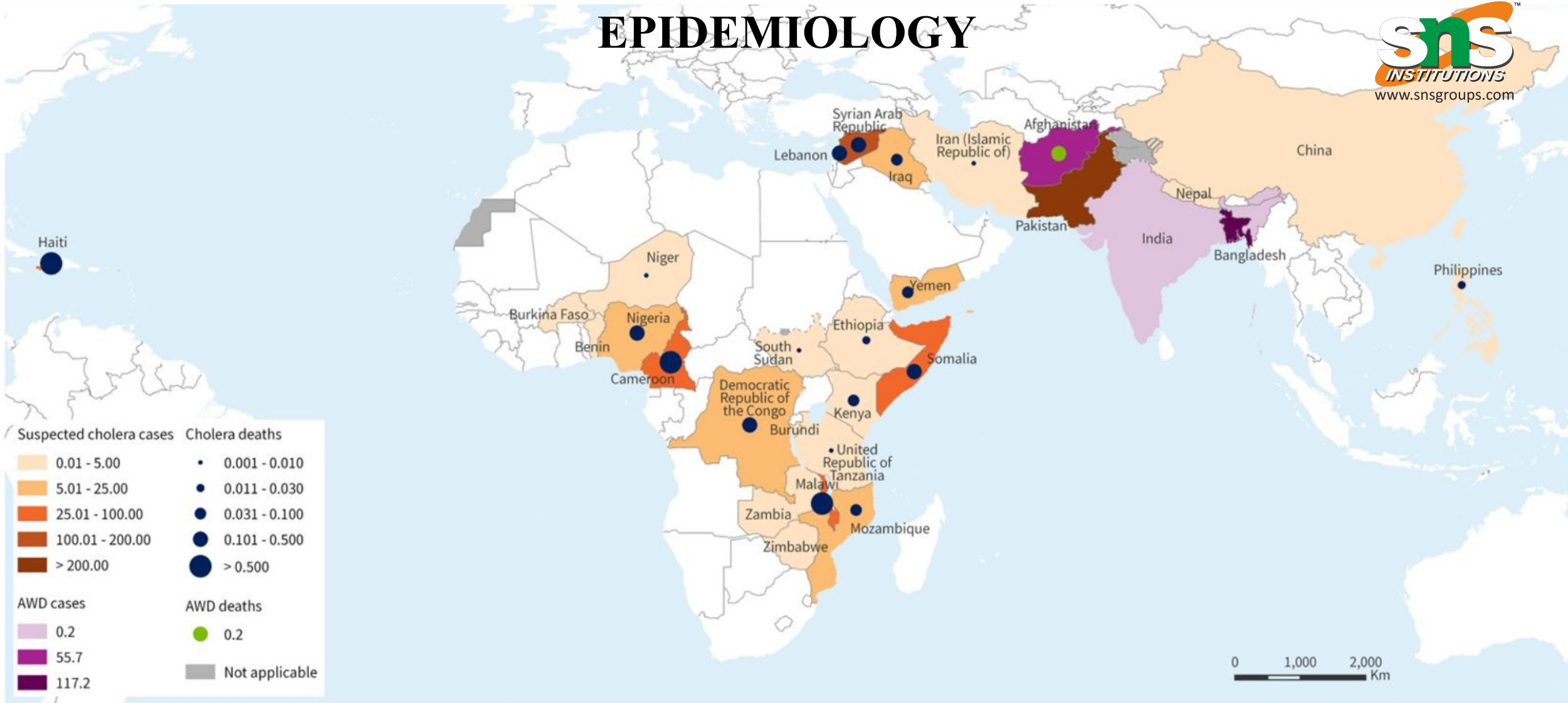


Monitoring & Evaluation Impact



Foster Community Ownership & Resilience

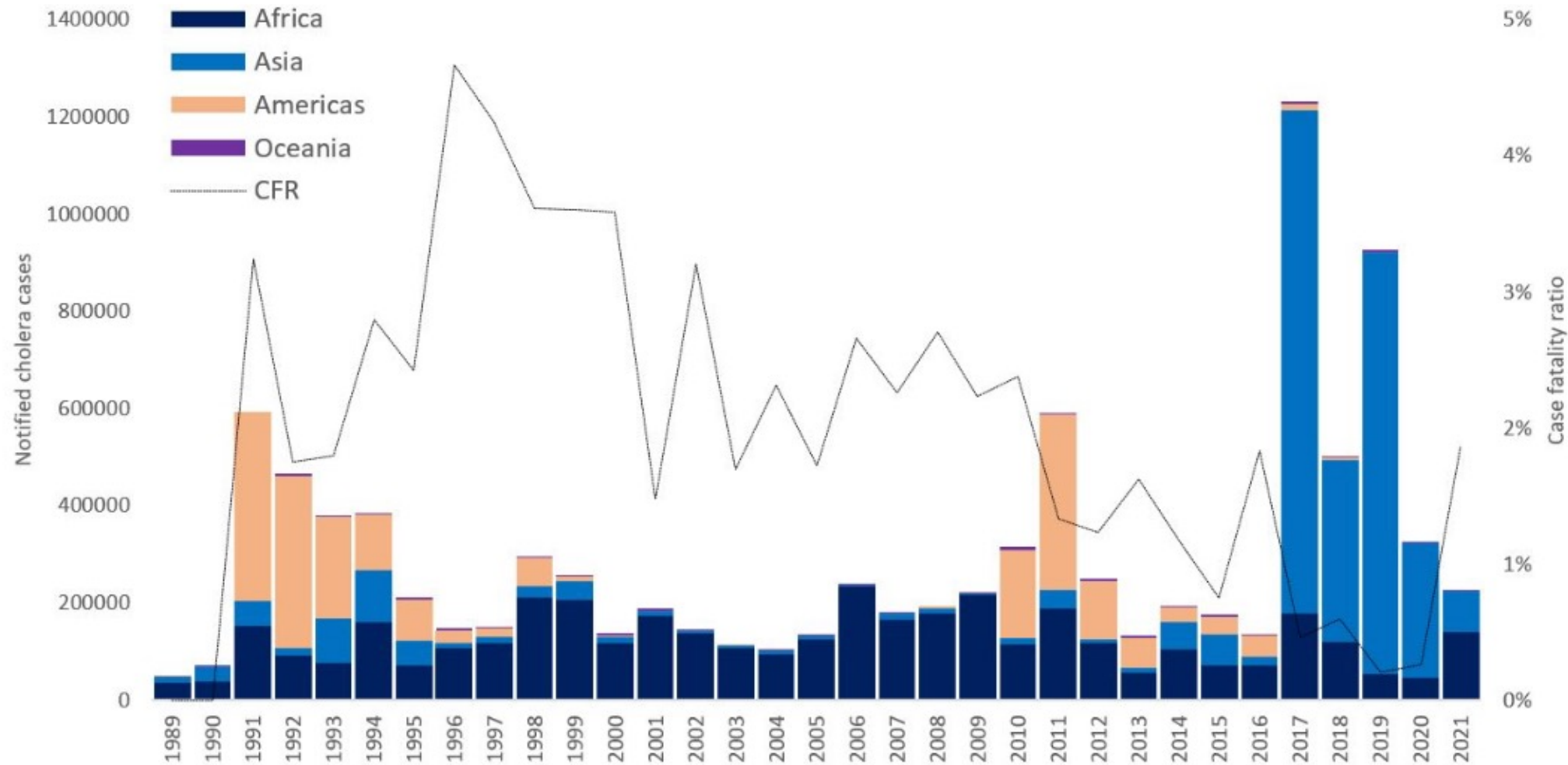
EPIDEMIOLOGY



The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: World Health Organization, United Nations Population Division (population prospect 2021)
Map Production: WHO Health Emergencies Programme
Map Date: 9 December 2022

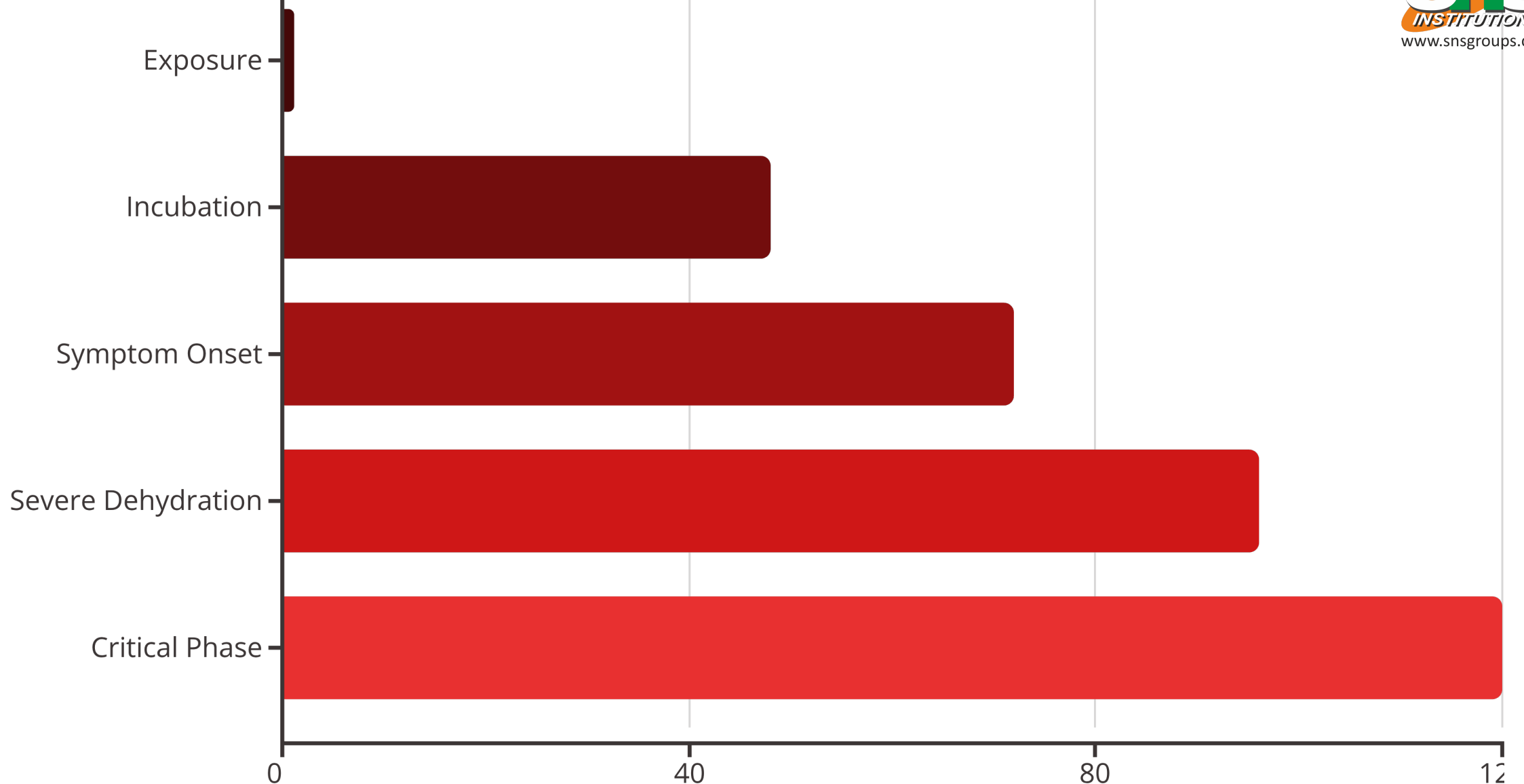
Figure-2: Cholera cases* reported to WHO by year and continent, global CFR, 1989-2021**



SPREADING CYCLE

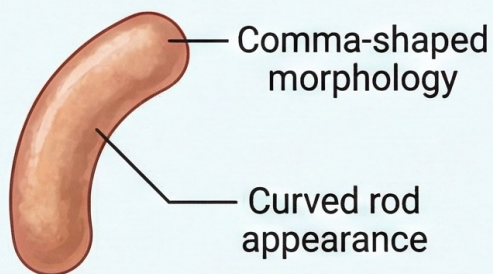


Incubation Period and Clinical Progression

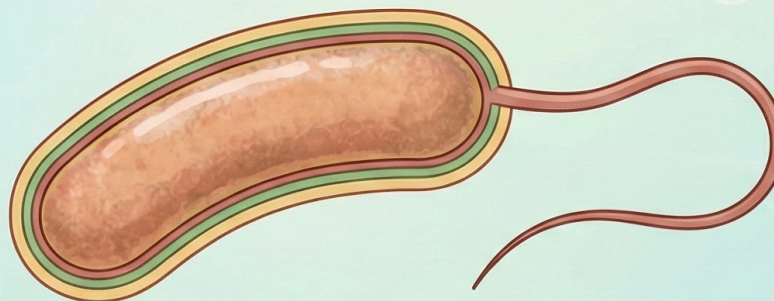


The Causative Agent: *Vibrio cholerae*

Morphology

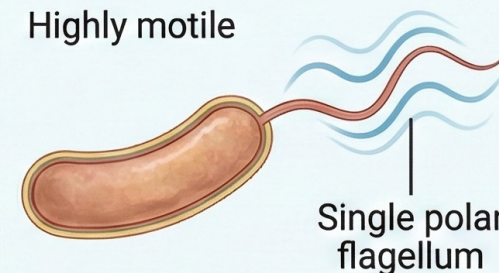


Vibrio cholerae Bacterium



Motility

Highly motile

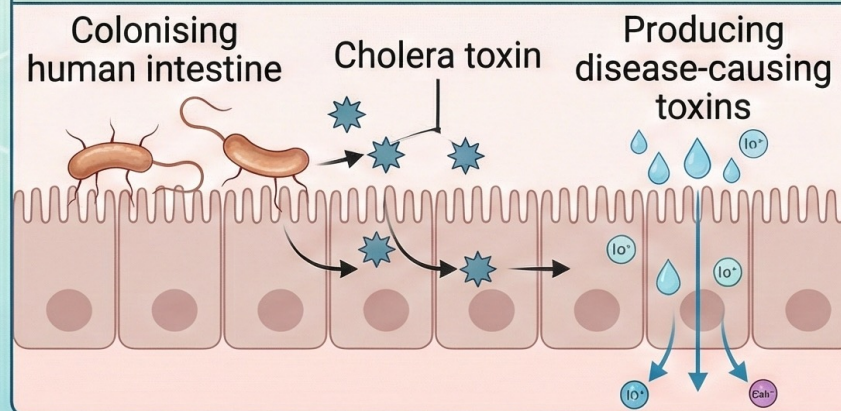


Gram Stain



Gram-negative bacterium

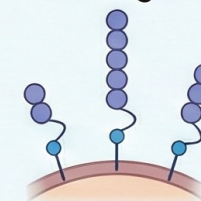
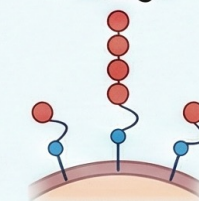
Pathogenesis



Epidemic Serogroups

O-antigen

O-antigen



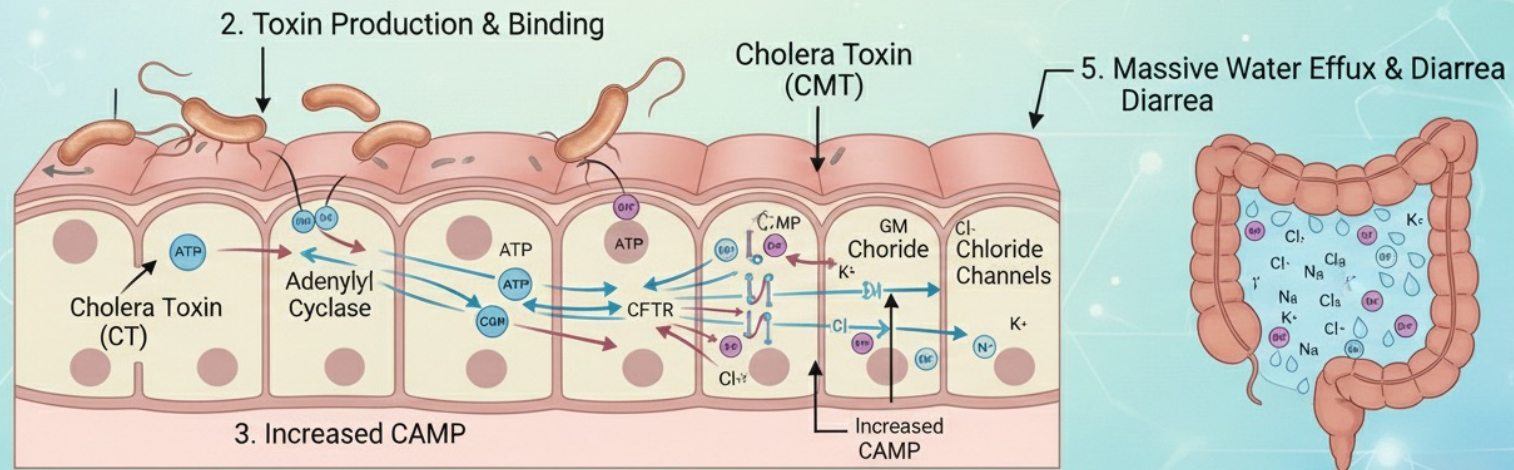
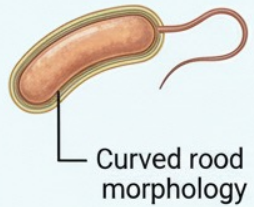
Serogroup O1

Serogroup O139

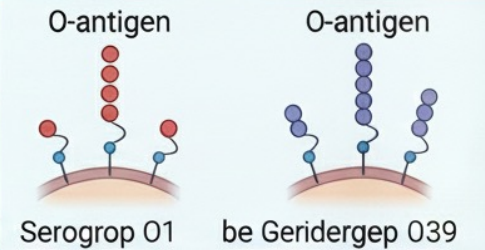
Cause epidemic cholera

Pathophyoloigy: Cholera Causes Disease

Moropology

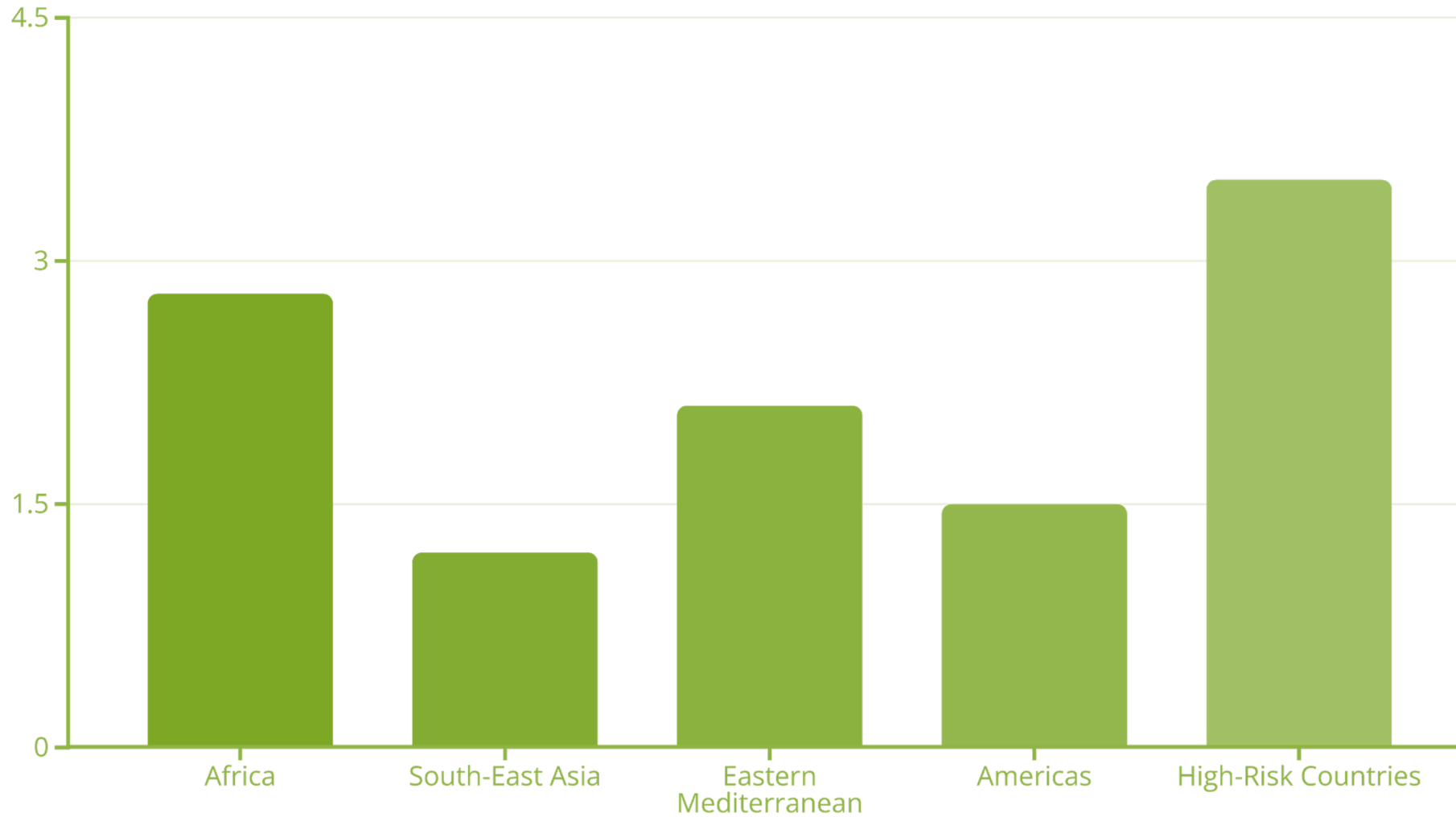


Pnodel Spimien

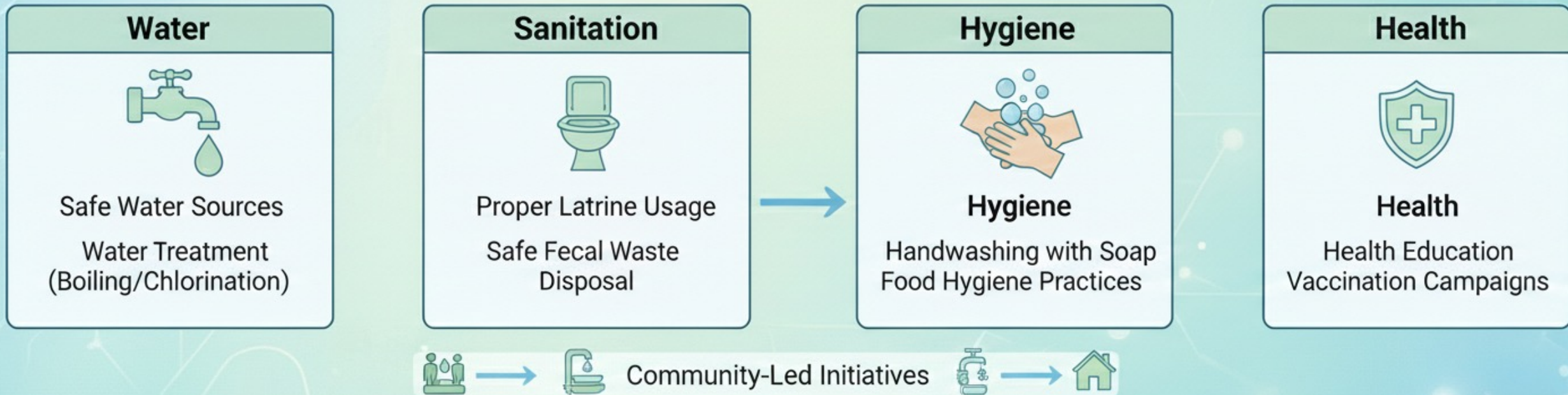


Severe
Dehydration
& Electotictie Imiblance

Global Case Fatality Rates: Regional Disparities

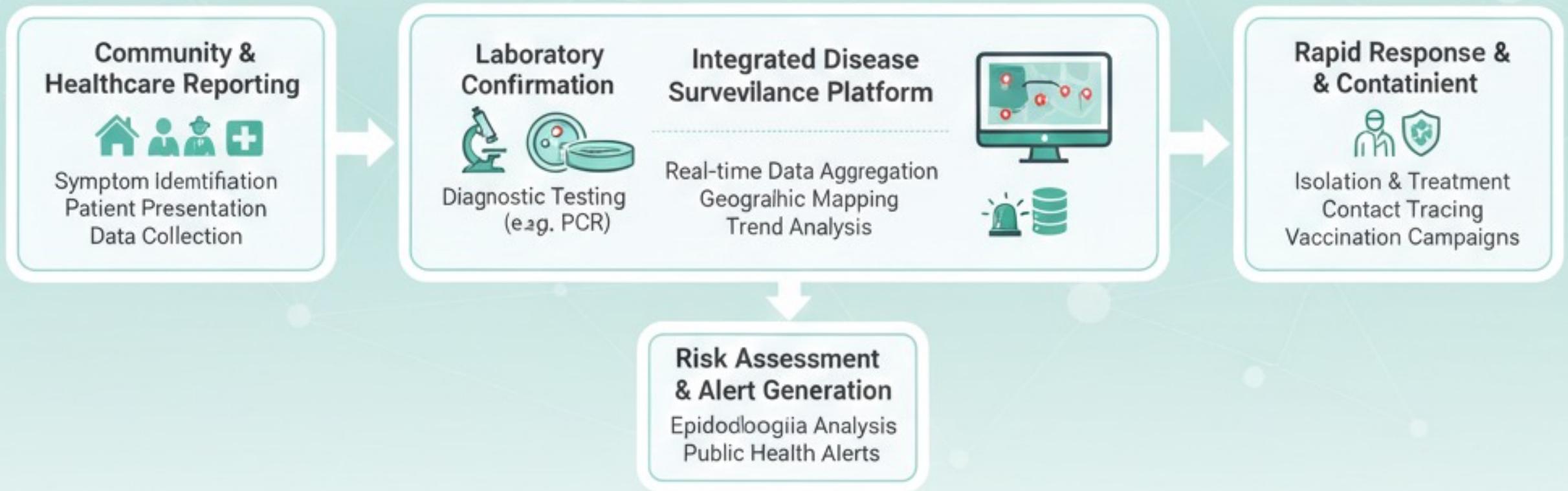


Prevention Through WASH Interventions

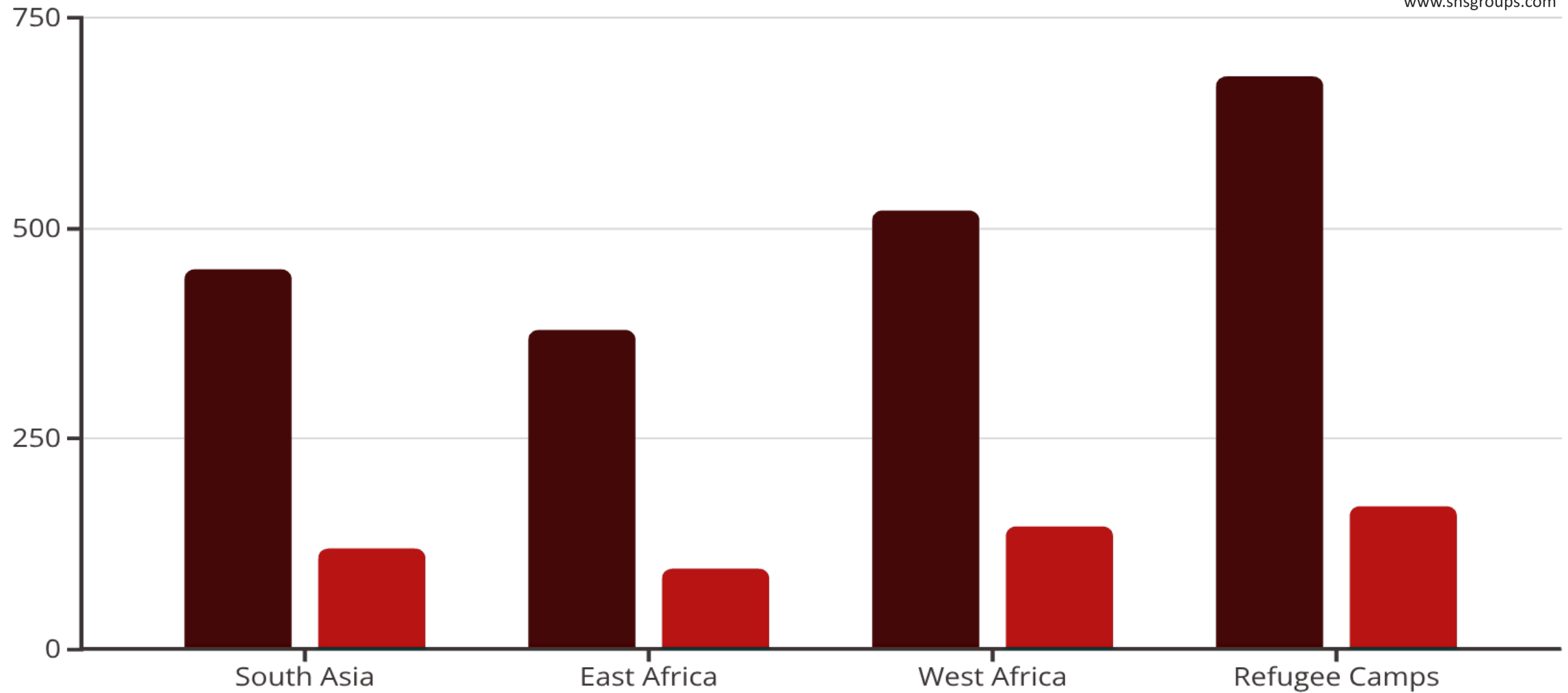


Stop Cholera: Healthy Communities for All

SURVEILLANCE AND EARLY DETECTION SYSTEM



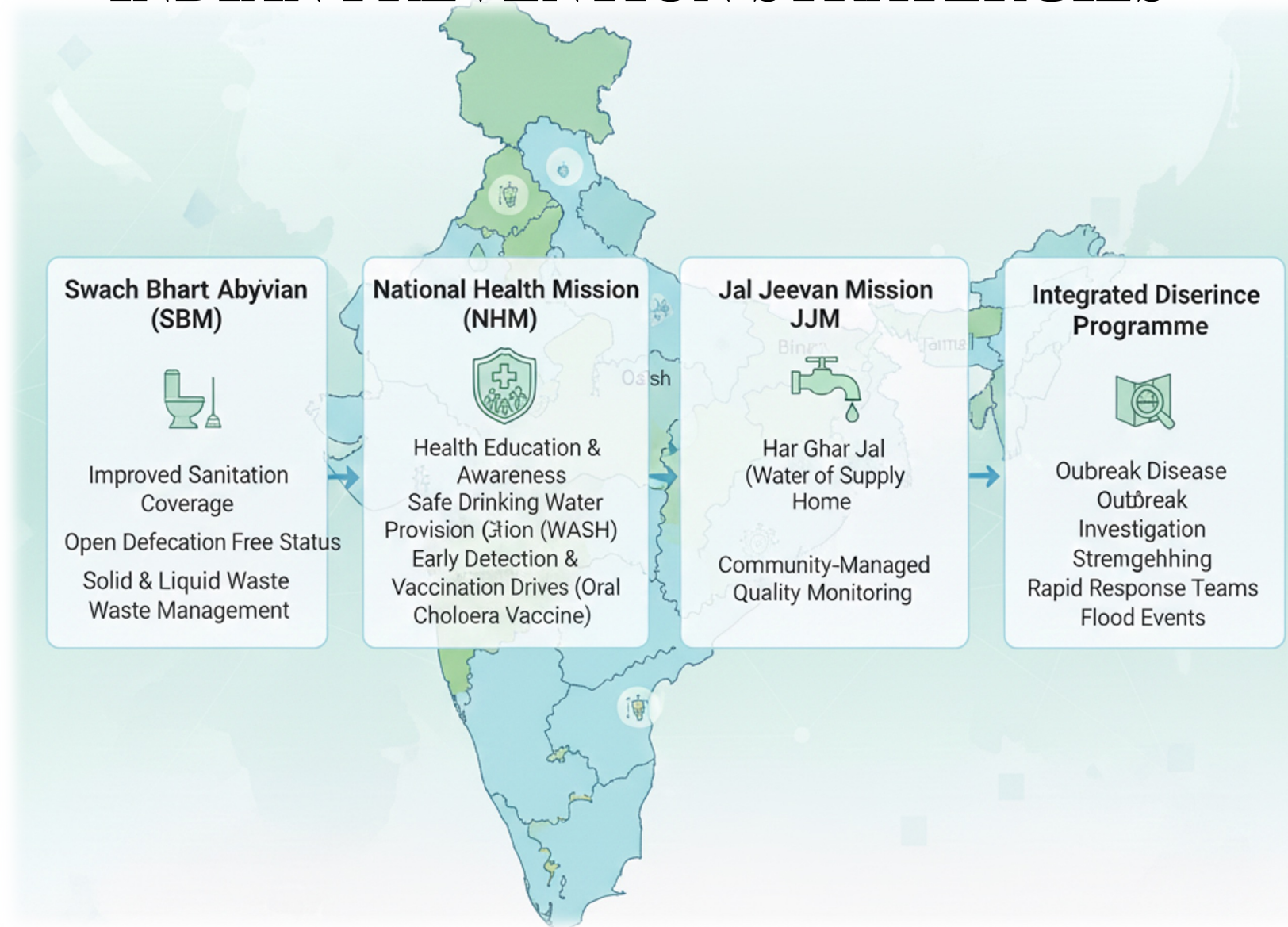
ORAL CHOLERA VACCINE: PROVEN PROTECTION



INITIATIVES



INDIAN PREVENTION STRATEGIES



PHARMACIST ROLE



Health Education & Awareness

Educating patients on safe water, hygiene practices (handwashing), and food safety.



Vaccination Advocacy & Access

Dispesting vaccines and managing cold chain.
Identifying eligible individuals.



Early Detection & Referral

Recogrinx cholere symptoms
Refering suspected cases to healthcare faciilities,
Providing inighing intial rehydration advice (ORS).



Community Outreach & Surveillance

Participaiing in health camps
Reporting suspected outbreaks.
Colaboration with public health teams



Frontline Healthcare Providers: Protecting Communities

School Education for Cholera Prevention



FUTURE PLAN



Health & Hygiene

Safe Water,
Sanitation
Handwashing



Interactive Learning

Games, Songs,
Role-Playing,
Quizzes



Safe School Environment

Clean Toilets,
Drinking Water
Water Stations



Community Engagement

Parent Workshops,
Awareness
Campaigns

Empowering the Next Generation for a Healthier Future

ASSESSMENT 1



Name the organism?

ASSESSMENT 2

What is the primary source of transmission?



ASSESSMENT 3

Match the following?

Column A (Concept)	Column B (Match)
1. Cholera Causative Agent	A. Diarrhea, vomiting, severe dehydration
2. Primary Mode of Transmission	B. Vibrio cholerae
3. Main Symptom	C. Fecal-oral route
4. Primary Site of Action	D. Small intestine
5. Cholera Toxin	E. Causes massive fluid loss

ASSESSMENT 4

CHOLERA PREVENTION WORD FIND!

Find 5 hidden words related to Cholera Provention.

F	O	T	E	R	L	S	F	S	O	M
Q	O	H	T	F	E	P	F	G	E	F
W	E	R	A	T	U	P	S	E	D	F
P	E	R	T	E	U	S	J	A	N	T
P	E	A	P	L	R	E	O	F	L	E
C	F	O	N	G	E	N	H	A	D	E
P	L	N	E	T	O	H	M	K	O	P
H	E	L	O	N	D	M	T	X	N	D
S	M	G	L	N	A	T	C	E	Y	T

ASSESSMENT 5

Drinking.....and proper..... are two ways to prevent cholera

REFERENCES

1. Short Textbook of Preventive and Social Medicine, Prabhakara GN, 2nd Edition, 2010, ISBN: 9789380704104, JAYPEE Publications
2. Textbook of Preventive and Social Medicine (Mahajan and Gupta), Edited by Roy Rabindra Nath, Saha Indranil, 4th Edition, 2013, ISBN: 9789350901878, JAYPEE Publications
3. Review of Preventive and Social Medicine (Including Biostatistics), Jain Vivek, 6th Edition, 2014, ISBN: 9789351527331, JAYPEE Publications
4. Essentials of Community Medicine—A Practical Approach, Hiremath Lalita D, Hiremath Dhananjaya A, 2nd Edition, 2012, ISBN: 9789350250440, JAYPEE Publications

Thank you