ACHIEVING QUALITY UNIVERSAL HEALTH COVERAGE THROUGH BETTER WATER, SANITATION AND HYGIENE IN HEALTH CARE FACILITIES:

A FOCUS ON CAMBODIA













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ABBREVIATIONS

ASEAN	Association of Southeast Asian Nations
СРА	Complementary Package of Activities
HEFs	Health Equity Funds
H-EQIP	Health Equity and Quality Improvement Program
МоН	Ministry of Health
MPA	Minimum Package of Activities
MRD	Ministry of Rural Development
MPQIH	Master Plan for Quality Improvement in Health
NDP	National Development Plan
NPQSH	National Policy on Quality and Safety in Health
NSSF	National Social Security Fund
QUHC	Quality Universal Health Coverage
TWG	Technical Working Group
UHC	Universal Health Coverage
UNICEF	United Nations Children's Fund
WASH	Water, sanitation and hygiene

EXECUTIVE SUMMARY



The World Health Assembly 72.7 Resolution

on water, sanitation and hygiene (WASH) in health care facilities recognises that sustained improvements in WASH in health care facilities require integration between quality of care efforts and WASH. To date, little evidence is available on how such integration occurs at the country level. To address this knowledge gap, WHO conducted an in-depth situational analysis in Cambodia, that builds on a previous <u>study</u> in Ethiopia.¹ The purpose of the situation analysis was to understand how actions are being taken to improve WASH in health care facilities as part of quality of care improvement efforts and identify barriers and challenges to implementing and sustaining these improvements. While data were collected in 2017, this report has been updated with statistics and documentation, as relevant, at the end of 2019.

The specific objectives were to:

 identify and describe the institutional arrangements and health system level changes that have been made to support the integration of WASH in health care facility improvements and practices into quality of care mechanisms;

WHO. Achieving quality universal health coverage through better water, sanitation and hygiene services in health care facilities: a focus on Ethiopia. Geneva: World Health Organization; 2017

- understand how changes in practice and attitudes can be made at the national, regional, district and facility levels to sustain these improvements;
- identify bottlenecks that prevent or delay improvements in WASH services in areas including leadership, policy, financing, monitoring & evaluation, evidence and facility improvements within the context of quality Universal Health Coverage (UHC);
- identify and document enablers where improvements have been made and sustained; and,
- develop recommendations with the Ministry of Health (MoH) and key stakeholders for improving quality efforts and WASH services, within the context of UHC.

Successes

Political prioritisation: Quality is at the forefront of the <u>National Health Strategic Plan</u> 2016-2020 and there is strong recognition from all health partners, including national policy makers and the Health Equity and Quality Improvement Program (H-EQIP), that WASH should underpin quality of care.

Cross-sector commitment: The Ministry of Rural Development (MRD) and the Ministry of Health (MoH) have set targets for improving WASH in health care facilities in their strategies and plans.

Financing: The co-funded (H-EQIP) mechanism has made financing available through lump sum and performance-based grants that provide an opportunity for WASH improvements at the facility level.

Social security: Scaling up of social health protection schemes, in particular, the health equity fund and social health insurance for

salaried workers and civil servants provides a potential platform for developing and implementing an accreditation process for public and private facilities.

Challenges

Harmonisation across policies: Though WASH is acknowledged in health policies and incorporated in quality of care improvement mechanisms, it is not consistently represented across all policy documents and mechanisms.

Financing: Clarity on how the Service Delivery Grant financing mechanism can be used to address WASH is not clearly understood by all health managers.

Governance: There is no formal coordination mechanism or agreement on alignment of WASH in health care facility targets between the Ministry of Health and ministries responsible for WASH such as the Ministry of Rural Development.

Conclusions

There is strong leadership and political will to improve the quality of care, including WASH in health care facilities, and there are comprehensive mechanisms being rolled out to improve quality through H-EQIP. However, several challenges were identified during the study that require attention to ensure that efforts are accelerated and sustained. There are immediate, achievable actions that can be taken such as aligning policies, implementing standards and formalising cross-sector collaboration efforts. In addition, longer term, broader health system reform is required, such as accreditation and regulation of the private sector providers, to ensure that quality UHC and universal access to WASH is achieved for all by 2030.

INTRODUCTION

Water, sanitation and hygiene (WASH) in health care facilities are essential for providing safe health care services and are a core element of quality within the context of the rapidly evolving landscape of universal health coverage (UHC). Harmonising efforts between quality, WASH and UHC can maximise improvements in several health priority areas including infection prevention and control (IPC), antimicrobial resistance, health and occupational safety, staff moral and performance, health care costs and disaster/ outbreak preparedness and resilience.

Basic WASH services in health care facilities are fundamental to providing quality care and for ensuring that universal health coverage and primary health care commitments, as detailed in the Universal Health Coverage High Level Declaration² and the Astana Declaration,³ are achieved. Recent global data from WHO/ UNICEF show one in four health care facilities lack basic water services and one in five have no sanitation services, impacting 2.0 and 1.5 billion people, respectively. Two in 5 health care facilities lack hand hygiene facilities at points of care, and safe health care waste management is limited.⁴ There is much to be done to improve WASH services and practices; quality UHC will not be achieved without it.

The World Health Assembly <u>72.7 Resolution</u> on WASH in health care facilities⁵ recognises that sustained WASH in health care facilities improvements require integration between quality of care efforts, UHC and WASH. To date, limited evidence is available on how integration occurs, particularly in the East Asia and Pacific regions. To address this knowledge gap, WHO is conducting detailed situation analyses in countries that have commenced WASH in health care facilities improvements as part of their quality of care efforts.

A situational analysis is the first of the eight practical steps, outlined by WHO and UNICEF in 'Water, sanitation and hygiene in health care facilities: practical steps to achieve universal access to quality care'⁶, for driving sustainable change on WASH in health care facilities. A situational analysis examines health and WASH policies, governance structures, and funding streams, whereas an assessment provides updated figures on WASH coverage and compliance. Together, these documents form the basis for prioritising action and mobilising resources.

Cambodia is placing quality at the centre of their health care and has taken action to address WASH in health care facilities as part of their quality efforts. As such, Cambodia provides an interesting example from which to learn.

² United Nations. Political declaration of the high-level meeting on universal health coverage. 2019.

³ Declaration of Astana. Global Conference on Primary Health Care. Geneva: World Health Organization; 2018.

⁴ World Health Organization and the United Nations Children's Fund, WASH in health care facilities: Global Baseline Report 2019, WHO and UNICEF, Geneva, 2019

⁵ WHA 72.7 Water, sanitation and hygiene in health care facilities. 72nd World Health Assembly Resolution, 2019. https://apps.who.int/gb/ebwha/ pdf_files/WHA72/A72_R7-en.pdf

⁶ Water, sanitation and hygiene in health care facilities: practical steps to achieve universal access. Geneva: World Health Organization; 2019.

Why Cambodia?

Cambodia's health system has seen steady improvements since the 1990s. Life expectancy at the end of Khmer Rouge rule was 29.6 years but it has sharply increased over the last thirty years to an average of 69 years in 2016. This has been achieved through extensive health system reform and health planning.⁷ Targeting the poor and striving for UHC has been at the core of Cambodia's health reform. Over the past twenty years, extensive supply and demand side health financing reforms have taken place to mitigate the cost of accessing care and increase coverage, particularly to the most vulnerable.⁸ These reforms have reduced outof-pocket spending by the poor⁹ and increased utilization of health care services.¹⁰

With the increasing access to, and use of, health care services, the attention of policy makers has shifted to prioritizing the quality of health service delivery.¹¹ Additionally, the Ministry of Health in Cambodia has taken steps to embed WASH in health care facilities into its health system reform and priorities. Cambodia's leadership on health financing, quality of care and WASH in health care facilities has been captured in this study. Other themes which have been explored and analysed include health reforms, how financing mechanisms, quality and WASH are linked under efforts to achieve UHC at the national level, and how this translates to on the ground improvements.

⁷ WHO. The Kingdom of Cambodia Health System Review. Report, 2015. http://www.wpro.who.int/asia_pacific_observatory/hits/series/cambodia_ health_systems_review.pdf

⁸ Ensor T, Chun C, Kimsum T, McPake B, Edoka I. Impact of health financing policies in Cambodia: A 20 year experience. Social Science and Medicine: 118-126, 2017.

⁹ Ensor T,Chun C, Kimsum T, McPake B, Edoka I. Impact of health financing policies in Cambodia: A 20 year experience. Social Science and Medicine: 118-126, 2017.

¹⁰ Annear PL, Khim K, Por I et al. National coverage and health service utilization by Health Equity Fund members, 2004–2015. ADRA Research Report, 2016.

¹¹ Kingdom of Cambodia. 2016. National Health Strategic Plan 2016-2020. Cambodia.

METHODOLOGY



The overall aim of the situation analysis was to describe policies and mechanisms that support WASH improvements as part of broader quality and UHC strategies. Additionally, the study aimed to identify barriers and challenges to implementing and sustaining these improvements across all levels of the health system.

The specific objectives were to:

 identify and describe the institutional arrangements and health system level changes that have been made to support the integration of WASH in health care facility improvements and practices into quality of care mechanisms;

- understand how changes in practice and attitudes can be made at the national, regional, district and facility levels to sustain these improvements;
- identify bottlenecks that prevent or delay improvements in WASH services in areas including leadership, policy, financing, monitoring & evaluation, evidence and facility improvements within the context of quality UHC;
- identify and document enablers where improvements have been made and sustained; and,

 develop recommendations with the Ministry of Health and key stakeholders for improving quality efforts and WASH services, within the context of UHC.

A qualitative approach was adopted for the study. Data were collected through a desk review of relevant documents, key informant interviews with stakeholders at all levels of care and direct observations in facilities. A rapid review of WASH and UHC policies, standards, and assessment tools was conducted prior to the start of the mission, in order to identify key linkage points between quality, UHC and WASH. Other relevant documents were identified by key informants and reviewed accordingly.

Key informant interviews were conducted in February 2017 and were approximately one hour in length. Sixteen interviews were conducted at the national level, two at the provincial level and four at the health facility level. Purposive sampling was used to identify key stakeholders including policy makers, facility managers, staff members and communities from health facility, district, provincial and national levels of government, and partners. Key informants at facility, district, and provincial levels were selected in two operational districts in two provinces (Kampong Chhnang and Kampong Thom) which were among the five provinces where an <u>assessment of WASH in health care facilities</u> that was conducted in 2016.¹² The results from this assessment are summarised in Figure 1.

To attempt to cover a cross-section of welland less well-performing facilities in terms of health care delivery and WASH, in each operational district, three health facilities were visited. At each facility, interviews were held with key staff and a rapid assessment of WASH services conducted. Verbal consent was obtained at the start of each interview. Notes were taken during the interviews and interviews were not recorded. Interviews were held in English and Khmer. Those held in Khmer were translated into English and all analysis was conducted in English. The data were analysed manually, thematically and by specific objectives. Ethics approval was granted for this study by the Cambodian Ministry of Health in February 2017.



¹² Por I Assessment of water, sanitation and hygiene in public health care facilities in five provinces in Cambodia. Phnom Penh, 2017.

OVERVIEW OF THE CAMBODIAN HEALTH CARE SYSTEM

The Cambodian health care system consists of a district-based public sector and a fast growing but loosely regulated private sector. In 2017, there were over a thousand public health care facilities, including 99 referral hospitals and 1,141 health centres providing a fair physical coverage of facilities throughout the country.¹³ Health centres deliver a defined package of primary health care, namely the Minimum Package of Activities (MPA),¹⁴ whereas referral hospitals provide a Complementary Package of Activities (CPA)¹⁵ to expand on what is provided in health centres. The Ministry of Health is responsible for the planning, policy and delivery of government health care services.

Health reforms have been strongly led, and managed, at the national level by the Ministry of Health with support from development partners. Reforms have focussed on several areas including improving health system planning and administration, improving coverage of basic services, reducing financial barriers to accessing care, and increasing service use and quality.

In the National Health Strategic Plan, there is continued effort to foster greater autonomy of health facility level management for financial and human resources through financing mechanisms called Service Delivery Grants. Service Delivery Grants include fixed grants and performance based grants. Each facility can access their own account and can manage their own resources to meet their facility needs.

The public sector strongly supports health related to promotion and prevention in key areas such as communicable disease and maternal, newborn and child health. Private sector providers are still the preferred provider for initial care-seeking for curative services with the 2014 <u>Demographic and</u> <u>Health Survey¹⁶</u> showing private sector providers were used for 67% of first treatments. Key health statistics for Cambodia are found in Table 1.

¹³ Por I Assessment of water, sanitation and hygiene in public health care facilities in five provinces in Cambodia. Phnom Penh, 2017.

¹⁴ Ministry of Health. Minimum Package of Activities(MPA) Operational Guideline (Khmer version). Phnom Penh, 2014.

Ministry of Health. Guidelines on Complementary Package of Activities for Referral Hospital Development (Khmer version). Phnom Penh,

²⁰¹⁴

¹⁶ Royal Government of Cambodia. Cambodia Demographic and Health Survey. Phnom Penh, 2014

Table 1: Key health and WASH statistics for Cambodia^{17, 18, 19, 20}

General

Population: 15.3 million

Number of facilities in country: 1,141 health centres, 99 referral hospitals

Health

Maternal mortality ratio per 100 000 live births (2014): 170

Neonatal mortality rate per 1000 live births (2014)]: 18

% of children (0-5 years) with diarrhoea (2014): 12.8

% births attended by a skilled health professional (2014): **89.0%**

Life expectancy at birth (m/f, years): 67.1/70.1

Total expenditure on health per capita (2014): 70 USD

Total expenditure on health as % of GDP (2014): 6.3

WASH in health care facilities*

Access to water supply:

91% (health care facilities with water available from improved sources on premises, MoH) **63%** (health care facilities with water available from improved sources on premises, JMP 2019)

Access to sanitation:

39% (health care facilities with at least three improved and usable toilets, MoH) **98%** (improved and usable toilets, JMP 2019)

Access to hand hygiene:

15 % (health care facilities with functional hand hygiene station available at OPD and delivery room/area and within five meters of toilets, MoH)

Health care waste management:

10% (health care facilities where waste is segregated in consultation area and infectious/ sharps wastes are treated/disposed of safely, MoH)

Population access to WASH

79% (population using basic drinking water sources, JMP 2017) **59%** (population using basic sanitation facilities, JMP 2017)

* N.B. These data are a combination of MoH-calculated data from a non-nationally representative sample from 16 public referral hospital outpatient departments and 101 public health centres, and from WHO/UNICEF Joint Monitoring Programme 2019 calculations. There were insufficient data for all indicators to measure basic services levels as defined by the WHO/UNICEF Joint Monitoring Programme.

¹⁷ Por I Assessment of water, sanitation and hygiene in public health care facilities in five provinces in Cambodia. Phnom Penh, 2017

¹⁸ National Institute of Statistics (NIS). Ministry of Planning, Royal Government of Cambodia, Directorate General for Health (DGH); Ministry of Health, Royal Government of Cambodia. Cambodia Demographic and Health Survey, 2014. (https://dhsprogram.com/pubs/pdf/fr312/fr312.pdf, accessed Nov 2017).

¹⁹ WHO/UNICEF. Joint Monitoring Programme for Water Supply and Sanitation. World Health Organization/United Nations Children's Fund, 2017. (https://washdata.org/data/household#!/khm, accessed Dec 2019)

²⁰ World Health Organization and the United Nations Children's Fund, WASH in health care facilities: Global Baseline Report 2019, WHO and UNICEF, Geneva, 2019

NATIONAL ACTION AND POLICIES ON WASH, QUALITY



The structure of the Cambodian health care system is well organized and reviewing policies and documentation was simplified by the Ministry of Health having overall policy and planning responsibility. However, the responsibility and delivery of water, sanitation and hygiene services is complex and sits across several ministries and organizations. Mandates differ between rural and urban WASH services and between water and sanitation services. Urban WASH lies under several ministries including the Ministry for Industry and Handicrafts and the Ministry of Public Works and Transport. The Ministry of Environment is also involved, having some regulatory capacity for WASH. Due to the complexity of urban WASH service delivery (including through many private providers) and its complex policy/regulatory environment, the focus of the analysis was restricted to rural WASH policy, where clear targets, responsibilities and actions have been developed for institutional WASH including health care facilities.

Health-related documents that were reviewed and analysed were: (1) the Health Strategic Plan 2016-2020, (2) the National Policy for Quality and Safety in Health, (3) the Master Plan for Quality Improvement in Health; (4) the



Strategies/interventions

Figure 1: Health Strategic Directions as indicated in the Health Strategic Plan 2016-2020

Service Delivery Grants Operational Manual (5) Health Equity and Quality Improvement Project (H-EQIP) and related tools, (6) National Social Protection Policy Framework 2016-2025, (7) Situation Analysis of Water, Sanitation and Hygiene in Health Care Facilities 2015,²¹ (8) National Standards Tools for the assessment of water, sanitation and hygiene in public health care facilities, (9) the final report of an Assessment of Water, Sanitation and Hygiene in Public Health Facilities in Cambodia,²² (10) final draft Operational Guidelines on Minimum Package of Activities, and (11) final draft National Guidelines for Water, Sanitation and Hygiene (WASH) in Health Centres of Cambodia.

In general, rural WASH services are the responsibility of the Ministry of Rural Development. Implementation of rural WASH is guided by two key documents: National Strategic Plan for Rural Water Supply, Sanitation and Hygiene 2014-2025 and the National Action Plan for Rural Water supply, Sanitation and Hygiene 2014-2018.

The prioritisation of UHC, quality and WASH in policies and planning

Targets for WASH in health care facilities are included in the main policies and plans for both the Ministry of Health and the Ministry of Rural Development. Overall, rural WASH policies and plans strive to achieve universal access to improved WASH by 2025 and health policies ultimately strive to achieve the delivery of quality health services for all.

The overarching policy document for health is the Health Strategic Plan 2016-2020 (HSP3). It is the most frequently updated and integrated key heath policy document in Cambodia. It has a clearly laid out vision, mission, values, working principles, key policy goals, objectives and strategies for the health sector in Cambodia.²³

The policy's goal, as inspired by the principles of UHC, is to **"improve health outcomes of the population and increase financial risk protection"** by strengthening the whole health system to: (1) increase population

²² Por I. Assessment of water, sanitation and hygiene in public health care facilities in five provinces in Cambodia. Phnom Penh, 2017

²¹ WaterAid. Towards safer and better quality health care services in Cambodia A situation analysis of water, sanitation and hygiene in health care facilities. Phnom Penh, 2015.

²³ Royal Kingdom of Cambodia. Ministry of Health National Health Strategic Plan 2016-2020. 2016. Cambodia (http://hismohcambodia.org/public/ fileupload/carousel/HSP3-(2016-2020).pdf)

access to and utilization of promotive, preventive, curative, and rehabilitative affordable, safe and effective quality health services and (2) reduce their financial burden when accessing and utilizing health care services, especially for the poor and other vulnerable population groups.

As reflected in the strategic objective 1 "the population will have accessed to comprehensive, quality, safe and effective health services at public and private health facilities", quality and safety are at the forefront of the HSP3. WASH in health care facilities is clearly recognized as critical to providing a supportive environment for quality of care. Strategy 23 stipulates that improving the supportive environment with appropriate access to WASH is a key contribution to overall quality improvement and safety for patients and personnel. This strategy includes four WASH-related key strategic interventions that aim to improve the quality of care:

- Increase access to clean water or improved water sources and electricity, especially in remote health facilities, to enable provision of quality health services, improve hygiene and sanitation and maintain safety and security for both patients and health personnel.
- Maintain hygiene and sanitation at health facilities, including functioning clean water supply system, drainage system, and catering and toilet facilities.
- Provide adequate personnel protection equipment/materials to prevent health providers from potential health risks when providing health services.
- Improve medical waste management practices at all health facilities, including disposal of damaged materials and equipment with high risk to public health.

Similarly, WASH in health care facility objectives exist in the National Strategic Plan for Rural Water Supply, Sanitation and Hygiene. The policy aims to achieve universal access to improved water and sanitation in rural areas by 2025. The vision is that *every person in a rural community has sustained access to a safe water supply and sanitation*



services and lives in a hygienic environment by 2025. Included in the plan is the recognition that these services should extend to institutions including schools and health care facilities. Specific objectives are not analogous but are supportive of the health objectives and include:

- Develop a national standard for the number of latrines per inpatient and outpatient, defined separately for males and females and people with disabilities.
- Prepare and maintain an inventory of existing latrines, water and sanitation facilities, including functionality, in all health centres other rural institutions.
- Build latrines in all health centres other rural institutions using a demand-responsive approach.

The need to coordinate efforts with the Ministry of Health is specifically recognised in the National Strategic Plan for Rural Water, Supply, Sanitation and Hygiene. This coordination is not as clearly recognised in the Ministry of Health's policies. The WASH strategic plan states that health centres should be responsible for operating and maintaining their WASH services while the health strategic plan recognizes broader roles and responsibilities across levels of the health care system (from facility to national level) for ensuring quality and basic infrastructure.

Guiding quality improvement processes are two key documents. Firstly, the National Policy on Quality and Safety in Health (NPQSH), which provides the framework for all efforts for quality assurance and improvement



in health care and services in Cambodia and secondly, the Master Plan for Quality Improvement in Health (MPQIH) which guides the implementation, monitoring and evaluation of the strategic areas of the NPQSH. The NPQSH streamlines and sets the direction for activities of government, the private sector and other stakeholders, including aligning efforts in quality improvement to international and ASEAN frameworks, and reflects the government's commitment to assuring quality and safe health care services that are effective, patientcentred, timely, efficient and equitable. Several of the objectives in the NPQSH address quality assurance including licensing, accreditation schemes, and the development and roll out of standards, including upholding patients' rights to demanding and receiving quality care.

A third, critical element of improving the quality of care within the Cambodian health system is the Health Equity and Quality Improvement Project (H-EQIP), a governmentdonor jointly funded project that aims to improve health equity and quality of health services. H-EQIP includes three main components: (1) strengthening health service delivery through Service Delivery Grants (2) improving financial protection and equity through Health Equity Funds (HEFs) and (3) ensuring sustainable and responsive health systems. While HEFs mainly seek to increase health service utilization by the poor, the redesigned Service Delivery Grants focus on improving the quality of health service delivery.

The financial elements, and their relation to WASH, are separately addressed below (see *'Financing for quality health services and WASH*'). Notably, the quality checklist tools used under the financing scheme explicitly includes WASH. The tools include three elements: (1) structural quality, (2) quality of care delivery process (using clinical vignettes) and (3) quality outcome (through client interviews), which allow scoring from a minimum of 0% to a maximum of 100%, including 30%, 60% and 10% for element 1, 2 and 3, respectively. The structural quality includes a quality criterion (with a maximum score of 15%) related to WASH infrastructure and facilities. Interviews at the national level revealed that little coordination exists between the WASH and Health Ministries, and while there was an expressed will to better coordinate among Ministry of Rural Development and the Ministry of Health, no formal mechanism currently exists. There is informal coordination between key partners actively engaged in WASH in health care facility activities including WHO, UNICEF, WaterAid and the Ministry of Health. Further clarity on how the NPQSH, insurance schemes and H-EQIP align, particularly with Social Protection schemes, requires further interrogation. Health actors focused on quality improvements acknowledge WASH as critical to achieving their goals, including those leading the H-EQIP. As H-EQIP is rolled out to scale, analyses of emerging data will indicate the extent to which WASH is being addressed through this quality improvement mechanism.

Quality assurance mechanisms: working towards regulation and accreditation

While there is no system-wide, routine accreditation and regulation system being implemented for public and private providers in Cambodia, mechanisms exist, primarily through the National Social Protection Policy Framework 2016-2025 and the associated National Social Security Fund (NSSF). The National Social Protection Policy Framework 2016-2025 provides an overall policy framework to guide action towards universal social protection (social security), including social health protection (health security). The NSSF is a national social security mechanism which includes a health insurance scheme for civil servants and workers in formal employment. Under the NSSF health insurance scheme, health facilities that provide services under the NSSF must undertake an accreditation process before being contracted to provide services under the scheme. Though details of the accreditation process were not available to review in this study, it reportedly contains WASH components.

Both public and private health care facilities are able to become providers under the

NSSF. At the time of the study only a small number of private providers had engaged in the scheme and undertaken the accreditation process but this was predicted to grow as NSSF is rolled out and scaled up to all civil servants and eligible workers over the coming years.

Financing for quality health services and WASH

Financing for WASH in health care facilities sits primarily under the Service Delivery Grant scheme and external donor funding. Service Delivery Grants consist of a fixed element, namely the new Fixed Lump-sum Grants and a variable or performance-based element, the so-called Performance-based Grants. The Fixed Lump-sum Grants are entirely financed by the Royal Government of Cambodia (RGC), whereas the Performance-based Grants are co-financed by Royal Government of Cambodia, development agencies and the Multi Donor Trust Fund.

The Fixed Lump-sum Grants were officially introduced to the health sector for the first time in the 2016 budget. These grants are allocated to all health centres and referral hospitals throughout the country in fixed amounts for operational expenditures. These fixed grants were budgeted at US\$6.8 million for 2016 (Table 2). This allocated amount was revised in 2017 in which the allocated amount for each health centre covering a population of more than 10,000 people doubled (24 million Riels/year), and the allocated amount for referral hospitals increased to 150 million Riels, 200 million Riels and 250 million Riels for CPA1, CPA2 and CPA3 referral hospitals, respectively.

The fixed lump-sum grants are disbursed quarterly and directly to health facilities' accounts to be flexibly used to meet their urgent and priority expenses related to the provision of quality services, including necessary WASH-related facilities and supplies. Eligible expenses items are provided in the Manual.

Table 2: Fixed lump-sum Grants allocated for 2016

Health Facility	Allocation/Health Facility/Year in 2016 (in Khmer Riel)	Allocation/Health Facility/Year in 2016 (in approximate USD equivalent)
Health Centres	12,000,000	3,000
Referral Hospital CPA1	100,000,000	25,000
Referral Hospital CPA2	150,000,000	37,500

Performance-based Grants are grants to be provided to health centres, referral hospitals, operational districts and provincial health departments based on their performance scores, as assessed using a systematic ITenabled quality improvement tool. The performance-based element is budgeted at US\$40 million over the H-EQIP life span (2016-2021), to be equally contributed by the RGC, development agencies and a multi-donor trust fund. The Performance-based Grants are disbursed based on each facility's score.

Those health facilities that have undertaken the quality assessment at the time of the study noted that WASH was a priority for their facilities but there was a lack of clarity on which WASH commodities or training were eligible and interviewees often expressed that they were unclear on how they could spend the fixed and performance-based funds on WASH specifically. In those facilities that were seen to be performing well on WASH (based on a rapid assessment during the site visits and the interview process), several aspects were commonly reported to contribute to good performance. These included: leadership from health facility managers and senior staff on WASH and hygienic, clean facilities; transparency and joint decision making among staff on how funds were used and spent; and, clear roles and responsibilities among staff for WASH- and IPC-related responsibilities and practices. This indicates that while funds and mechanisms may be available, additional efforts may be required to drive sustained WASH services and behaviours at a level that meets minimum standards and requiremenst under the H-EQIP quality of care mechanism.

While Service Delivery Grants provide an important mechanism for addressing WASH gaps and services, they are likely insufficient for capital investments for new infrastructure and major infrastructure upgrades. Mechanisms to finance such costs did not emerge from this study.

Targets, assessments, monitoring and standards

Several targets for WASH in health care facilities exist across WASH and health ministries but routine monitoring and implementation of standards remains a challenge. The National Health Strategic Plan sets out targets for improving WASH in health care facilities, specifically: (1) Number and percentage of public health care facilities with basic water supply by 2020 = 95%; and, (2) Number and percentage of public health care facilities (out-patient department only) with basic sanitation by 2020 = 90%. The monitoring and evaluation framework of the National Health Strategic Plan includes one quality-specific indicator and two WASHrelated indicators. The former refers to the number and percentage of health facilities that received an average score of quality of care across different services to at least 60% calculated from periodic quality of care

assessments, whereas the latter include (1) the number and percentage of health facilities with basic water supply; and (2) the number and percentage of health facilities with basic sanitation (with at least three improved and usable toilets). The targets in the Health Strategic Plan differ from those outlined in the National Action Plan for Rural WASH developed by the Ministry of Rural Development. The WASH National Action Plan has set targets for WASH in health care facilities including costed targets for water, sanitation and hygiene as outline in Table 3.

rural water, sanitation, hygiene 2014-2018.						
70% of rural Health Centres and Health Posts have improved water supplies per National standards	Consult with MOH to seek and acquire technical a identify the needs of improved water supply in he Mobilize resources to support rural institutional in supply system project in health care facilities. Install health care facilities water supply systems to health care facilities and MOH. Field monitoring, evaluation, documentation, and of results.	ealth facilities. mproved water and turn over				
70% of health centres having adequate safe drinking water for patients	Identify health care facilities needing technical su improve water sources and treating safe drinking Coach health care facility leaders to improve and drinking water, treatment, and storage. Field follow up and reporting on safe drinking wa	water. promote safe				
70% of health centres having hand washing stations with soap for patients	Consult with non-government organisations and determine approach for promoting handwashing facilities. Determine target health care facilities and provid support for handwashing stations. Coach health care facilities leaders on promoting patients and staff. Field follow-up and reporting on handwashing stat	in health care e technical handwashing to				
70% of rural Health Centres and Health Posts have functioning, improved toilets and handwashing facilities accessible by patients, including the disabled.	Seek technical support to develop standard for in improved toilet in health centres Conduct health centre assessment on functioning toilets and inclusive toilet Provide technical support to health centres on inc toilet Follow and record the effectiveness of using impr health centres	g improved clusive improved				

Table 3: WASH in health care facilities targets as outlined in the National Action Plan for rural water, sanitation, hygiene 2014-2018.

Despite both the Ministry of Rural Development and the Ministry of Health having set clear targets for WASH in health care facilities, no formal routine and reliable monitoring mechanism exists to track progress. In the absence of reliable national monitoring and evaluation mechanisms, the National Institute of Public Health and the Department of Hospital Services of the Ministry of Health, with support from the WHO, developed national standard tools for the assessment of WASH in public health facilities. The main objective of the tools is to guide and harmonize national assessments of WASH in public health facilities, both health centres and referral hospitals, in Cambodia. There are two kinds of tools: one for health centres and, one for referral hospitals. Both have three modules: module 0 is about facility identification and assessment data; module 1 is for respondent interviews; and module 2 is the checklist for a facility walkthrough.

The findings from the first assessment using the tools in 2016 in 117 public health care facilities (101 health centres and 16 referral hospitals) in five provinces suggest, in those facilities that were assessed, that water supply meets WHO/UNICEF Joint Monitoring Programme basic requirements²⁴ in almost all facilities. However, shortages in the water supply still exist, mainly during the dry season. Most health facilities had an improved toilet but remain far from meeting the available national standards and WHO/UNICEF Joint Monitoring Programme basic sanitatin requirements.²⁵ Hand hygiene and health care waste management in almost all of the assessed health care facilities had limited or no service as defined by national and WHO/ UNICEF Joint Monitoring Programme basic requirements.²⁶ WASH in referral hospitals appears to be generally better than in health centres. WASH in health care facilities in Cambodia requires further improvement to ensure safety and quality of care, thereby

contributing to achieving UHC. The results of this assessment have formed the baseline data for tracking progress against the National Health Strategic Plan 3 targets.

At the time of the study, two key processes were underway to finalise guidelines on WASH. The first is the Minimum Package of Activities (MPA). The MPA includes defined services to be provided in health centres. In order to enable health centres to effectively and efficiently provide such services to the population, several versions of MPA guidelines have been developed. The MPA Operational Guidelines have 13 main chapters, including two chapters related to WASH: Chapter 6 on facility infrastructure and Chapter 10 on Infection Control, Sanitation and Clean Water, and one chapter specifically devoted to quality of care, Chapter 13 on Quality Assurance. The MPA is a key policy document providing guidance to improve overall management, including WASH and guality of care at health centres. National Guidelines for WASH in health care facilities²⁷ have also been developed to complement and expand on existing guidelines such as those that address IPC and health care waste management. The guidelines include water access, storage, and quality; sanitation focusing on sanitation facilities (toilets) for patients, staff and caregivers; wastewater disposal and drainage; and, hygiene including hand hygiene stations and bathing facilities.

While the Ministry of Health has developed and commenced implementing policies that clearly link WASH in health care facilities with quality of care, several challenges remain. Most critically, routine monitoring mechanisms need to be designed and implemented through existing healthmonitoring mechanisms to track progress. Additionally, priorities should be set for targeting assistance, particularly for capital investments and upgrades.

²⁴ WHO/UNICEF Joint Monitoring Programme defines basic water service level as 'water is available from an improved source on the premises'

¹⁵ WHO/UNICEF Joint Monitoring Programme defines basic sanitation service levels as 'Improved sanitation facilities are usable with at least one toilet dedicated for staff, at least one sex-separated toilet with menstrual hygiene facilities, ad at least one toilet accessible for people with limited mobility

²⁶ WHO/UNICEF Joint Monitoring Programme defines basic hygiene service levels as 'Functional hand hygiene facilities (with water and soap and/or alcohol-based hand rub) are available at points of care, and within 5 metres of toilets.' and basic health care waste management service level as 'Waste is safely segregated into at least three bins, and sharps and infectious waste are treated and disposed of safely27

¹⁸ Department of Hospital Services, Minsitry of Health. National Guidelines for Water, Sanitation and Hygiene in Health Care Facilities. 2018. Cambodia (https://www.washinhcf.org/resource/national-guidelines-for-water-sanitation-and-hygiene-in-health-care-facilities-cambodia/)

Links to National Development Priorities

Overarching the National Health Strategic Plan and the National Strategic Plan for Rural Water Supply, Sanitation and Hygiene is the National Development Plan (NDP) 2014-2018. The NDP supports Phase III of Cambodia's Rectangular Strategy for Development and is an overarching development plan for the country. It articulates health and WASH objectives alongside broader development objectives. Interventions for UHC, quality and WASH are described below.

Ensure equitable access to quality health services through strengthening the health system by focusing on the following:

- Expand coverage and improve the quality of health services, including the development of health infrastructure, effective and efficient procurement and supply management, and the provision of medical equipment.
- Ensure universal coverage by effective and appropriate use of resources and expansion of social health protection.
- Focus on human resource development and management to the needs of service delivery and create supportive environment for health professionals.
- Ensure available, timely and high quality health and health-related information for evidence-based policy formulation, decision-making, program implementation, performance monitoring and evaluation.
- Strengthen good governance, leadership, management and accountability mechanism in the context of decentralization and de-concentration, and develop and enforce laws and health regulations for both public and private sector.

Health service delivery:

 Develop quality accreditation system and apply consistent standards of quality across entire health sector (public, private and non-profit).

- Implement infection control measures, and improve medical waste management practice at health facility.
- Establish incentive for leveraging quality, such as bonuses and recognition/awards for health facility.
- Improve physical asset management systems, including maintenance of medical equipment, buildings, means of transportation and Information Communication Technology equipment.
- Improve physical health infrastructure, including building health centre, health post, maternity waiting room, and hospital buildings, and drainage system, electricity and improved water sources at health facilities, especially in remote areas.

These overarching objectives support the inclusion of WASH in health care facilities into quality of care and health system strengthening activities for achieving quality UHC in Cambodia. This indicates that these priorities are a top priority at the highest level of the Royal Government of Cambodia.



THE NEXUS: WASH, QUALITY AND UHC



WASH in health care facilities was widely recognised by WASH and health actors as essential for achieving quality of care and UHC. However, targets between ministries are not aligned and there is no formal coordination between ministries to achieve their respective targets. There was mutual consensus among interviewees that the Ministry of Health is primarily responsible for WASH in health care facilities. Pathways identified for best addressing WASH were through Service Delivery Grants and the Performance-based Grant system. However, it was recognised that financing gaps exist for major infrastructure upgrades and capital investment. Several interviewees highlighted that hygiene behaviour change, both for staff and patients, would be one of

the biggest challenges to improving quality of care. Challenges were also foreseen for private providers of care. Currently, there are no formal accreditation or regulation mechanisms to address WASH or other aspects of quality care provided by private sector providers. There is also no formal coordination of private providers.

Systems for rolling out newly developed guidelines will need to be designed and implemented, including training on WASH guidelines, to ensure an appropriate and adequate workforce is trained, and in place, to address WASH. Accountability mechanisms will need to include and reflect WASH as outlined in the WASH guidelines and quality of care tools.

SUCCESS AND ENABLING FACTORS

There were several enabling factors identified for improving WASH in health care facilities and quality of care. Key areas are described below and emerged from a synthesis of data from the policy review and key informant interviews.

Quality is a top priority

Quality is at the forefront of the national health strategy. Both demand-side and supply-side financial elements of UHC have been strengthened over the last two decades and will continue to be improved and scaled across the health system in the current health strategic plan. There is clear commitment to improve the quality of care to sustain and accelerate health gains that have been made. Quality improvement processes have been designed to assess three key elements of quality of care: structural quality (including WASH infrastructure), quality of care delivery process (clinical aspect of care) and guality outcome (client interviews/patient satisfaction).

Leadership and political will

There is strong leadership from the Ministry of Health and H-EQIP to address quality of care and improve WASH in health care facilities. WASH, mainly through infrastructure upgrades, has partially been addressed in previous health strategic plans and pooled fund initiatives. The inclusion of two indicators for WASH in health care facilities in the National Health Strategic Plan 2016-2020 and clear targets set in Ministry of Rural Development's rural WASH plans indicate that there is a political will, and need, to improve WASH in health care facilities further.

Multi-stakeholder working group

There is an active but small and informal multi-stakeholder working group led by the Department of Health Services of the Ministry of Health. Participants include representatives from non-government organisations, including WaterAid, research institutions, UN agencies, including WHO and UNICEF, and the National Institute of Public Health. The group is driving advocacy, learning and research into WASH in health care facilities to ensure action and evidence-based policy is developed and implemented.

Financing

Supply-side financing under the Service Delivery Grant scheme means facilities can use the fixed lump sum grant and Performance based Grants to address WASH needs. Each facility has their own bank account and autonomy to make decisions on how money is spent within the limits outlined in the Service Delivery Grant system. Good performance is incentivised financially. With WASH holding significant scoring value (15%) under the provision of health infrastructure and supportive services, the improvement of WASH is financially incentivised and budget allocation is available for improving and maintaining WASH.

Training

In the roll out of the quality of care improvements as an integral part of the H-EQIP project, coaching models are being developed to improve the quality of clinical care delivery. There may be opportunities to integrate WASH and IPC modules into the coaching curriculum. Embedding WASH and IPC practices into clinical coaching models would permit WASH and IPC behaviours to be core to quality and safe clinical care practices.

Social Security scheme

Since 2013, a social security system has been introduced for formal sector workers in Cambodia. Currently, the work injury and health care schemes are being scaled up to cover informal sector workers and all government staff, including senior government officials. Health facilities, mainly public health facilities, but also private facilities, are contracted to provide care under these schemes. Before being contracted under the scheme, health facilities must undergo a rapid assessment of service readiness and through an accreditation process. As the social security system is scaled up, the need for private sector providers' participation is predicted to drive the development and implementation of a formal accreditation and regulation mechanisms for private and public providers. There may be opportunity to permit the inclusion of WASH components, in line with national guidelines, in the accreditation and regulation processes.

Aspirational goals

Cambodia's economy is growing and the country is transitioning towards a middleincome status. To achieve this, there is a push for higher quality services and standard of living. This momentum may also support broader public health efforts, particularly regarding improved hygiene and environmental cleanliness within and beyond health care settings. Therefore, changing social norms around hygiene and cleanliness provide the potential for demand-side campaigning to improve quality and safety of health care.



BOTTLENECKS AND CHALLENGES

Despite the strong policy environment and political will to improve quality of care and WASH towards achieving UHC, several challenges and bottlenecks were identified in the study.

Lack of standards and consistency across policies, checklists and guidelines

Though WASH elements were identified across almost all quality and health-related policies, it is not consistently represented. For example, targets in the National Health Strategic Plan do not align with questions in the quality checklist, and the Ministry of Health targets and indicators are different to those adopted by the Ministry of Rural Development. It was often suggested that reasons for this fragmentation and misalignment are a lack of agreed standards and norms, and coordination for WASH in health care facilities. IPC standards exist but they do not comprehensively address WASH. Now that WASH guidelines have been agreed, harmonisation across policies may be possible. The lack of harmonisation may hinder the integration of comprehensive WASH elements into specific health programs such as maternal and newborn health efforts, antimicrobial resistance action plans and broader accreditation and regulation systems.

Human resources

Human resource gaps across all levels of the health system were frequently identified by participants. There is currently limited

capacity available to manage the quality improvement scheme. The implementation of the quality of care system places additional responsibilities on subnational level staff to administer and manage the scheme. At the national level, there is currently no standalone quality unit; it is embedded within the Department of Hospital Services. To realise the full implementation and success of the quality of care mechanism, it was suggested that an autonomous or semi-autonomous quality unit should be formed to independently monitor and regulate the quality of services, including those provided by private sector providers. This would require additional staff and resources across the health system.

Health facility level spending

Under the Service Delivery Grants, health facilities have the capacity to make decisions on how their grant funds are spent. However, there was a lack of clarity at the facility level on how the money could be spent and what elements of WASH and other infrastructure qualified. Lack of clarity on what facilities can spend on and how it should be tracked and reported has led to confusion on how the funds can be used for improving WASH services.

Transparency and health facility leadership

Interviews and visits at the provincial, district and facility level explored which factors supported facilities to perform well on quality and WASH. Only a small number of facilities were visited in this study but an emerging theme linked with improved performance was strong health facility and provincial level leadership that fostered transparency in decision making, particularly on how funds were managed and spent. Those facilities with strong leadership and those that championed clean, well-run facilities with shared responsibility for IPC and cleaning, performed best. Staff at these facilities stated they had clear roles and responsibilities, had inclusive decision-making processes for spending allocated funds and had received hygiene training. Those facilities that were not performing well on WASH and quality often had weaker leadership and management. The lack of hygiene education among facility users (patients and their carers) was also cited as a

challenge to maintaining a clean facility and sanitation services well.

Regulation and accreditation of public and private providers

Currently the status of WASH and quality of care among private sector health care providers is not known in Cambodia. There is no formal coordination of private sector providers nor is there a widespread accreditation or regulation mechanism. With the private sector providing the majority of initial health care consultations to Cambodian citizens, including private providers in quality and WASH improvement mechanisms is critical to realising quality UHC.

CONCLUSIONS

This is the first study in Cambodia to assess the interlinkages between quality of care, UHC and WASH. Cambodia is recognised as an 'early adopter' for driving action on WASH in health care facilities. In addition, Cambodia's history of health sector reform focused on UHC has ensured a strong foundation for improving quality of care, improving the reach of health services, reducing financial barriers to accessing care and, provided opportunities to improve WASH. There is strong leadership and political will to improve the quality of care, including WASH in health care facilities, and there are existing comprehensive mechanisms being implemented to improve quality. However, several challenges were identified during the study that require attention to ensure that efforts are accelerated and sustained.

There are immediate, achievable actions that can be taken such as aligning policies, finalising standards and formalising crosssector collaboration efforts. In addition, longer term, broader health system reform is required, such as accreditation and regulation of private sector providers, to ensure that quality UHC and universal access to basic WASH is achieved for all by 2030.

Limitations

This study primarily used qualitative methods including document review and interviews. Purposive sampling was used to identify key informants and views presented reflect only those who were able to participate. Not all documents were available in English for review. Though facility visits were conducted, very few facilities were included in the study to draw strong evidence on what drives good performance at the facility level. Furthermore, this study was unable to include interviews with patients and facility users to understand the demand-side perception of WASH-quality and UHC. This area warrants attention in future studies, particularly in Cambodia where patient satisfaction forms a core part of achieving quality of care.

Policy review was primarily focussed on rural and small urban health and WASH service delivery. This focus on rural services was agreed by researchers and participants as WASH policy and responsibilities at the urban level are complex and not clearly documented or well understood. The WASHguality-UHC nexus at higher levels of care in urban settings should be further explored. This study focussed on health care at the primary and secondary level of care. WASH and IPC needs in tertiary level facilities are not currently the focus of the Cambodian Ministry of Health's WASH in health care facility activities. Only public health services were assessed at the provincial and facility levels; understanding the WASH and IPC conditions and accountability in private sector providers will be critical to support improvement of quality at all facilities.

RECOMMENDATIONS

National Level

- Building on the existing, informal multisector, multi-stakeholder working group, establish a formal coordination mechanism for health and WASH ministries and stakeholders to set targets and monitor progress in a joined-up approach.
- Establish an accreditation and regulation system for private and public sector providers that includes WASH and IPC.
- Implement agreed minimum standards and guidelines for WASH in health care facilities to support high quality and sustained improvements of WASH services.
- Strive for the inclusion and alignment of WASH in all relevant policies, strategies and guidelines to ensure consistent and collaborative WASH in health care facility progress.
- Expand human resources focussed on quality and support subnational staff to improve WASH facilities and practices as part of quality of care improvements.
- Develop coaching modules on WASH and IPC as part of the quality of care improvement program and implementation of the WASH guidelines.
- Review WASH components of the Service Delivery Grant checklist during the review process to incorporate feedback and amendments to best facilitate WASH improvements for quality of care within the Service Delivery Grant system.

Facility level

- Drive strong leadership and transparency at all facilities to foster effective management of staff and support joint decision making for funding allocations.
- Provide clear training and guidance on how the Quality Checklist Tool is used and how Service Delivery Grant funds can be spent on WASH, including costing and recommendations for WASH-related infrastructure.
- Make available funding for rehabilitation of poorly functioning infrastructure and capital investment for new infrastructure where required.
- Ensure WASH and basic IPC practices form part of quality improvement training models and that these WASH elements are consistent across training modules for different elements of service delivery such as safe births, surgery, postnatal and outpatient care.

Global commitment

• The passing of the WHA 72.7 Resolution on WASH in health care facilities commits Member States, including Cambodia, to respond to all components outlined in the Resolution.







