





Strategic roundtable on WASH, waste and electricity in health care facilities

Geneva 23-24 May 2024







Alexandra Machado, IFRC & Ann Thomas, UNICEF

Welcome remarks







Lindsay Denny, UNICEF

Meeting overview

Objectives

- Provide overview of climate resilient and sustainable health care facilities and articulate role of WASH, waste and electricity in wider climate and health agendas
- Present WHO/UNICEF Global Framework on WASH, waste and electricity in health care facilities and seek stakeholder engagement and implementation.
- Share and synthesize insights from trailblazer countries on overcoming bottlenecks and accelerating progress
- Discuss and articulate key actions for operationalizing greater integration with health and climate actors, including strengthening leadership and investments

Agenda – Day 1

9:00-9:20	Session 1. Introductions and overview
9:20-9:50	Session 2. Global Framework on WASH, waste and electricity in health care facilities
9:50-10:10	Coffee/tea break
10:10-11:10	Session 3. Priority efforts, successes and challenges to date and implications for the future
11:10-12:30	Session 4. High value opportunities to integrate with health (IPC, MNCH, PHC, Immunization)
12:30-13:00	Session 5. Driving change-strategic engagement of leaders at national level (Philippines, Hungary)
13:00-14:00	Lunch
14:00-15:00	Session 5. Driving change - strategic engagement of leaders at national level (Nepal, Tanzania)
15:00-15:20	Coffee/tea break
15:20-16:35	Session 6. Cost of inaction and optimal financing mechanisms and opportunities
16:35-17:15	Session 7. Operationalizing and implementing Framework actions
17:15-17:45	Distillation of day 1 and next steps with the Framework
17:45-19:00	Reception

Agenda – Day 2

9:00-9:30	Session 8. Unlocking leadership to drive progress
9:30-10:30	Session 9. Linking the whole package of safe, climate-resilient and environmentally sustainable health care facilities
10:30-10:45	Coffee/tea break
10:45-11:45	Session 10. Wider integration emergency, pandemic preparedness and AMR efforts
11:45–12:40	Session 11. Rapid fire small group discussions on integration and implementation
	Track 1: Monitoring
	Track 2: Financing and investments
	Track 3: Advocacy, leadership, civil society, and gender
	Track 4: Integrating WASH and climate efforts at global and country level
	Track 5: Supporting and sustaining facility improvements, including through WASH FIT and other tools
12:40-13:15	Session 12. Implementing agreed principles, organization and next steps
13:15-14:15	Lunch and individual/small one on one discussions

Expected Outcomes

- Main outcome: a consensus statement on accelerating efforts to meet SDG targets as well commitments articulated as the new UN Resolution on WASH, waste and electricity in health care facilities.
- This will include greater collaboration and integration with priority health and climate efforts as well as a strengthened leadership element.
- In addition, a meeting report, highlighting lessons from trailblazing countries will be produced and shared.







Strategic roundtable on WASH, waste and electricity in health care facilities

Global Framework on WASH, waste and electricity in health care facilities







Bruce Gordon, WHO & Ann Thomas, UNICEF

Development and overview of global framework

Growing imperative for better WASH, waste and electricity services

Reduce costs and save lives

8 million die annually from poor quality care resulting in US\$ 6 trillion in losses

Fundamental to ending preventable maternal and newborn deaths 47% of newborn deaths occur in Sub-Saharan Africa, where only 1 in 2 HCF have water

Growing crises & emergencies require cost-effective, sustainable investments

In 2023, 363 million affected by emergencies

Required to meet commitments for low-carbon & sustainable HCF

> 82 countries agreed at COP 27



Advancing towards safe, climate-resilient and environmentally sustainable health care facilities



 Climate change affects the operational capacity of HCFs.

Extreme weather events may destroy essential infrastructure and services.

 Increases disease burden and demand of services.

Safe and reliable WASH, waste and electricity services need to be integrated with climate-resilience of all essential infrastructure, a protected workforce and adequate chemical & radiation management.

Linking to broader climate & sustainability package includes WASH, waste and electricity

Safe, climate-resilient and environmentally sustainable health care facilities



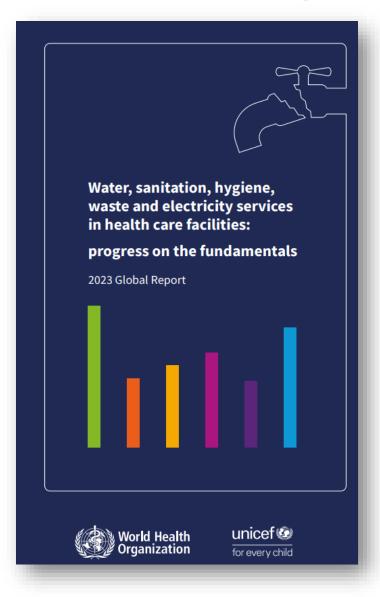


- 35 countries; 125 participants; health,
 WASH, electricity actors
- Stressed need for renewed WASH/Health commitments
- Baseline data and strong monitoring important for engaging leaders and igniting action

- Stressed need for renewed WASH/Health commitments
- Platforms for integration: MCH, PHC, IPC
- Climate smart interventions: "no regrets" investments

(Jordan, June 2023)

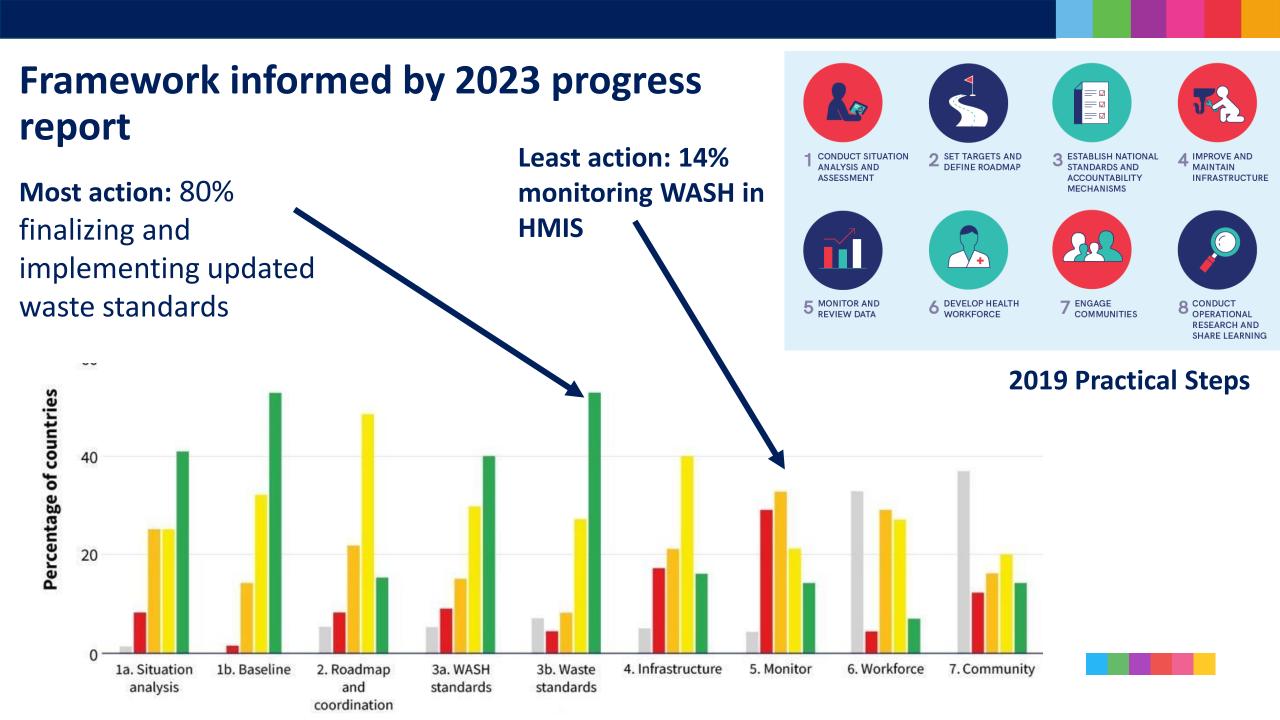
2023 Global Progress Report: recommendations



- Integrate WASH, waste and electricity services into health planning, programming, financing and monitoring at all levels.
- Regularly monitor and review progress, strengthen accountability.

Develop and empower the health workforce to deliver and maintain WASH, waste and electricity services, and practice good hygiene.





2023 UN Resolution on WASH, waste and electricity in HCFs

Adopted by UN Member States in December 2023



Consultative process



June 2023: Initial draft developed at Global Summit



Sep 2023: Discussion of aims and targets with Global Taskforce



Oct 2023: Initial draft widely shared for written inputs



Nov-Dec 2023: Three virtual roundtables involving 150+ participants from 30+ countries



Jan-Apr 2024: Revisions and additional review



May 2024: Finalization, launch and endorsement at Global Strategic Roundtable







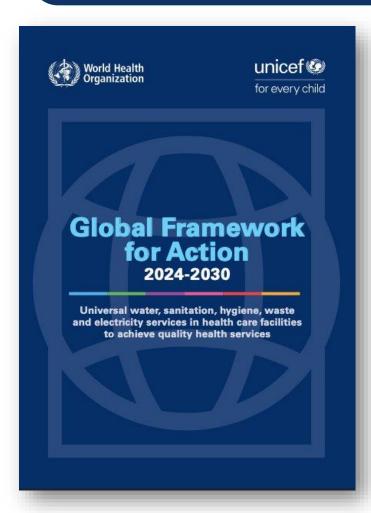








VISION: All health care facilities have safe, sustainable, and inclusive water, sanitation, hygiene, and health care waste management and reliable electricity for quality care.



Part 1: Framing & Context

- Linkages to key health initiatives
- Contribution to climate change efforts
- Mechanisms and key actors

Part 2: Operational Targets & Actions

- Areas for action with explicit targets
- National & global recommendations to achieve targets
- Tools for implementation
- Resourcing, monitoring, accountability

Main aims

- Increase political commitment and leadership
- Rapidly scale up investments
- Support systems strengthening and integration of WASH, waste, electricity (in context of climate change) with health sector
- Develop, resource, implement costed roadmaps and programmes
- Regularly monitor and review progress in meeting national and global targets
- Capacitate the health workforce through training and mentoring
- Support inclusive and equitable services

Area 1. Integration Policy & Governance

Alea I. Ilitegration,	Area 1. Integration, Foncy & dovernance					
Action	D	ata				
	2020	2022	2026			

75%

52%

ND

ND

10%

11%

1.1 Establish baseline service

1.2 Update national standards

roadmaps for improved WASH,

mechanism and strengthen

intersectoral governance and

1.5 Monitor WASH, waste and

waste and electricity.

1.3 Develop and implement costed

1.4 Establish national coordination

electricity within health information

1.6 Secure sufficient financing of

levels

action

systems

services

92%

53%

63%

63%

14%

12%

100% of countries

75% of countries

80% of countries

70% of countries

50% of countries

40% of health care

facilities

Targets

(every 5 years).

100% of countries

100% of countries

100% of countries

100% of countries

100% of health care facilities

2030

update the status of the baseline

100% of countries regularly

Area 2: Service Levels

Action	2020	2022	Target by 2026	Target by 2030
2.1 Improve services globally	Water: 76% Sanitation: ND Hand hygiene: ND Waste: ND Electricity: ND	Water: 78% Sanitation: ND Hand hygiene: 51% Waste: 61% Electricity: 1 billion health users with unreliable or no electricity	80% of countries have universal basic services and all have established national standards and monitoring indicators for higher levels. At least 80% of HCF in every country have access to reliable electricity.	100% of countries have universal basic and higher levels of service. 100% of HCF in all countries have universal access to reliable electricity.
2.2 Improve services in LDCs	Water: 50% Sanitation: 37% Hand hygiene: ND Waste: 30% Electricity: ND	Water: 53% Sanitation: 21% Hand hygiene: 32% Waste: 34% Electricity: ND	60% of HCF in LDCs have basic services.70% of HCF in LDCs have access to reliable electricity.	 100% of HCF in LDCs have basic services and 50% have higher levels of service. 100% of HCF in all countries have access to reliable electricity.

Area 3: Equity, inclusivity and community engagement

Action	2020	2022	Target by 2026	Target by 2030
3.1 Improve inclusivity of WASH services and processes at national and facility levels	ND	ND	50% of countries have plans that address inclusivity of WASH services and mainstream gender-transformative WASH and rights (equity, disability) in planning, designing and implementing WASH systems.	100% of countries have plans that address inclusivity of WASH services, and these plans are resourced, implemented and monitored.













Universal safe and sustainable WASH, waste and electricity for quality care



<u></u>

Increase evidence and capacity, and strengthen standards and monitoring



WHO and UNICEF will:

Capacitate countries

- Provide support for roadmap development, standards, monitoring WASH FIT, etc.
- Galvanize leadership and investment

Monitor and report

- Services (JMP)
- Country progress (tracker)
- Financial and system data (GLAAS)
- UN General Assembly reporting

Facilitate integration and uptake by Health and Climate Change Actors

- IPC, MNCH, PHC, AMR
- Climate-resilent and environmentally sustainable health care facilities; ATACH, HEPA
- UN-Water/SDG 6 accelerator actions

Partners

WHO and UNICEF as co-leads

· Overall supervision of work

Core partners

(e.g. World Bank, WaterAid, donors)

- Guide strategic actions
- Support integration

Global Network

Technical support and information sharing: Communities of practice evolve according to need

How do we get there?









Strategic roundtable on WASH, waste and electricity in health care facilities

Session 2: Priority efforts, successes and challenges to date and implications for the future







Arabella Hayter & Maggie Montgomery, WHO Pedro dos Santos, UNICEF

Overview of efforts, reflections and future needs/challenges

Building on the past, looking ahead



Global Efforts co-led by WHO and UNICEF

Contributions from 50+ Partners (e.g. World Bank, UNDP, IFRC, Global Fund, Gavi, WaterAid, World Vision, Save the Children, Helvetas)

Strategic Inputs from Core Partners (trailblazer countries+ UN/NGOs + academia + donors e.g. FCDO, USAID, ROK, SIDA, GIZ)

Main areas of effort

Monitoring

- Service levels (WHO/UNICEF Joint Monitoring Programme/SDG 6)
- Systems: country tracker ("Practical Steps")

Technical support

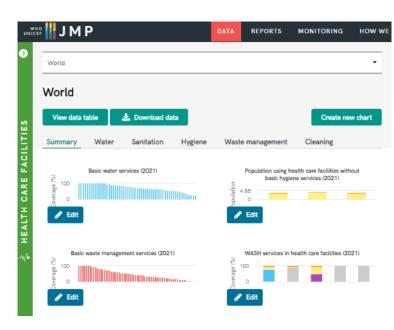
- Systems strengthening including integration with health plans and programmes
- Service delivery (+ behavior) improvements (WASH FIT framework and tool)

Knowledge sharing and exchange

- Meetings, workshops, webinars, online portal (<u>www.washinhcf.org</u>)
- Leadership and global coordination
 - Agenda setting and direction, WASH in HCF Taskforce, Group of Friends

Monitoring services: Efforts to date

- Global indicators established in 2018 linked to SDG 6/WASH
- Global reports in 2019, 2020, 2022, 2024
- Country data availability increasing
 - 2019: Water 38, San 18, Hyg 14, Cleaning 4, Waste 48
 - 2024: Water 72, San 51, Hyg 47, Cleaning 39, Waste 66
- Data and indicators incorporated into major health instruments
 - Quality of Care for Mothers, Newborns and Children Standards (2016; 2018)
 - Primary health care monitoring framework (2022)
 - IPC Global Action Plan and Monitoring Framework (2024)
 - WHO Global Programme of Work (2025-2028)



Monitoring systems: Efforts to date

- 8 "Practical Steps": national actions articulated in 2019, linked to World Health Assembly and UNGA Resolutions
- Global reports in 2020, 2023, 2025
- **Country tracker data increasing**
 - 2020: 47 countries
 - 2024: 75 countries
- Data and indicators incorporated into major health instruments
 - IPC Global Action Plan and Monitoring Framework
 - WHO Global Programme of Work (2025-2028)



















RESEARCH AND

Table A4.1. Full country tracker with all countries (n = 73)

	-0		3 3		0	-63	-6	•	
	Step 1		Step 1 Step 2		Step 3		Step 5	Step 6	Step 7
Country	La. Conduct situational analysis	1b. Conduct (baseline) assessment	Set targets and establish coordination mechanism	3a. E stablish national WASH standards	3b. Establish national health care waste standards	Improve and maintain a de infrastructure	Monitor and review data	Develop health worldorce	Engage communities
Angola	2	2	1	1	4	1	ND	2	ND
Bangladesh	4	4	4	3	3	4	3	3	3
Benin	1	4	2	2	2	1	4	ND	ND
Bhutan	3	4	3	3	3	3	3	3	3
Bolivia	4	3	4	3	3	1	1	ND	ND
Brazil	4	3	2	ND	ND	3	3	2	3
Burkina Faso	2	4	3	3	4	3	1	ND	ND
Cambodia	4	3	4	4	4	4	2	ND	ND
Cameroon	3	3	ND	ND	ND	ND	ND	ND	ND
Chad	2	1	1	1	3	1	2	2	3
Colombia	2	3	2	4	ND	1	1	2	ND
Democratic Republic of the Congo	2	3	4	4	3	4	3	ND	ND
Equatorial Guinea	3	4	3	3	3	2	1	1	1
Eswatini	2	4	3	3	4	3	2	3	3
Ethiopia	4	4	4	4	4	3	3	3	3

Monitoring

Successes

- Global, publicly available database (<u>www.washdata.org</u>)
- Increased awareness of gaps, more use of harmonized indicators
- First global estimates of electricity services (2023)

Challenges

- Data gaps even for basic services
- Limited national monitoring of higher service levels
- Integration in existing health monitoring systems
- Joint monitoring/ reporting WASH, waste, electricity

Way forward

- Set indicators and support monitoring of higher-level services (safety, gender, climate)
- Join up databases on WASH, electricity, climate
- Integrate WASH, waste & electricity indicators into health monitoring (e.g. HMIS, Herams)

Technical support: Efforts to date

1. Systems level model: Practical Steps

- 8 critical national actions (e.g. national roadmap, standards)
- Package of support materials
- Country review of progress at national and regional workshops/training

2. Service delivery model: WASH FIT

- Supports risk-based incremental improvements QI approach
- Water, sanitation, waste, hand hygiene, cleaning, electricity and management
- Includes basic, advanced and climate related efforts
- Package: assessment form, training materials, trainers guide, fact sheets, check lists and improvement plan templates

3. Updating guidance

health care waste, water treatment







DEFINE ROADMAR



STANDARDS AND ACCOUNTABILITY



MAINTAIN INFRASTRUCTURE



Monitor, review,

adapt, improve



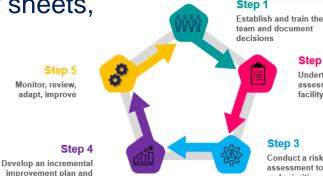


COMMUNITIES



RESEARCH AND





team and document

Step 2

Undertake an assessment of the facility

Step 3

assessment to identify and prioritize areas for improvement

Spotlight on WASH FIT: initial data from evaluation



- > 75 countries implementing; 28 countries on a national scale
- Many countries using v2.0 (more focus on safety, sustainability, climate) but <u>have not</u> <u>rigorously evaluated</u> implementation
- 15 countries have integrated WASH FIT into national standards or curriculum
- In MENA region, 6,000 facilities have used WASH FIT for assessments
- Global evaluation report to be published in Q4 2024

8 Practical Steps – MENA Progress

Country	1a	1b	2	3a	3b	4	5	6	7	8
Kuwait	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	0.0
Iran	4.0	4.0	3.0	3.0	3.0	2.0	3.0	3.0	4.0	0.0
Iraq	2.0	4.0	4.0	3.0	3.0	3.0	3.0	4.0	2.0	0.0
Jordan	4.0	4.0	3.0	4.0	3.0	3.0	2.0	2.0	3.0	0.0
Sudan	<u>4.0</u>	4.0	3.0	3.0	<u>4.0</u>	3.0	2.0	3.0	1.0	0.0
Lebanon	4.0	4.0	3.0	<u>4.0</u>	4.0	2.0	1.0	2.0	2.0	0.0
Palestine	2.0	<u>4.0</u>	3.0	2.0	4.0	3.0	1.0	3.0	4.0	0.0
Syria	4.0	4.0	2.0	4.0	3.0	3.0	1.0	2.0	1.0	0.0
Morocco	2.0	3.0	2.0	2.0	4.0	1.0	2.0	2.0	4.0	0.0
Algeria	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bahrain	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Djibouti	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Egypt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Libya	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oman	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Qatar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tunisia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
United Arab Emirates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yemen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCORE	1.5	1.8	1.4	1.5	1.6	1.2	1.0	1.3	1.3	0.0

Source: Country Progress Tracker | WASH in Health Care Facilities (washinhcf.org)

		A Comment	*
Practical Step	7	Score	À.
1b - Baseline Assessment or Data	Maria Maria		1.8
3b - Establish HCW Management standards	A COMPA		1.6
1a - Situation Analysis	and delivery		1.5
3a - Establish WiHCFs standards	om il Spillered		1.5
2 - National Coordination & Roadmaps	acigouis esti		1.4
6 - Workforce development	Cycle de Colod		1.3
7 - Community engagement	goyda saade		1.3
4 - Improve and/or maintain ilnfrastrcutrure	a de la companya de l		1.2
5 - WASH indicadors in National monitoring	S. W.	(1.0
8 - Conduct operational research		Thomas in wall to see	0.0
		William Villa	Contract of the last

Top priorities:

- WASH indicators in monitoring systems
- 2. Community engagement and accountability mechanisms
- 3. UNICEF's role in WASH, waste and energy infrastructure improvements at facility level
- 4. (Operational research) cross learning

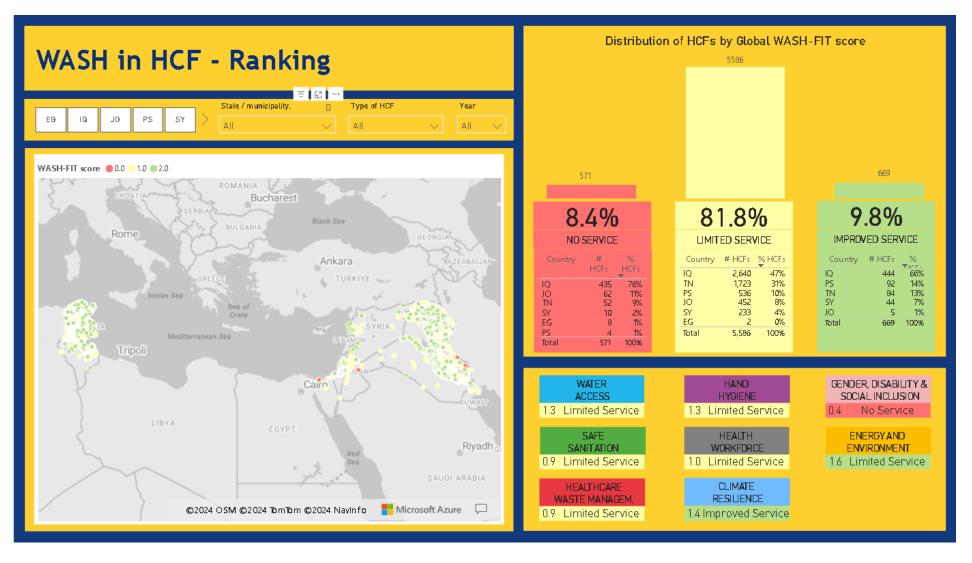
Good examples from the region:







WASH-FIT implementation in MENA region



- 6 countries participate, only 2 countries surveyed with the new WASH-FIT 2.0 (Jordan, Iraq)
- Data sometimes is static and do not show sudden changes (e.g. conflicts, economic crisis)
- Invest in big data, dynamic surveys to measure real-time status and impact

Technical support

Successes

- WASH FIT tool widely used, relevant to range of contexts, motivates action
- Between 2020-2022, 28% countries have new standards
- More integrated efforts:
 WASH+ IPC; + solar
 energy, + climate
 resilience

Challenges

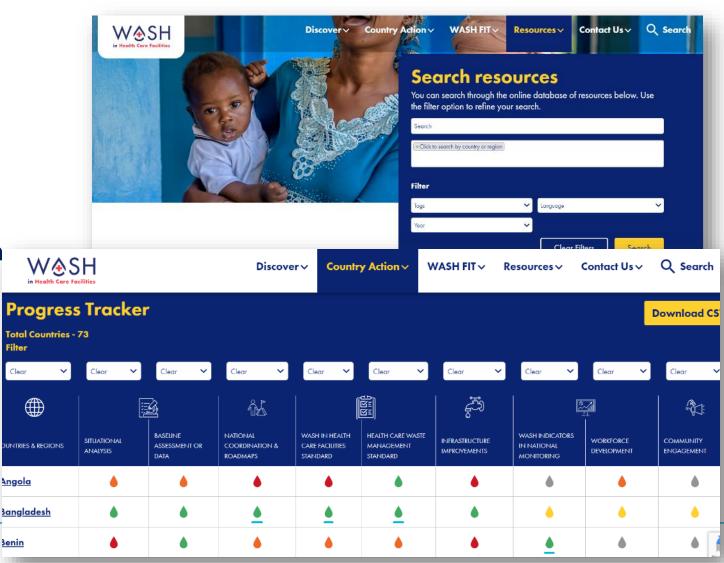
- Scaling up, streamlining with other tools and national institutionalization of WASH FIT
- Limited catalytic and sustained funding; donors/partners not all using same approach

Way forward

- All partners to support government driven WASH FIT and practical steps implementation
- Demonstrate proven financing models including cross-sectoral financing
- Document use of WASH FIT + IPC + Climate tools (e.g. in Philippines, Ukraine, Indonesia) to support consolidated global approach and further rollout

Knowledge sharing and exchange: Efforts to date

- Global meetings (Geneva 2018, Zambia 2019, Jordan 2023) + online think tanks and global meetings during pandemic 2020-2022
- Regional workshops: Germany, Bangladesh, Kenya, Jordan, Philippines
- 20+ global webinars and 46
 newsletters since 2019; 1,600 views on
 YouTube Channel
- Knowledge portal (<u>www.washinhcf.org</u>) launched in 2016, regularly updated, > 700 resources



Knowledge sharing and exchange

Successes

- More actors aware of resources, using and adapting WASH FIT etc.
- Listserv >1650
 members; newsletter
 50% open rate
- Global summit energized 35 countries; demand for more experience sharing

Challenges

- In-depth, enriching inperson events (expensive) vs. effective virtual engagement
- Communicating specificity alongside integration (vertical vs. horizontal)
- Active engagement, coordinated contributions and leadership among all partners

Way forward

- Support more regional & national knowledge exchange including with health and climate (virtual and in-person)
- Continue to maintain and improve knowledge portal and cross linkages
- Strengthened, aligned community of practice

Leadership and coordination: Efforts to date

WHO and UNICEF Global Coordination

- Develop agenda, with inputs from partners, create and implement systems and service delivering models
- Track and report progress
- Global Taskforce on WASH in Health Care Facilities (2021-2023)
 - Reinforce calls for strong health leadership, including at high level events (e.g. G7)
 - Identify and support countries in unlocking bottlenecks
 - Strengthen engagement and work with existing major global health and WASH funds
- Engage and influence global health events
 - Midwifery, Quality of Care/Child and Maternal Health, Primary health care
- Group of Friends on WASH in HCF
 - UNGA resolution approved in 2023
 - Cross linkage with other UN processes on AMR, UHC, human rights

Leadership and coordination

Successes

- Political commitment (WHA Resolution, 2019; and UNGA Resolution, 2023)
- Diverse group of committed partners from WASH and Health
- Regional instruments drive technical progress and leadership (e.g. European Protocol on Water and Health)

Challenges

- Integrated implementation with health limited
- Limited joint funding and joint monitoring
- Linking high level and local champions with convincing joint advocacy
- Need more active leadership and engagement from partners and countries

Way forward

- Capacitate trailblazer countries to implement model and inspire others
- Dynamic leaders group; different organizations spearheading topics, feeding into targeted joint products and efforts
- Regional and national summits (e.g. Hungary 2025)

Distillation

Global

- All actors to implement Global Framework and use data to inform efforts/investments
- Commit additional resources to set higher level indicators and combined monitoring and reporting (WASH + waste + electricity+ climate)
- Integrate indicators and data into all health, climate and emergency related plans and investments

Regional/National

- Support government implementation of system and service delivery models through aligned funding and advocacy
- Sensitize and capacitate government actors (ministries of health, water/sanitation, local government) to drive implementation
- Document outcomes to improve model and drive further investments and actions

Local

- Engage civil society to inform designs that meet needs of all users, articulate demands
- Utilize local expertise, funding and ingenuity, including identifying crosslinkages









Francesco Mitis, WHO

WASH in health care facilities – data update

WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene

mitisf@who.int

JMP progress report





- Light report (data update)
- Updates and supersedes data in 2022 report
- Draws on data from 700 national sources
- Around 190 country files
- Estimates on water, sanitation, hygiene, waste management and environmental cleaning
 - Total/urban/rural/hospital/non hospital/public/private
- Country consultation process
- Results on www.washdata.org
- Special theme for 2024 report: primary health care
- Use of core questions



JMP service ladders for WASH in health care facilities



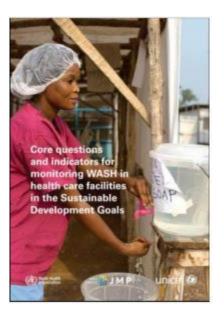


SERVICE LEVEL	WATER	SANITATION	HYGIENE	WASTE MANAGEMENT	ENVIRONMENTAL CLEANING
BASIC SERVICE	Water is available from an improved source* on the premises.	Improved sanitation facilities* are usable, with at least one toilet dedicated for staff, at least one sex-separated toilet with menstrual hygiene facilities, and at least one toilet accessible for people with limited mobility.	Functional hand hygiene facilities (with water and soap and/or alcohol-based hand rub) are available at points of care, and within five metres of toilets.	Waste is safely segregated into at least three bins, and sharps and infectious waste are treated and disposed of safely.	Protocols for cleaning are available, and staff with cleaning responsibilities have all received training.
LIMITED SERVICE	An improved water source is available within 500 metres of the premises, but not all requirements for a basic service are met.	At least one improved sanitation facility is available, but not all requirements for a basic service are met.	Functional hand hygiene facilities are available either at points of care or toilets but not both.	There is limited separation and/or treatment and disposal of sharps and infectious waste, but not all requirements for a basic service are met.	There are cleaning protocols and/or at least some staff have received training on cleaning.
NO SERVICE	Water is taken from unprotected dug wells or springs, or surface water sources; or an improved source that is more than 500 metres from the premises; or there is no water source.	Toilet facilities are unimproved (e.g. pit latrines without a slab or platform, hanging latrines, bucket latrines) or there are no toilets.	No functional hand hygiene facilities are available either at points of care or toilets.	There are no separate bins for sharps or infectious waste, and sharps and/or infectious waste are not treated/disposed of.	No cleaning protocols are available and no staff have received training on cleaning.

^{*} Improved water sources are those that by nature of their design and construction have the potential to deliver safe water. These include piped water, boreholes or tubewells, protected dug wells, protected springs, rainwater, and packaged or delivered water. Improved sanitation facilities are those designed to hygienically separate human excreta from human contact. These include wet sanitation technologies – such as flush and pour-flush toilets connecting to sewers, septic tanks or pit latrines – and dry sanitation technologies – such as dry pit latrines with slabs, and composting toilets.



https://washdata.org/reports/jmp-2018-core-questions-and-indicators-wash-in-health-care-facilities



World estimates?





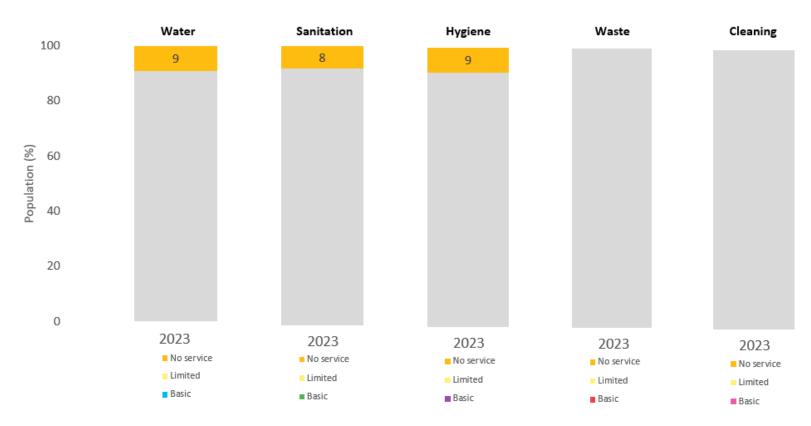


Figure WASH1.1: Global WASH in health care facilities ladders (%), 2023

Source: WHO/UNICEF JMP (2024)

Results under embargo until July 2024

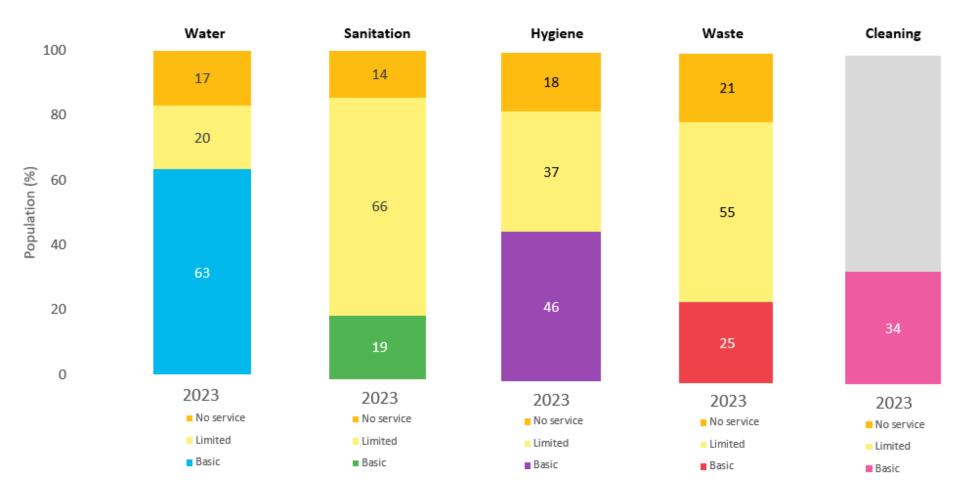
- We had water and hygiene estimates in 2021
- Losing estimates due to China ageing data
 - Only one data source dated 2018
 - JMP rules: extrapolation of max 4 years
- Good news from a couple of SDG regions

Fragile and extremely fragile





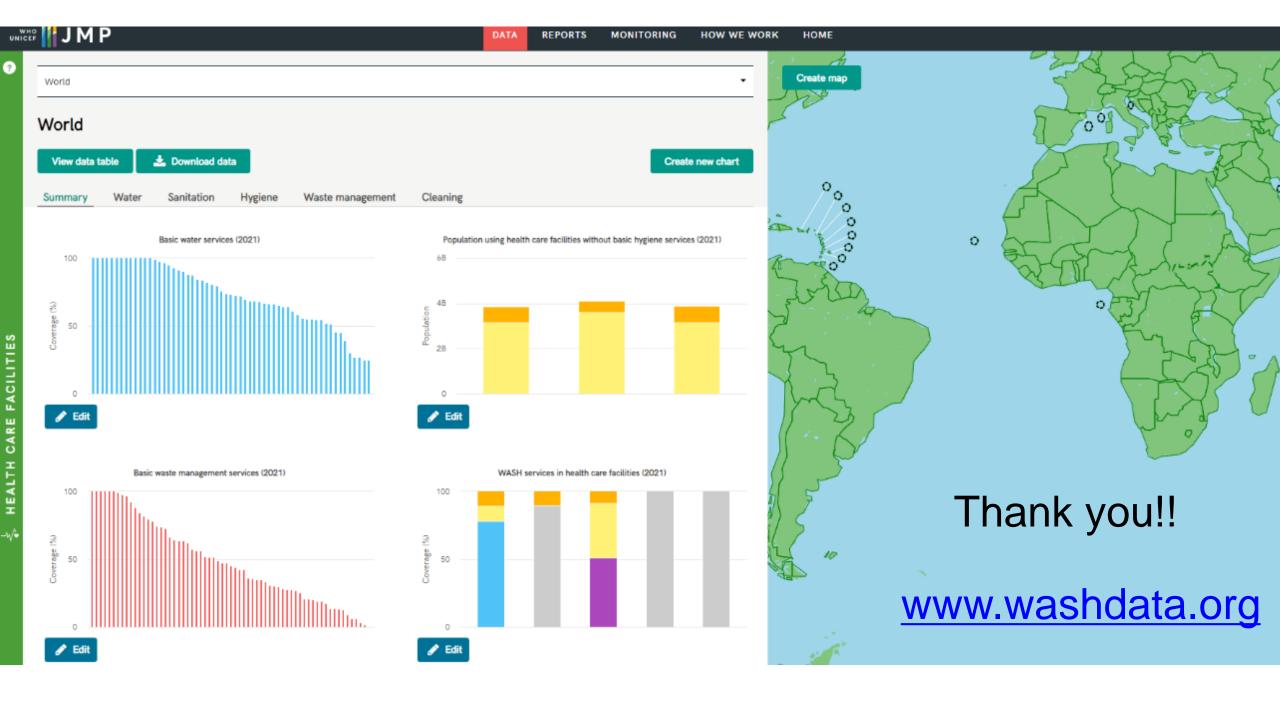




Results under embargo until July 2024

Figure WASH1.2: Regional WASH in HCF ladders (%) 2023

Source: WHO/UNICEF JMP (2024)









Salvatore Vinci & Ranjit Dhiman

Electrification of health care facilities: trends and opportunities







Strategic roundtable on WASH, waste and electricity in health care facilities

High value opportunities to integrate with health

Fundamentals for quality care:
Strategic actions to accelerate WASH,
waste and electricity services
in health care facilities

Session 4. High value opportunities to integrate with health: infection prevention and control

Dr Benedetta Allegranzi
Unit head & technical lead, IPC Unit and
Hub, WHO HQ





IPC 2022-2030: Elevating IPC in the global health and political agenda





IPC global strategy adoption by EB and WHA 2023

Draft global strategy

IPC ACTION PLAN BY WHA 2024

MONITORING FRAMEWORK BY WHA 2024



THOUT AVOID PROPERTY OF THE INTECTYON

*** O'Gunifacion

***Transport O'Gunifacion Del Transport Del Transport O'Gunifacion Del Transport Del Transport O'Gunifacion Del Transport Del Tr

Summarioe Development cours, including Goot o tensor evaluationy and summation imangement switter and summarion for sill).

Noting the Declaration of Alma-Ana' on primary health care and the Declaration of Astuna' or high-quality and safe primary health care and health services and recognizing that to achieve in

Recognizing the critical importance of inflection prevention and control in the luman and animal health sectors and that it is a clinical and public health discipline based on a scientific approach.

on infection prevention and control

with the state of th

REPORTING ON PROGRESS 2025-2030

Global strategy on infection prevention and control World Health Organization

Eight strategic directions provide the overall guiding framework for country actions to implement the GSIPC

Political commitment and policies



Active IPC programmes



IPC integration and coordination



of health and care workers and career pathways for IPC professionals



Data for action



Advocacy and communications



Research and development



Collaboration and stakeholders' support



https://www.who.int/publications/m/item/global-strategy-on-infection-prevention-and-control

From the global strategy to the GAP&MF



Global
Strategy
on IPC –
8 Strategic
Directions

Actions Global **Indicators National Facility Targets**

Theory of Change

WASH in IPC GAP/MF: strategic direction 1 – POLITICAL COMMITMENT AND POLICIES



Action	Indicator(s)
National level	
Key action 5	1.Dedicated and sufficient funding allocated at the national
Demonstrate evidence of investment by national authorities in WASH and infrastructure services for health care waste and cleaning and staffing to ensure that all health care facilities have safely managed WASH services to enable IPC practices	level for WASH services and activities

Strategic direction 1 – Global targets and related indicators		
Additional target	Proportion of countries with dedicated and sufficient funding for WASH services and activities	
	Increase of the proportion of countries with dedicated and sufficient funding for WASH services and activities to:	
	40% of countries by 2026	
	80% of countries by 2028	
	100% of countries by 2030	
	Baseline (2022): 3%	

WASH in IPC GAP/MF: strategic direction 2 – **ACTIVE IPC PROGRAMMES**



Action	Indicator(s)		
National level			
Key action 1 Establish a national IPC programme and/or demonstrate	1. 1. All WHO's minimum requirements for IPC at national level (see document EB154/8 Add.1) met (to be assessed through WHO's Global IPC portal)		
evidence of improvement of IPC programmes, including WASH (namely, meet WHO's minimum requirements at	2. Proportion of health facilities meeting all WHO's minimum requirements for IPC at facility level (to be assessed through WHO's IPC portal)		
national and facility levels)	 Proportion of health care facilities with basic water, sanitation, hygiene, and waste services (per each indicator, to be assessed through the definitions of the WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene) 		
Strategic direction 2 – Global targets and related indicators			
Core target 6/top 8 global targets Proportion of countries with basic water, sanitation, hygiene and waste services in all health care facilities (per			

each indicator as monitored in the definitions of the WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene)

Increase of the proportion of countries with basic water, sanitation, hygiene and waste services in all health care facilities to:

60 % by 2026

80% by 2028

100% by 2030

Baseline (2022) – water: 78%; sanitation: not determined; hand hygiene: 51%; waste services: not determined

WASH in IPC GAP/MF: strategic direction 3 – IPC INTEGRATION AND COORDINATION



Action	Indicator(s)
National level	
Action 6 Develop and cost national plans for WASH in health care	Costed road maps (that is, national plans) for WASH in health care facilities which include IPC elements available
•	2. Standards for water, sanitation, hygiene, cleaning and health care waste in health care facilities available

Additional target	Proportion of countries with costed road maps (namely, national plans) for WASH in health care facilities		
Increase of the proportion of countries with costed road maps (namely, national plans) for WASH in heal 80% countries by 2026 90% countries by 2028 100% countries by 2030 Baseline (2022): 63% of countries			
Strategic direction	on 2 – National targets and related indicators		
Additional target	Proportion of facilities with a dedicated and sufficient funding for WASH services and activities Increase of the proportion of facilities with a dedicated and sufficient funding for WASH services and activities to: 40% of facilities by 2026 80% of facilities by 2028 100% of facilities by 2030		

Thank you very much for your attention World Health Organization & thanks to the WHO IPC team







https://www.who.int/teams/integrated-health-services/infection-prevention-control



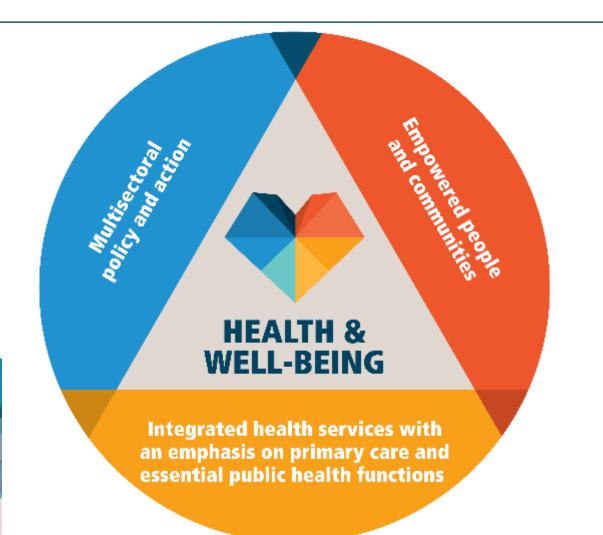




Dr Shams Syed

Primary health care

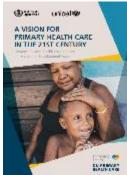
Three components of primary health care



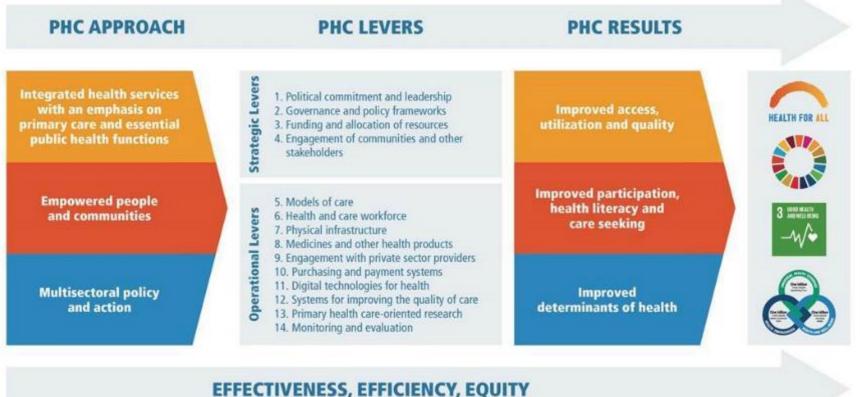
Multisectorality

Empowerment

Services



Primary health care presents an important opportunity to drive progress in WASH and energy in health care facilities



Operational Framework for Primary Health Care (who.int)



- EFFECTIVENESS, EFFICIENCY, EQUITY
- Outlines 14 <u>interdependent</u> levers needed to translate commitment into <u>actions and interventions</u>
- <u>Lever 7</u> physical infrastructure (WASH, energy)
- Can be used to accelerate progress into strengthening PHC-oriented systems

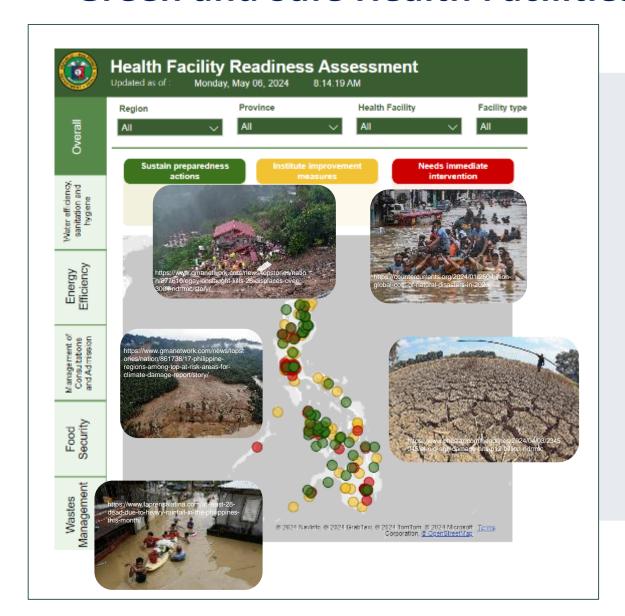


Strengthening Climate Resilient WASH and Electricity for Environmentally Sustainable Health Facilities in the Philippines

Strategic Roundtable on WASH and Waste in Health Care Facilities 23-24 May 2024, WHO HQ, Geneva

Engr. June Philip Ruiz (DOH) & Engr. Bonifacio Magtibay (WHO)

Green and Safe Health Facilities





The DOH through its Green and Safe Health Facilities Program, shall, as much as possible, promote the greening of hospitals and health facilities

Special Provision

Green Health Facilities

8-Point Action Agenda:

#4 Bawat Komunidad Handa sa Krisis



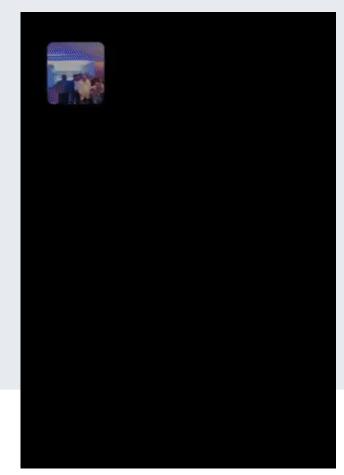
2027

41%

2025

25%

√ Green and Safe Health Facilities Initiatives



Energy Efficiency and Water, Sanitation and Hygiene



Making Renewable Energy Accessible to Health Facilities



- Compliance to with
 Government Energy
 Management Program
- Energy Audit for Government Hospitals
- Energy Efficiency and Conservation Plan
- Transition to
 Renewable Energy
 through Green Energy
 Option Program

Strengthen Water Efficiency, Sanitation, and Hygiene for HFs

- Location and Accessibility of water points within the HFs
- Stable water supply over time
- Quality and Quantity of water available



Investing for Resilience and Sustainability

Solutions in managing climate change to health are constrained by some issues that need to be addressed

Issues	Critical Factors
 Limited Public Awareness Lack of attention to impacts and solutions Weak adaptive capacity of health system Funding gaps 	 Policy implementation and sustained commitment Leadership and governance Data and evidence Multisectoral collaboration

In our pursuit to adapt to climate change impacts on our health system, we also need to be cognizant of some critical factors



MARAMING SALAMAT!

Healthy Pilipinas, Bawat Buhay Mahalaga!



Leadership at the global, regional and national level to strengthen standards and monitoring in Hungary

Márta Vargha National Center for Public Health and Pharmacy WHO Collaborating Centre for Environmental Risk Management

Strategic Roundtable on WASH and Waste in Health Care Facilities 23-24 May 2024, WHO HQ, Geneva

UN Group of Friends on WASH in healthcare facilities

- Co-chaired by the Philippines and Hungary
- Launched in December 2021
- Formed in response to
 - UN Secretary General's Call to Action
 - Resolution of the 72nd WHA
 - Alarming findings of the WHO/UNICEF 2020 Global progress report
- Aims to keep WASH in HCF in the highest political agenda and inspire commitment and accountability in the Member States
- Advocates for WASH in HCF in all political forums
- Initiated the UNGA Resolution







UNGA Resolution on Sustainable, safe and universal water, sanitation, hygiene, waste and electricity services in health-care facilities

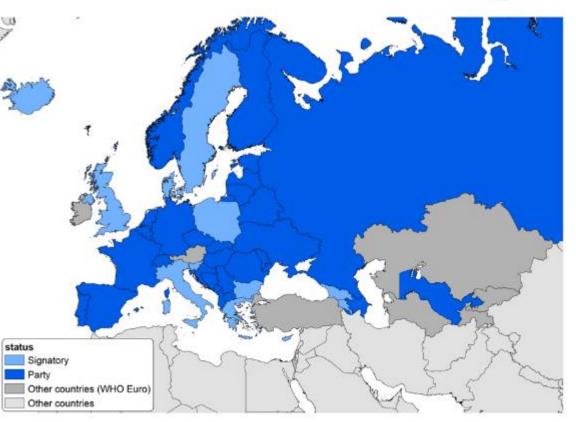


- Integrate WASH, waste and electricity services into health planning, programming, financing and monitoring at all levels
- Regularly monitor and review progress, and strengthen accountability
- Develop and empower the health workforce to deliver and maintain WASH, waste and electricity services, and practice good hygiene

Protocol on Water and Health

- First and only multilateral agreement addressing protection of human health and well-being
- Links sustainable water management with prevention, control and reduction of waterrelated disease
- 29 parties and 14 signatories in the WHO EURO
- Secratariat: WHO EURO and UNECE
- Programme of work: 9 programme areas

Water, sanitation and hygiene in institutional settings and public places
Lead by GEO, HUN, LTU, MKD, MDA

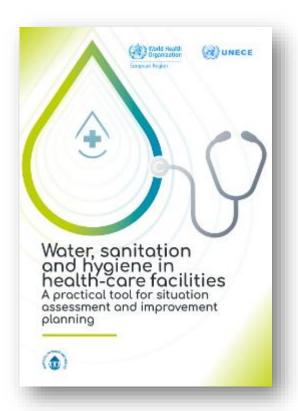


Tasks related to WASH in HCF

- Facilitate policy dialogue and capacity building through regional or subregional workshops
- Support countries in national baseline assessment and informed action planning, strengthening surveillance and facility-based improvement through the application of the WHO WASH FIT tool



Achievements under the Protocol on Water and Health





- Assessment tool developed under the Protocol (2022)
- Progressive uptake in undertaking comprehensive baseline assessments in Serbia, Montenegro, Hungary, Tajikistan, Georgia, Turkmenistan
- Baseline informs national interventions: infrastructural, behavioral, regulatory, standards, including uptake of the WASH FIT tool

https://www.who.int/e urope/multimedia/item/who-caresabout-toilets-in-healthcare-facilities









National baseline assessment in Hungary

Enabling environment

Regulations, standards, guidelines

Scientific evidence

Scientific and gray literature, reports

Situation assessment

Questionnaire survey of
secondary and tertiary care
institutions

Key findings

- Regulation covers infrastructural obligations, O&M aspect in guidelines/standards
- Literature focuses on infection control and nosocomial pathogens
- High infrastructural compliance (water, toilets, disinfectant dispensers, electricity saving devices etc.)
- Safe drinking water is available in every facility
- Good waste management practices are in place
- Monitoring and mandatory reporting scheme for nosocomial infections
- Recommendations formulated

Challenges

- Regulation covers most areas, but
 - No requirements on menstrual hygiene management
 - No regulation on HCF WW pre-treatment
- Monitoring: Lack of financing information
- Concerns of Legionella colonisation
- Accessibility and MHM suitable toilets
- Hand hygiene: behaviour change is needed
- Cleaning staff is not available in 24/7 in many HCF

Lessons learnt and way forward

- High level political leadership fosters global action
- Regional instrument provides a platform for knowledge sharing and information exchange
- Survey tool and other resources developed under the Protocol on Water and Health can be also used by countries outside the European Region
- "Deep dive" national situation analysis provides baseline for action planning on all levels (institutional, local and national)
- Findings were disseminated on various fora to reach different actors (e.g. to public health officers, epidemiologist, infection control staff, healthcare facility higher management)
- Recommendations include development of national advanced level indicators
 - Legionella prevention and control
 - Accessible toilets in every ward
 - Environmental cleaning accompanied by efficiency evaluation

Thank you for your attention!











Scaling up climate smart waste solutions in health care facilities in Nepal

Nepal

Upendra Dhungana, Senior Public Health Administrator Chief, Env. Health &HCWM section Department of Health Services

Strategic Roundtable on WASH and Waste in Health Care Facilities 23-24 May 2024, WHO HQ, Geneva

A Missed Opportunity



Source: NHRC conference 2024 paper "An experience on HCWM intervention of 13 hospitals"

What is there?

Legal provisions

Solid Waste Management Act, 2068 (2011)

Date of Authentication and Publication

2068/3/1(2011/7/ 21)

Notwithstanding anything written in Sub-section (1) the responsibility for the processing and management within the set standard of harmful waste, health institution related waste, chemical waste or industrial waste shall be of the individual or body producing such solid waste. www.lawcommission.gov.np

The Public Health Service Act, 2075 (2018)

Date of Authentication

2075/6/2 (18 September 2018)

Act Number 11 of the year 2075 (2018)

Sanitation and waste management: (I) The Government of hispol may, in order to
control or came to be committed the adverse effect to the human health by
environmental policition and waste, make necessary standards in accordance with the
provailing Periodicine.

(2) The Government of Nepal shall make accessive standards for collecting, reading refining disposing and regulating the bright friendly waste.

(3) It shall be the daty of the Provincial and Local Level to comply with the standards referred to in sub-section (1) and (2).



Nepal Gazette

Public Health Service Regulations, 2020

- 11. Related to management of health related and other waste
- Related to chinking water, samfation, electricity supply, ger maintenance

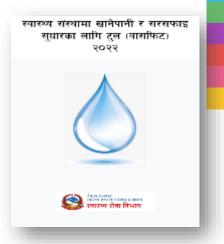












Engaging leaders and stakeholders





First National workshop by MoHP in Dec 2019 - 12 points collaborative actions to work on HCWM.

Utmost level of commitment to prohibit burning of healthcare waste at 1,400 HFs by 2030



Provincial level dissemination of standards and SOPs

- o Larger Facilities (Hospitals)
 - Chair of the Health Facility Operation and Managemen
 - ✓ Chief or Director of the HCF (Chair)
 - ✓ Department Heads
 - Nursing chief
 - ✓ Waste Management Officer / Trained Focal Person
 - ✓ Head House Keeping
 - ✓ Representative from cleaning staff
- Smaller Facilities (Health Post, clinics and others)
 - ✓ Chair/ Representative from HFOMC
 - Chief of the HCF
 - ✓ Technical staff / Trained focal person
 - ✓ Support staff (cleaners and workers)

Steering committees and TWGs including members from different Health Development Partners.



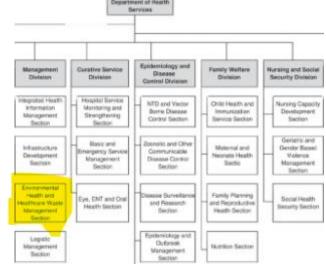


Integration of HCW to municipal waste stream for promotion of non-burn technology and reduction of burden for landfill site

Operation and Maintenance policy and matching funds in some Local level.

What have been the key enablers of success?

- **Dedicated section** under Department of Health Services
- Endorsement of the National SOP for HCWM 2020
- Minimum Service Standards (MSS) by MOHP sets out HCWM indicators
- Development of Integrated training packages on HCWM, WASH and Environmental Health
- Focused onsite coaching, monitoring and implementation support to the hospitals
- Effective **Leadership** of Hospitals/Health Facilities
- Use of **COVID 19 response funds**
- TA from National and International level
- Significant collaboration among partners





























Approaches

 Assessment of hospital readiness to HCWM, WASH and IPC

> Detailed Assessment

Infrastructure development and equipment supply

- Refurbishment/construction
 n of HCWM treatment
 center
- Supply and installation of equipment and utility (Autoclave, medication trolley, bins, etc.)

- ► MToT, hospital-based training
- ► HCWM model ward setup and replication
- Structured data recording and reporting
- Regular validation and maintenance of autoclave
- ▶ BCC for good practices

Evaluation and Follow Up

Monitoring and onsite coaching

HCWM Intervention

STEP-1

Onsite orientation

STEP-2

Bucket cleaning and coding

STEP-3

Waste generation record of 7consecutive days

STEP-4

Proper waste segregation for 7-consecutive days

STEP-5

Data Analysis

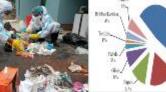
STEP-6

Implementation plan development







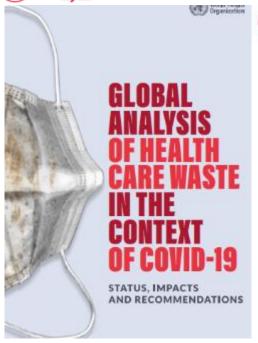




Results

NEPAL

Use of alternative waste treatment technologies and recycling of vaccination waste



Remote, rural facilities, including those in Nepal, often struggle with safe management and treatment of vaccine waste. Facilities from the periphery of Kathmanchi Valley regularly request help to manage safety boxes, which frequently pile up around vaccination sites and health posts. Open burning of safety boxes is still the main treatment option in many places, posing health and environmental risks. Data on the quantity of waste generated are rarely collected, which makes planning for waste management more difficult. A partner organization, Terro des hommes, has piloted a method for measuring waste in organization, Terro des hommes, has piloted a method for measuring waste in the outpatient department and by facility staff was segregated and collected in plastic bags. Waste generated over a 24-hour period was transferred for digital weighing, and a new plastic bag was replaced at the point of collection to collect the waste for the next 24 hours. The number of people who produced the waste each day was also recorded. This continued for 7 consecutive

days. This tracking effort allowed facilities to identify where segregation could be improved, thereby reducing the amount of waste that needs to be treated.

Use of alternative waste treatment technologies and recycling of vaccination











Segregation



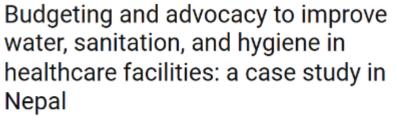
Transportation



Treatment



Post Rx



January 2024

January 2024

DOI:10.1101/2024.01.29.24301941

License · CC BY-NC-ND 4.0



Storage/Resource recovery



Disposal



Data and quality assurance



OSH

Barrier of success/ sustainability



Inadequate tech. knowledge of Health sector/ Lack of Dedicated HR



Insufficient budget for WTC construction, O&M

No budget health WASH/HCWM



Integration of HCW with municipal waste system at scale



No HCW data M&E through HMIS



Scrap tax, expand scope of recycling waste



Replication of HCWM good practices to basic/ rural HFs

Scale up

To basic level health facilities for healthcare waste management

01

04

Guidelines

Hub cutters at vaccination sites
Expired COVID 19 vaccine management

Financing

Financing Costed Roadmap to meet SDG for WASH in Healthcare Facilities



Evidence/advocacy

Comparison of different methods including Non burn in addition to existing WHO guideline and recommendation

Technology

Cheaper and climate smart Non-burn techniques for HCWM can be replicated to make the technology more accessible to LMICS

06

Complex Waste Solutions

Sustainable management of liquid healthcare waste and pharmaceutical waste with environment friendly technologies.

Three global recommendations/way forward

Recommendation 1: Integrate WASH, waste management, and electricity access into health system planning, programming, financing, implementation and monitoring at all levels.

- Applying WASHFIT and Minimum service standards tools
- Promote non burn technology of healthcare waste at 1,400 HFs by 2030 as per 2nd NDC
- Estimation of Greenhouse gas from health sector and reduction plan

Recommendation 2: Regularly monitor and review progress, and strengthen accountability

- Integration with HMIS, including healthcare waste indicators
- Strengthen leadership of local government

Recommendation 3: Develop the workforce by training and mentoring for practising good hygiene, carrying out safe cleaning and waste practices and support management and maintenance of safe WASH, waste and electricity services.

- Basic training and onsite coaching to health workers
- O and M manual development/ training and hands on coaching to operator for Autoclave and Microwave

Thank You











Supporting better quality of care in Tanzania through improved WASH

and electricity

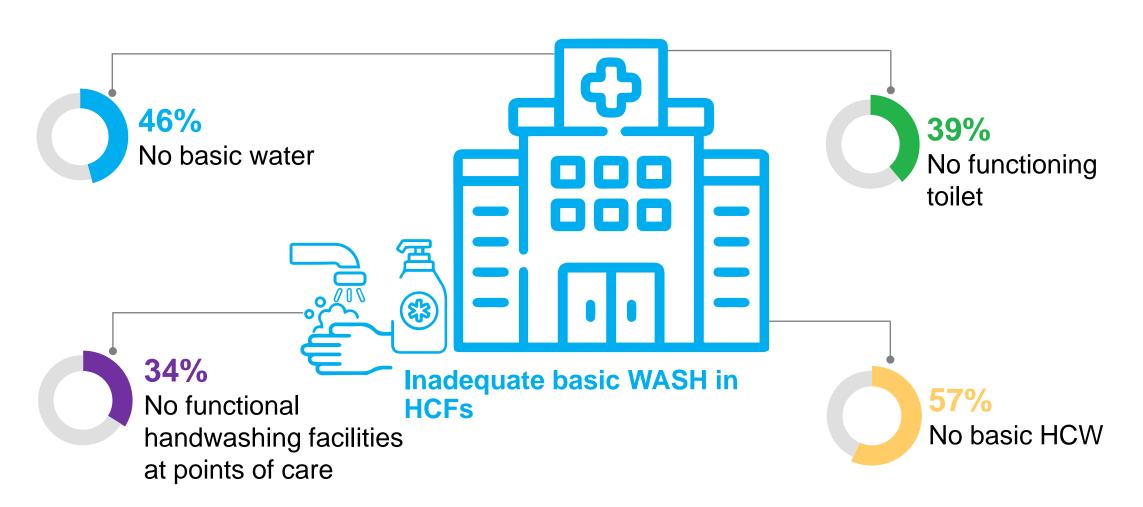
Strategic Roundtable on WASH, Waste and Electricity in Health Care Facilities

23-24 May 2024, WHO HQ, Geneva



WASH – a fundamental building block, BUT...

Remains shockingly inadequate in most health care facilities (HCFs) in Tanzania

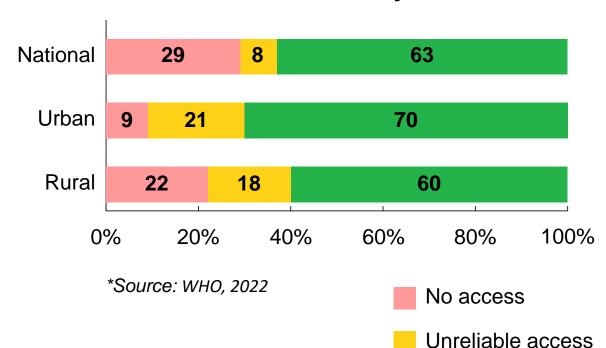


Access to electricity

Population with access to electricity

National 42.7 Urban 77.3 Rural 22 0% 20% 40% 60% 80% 100%

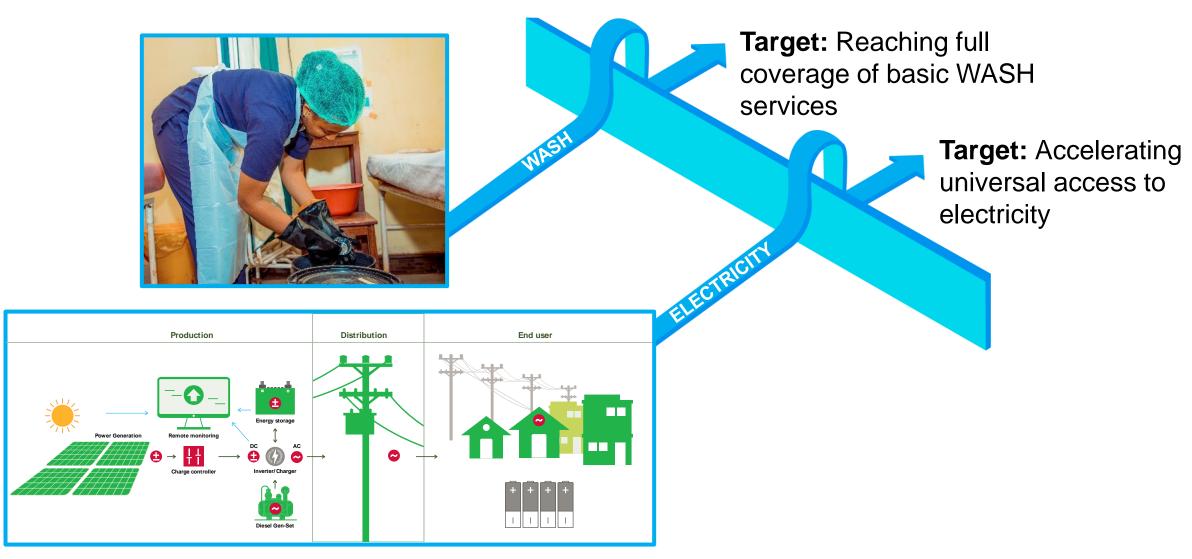
HCFs with access to electricity*



- Connectivity rate: 37.7%
- Electricity connection: Half of the population
- Significant efforts ongoing to increase access to electricity

Reliable access

Challenge ahead: Achieving targets in HCFs by 2030



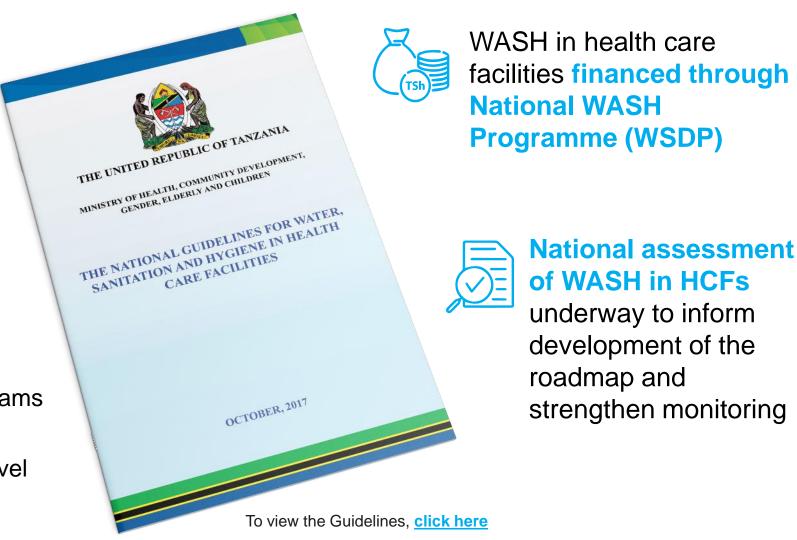
Actions towards better WASH and electricity in HCFs

National guidelines and standards for WASH and HCW in HCFs developed and rolled-out

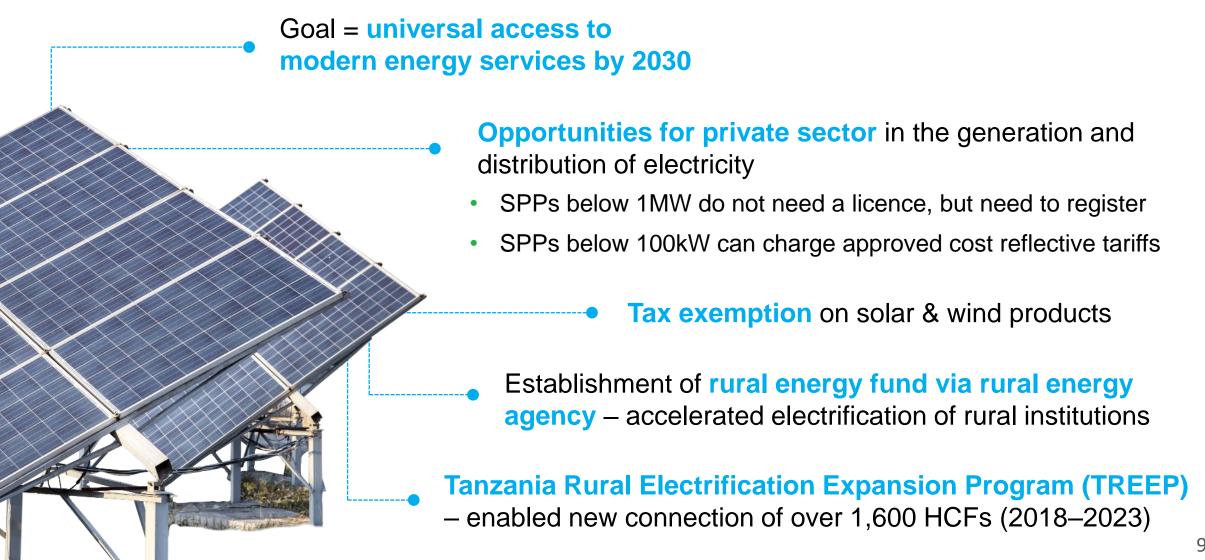
WASH FIT adapted and applied:



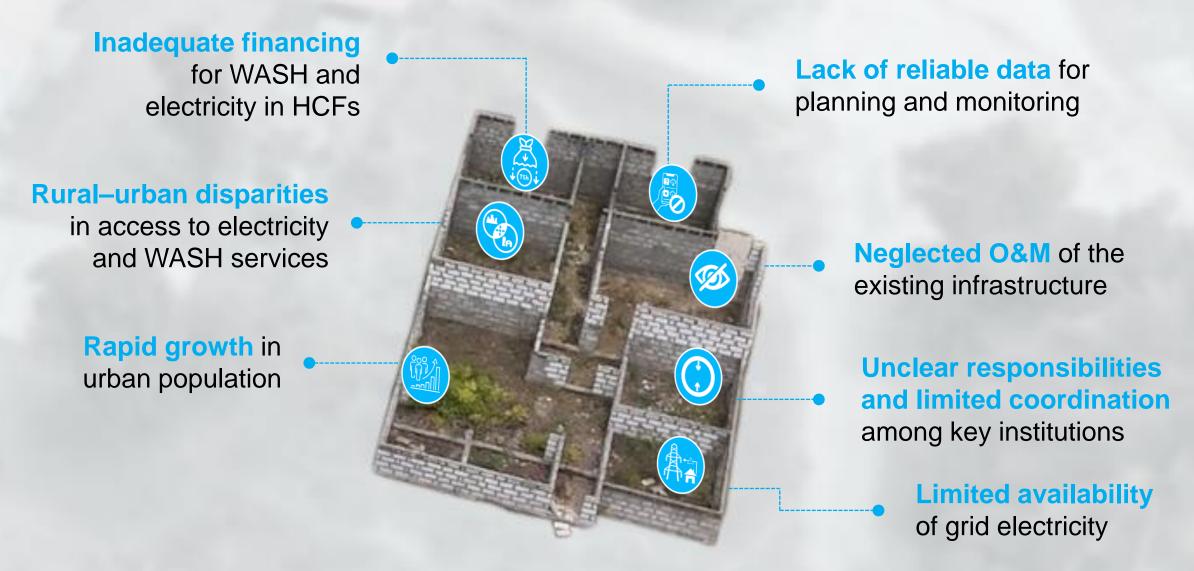
- National ToT, 14 regional teams and 43 district teams
- Implementation at facility level



Actions towards better WASH and electricity in HCFs

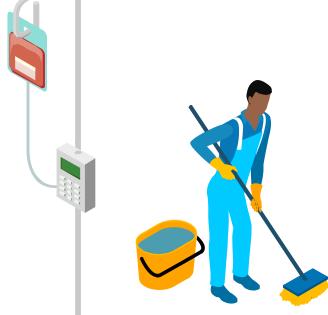


Obstacles



Recommendations for WASH

Enhance monitoring and generate evidence to inform planning and influence targeted resource allocation

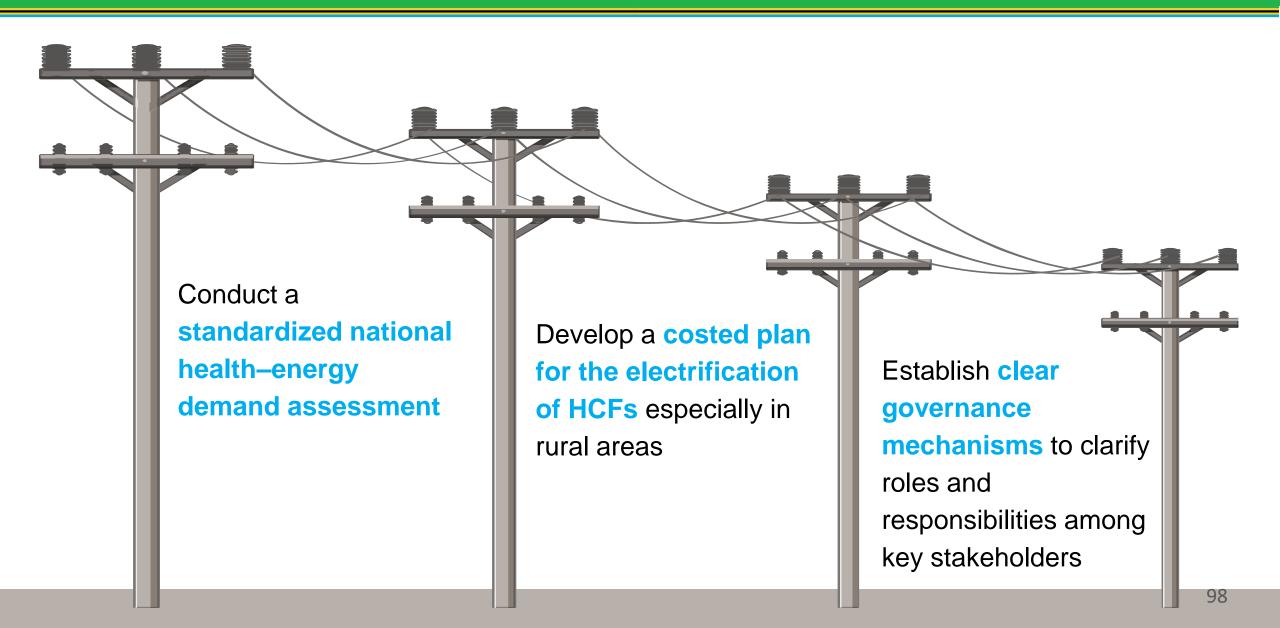


Promote balanced new investments and maintenance of existing facilities

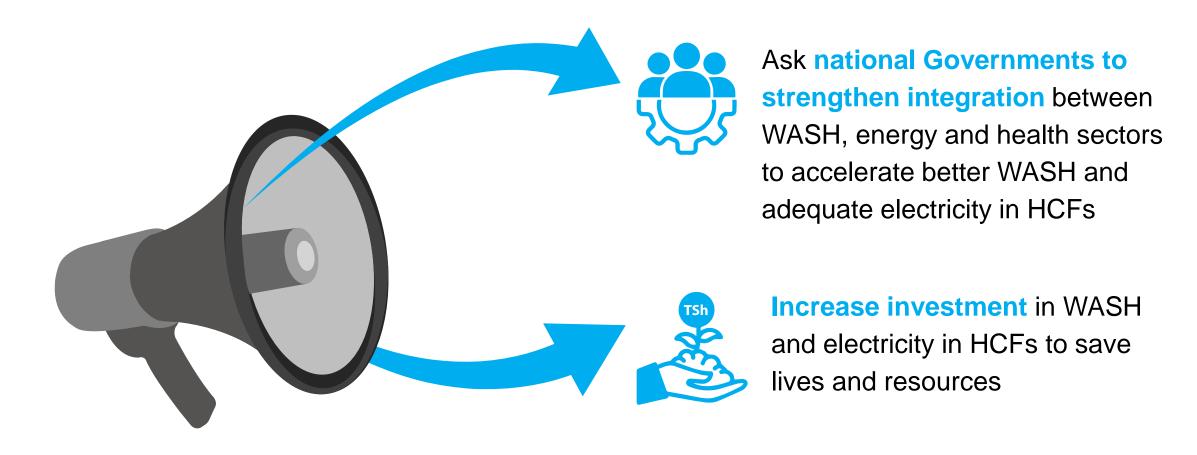
roadmap to accelerate improvement of WASH services

Advocate for increased financing for WASH in HCFs and leverage funding to scale up interventions

Recommendations for electricity



Call to action







Thank you







Strategic roundtable on WASH, waste and electricity in health care facilities

Cost of inaction and optimal financing mechanisms and opportunities







Costs of Health Care Associated Infections from Inadequate Water and Sanitation in Health Care Facilities in Sub-Saharan Africa

Guy Hutton, Claire Chase, Ruth Kennedy Walker, Helen Hamilton, Mary Ashinyo

Presented at Strategic Roundtable Discussion, IFRC Geneva – 23 May 2024

Introduction

- Healthcare-associated infections (HAIs) are a global problem, and in Sub-Saharan Africa (SSA) around 10-20% of inpatients pick up an infection they were not admitted with
- HAIs cause additional illness and impact on quality of life, leading to prolonged hospital stay, excess costs and sometimes death
- HAIs also impact healthcare workers, reducing availability of already stretched staff
- The impacts are exacerbated by the high rates of antimicrobial resistance (AMR), which are 20-80% in SSA, depending on the infection and the drug



Why this study?

- Unclean drinking water, inadequate sanitation, and poor practices of hand washing, infection prevention and control, and waste management are main causes of HAI
- WASH coverage in healthcare facilities in Sub-Saharan Africa below 50% on average
- Most SSA countries have policies and plans for IPC and AMR prevention
- IPC practices are difficult to increase and maintain, made harder by the inadequate staffing numbers and lack of funds for materials and equipment
- Need to quantify the impacts on patients and health systems caused by HAIs



Focus countries



Angola, DRC, Ethiopia, Ghana, Kenya, Madagascar, Malawi, Mali, Mozambique, Nigeria, Sudan, Tanzania, Uganda, and Zambia.

Together, these countries account for 827 million population, which is two-thirds of the SSA population of 1.18 billion in 2021.

Powered by Bing © GeoNames, Microsoft, OpenStreetMap, TomTom

Study objectives

Estimate the financial and economic costs of HAIs to healthcare systems and patients in fourteen countries of Sub-Saharan Africa

- Healthcare costs ('hotel', drugs, lab tests)
- Lost productivity costs to the patient
- Premature mortality costs

Compare with the approximate costs of implementing basic WASH, environmental cleaning and healthcare waste management (Chaitkin et al, 2021)

Allowing us to answer:

What is the proportion of healthcare costs caused by HAIs to total health spending?

Do healthcare costs prevented exceed the costs of averting HAIs?

How do total economic costs of HAIs compare with GDP?

What is the benefit-cost ratio?

Methods

Cost-of-illness methodology - model constructed to combine variables to estimate the monetary costs to society of HAIs in 2022.

Healthcare cost: number of inpatients x HAI rate x additional length of stay and treatment cost

<u>Productivity losses</u>: number of inpatients x HAI rate x additional illness days x daily value of time

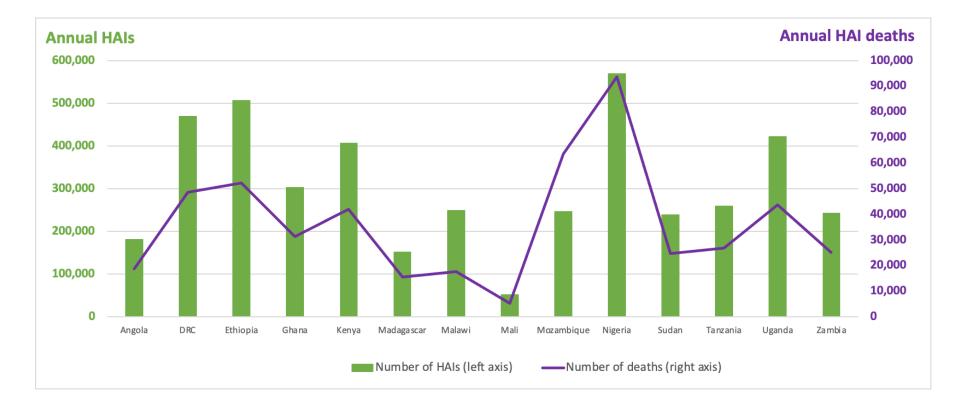
Mortality cost: number of inpatients x HAI rate x case fatality rate x value of a life



Results: Number of infections and deaths

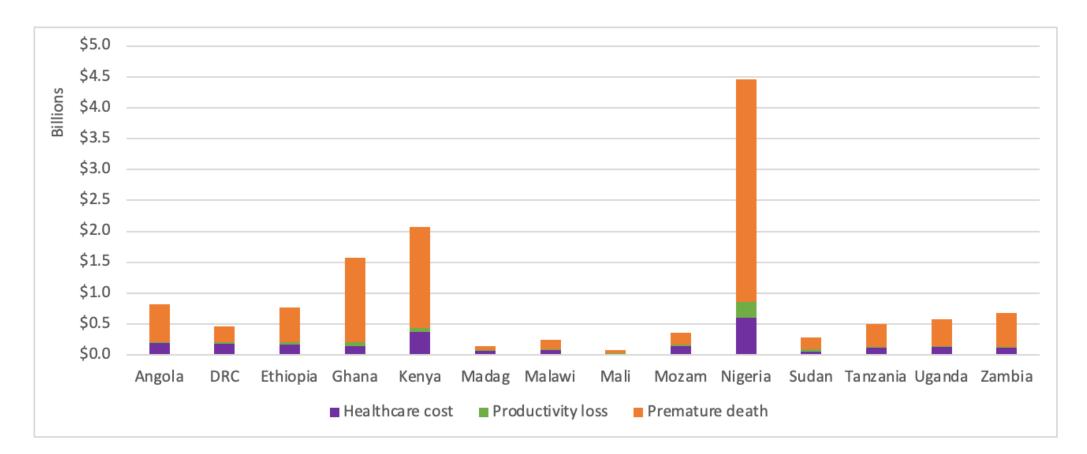
Annual number of healthcare associated infections = 4.8 million cases

Annual number of excess deaths = 500,000 deaths



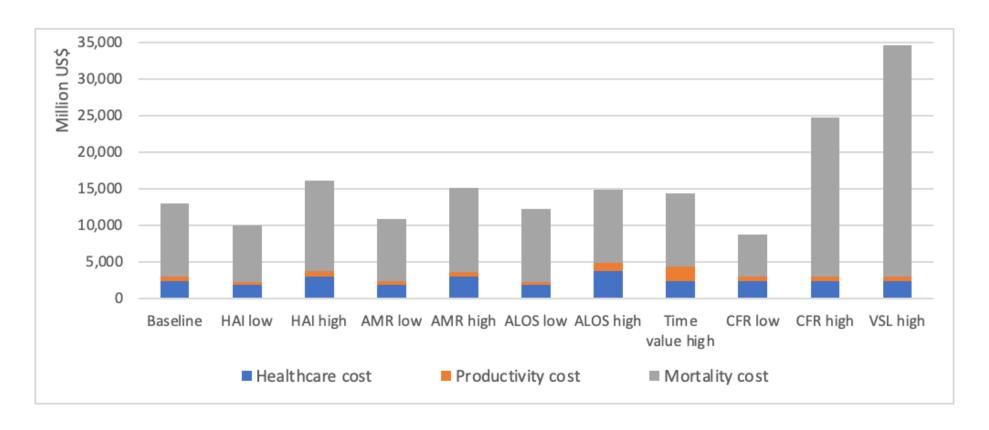
Results: Monetary value of losses

Total valued losses = US\$13 billion per year, of which healthcare cost = US\$2.4 billion



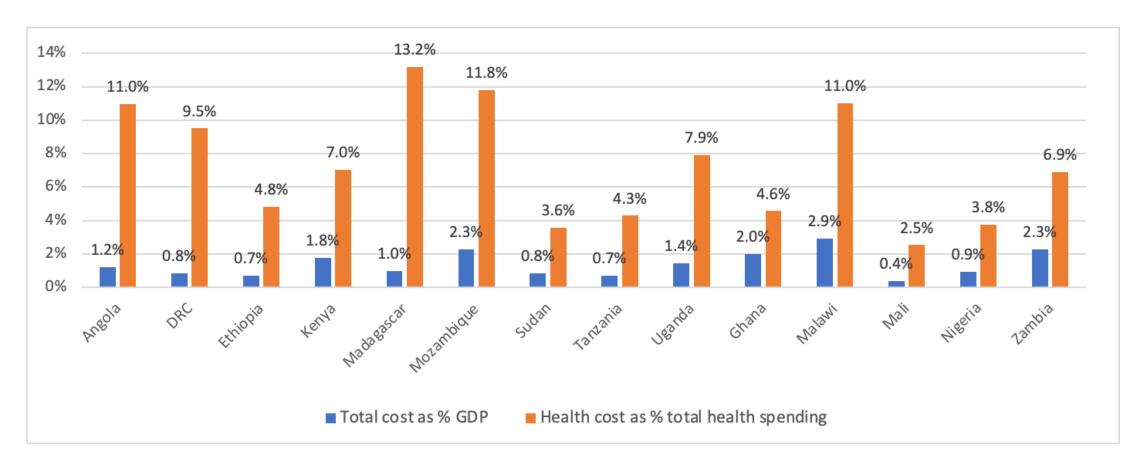
Results: Sensitivity analysis on monetary value of losses

Using high and low values for key variables showed variation from US\$9 to US\$35 billion per year, around the baseline value of US\$13 billion



Results: Comparative losses

Total valued losses = 1.14% of combined GDP. Healthcare cost as a percent of health spending = 5.6%



Results: Cost-benefit analysis

- Overall, the total cost-of-illness per capita (over entire population) is US\$15.7
- The healthcare cost per capita is US\$2.9 per capita
- If a conservative 50% of HAIs can be prevented with a basic WASH, IPC and HCWM package, it will save US\$7.85 per capita in economic costs and US\$1.45 per capita in healthcare costs (annually)
- Compared with approximately US\$1 per capita annually for a basic WASH, IPC and HCWM package (Chaitkin et al, 2021), healthcare costs can be saved from this intervention

Interventions to improve water supply and quality, sanitation and handwashing facilities in healthcare facilities, and their effect on healthcareassociated infections in low-income and middle-income countries: a systematic review and supplementary scoping review

To cite: Watson J, D'Mello-Guyett L, Flynn E, et al. Interventions to improve water

BMJ Global Health

Julie Watson, ¹ Lauren D'Mello-Guyett, ¹ Erin Flynn, ² Jane Falconer, ³ Joanna Esteves-Mills, ¹ Alain Prual, ⁴ Paul Hunter, ⁵ Benedetta Allegranzi, ⁶ Maggie Montgomery, ⁷ Oliver Cumming ¹



Results: Cost-benefit analysis

Detailed results, by income category

Income classification	Cost-of-illness per capita		Averted costs (50% reduction) per capita		Intervention costs per capita	Benefit-cost ratio	
	Health care	Total*	Health care	Total*	Health care	Health care	Total*
Low	\$2.10	\$7.20	\$1.05	\$3.60	\$0.81	1.3	4.4
Lower-middle	\$3.60	\$23.9	\$1.80	\$11.95	\$1.00	1.8	12.0
All 14 countries	\$2.90	\$15.7	\$1.45	\$7.85	\$0.91	1.6	8.6

Discussion

- This study has demonstrated that there are major unquantified costs of healthcare associated infections in Sub-Saharan Africa
- A package of WASH interventions can prevent a major proportion of cases, thereby saving costs and lives of patients, and reducing exposure of healthcare workers
- Several weaknesses associated with desk study should be borne in mind
 - Model weaknesses: omitted impacts (leading to conservative results)
 - Method weaknesses: largest share of benefits are lives saved lack of VSL studies in SSA
 - Data weaknesses: extrapolated cost data, weak case fatality data, lack of HAI rates in some countries
- Methods could be fine-tuned in study countries and other data sources accessed to produce more credible estimates for target audiences
- If the findings have traction, the simple methodology could be used in more countries

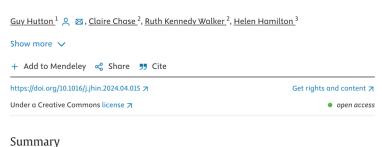
Further reading:

POLICY RESEARCH WORKING PAPER 10708 Costs of Health Care Associated Infections from Inadequate Water and Sanitation in Health Care Facilities in Eastern and Southern Africa Guy Hutton Claire Chase Ruth Kennedy Walker WORLD BANK GROUP Water Global Practice February 2024

Pre-print available:



Financial and economic costs of healthcare associated infections in Africa



Background

Healthcare associated infections (HAI) remain a global health challenge and have elevated rates in Sub-Saharan Africa. HAIs impact patients and their families by causing illness, prolonged hospital stay, potential disability, excess costs and sometimes death. The costs of HAI are increasing due to spreading antimicrobial resistance. A major risk factor for HAIs is lack of water, sanitation, and hygiene (WASH), environmental cleaning and healthcare waste management. In Sub-Saharan Africa these services are lacking in at least 50% of healthcare facilities.



GWSP







You!

Contact:

- Guy Hutton, Innate Values Ltd. <u>guy.hutton@innatevalues.com</u>
- Claire Chase, Water Global Practice, World Bank
- Ruth Kennedy Walker, Water Global Practice, World Bank
- Helen Hamilton, WaterAid
- Mary Ashinyo, WaterAid







Strategic roundtable on WASH, waste and electricity in health care facilities

Operationalizing and implementing Framework actions







Strategic roundtable on WASH, waste and electricity in health care facilities

Distillation of Day 1

Investing for Resilience and Sustainability

Solutions in managing climate change to health are constrained by some issues that need to be addressed

Issues	Critical Factors		
 Limited Public Awareness Lack of attention to impacts and solutions Weak adaptive capacity of health system Funding gaps 	 Policy implementation and sustained commitment Leadership and governance Data and evidence Multisectoral collaboration 		

In our pursuit to adapt to climate change impacts on our health system, we also need to be cognizant of some critical factors







Strategic roundtable on WASH, waste and electricity in health care facilities

Unlocking leadership to drive progress







Dr Annette Pruss, Dr Diarmid Campbell-Lendrum, Dr Elena Villalobos Prats

Safe, climate-resilient and environmentally sustainable HCF



Advancing towards safe, climateresilient and environmentally sustainable health care facilities

Dr Annette Prüss | Unit Head, Policies and Interventions for Health & Environment Department of Environment, Climate change and Health



The delivery of high-quality health services requires:



Functional basic infrastructure:

- Safe and reliable electricity & WASH
- Waste management services

But also:

- Resilience to climate change
- Environmental sustainability





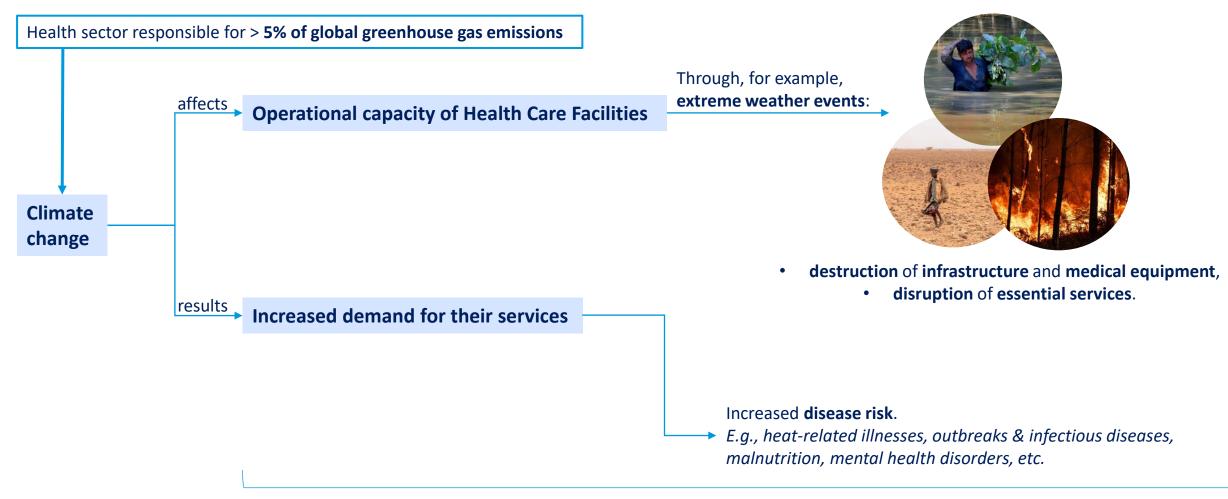
And:

- Sound management of chemicals and radiation
- Trained, supported and protected health workforce





Health care facilities threatened by climate change





Climate-resilient and environmentally sustainable HCFs

- anticipate, respond to, cope with, recover from and adapt to climate-related shocks and stresses,
- minimize their negative impacts on the environment and leverage opportunities to restore and improve it.

Key actions:

- Conduct assessments on:
 - vulnerability to climate hazards,
 - GHG emissions.
- Develop and implement a plan for disaster
 preparedness, response and recovery management.
- Implement environmentally sustainable supply chains.

- Develop, implement, monitor and evaluate improvement plans for climate resilience, GHG emission reductions, and environmental sustainability.
- Procure and adopt climate-resilient technologies, products and processes with low environmental impact.

HCFs: Health care facilities GHG: Greenhouse Gas



Health workers at risk

Health workers are exposed to **occupational risks & hazards,** such as **chemicals, radiation, health care waste** and **infectious diseases.**



Threatens the delivery of high-quality services & care















Healthy and safe work environments

Health workers (clinical and non-clinical) work for improving health.

Occupational health and safety programmes for health workers, aim to:

- prevent diseases and injuries arising from, linked with or occurring at work;
- build healthier and safer working environments;
- promote health and well-being of health workers.

Sound management of chemicals – chemicals used and produced in ways that minimize their potential adverse effects on human health and the environment.



Radiation protection and safety standards — recommendations and guidance to balance the benefits of medical radiation and radioactive material while minimizing risks for patients, health workers and the public.

Safe chemical and radiation management benefits health workers, and adjacent communities.



Healthy and safe work environments

Key actions:

Establish a programme for occupational health and safety for health care workers at the facility that:

- Include a policy on safety, health and working conditions.
- Identify a responsible person for occupational health.
- Create a joint labour-management health and safety committee.
- Establish safe procedures and provide ongoing training on managing chemicals, health care waste and radiation protection.

- Implements action plans to improve occupational health and safety and a policy for vaccinations.
- Establish procedures for identifying and reporting hazards, accidents and diseases.
- Provide occupational health services.





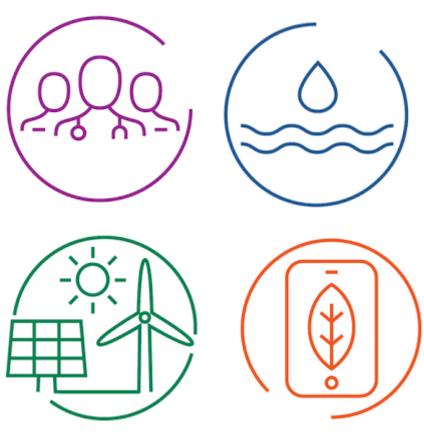
Thank you

Dr Annette Prüss | Unit Head, Policies and Interventions for Health & Environment Department of Environment, Climate change and Health pruessa@who.int



Climate resilient and environmentally sustainable health systems and facilities

Elena Villalobos Prats
Capacity Building and Country Support Lead
Climate Change and Health Unit (CCH), WHO HQ





2000

Climate change





Vulnerability factors

- Demographic
- Geographical
- · Biological factors & health status
- Sociopolitical
- Socioeconomic
- Health system capacity
- Gender & equity

Climate-related hazards

- Extreme weather events
- Heat
- Sea level rise
- Air pollution
- Vector distribution & ecology
- Water scarcity
- Reduced food production





- People & communities
- Health workforce
- Infrastructure
- Energy systems
- Water systems
- Food systems
- Health systems

Environmental threats and **GHG emissions**

Health outcomes



Injury and mortality from extreme weather events



Heat-related illness



Respiratory illness



Water-borne diseases and other water-related health impacts



Zoonoses



Vector-borne diseases



Malnutrition and food-borne diseases



Noncommunicable diseases (NCDs)



Mental and psychosocial health

Health systems & facilities



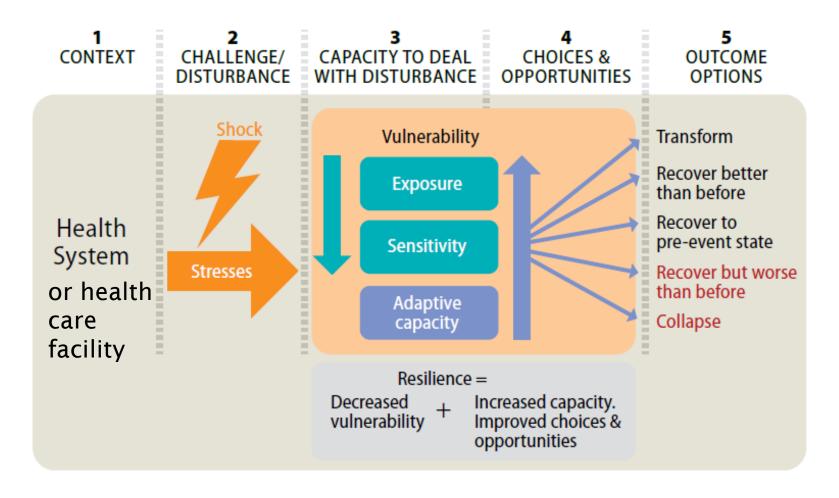
Impacts on health care facilities



Effects on health systems

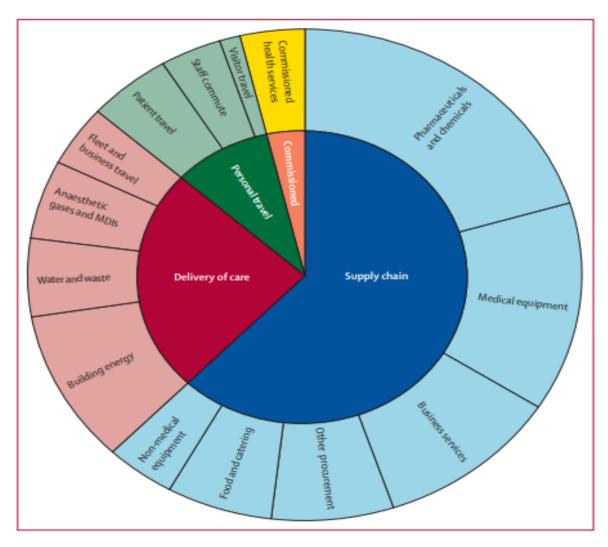
Climate resilient health systems and care facilities

FIGURE 2: Conceptual framework for resilience



Health Care's Climate Footprint

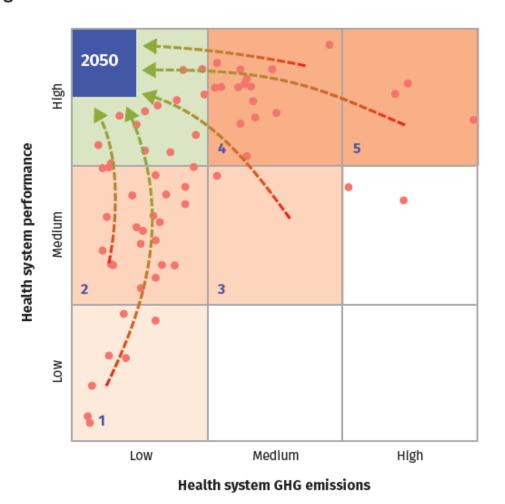
- Between 4.4% to 5.2% of World's GHG emissions are from the Health care sector
- Emissions equal to over 500 coal gas fired thermal power plants
- Over 70% of the global climate footprint is from Supply chain procurement



Contribution of different sectors to the greenhouse gas emissions of the NHS England, 2019

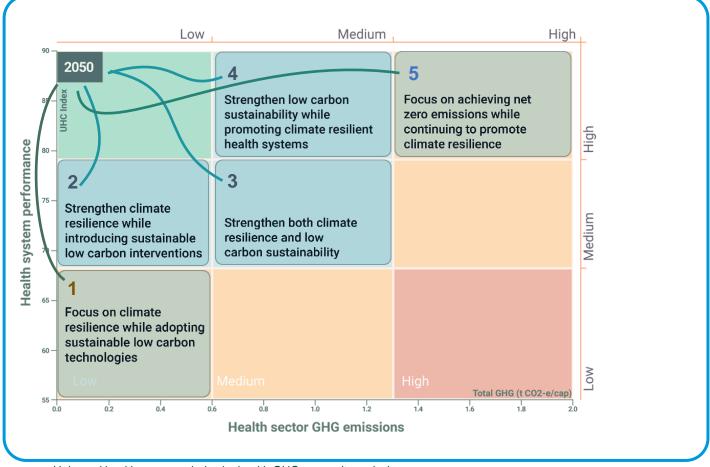
Health systems performance, health sector GHG per capita emissions, and CCH capacity

Fig. 5.4. Different pathways to maximize health systems performance, including climate resilience while minimizing GHG emissions



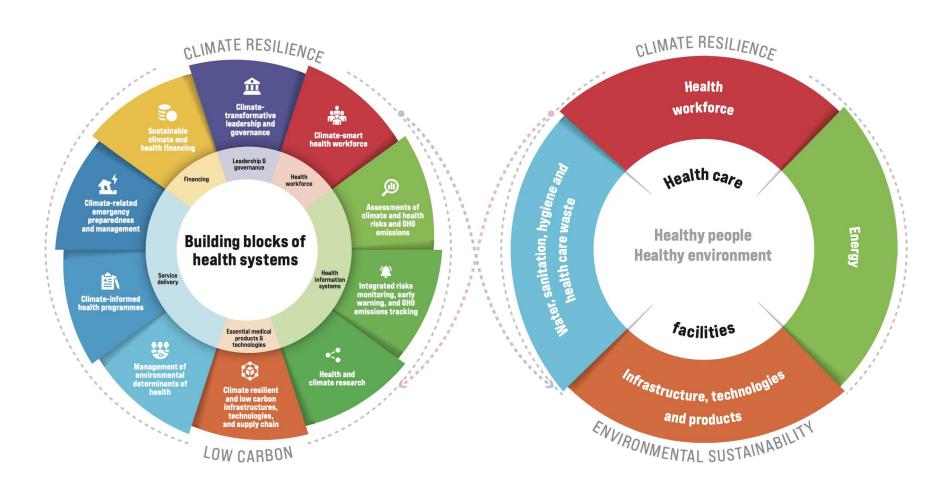
Pathways to strengthen climate resilience and low carbon sustainability:

differences across countries

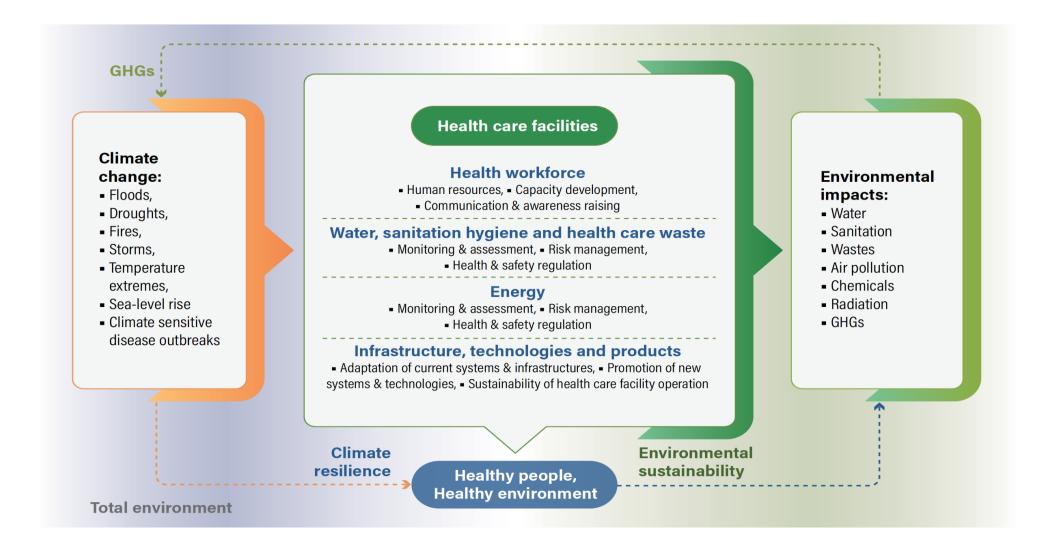




Approach to build cliamte resilience and low carbon sustainability in health systems and healthcare facilities

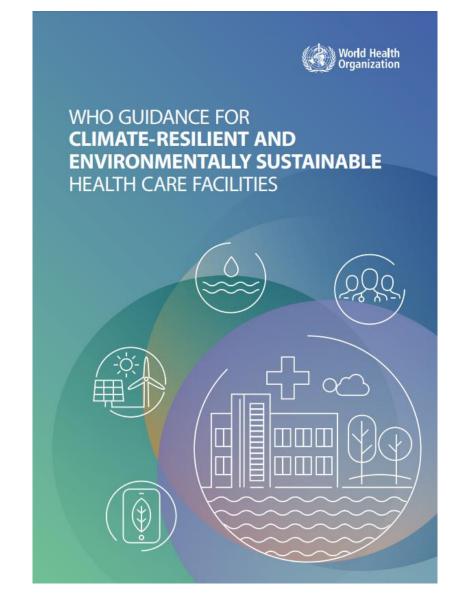


Framework for building CRESHCFs



Goals:

- increase the **climate resilience**
- to protect and improve the health of their communities in an unstable and changing climate
- optimizing the use of resources
- minimizing the release of wastes by becoming environmentally sustainable.



What are climate resilient and environmentally sustainable health care facilities?

- Climate resilient and environmentally sustainable health care facilities:
- anticipate, respond to, cope with, recover from and adapt to climaterelated shocks and stresses
- minimize negative impacts on the environment
- restore and improve the environment (where possible)



HEALTH WORKFORCE:

adequate numbers of skilled human resources with decent working conditions, empowered and informed to respond to these environmental challenges.



WATER, SANITATION, HYGIENE AND HEALTH CARE WASTE MANAGEMENT:

sustainable and safe management of water, sanitation and health care waste services.



ENERGY:

sustainable energy services.



INFRASTRUCTURE, TECHNOLOGIES AND PRODUCTS:

appropriate infrastructure, technologies, products and processes, including all the operations that allow for the efficient functioning of the health care facility.

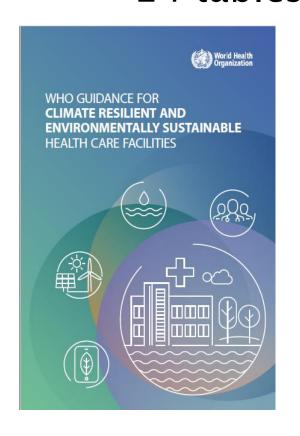
.....

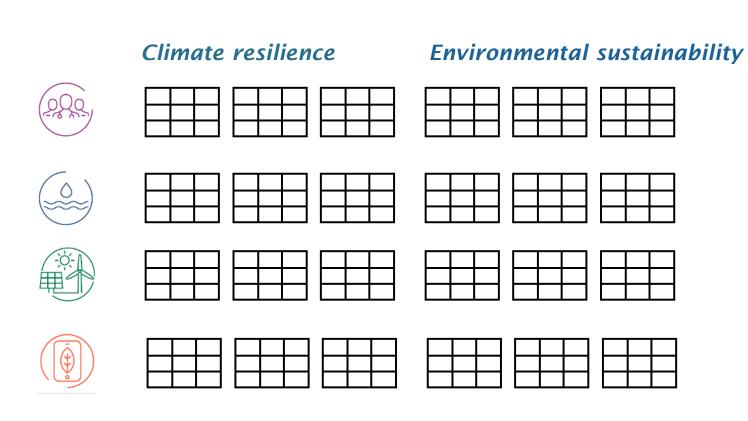
Interventions

X

4 areas 3 objectives each For climate resilience and environmental sustainability

24 tables of interventions











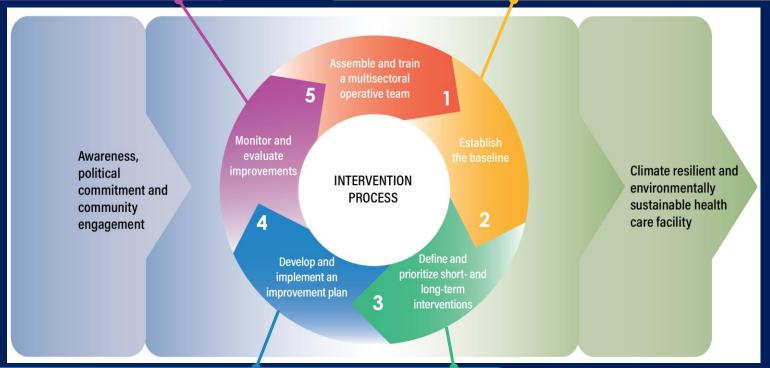
Checklists to assess vulnerabilities in health care facilities in the context of climate change.



Aga Khan Development Network Carbon Management Tool



Health Care Without Harm
Climate Impact Checkup To Climate Impact Checkup Tool





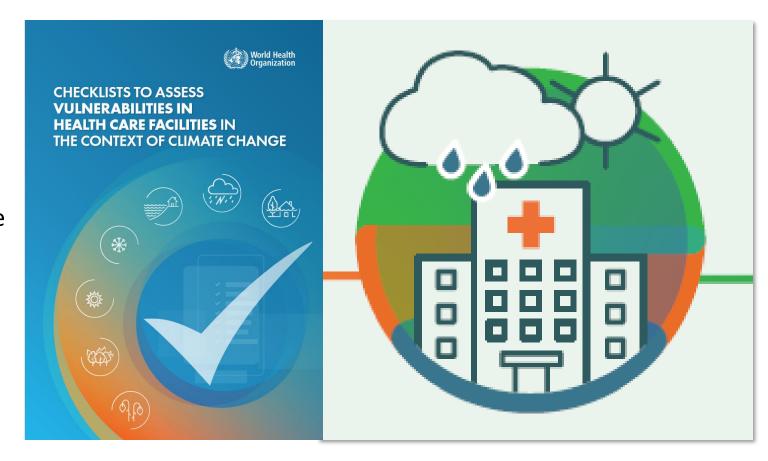
Sustainable Health Care **Facilities**



Assessing Vulnerabilities in Health Care Facilities

• Steps:

- Identify climate hazards of concern
- Assess current vulnerability for each of the hazards, in each of the key components of health care facilities
- Understand potential impacts
 posed by climate variability and
 change in each of the key
 components of health care
 facilities



Understand potential impacts

INCREASED TEMPERATURE

Health workforce

WASH and healthcare waste

Technologies. **Energy** infrastructure, products

WASH and healthcare waste

Technologies. infrastructure, products

- Affecting workers with pre-existing conditions (respiratory and cardiovascular diseases, overweigh) metals
 - Reduced access to freshwater
 - Water source contamination by pathogens and
- Gradual increase in the use of electricity for
- Additional treatment of drinking water
 - Need insulation, cooling and dehumidification



DROUGHT

 Increased threat of noncommunicable diseases from poor air quality and higher temperatures to the health workforce

and heat stroke)

Health

workforce

- Insufficient water Disruption of availability to provide health care services Low water quality
 - energydependent water pumping and treatment

Energy

- Interruption of water and food supply chains
- Intermittent power delivery



FLOOD

- Health workers are not able to arrive at or depart from the health care facility
- Water contamination
- Lost sharps containers and hazardous waste bins
- Damage to emergency

cooling

purposes

- generator or other sources of energy
- Damage to building access
- Damage to medical equipment and devices



 Increased heat Increased stress effects water demand (heat exhaustion • Water source

contamination

- Power outages
- Loss of vaccines, drugs, and other medical supplies
- Damage to medical equipment
- Increased demand for cooling and rest areas for staff



- Reduced performance capacity,
- Deaths, injuries or illness
- Disruption of water supply, wastewater and sewage

systems

- Power outages (wind- and lightning-related)
- Interruption of acute medical care
- Damage to infrastructure from high winds
- Disruption to building access



WILDFIRE

- Loss of work • Shortage of safe capacity due to water smoke, ash and Reduced capacity
- high temperature to use equipment
- Effects on mental that require health of staff potable water
- Increased demand for energy consumption from air

conditioning

 Increasing indoor air contamination from smoke, threatening the health of patients and staff



SEA-LEVEL RISE

- Impacts on respiratory disease due to indoor mold growth
- Saltwater intrusion in water and wastewater containment systems
- Disruption of internal and external communication and information

systems

- Damage to access systems (elevators, ramps, corridors. garage)
- Increased costs of building maintenance



COLD WAVE

- Life-threatening risks from exposure likelihood of to excessive cold
- Reduced performance
- Increased

pressure

- capacity
- Disruption of internal heating water pipes systems bursting and
- water freezing Loss of water
 - Difficulty in providing thermal comfort
- Increased electricity demand
- Damage to water pipes from cold exposure







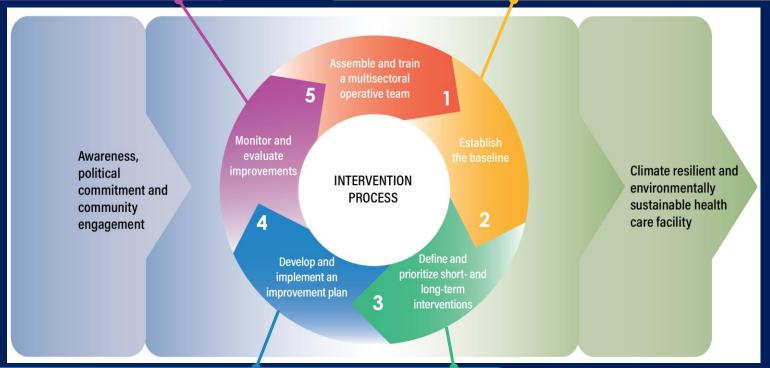
Checklists to assess vulnerabilities in health care facilities in the context of climate change.



Aga Khan Development Network Carbon Management Tool



Health Care Without Harm
Climate Impact Chacking To Climate Impact Checkup Tool





Sustainable Health Care **Facilities**





Interventions table 4.3.1C - Health and safety regulation: Regulations on energy use and access are implemented taking into consideration climate variability and change, and environmental sustainability.

(Energy - climate resilience)

Interventions (level of achievement) Low, unavailable, unable	Action level		vel	Observations	
Medium, in progress, incomplete High, completed, achieved				Obser various	
Updated building insulation and windows to comply with energy codes					
Emergency electricity generators available to provide required electrical power if the municipal grid, or if the internal normal electrical system fails*					
Critical back-up power supplies available for building infrastructure (such as electrical power, heating and cooling)*					
Solar water heaters available for health care facility's hot water needs					
Backup energy equipment sufficiently elevated in areas prone to floods and anchored in areas prone to strong winds					
Adequate backup energy source is available if the main source fails during an extreme weather event					
Adequate lighting, communications, refrigeration and sterilization equipment are available during climate related disasters or emergencies					



Interventions table 4.3.2C - Health and safety regulation: Regulations on energy use and access are implemented taking into consideration climate variability and change, and environmental sustainability.

(Energy - environmental sustainability)

Interventions (level of achievement) Low, unavailable, unable		Action level			Observations
	 Medium, in progress, incomplete High, completed, achieved 				O D S C I V U I I O I I S
	Established education and awareness campaigns to reduce energy use with the participation of all staff				
	Developed system of good practices of energy use conservation with incentives				
	Developed a culture of energy saving by turning off office lights, computers and other equipment, and unplugging electronic devices when not in use				
	Established strategies to lower energy use				
	Designed features that maximize natural ventilation such as high ceilings, large windows and skylights (without compromising the structural integrity of the building)				
	Developed an energy management plan to measure energy consumption*				
	Optimized the use of on-site renewable energy				
	D 11	I	I	I	







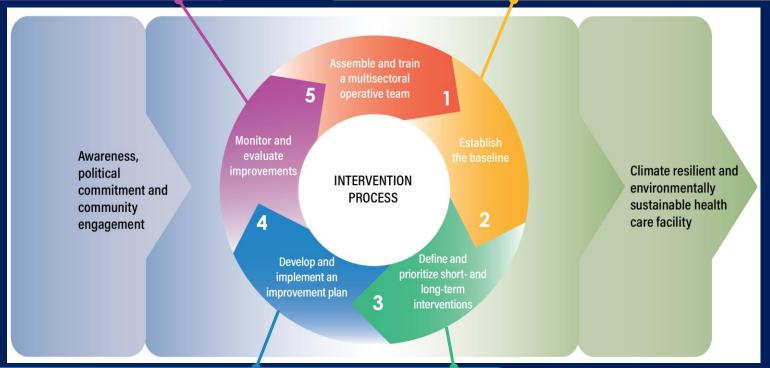
Checklists to assess vulnerabilities in health care facilities in the context of climate change.



Aga Khan Development Network Carbon Management Tool



Health Care Without Harm
Climate Impact Checkup To Climate Impact Checkup Tool





Sustainable Health Care **Facilities**



Evolution of ATACH

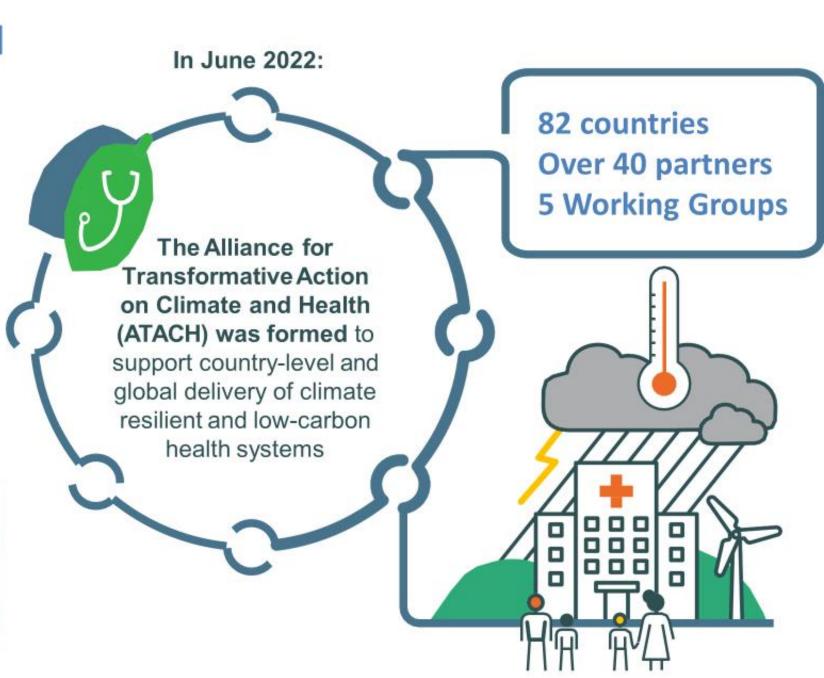












Objectives



- Advocate for and enable concrete, ambitious commitments and priorities on climate change and health
 - 2 Support member states to deliver commitments and priorities



- 3 Identify and promote evidencebased best practices, solutions and strategies
- Advocate for and support development of innovative climate change and health solutions



Functions

Advocacy and agenda setting:

Creating an international shift in priority issues



Creating a platform to share experience, evidence, guidance, tools and technical assistance



Solutions and implementation

Monitoring:

Tracking and measuring country progress towards commitments and priorities

through which it achieves its objectives

ATACH has 5

key functions

Finance: Identifying needs and supporting Member States to access finance for country-level interventions



Progress

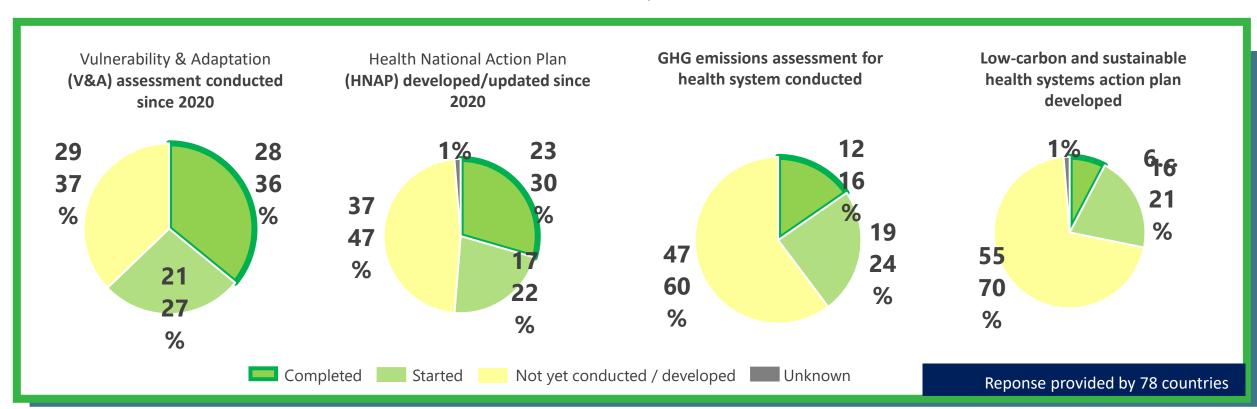
Monitoring: Country progress on CCH implementation





ATACH countries

82 countries committed to climate resilient and/or low-carbon health systems



Data source: 2023/24 ATACH Baseline Questionnaire

Partner support on CCH implementation





Example 2: Health Care Without Harm

Technical and financial support to CCH country processes



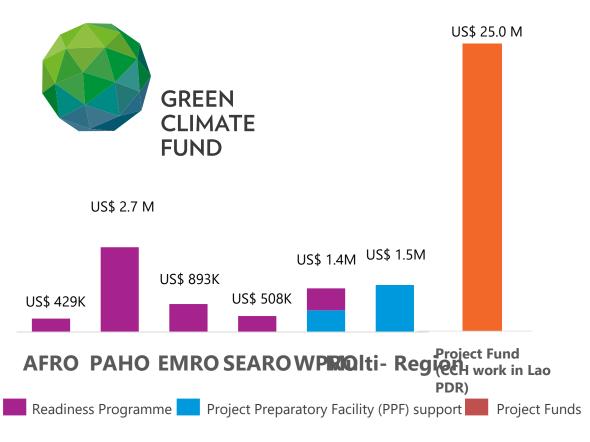
	V&A Assessment	HNAP	GHG Emissions Assessment for Health Systems	GHG Emissions Assessment for Health Facilities	Low-carbon and sus health systems action	
Belgium			Technical		Technical	
Colombia			Technical + Financial			
Ireland			Technical		Technical	
Lao PDR				Technical		Planned
Nepal						In Progress Completed
Netherlands			Technical		Technical	Completed
Peru				Technical + Financial		
Philippines				Technical		
Portugal			Technical		Technical	
Timor-Leste	Technical + Financial					

*In Partnership with Arup

Data source: 2023/24 ATACH Baseline Questionnaire

Example 1: Green Climate Fund

Investments in climate-resilient and low carbon health systems & adaptation projects with potential health benefits



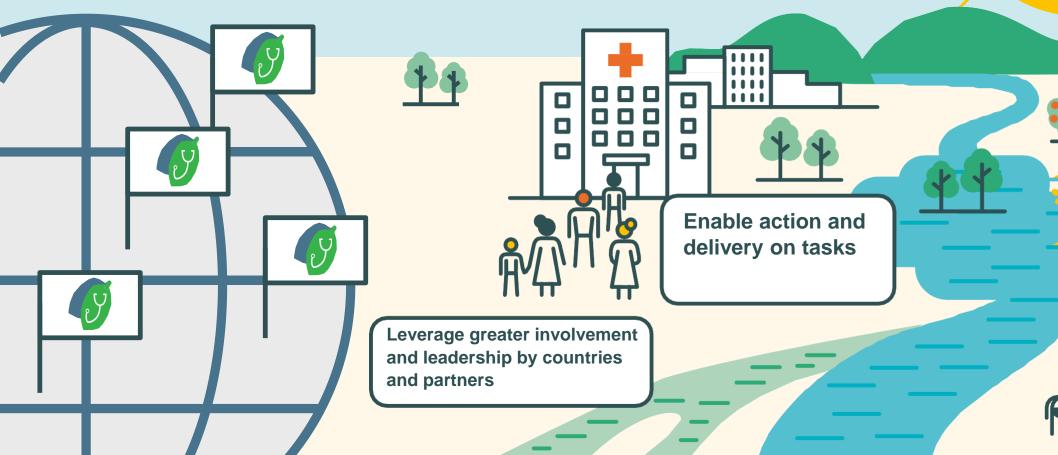
US\$ 32M Invested in						
Climate Change and Health						
US\$566 Invested in projects with potential health co-						
benefits						
PPF Support	Readiness Programme	Project Funds	Projects with Potential Health Benefits (2022)*			
US\$ 2.2M	US\$ 5.2M	US\$ 25M	US \$ 566			

^{*15} projects, with 12 focusing on improved water and food security

Data source: 2023/24 ATACH Baseline Questionnaire, 2023 Lancet Countdown

Path forward: Implementation ______ ATACH positioned as the global platform bringing together countries

ATACH positioned as the global platform bringing together countries and partners around knowledge, finance and interventions for climate change and health.













Strategic roundtable on WASH, waste and electricity in health care facilities

Wider integration with emergency, pandemic preparedness and AMR





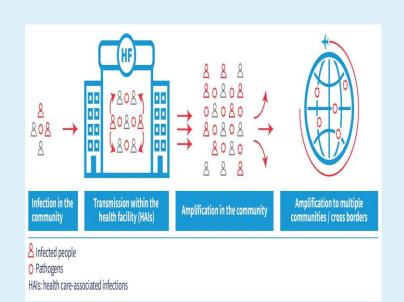


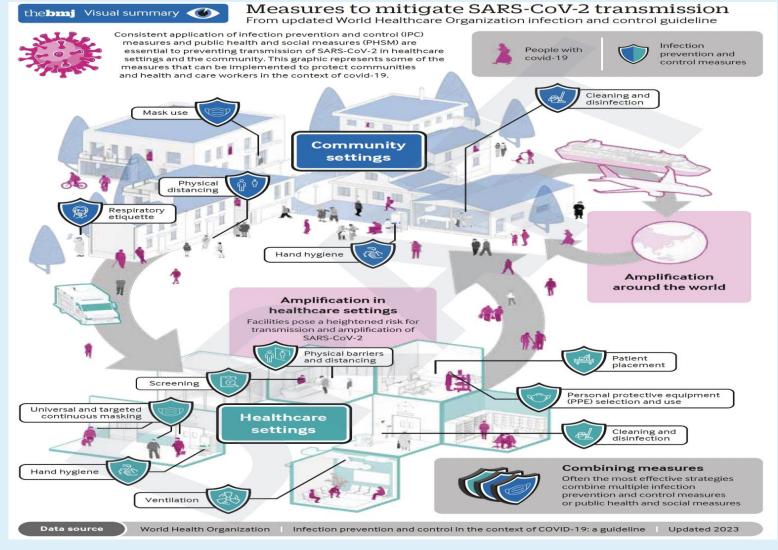
Dr April Baller, WHO

IPC/WASH opportunities in pandemic preparedness and outbreaks



Health emergencies preparedness and response





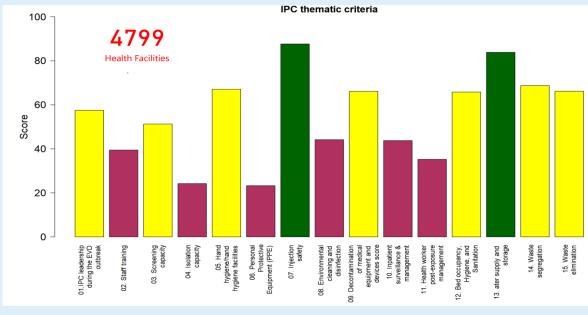






Limited surge capacity during emergencies – infrastructure, supplies

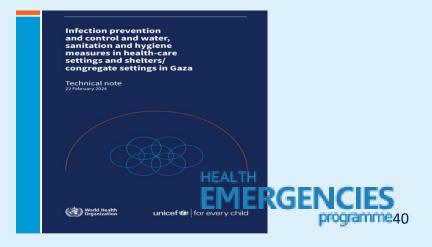




- 1. Isolation Capacity
- 2. Availability of PPE
- 3. Health and care worker post-exposure management







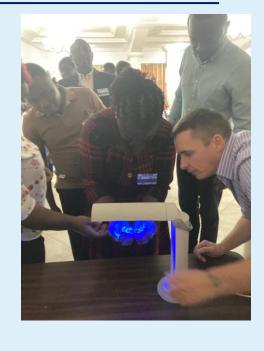


Real-time capacity strengthening

















Opportunities

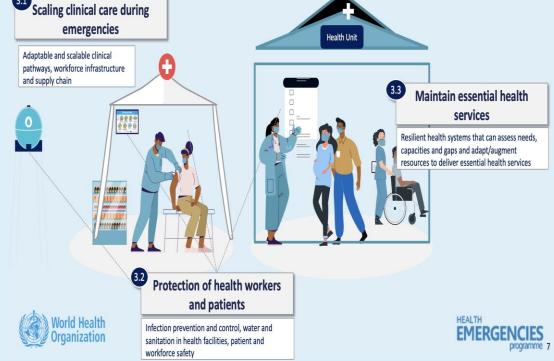
 Global Architecture for Health Emergency Preparedness, Response, and Resilience: Systems strengthen capacity, coordination and collaboration







Safe & Scalable Care | Emergency care systems ready to respond rapidly, and to ensure communities have access to quality health services in safe and functional settings







Opportunities

"Integration" of IPC and WASH during emergencies

Strategic and technical lead on IPC and WASH during health emergencies, enabling countries to provide safe and scalable care and community protection through development of norms and standards, partnerships, promoting research and capacity strengthening.











PC & Reward WASH & WASH

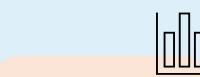
Opportunities

Limited evidence base for IPC/WASH during emergencies - research prioritization

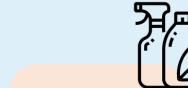


Environment sampling methods and deactivation

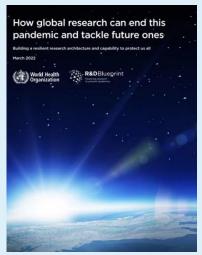
transmissionbased precautions PPE



Early data management, collection, and interpretation



Exploring non-toxic measures





Pre-planned protocols for RCTs ready for outbreaks





Standarization of wastewater-based surveillance



Application of artificial intelligence



Exploring low-cost methods











Strategic roundtable on WASH, waste and electricity in health care facilities

Geneva 23-24 May 2024

Track 1: Monitoring

- Key Issues: Electricity data included; Limited available data; WASH indicators not included into HMIS (or other monitoring systems); undefined advanced indicators/differing levels of difficulty to meet existing JMP indicators, limited use of monitoring data in accountability systems, no global monitoring indicators on GEDSI, climate
- Existing Tools: JMP indicators (and draft birthing indicators)
- Successes to-date: Integration of WASH indicators into key monitoring tools like PHC measurement framework; examples from countries who have already developed higher level indicators; examples of WASH data being integrated into accreditation systems

How do we strengthen monitoring, and by extension, accountability systems? (activities to continue/improve/change, key asks, etc.)

Track 2: financing and investments

Increase investments and budgets for WASH, waste and electricity infrastructure and services, articulate viable budgeting and financing models for different settings and track spending as part of financially accountability. Such models should include workable tools for determining costs, prioritizing expenditures for both capital and recurrent costs, including for operation and maintenance. It also needs to explore viable financing models with a particular focus on public spending. In addition, document cost savings from such investments to increase political support and allocations.

- Our task: identify activities to continue, activities to improve/change, key asks for government and donors, ways to strengthen and integrate climate, gender, human rights
- Knowledge: investment case (costs and cost of inaction); financing gap
- Tools: costing tools and exercises, public expenditure review and tracking
- Sources: increase efficiencies, tariffs, public funds, private capital, climate finance, donors and development partners
- Partnerships: IFIs, Private sector, UN, Govt, academia

Track 3: Advocacy, Leadership, Civil Society, Gender

To continue

- Global and national advocacy
- Integration into climate, energy sectors and continue to work closely with PHC/Mother and Child Health

To improve/change

- Reach out to gender-focused networks
- Include health focused civil society networks
- Invest in mobilisation of direct voices and be intentional about opening spaces for engagement of women and health care workers in decision making platforms
- Build a stronger WASH for health investment case across priority integration areas

Key asks of governments

- Prioritise WASH W&E in planning and budgeting, including O&M costs
- Coordinate investments across sectors under the thematic heading WASH W&E (using budget tracking and M&E)
- Strengthen Information Management and use for decision-making
- Ensure a gender responsive/ GEDSI approach to programming, investments and monitoring

Key asks of partners

- Civil society including budget accountability on WASH in HCF
- Academia building evidence based to support investment case for WASH in health

Track 5: Supporting and sustaining facility improvements, including through WASH FIT and other tools

State of the evidence

- Systematic review on WASH FIT effectiveness
- WHO/UNICEF evidence synthesis report (forthcoming, July 2024)



Potential working group topics/outputs

- Digitization
- Health systems strengthening / integration
- Evidence building

- More sophisticated trainings
- Costing (what does it take to actually do WASH FIT?)
- Sustainability post project-inputs

Session objectives

- Articulate specific actions and needs to support sustaining improvements
- Contribute to consensus for the global framework for action



Linking the WASH System Essential Building Blocks (IRC WASH and WASH FIT (WHO, UNICEF)

WASH FIT supports national strategy rollout and informs discussions on norms & standards; e. g., waste management; patient safety policies / charters.



Policy & legislation: Sector policy & strategy, legal framework, norms & standards, bylaws



Planning: planning & budgeting, capacity & frameworks for planning WASH FIT informs local / national heath system and municipal annual development plans, helping to prioritize interventions in case of limited budgets

WASH FIT gives autonomy to local levels for decision making; identifies capacity building needs for health work force development



Institutions: coordination, roles, responsibilities, capacity, sector mechanisms



Finance: flows & responsibilities, clear frameworks including life-cycle costs & source identification

WASH FIT plans can be used to generate costing data to advocate for staff & infrastructure financing

WASH FIT assessments directly address quality and maintenance of climate resilient infrastructure



Infrastructure: development & maintenance, project cycles, asset management,



Regulation & accountability: accountability mechanism, regulatory framework & capacity WASH FIT facilitates consultations between community members and duty bearers / GEDSI

WASH FIT data can feed into national monitoring for WASH in HCF; e.g., JMP indicators and WASHFIT in DHIS2 Mali



Monitoring: framework & routine implementation, service levels, use of data



Water resources management: allocation & management of resource abstraction, water quality, coordinated efforts

WASH FIT management domain calls for inclusion of climate resilience in HCF improvement plans and strategies







Learning & adaptation: capacity & frameworks to capture and feedback lessons learned, update & adapt various building blocks

WASH FIT supports operational research and learning for enhancing Infection prevention and control





