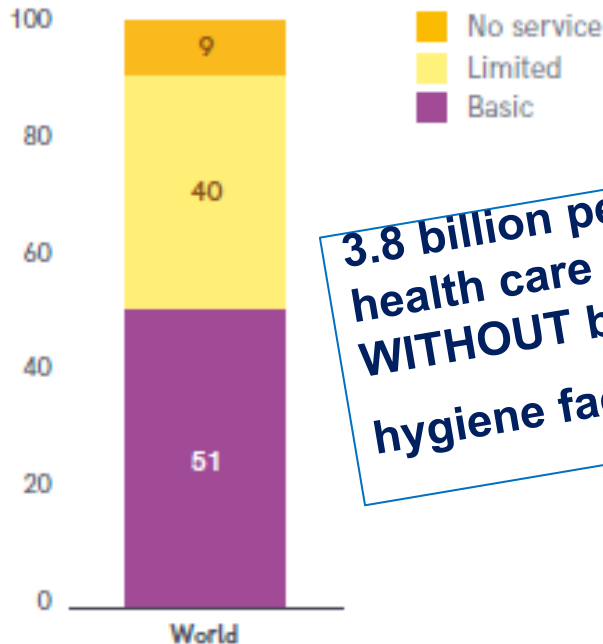


**Investing in water, sanitation, hygiene  
and waste in health care facilities:  
modest costs, high returns**

# WASH services are fundamental, but new WHO/UNICEF data indicates huge gaps

## Globally

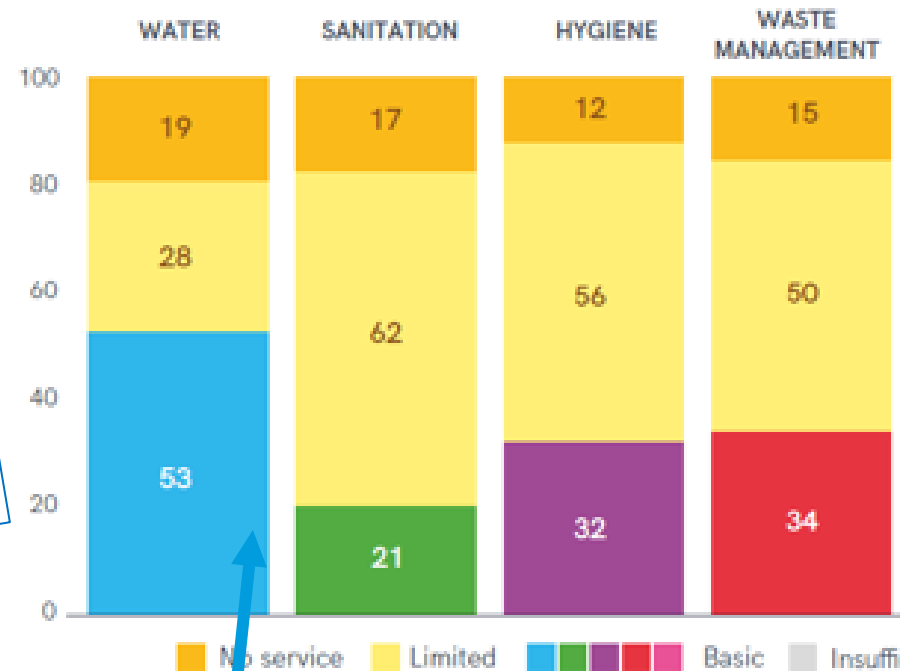
Half of health care facilities had a basic hygiene service in 2021



**3.8 billion people visit health care facilities WITHOUT basic hand hygiene facilities**

View report and data at: <https://washdata.org/>

## 46 Least Developed Countries



- 1 in 2 facilities lack basic water
- 8 in 10 facilities lack basic sanitation

# All countries committed to greater investments and action for WASH in health care facilities:

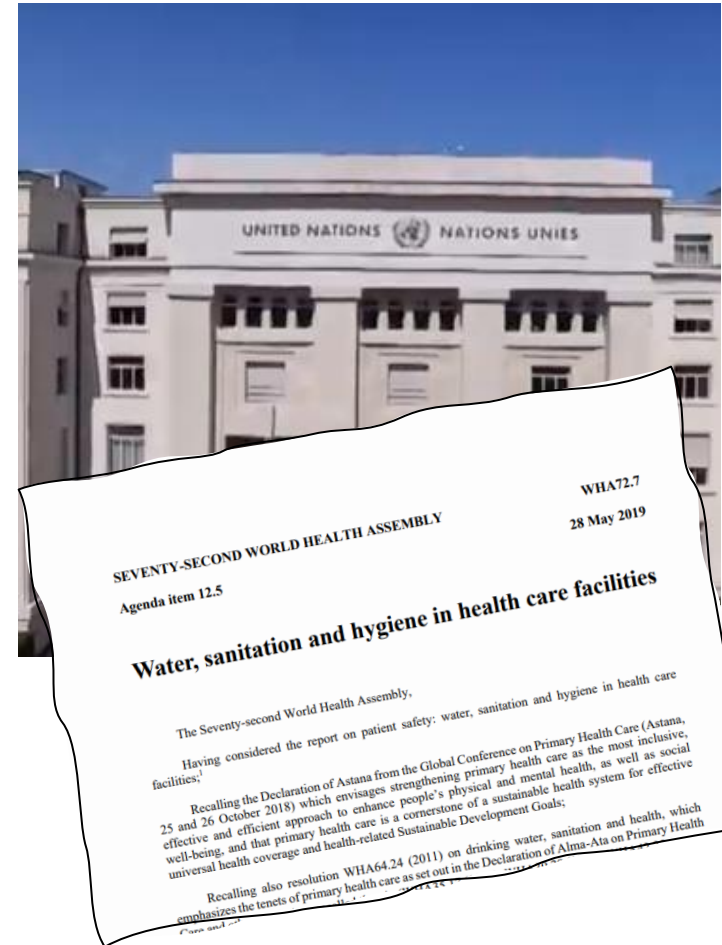
## *World Health Assembly Resolution 72.7 (2019)*

Calls for ALL Member States to:

- Establish national roadmap, targets and implement **WASH in HCF and infection prevention and control (IPC)** standards
- Integrate **WASH and IPC standards** and indicators into health programming and monitoring
- Address inequities, especially in primary health care facilities and facilities where births occur
- **Increase domestic funding** for WASH in HCF

Calls for the WHO Director General to:

- Provide leadership, technical guidance and regularly report on status
- Mobilize partners and investments



Available at

[http://apps.who.int/gb/ebwha/pdf\\_files/WHA72/A72\\_R7-en.pdf](http://apps.who.int/gb/ebwha/pdf_files/WHA72/A72_R7-en.pdf)

# What resources are needed? Pricetag analysis on achieving universal WASH in HCFs by 2030

The study focused on the 46 LDCs, home to 1.1 billion people

Study attribute	Description
Scope	Existing publicly managed health care facilities lacking basic service levels
Costs (financial)	Upfront investment (capital) and annual operations and maintenance (recurrent) estimated from the provider perspective (i.e., public sector)
WASH services	Water, sanitation, hygiene, and waste management (Environmental cleaning excluded due to lack of coverage data)
Main data sources	<ul style="list-style-type: none"> <li>• Baseline coverage: JMP (<a href="http://www.washdata.org">www.washdata.org</a>)</li> <li>• Costs: country survey</li> <li>• Health facilities (number, type): government and partner sources</li> </ul>
Modeling approach	<ul style="list-style-type: none"> <li>• Assumed linear scale-up of service availability over 10 years</li> <li>• Varied assumptions to generate base, lower, and upper estimates</li> <li>• Discounted future costs to present value terms</li> </ul>
Benchmarking	Compared estimates to health and WASH expenditure levels

Estimating the cost of achieving basic water, sanitation, hygiene, and waste management services in public health-care facilities in the 46 UN designated least-developed countries: a modelling study

Michael Chaitkin, Samantha McCormick, Jorge Alvarez-Sala Toranzo, Irene Amogni, Silvia Gaya, Odd N Hanssen, Richard Johnson, Tom Skjema, Claire Chase, Guy Hutton, Maggie Montgomery\*

#### Summary

**Background** An alarming number of public health-care facilities in low-income and middle-income countries lack basic water, sanitation, hygiene (WASH), and waste management services. This study estimates the costs of achieving full coverage of basic WASH and waste services in existing public health facilities in the 46 UN designated least-developed countries (LDCs).

**Methods** In this modelling study, in-need facilities were quantified by combining published counts of public facilities with estimated basic WASH and waste service coverage. Country-specific per-facility capital and recurrent costs to deliver basic services were collected via survey of country WASH experts and officials between Sept 24 and Dec 24, 2020. Baseline cost estimates were modelled and discounted by 5% per year. Key assumptions were adjusted to produce lower and upper estimates, including adjusting the discount rate to 8% and 3% per year, respectively.

**Findings** An estimated US\$6.5 billion to \$9.6 billion from 2021 to 2030 is needed to achieve full coverage of basic WASH and waste services in public health facilities in LDCs. Capital costs are \$2.9 billion to \$4.8 billion and recurrent costs are \$3.6 billion to \$4.8 billion over this time period. A mean of \$0.24–0.40 per capita in capital investment is needed to achieve full coverage of basic WASH and waste services in public health facilities in LDCs.



Lancet Glob Health 2022; 10: e143–49  
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[https://doi.org/10.1016/S2468-2667\(22\)00099-7](https://doi.org/10.1016/S2468-2667(22)00099-7)

For the web version of the abstract see Online for appendix 1.  
For the French translation of the abstract see Online for appendix 2.

For the Portuguese translation of the abstract see Online for appendix 3.  
\*Equal last authors  
Lancet, London, UK; USA

**Citation:** Chaitkin, et al., 2022. Estimating the cost of achieving basic water, sanitation, hygiene and waste management services in health care facilities in the 46 UN designated least-developed countries. *Lancet Global Health*. [https://www.thelancet.com/journals/lanгло/article/PIIS2214-109X\(22\)00099-7/fulltext](https://www.thelancet.com/journals/lanгло/article/PIIS2214-109X(22)00099-7/fulltext)

# Achieving basic services by 2030 in the LDCs' existing public facilities will cost an additional US\$ 6.5–9.6 billion

**US\$ 2.9–4.8B**

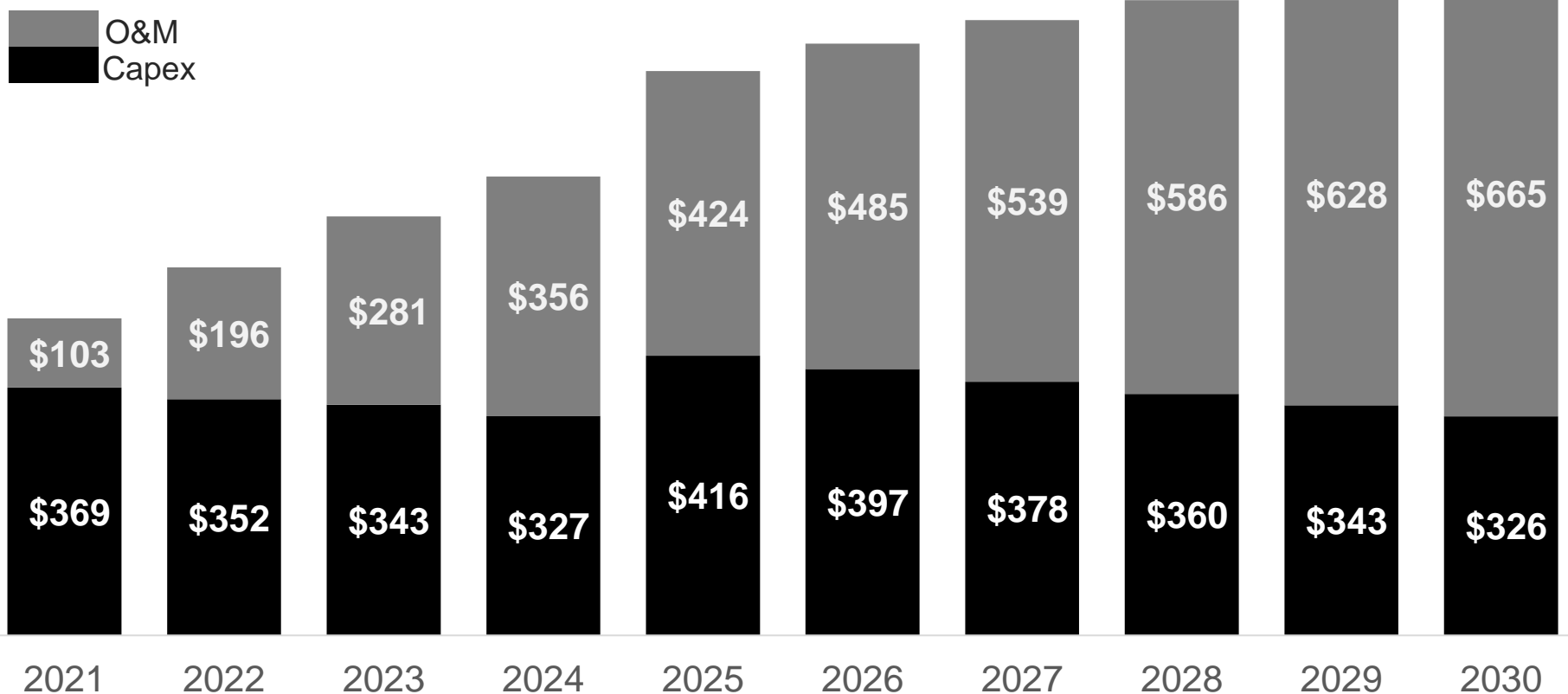
more in capital investment,  
equal to **US\$ 2.43–3.99**  
per capita

**US\$ 3.6–4.8B**

more in recurrent spending,  
equal to **US\$ 2.99–3.89**  
per capita

# Incremental capital investment drives mounting recurrent costs

Total capital (Capex) and recurrent (O&M) costs, 2021–2030 (US\$ millions), all LDCs\*



# Costs are modest compared to WASH and health resource flows...

...and they only represent a small fraction of needed investment to provide universal basic WASH to all people in LDCs by 2030

**US\$ 0.54-0.79**

(Cap: US\$ 0.24-0.40,  
O&M: US\$ 0.30-0.39)



**Annual investment needed per capita for WASH in HCFs in LDCs (2021–2030)**

Capital health spending per capita by 23 LDC governments  
(Global Health Expenditure Database)

**US\$ 0.80**

(range: US\$ < 0.01–2.55)



**US\$ 3.01**



ODA per capita for WASH in LDCs in 2018  
(OECD CRS 2020)

**US\$ 3.09**

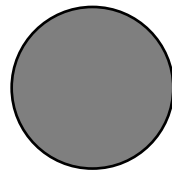
(range: US\$ 0.01–15.72)



Annual spending per capita on WASH by 22 LDC governments  
(GLAAS 2019 Report)

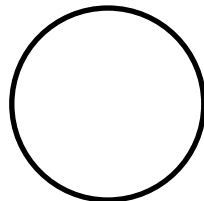
**US\$ 10**

(range: US\$ 3–553)



Recurrent health spending per capita by 44 LDC governments in 2018  
(Global Health Expenditure Database)

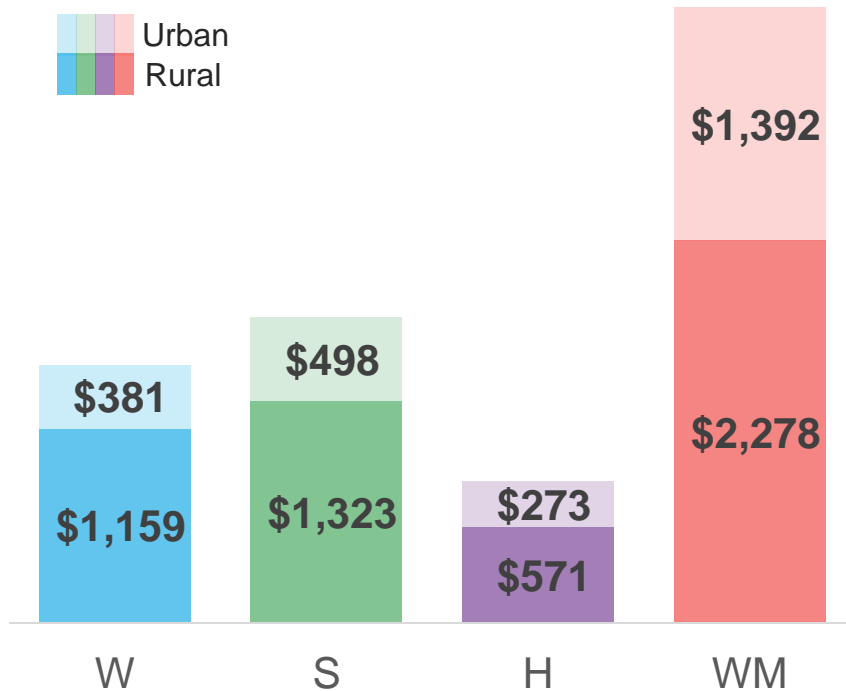
**US\$ 11.59**



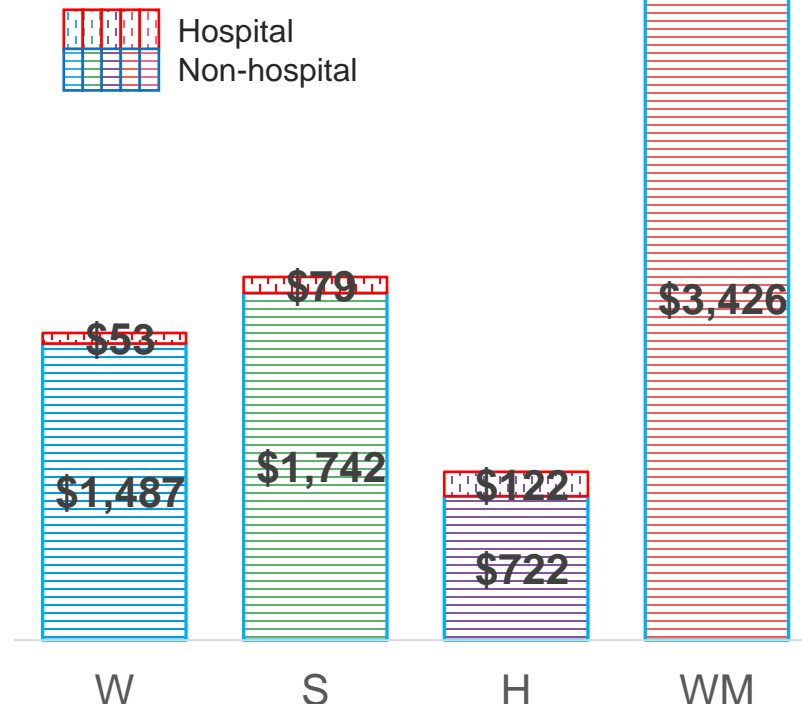
Annual investment needed per capita for universal basic WASH in LDCs (2015–2029)  
(Hutton & Varughese 2016)

# Most of the investment should be channeled to rural health facilities and non-hospitals

**Costs by rural urban\***  
(US\$ millions)



**Costs by facility type\***  
(US\$ millions)



The rural poor stand to benefit the most from improved WASH in health care facilities.

The PHC and UHC movements cannot succeed without a strong WASH foundation.

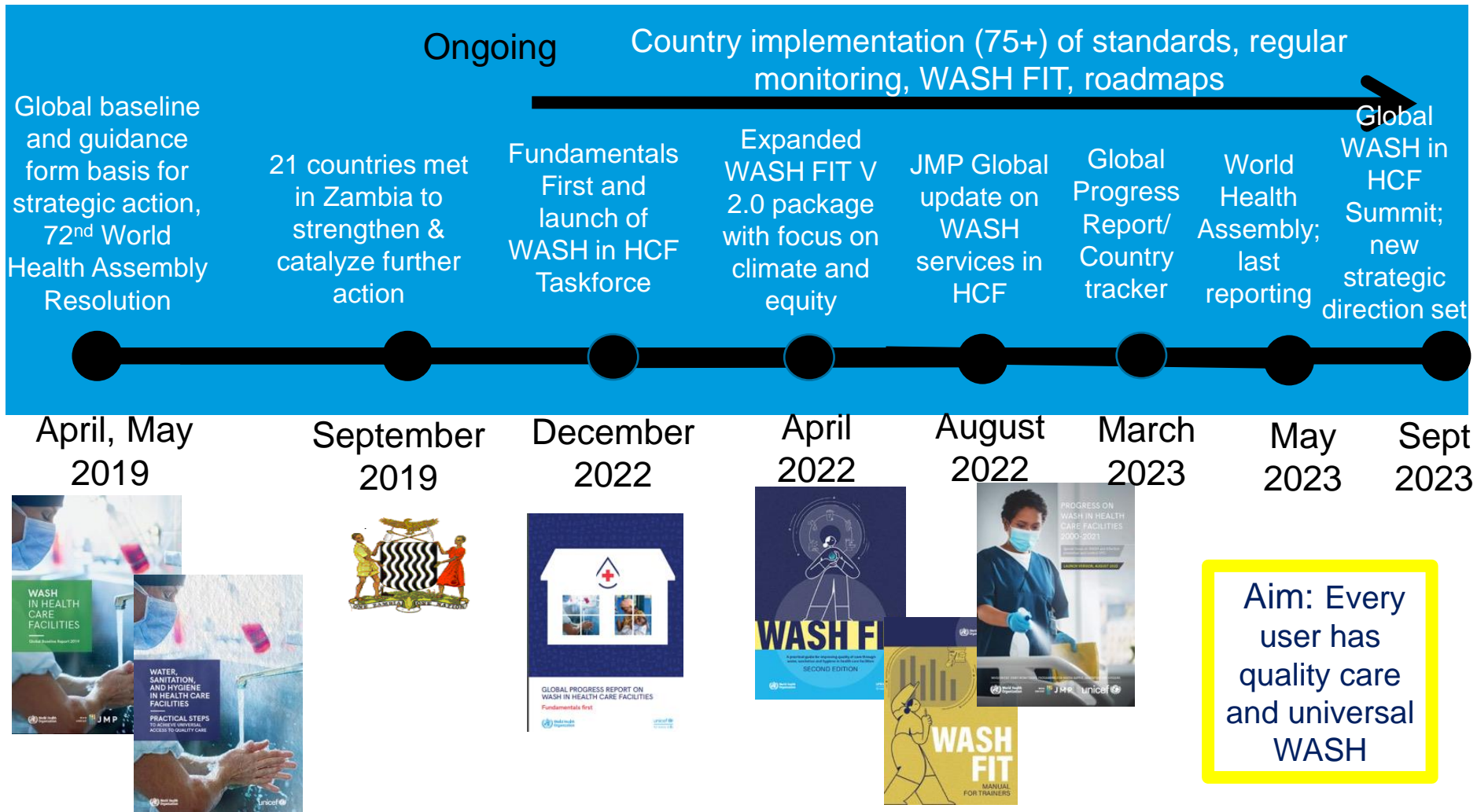


# Key takeaways from the analysis

- The cost of providing universal WASH in health care facilities from 2021 to 2030 is US\$ 6.5–9.6 billion (US\$ 0.54–0.79 per capita). **These costs are modest compared to overall levels of health and WASH spending.**
- **Needs are greatest for facilities in rural areas and in non-hospital facilities,** meaning efforts to meet WASH needs in **health care facilities will contribute to the equity- and primary care–centered principles**
- **Increasing resourcing to WASH is possible and strengthens pandemic preparedness:** Ghana, Philippines, Indonesia have strengthened monitoring and budgeting; Global Fund including health care waste budgeting in country grants
- All new WASH should be climate-resilient and sustainable and old WASH retrofitted (**aligns with COP 26 Health Commitments**)



# Looking ahead, 2023 – a renewed impetus & opportunity for action



# Four main global recommendations for action: ALLhealth actors have a role

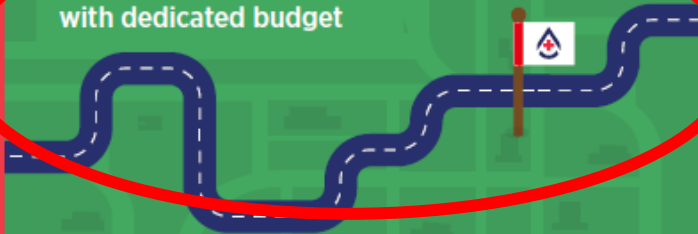
**Action is needed now**



**Develop capacities of health workforce to promote and practice good hygiene and improve the quality of services**



**Implement targeted plans with dedicated budget**



**Monitor and review progress in improving services, practices and the whole health care environment**



**Integrate water, sanitation and hygiene into regular health care sector planning, budgeting and programming**



**Why has it taken so long?  
Why not act now.  
Learn more at:  
[www.washinhcf.org](http://www.washinhcf.org)**