



Ministry of Health
Republic of Maldives



**World Health
Organization**

Maldives

Harmonized Health Facility Assessment (HHFA): Maldives 2022/2023

Summary of findings

Foreword

The Maldivian Healthcare system comprises of both public and private healthcare facilities. The public health system is organized into three-tiers comprising of 22 hospitals (including one national referral hospital) and 164 health centers distributed across the archipelago. The successful completion of Harmonized Health Facility Assessment (HHFA) of these health facilities has provided a comprehensive analysis of these facilities identifying key areas for improvement, including service availability and readiness, management and finance support systems and patient safety. The findings of this assessment serve as a fundamental baseline for policy makers to formulate and implement data driven policies.

HHFA is a standardized global tool that assesses the availability of health facility services and the capacities of the facilities to provide these services at required standards of quality. The Ministry of Health chose to implement three of the modules namely, service availability, service readiness, management and finance with additional indicators for quality of care. The document was locally adapted and piloted before conducting the facility assessment. The Ministry of Health conducted this survey as a census of all public health service facilities giving a comprehensive and in-depth view into service delivery, the successes, limitations and gaps. We also acknowledge the challenges faced during the assessment process such as the geographical barriers. This HHFA conducted with support from World Health Organization (WHO), is yet another one of the many successful collaborations between the Ministry of Health and WHO. We are deeply grateful to WHO country office for their invaluable support and assistance given to triumphantly conduct the WHO Southeast



Asia Region's first Harmonized Health Facility Assessment in the Maldives marking a significant milestone for the region. This document serves as a foundational tool for policymakers to develop and implement data-driven strategies that enhance the quality and accessibility of healthcare services.

We express our sincere gratitude to the former & current Honorable Ministers of Health for their valuable insights in bringing this undertaking to fruition. We would also like to express our gratitude to all the stakeholders involved in this endeavor. The time and effort devoted by the team leaders, enumerators, facilitators, IT division of Ministry of Health, WHO-HQ and AFRO team, external consultants, staff of all healthcare facilities was an instrumental driving force behind this initiative. I would like to extend my sincere gratitude to the dedicated team at Quality Assurance and Regulatory Division, whose tireless and exceptional efforts, including off-hours work, to make this achievement possible. This assessment will play a pivotal role in strengthening primary healthcare, advancing towards universal health coverage (UHC), and achieving the Sustainable Development Goals (SDGs) related to health. The HHFA also provides a baseline for future progress measurement across three domains with extra indicators for quality. In addition, by addressing the identified limitations and implementing evidence-based interventions, the Maldivian healthcare system can aspire to provide high-quality, equitable, and accessible healthcare services to all its citizens.

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Foreword



WHO is committed to advancing health systems and improving access to quality health services globally. It is in this spirit that WHO supported the Ministry of Health Maldives in conducting the WHO South East Asia Region’s first ‘Harmonized Health Facility Assessment’ (HHFA), a comprehensive, standardized survey that provides objective and reliable data on the availability and quality of health services at the facility level.

The WHO-HHFA offers comprehensive information on country’s health system performance shedding light in both the strengths and areas requiring attention. The HHFA encompassed all state health facilities, providing a comprehensive assessment of the entire state health system in the Maldives. Through this assessment, we can better understand the capabilities of health facilities, aiding in prioritizing resource allocation, target interventions, and ultimately improve service delivery to meet the needs of the population. By producing data aligned with global service standards, The HHFA findings facilitate evidence based decision making to improve service delivery, prioritize resource allocation and identify areas that require targeted interventions for achieving Universal Health Coverage (UHC) and Sustainable Development Goals (SDGs).

The HHFA covers a wide range of facility services and management systems, organized into topic-specific modules that reflect key areas of health service provision. This approach allows for a thorough and systematic evaluation of service availability and quality across various levels of the healthcare system.

Throughout this initiative, WHO Headquarters, South East Asia Regional Office, and Country Office collaborated closely with the Ministry of Health, offering technical guidance and support to ensure the successful adaptation and deployment of the HHFA tool. The Ministry of Health played an instrumental role in finalizing the assessment’s coverage, indicators, and survey tools, demonstrating strong local ownership of this initiative.

Looking ahead, we look forward to continuing our collaboration with the Ministry of Health, using insights gained from the HHFA to further enhance the quality and accessibility of health services across the nation. Together, we are committed to strengthening and building a resilient and equitable healthcare system that meets the needs of all.

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1. Design and Methodology

Design and Methodology

The Harmonized Health Facility Assessment (HHFA) is a comprehensive, standardized health facility survey that provides reliable, objective information on the availability of health facility services and the capacities of facilities to provide the services while adhering to the required standards of quality. Availability and quality of health services are integral to achieving universal health coverage (UHC) and the health-related Sustainable Development Goals (SDGs). The HHFA – developed by the World Health Organization (WHO) through multistakeholder collaboration, building on previous and existing global facility survey instruments – is based on global service standards, and uses standardized indicators, questionnaires, data collection methodologies and data analysis tools. Data produced from the HHFA can support health sector reviews and evidence-based decision-making for strengthening country health services. As far as the content of the HHFA is concerned, the assessment covers all key facility services and facility-level management systems. The HHFA content is organized into modules. A module represents a set of questions (in a questionnaire format) for a main topic area.

In Maldives, three HHFA modules were implemented: those on service availability, service readiness, and management and finance. Module 3 on quality of care was not implemented as a different methodology is used in this case.

The HHFA was conducted by local researchers, guided by a technical coordination group, with members of the Ministry of Health (MoH) and the WHO Country Office, in addition to the research team implementing the HHFA in Maldives. WHO headquarters (WHO HQ) and Regional Offices provided technical guidance during the adoption



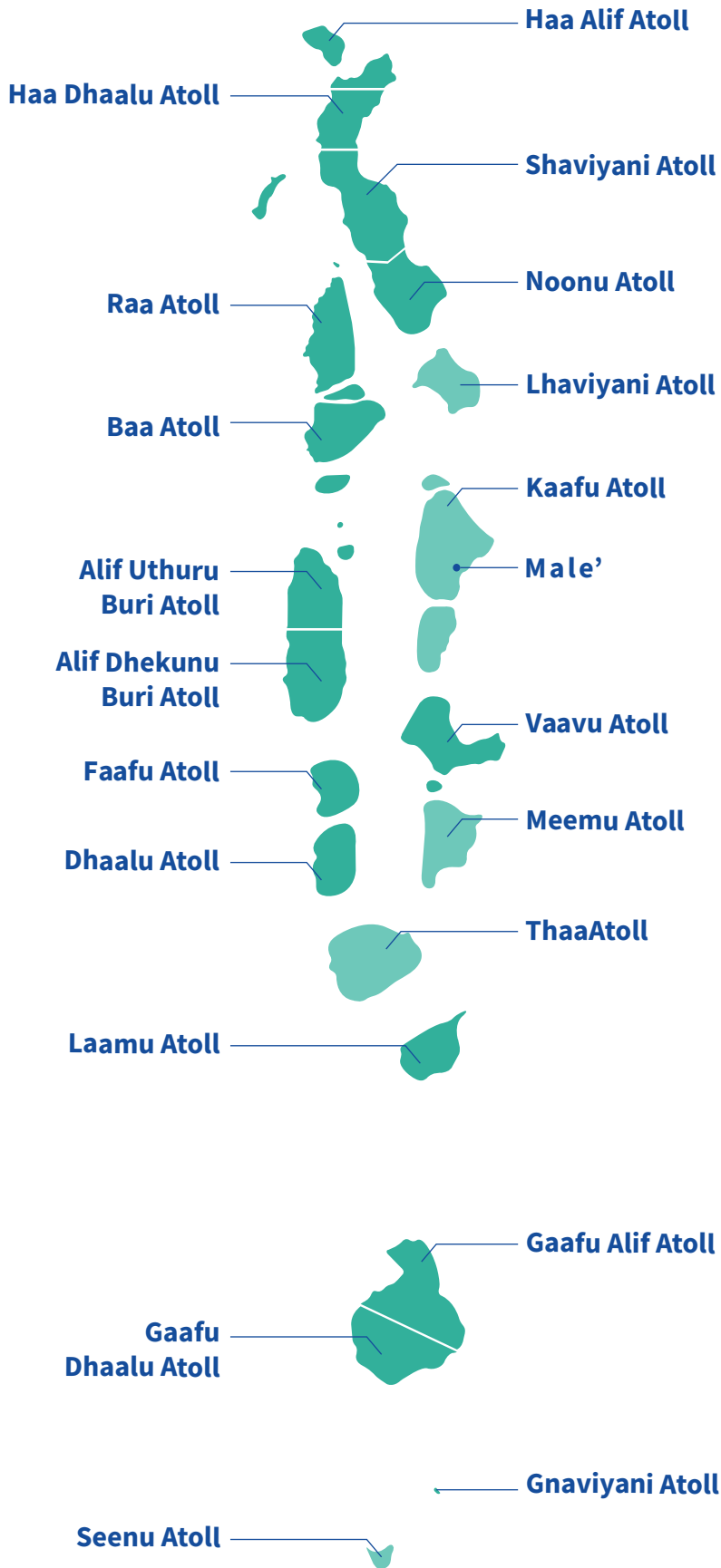
and deployment of the HHFA questionnaires. Final decisions on the coverage, indicators and questionnaires were determined by the MoH. The HHFA for Maldives adopted a census approach to assess all government health facilities using the WHO HHFA toolkit, deployment tool CPro and analysis platform.

Local researchers led the HHFA for Maldives in coordination with the MoH and WHO, supervising data collection, analysis and finalization of the assessment report, along with the validation workshop with stakeholder engagement from different levels of the health system. The HHFA for Maldives spanned 90 working days.

Following the provision of the WHO toolkit and training, the tasks involved in the implementation of the HHFA included:

- Scoping the HHFA (core versus combined and localized indicators);
- Customizing HHFA questionnaires for Maldives;
- Finalizing the methodology for the HHFA;
- Customization of the digital data collection tool in CSPro;
- Ensuring training of trainers (ToT) for research team, data managers and field supervisors;
- Pre-testing of tools using dummy data and in the field;
- Data collection and quality assurance;
- Data management from the CSPro server;
- Analysing data on the HHFA analysis platform;
- Putting forth the preliminary analysis report;
- Organizing the validation workshop on findings; and
- Submitting the final detailed summary report.

Atoll Code	Atoll	No. of facilities	Population
10	MLE	5	234,454
20	Haa Alifu (HA) Atoll	14	17,516
21	Haa Daalu (HDH) Atoll	13	23,446
22	Shaviyani (SH) Atoll	14	15,526
23	Noonu (N) Atoll	13	16,919
24	Raa (R) Atoll	15	20,529
25	Baa (B) Atoll	13	20,402
26	Lhaviyani (LH) Atoll	4	14,539
27	Kaafu (K) Atoll	9	48,740
28	Alifu Alifu (AA) Atoll	8	13,874
29	Alifu Dhalu (ADH) Atoll	10	20,639
30	Vaavu (V) Atoll	5	2,703
31	Meemu (M) Atoll	8	6,788
32	Faafu (F) Atoll	5	6,043
33	Dhaalu (DH) Atoll	6	10,782
34	Thaa (TH) Atoll	13	11,518
35	Laamu (L) Atoll	10	16,911
36	Gaafu Alifu (GA) Atoll	9	14,722
37	Gaafu Dhaalu (GDH) Atoll	9	15,466
38	Gaviyani (GN) Atoll	1	9,963
39	Seenu (S) Atoll	4	26,807
Total		188	579,330



The HHFA standard definitions are used in the assessment. For instance, service availability is defined as when the service is routinely available on a regular basis including scheduled outreach service visiting teams or ensuring investigation at an offsite location but excludes ad hoc or temporary services. Presence of equipment, guidelines and written documentation is measured by observation at the site assessed; wherein the respondents at a facility are able to access these services at the site, those are deemed “available”. All indicators are measured at the time of the assessment and if a service is disrupted for any reason, it is reported as “not available”.

The HHFA findings are presented in terms of percentages of all facilities assessed in the general service availability area and the total number of facilities in the disaggregation classification used. In specific service modules, the denominators vary and include only those facilities that have indicated any service in the specific areas concerned. Hence, all readers are cautioned about referring to the last columns of the findings tables that provide the denominators applied to each indicator at the atoll level when interpreting the indicator values.

2. General Service Availability and Readiness

General Service Availability and Readiness

This section presents the selected indicators from the HHFA Module 1 – general services.

2.1 Health Infrastructure

2.1.1 Health Infrastructure density

Table 1. Health infrastructure density

	Number of health facilities per 10,000 population	Number of primary health facilities per 10,000 population	Number of hospitals per 10,000 population	Number of inpatient beds per 10,000 population	Number of maternity beds per 1,000 pregnant women	n
National	3.5	2.83	0.40	33.04	40.43	188
Malé/Atolls						
Malé	0.21	0.04	0.12	18.26	15.99	5*
Atolls	5.42	4.83	0.59	43.60	58.13	183

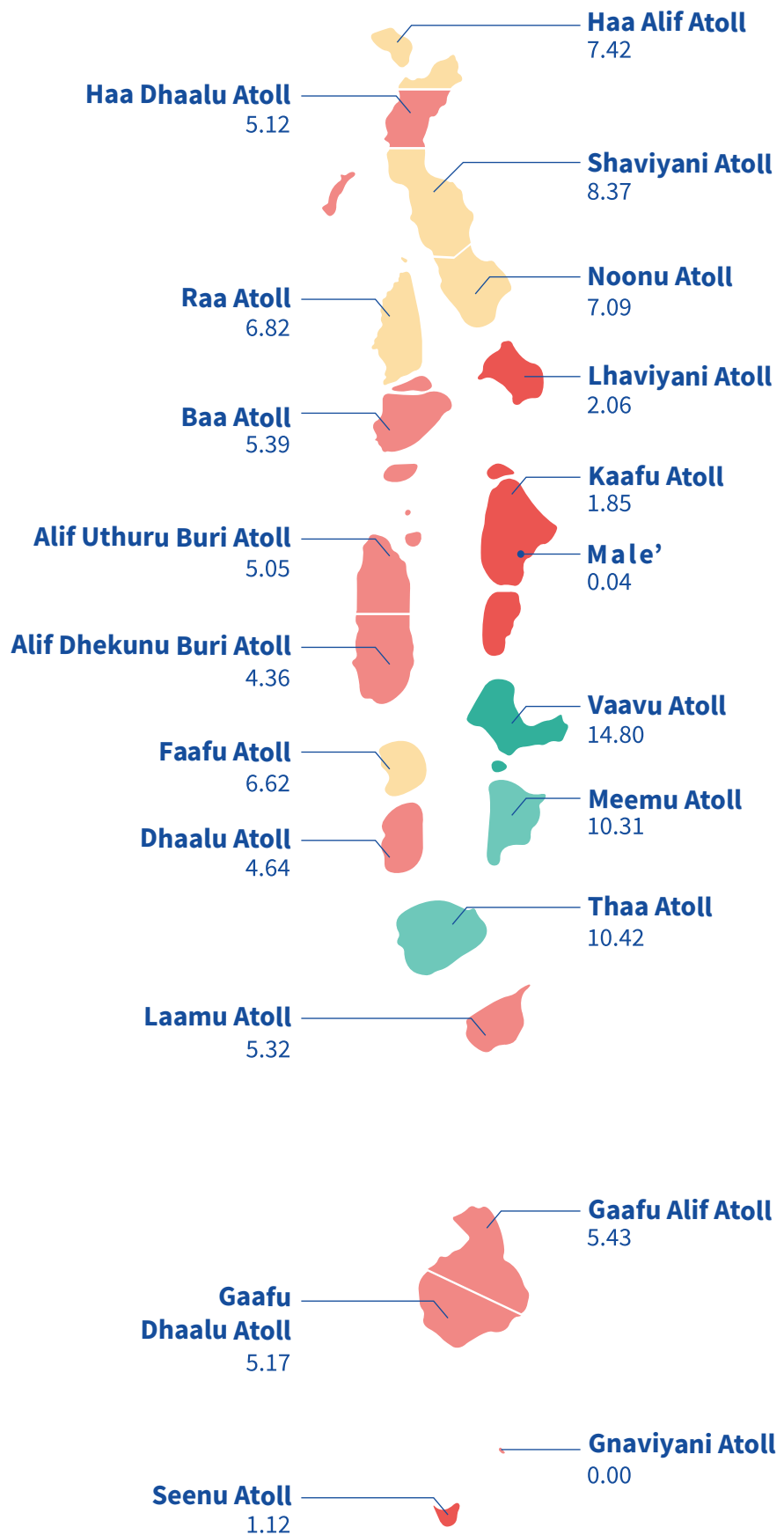
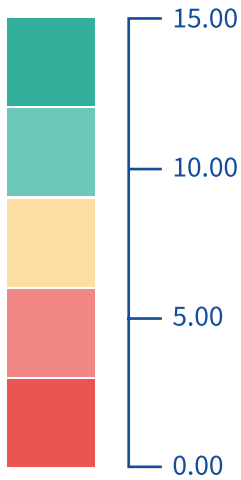
*Includes Maldives Blood Service/Thalassaemia Centre

The findings reveals disparity in healthcare infrastructure between Male' and the atolls. While atolls have a relatively higher density of health facilities and hospitals, Malé suffers from a critical shortage compared to the population it caters to and the lack of primary care facilities in Male' region.

The national results show that for every 10 000 people, about three health facilities exist in the country. Given the concentration of the population in Malé, only five health facilities are available (including Blood Service/Thalassaemia Centre). This amounts to less than one facility for 10 000 people. A similar trend is observed for the availability of primary health facilities per 10 000 population. At the national level, nearly three primary health facilities are available for every 10 000 population. In Malé, there is not even one primary care facility per 10 000 population of the capital. In atolls, a higher number of primary health facilities is associated with the size of the population in the atolls. There are nearly 33 inpatient beds per 10 000 people in the country. The availability of existing inpatient beds per 10 000 population is less in Malé (19 beds), compared with the atolls (44 beds). The health infrastructure density in Malé is not only minimal to cater for the residents of the capital, but it is also low for those coming to Malé from the atolls for medical treatment. With regard to the atolls where regional hospitals are established, the GDH Atoll Regional Hospital has a higher proportion of inpatient beds (113 beds), compared with other regional hospitals. Kulhudhuffushi (HDH) and Gan (L) regional hospitals have fewer inpatient beds per 10 000 people (34 and 33 beds respectively).

The availability of maternity beds per 1000 pregnant women shows that 40 beds are available per 1000 pregnant women. Limited beds are allocated for pregnant women in Malé, compared with the atolls.

Number of Primary Health Facilities per 10,000 population



Note:
 Primary care facility density is calculated using the number of primary care facilities (defines as facilities classified as health centres (level 1-4) or Dhamanaveshi by the Ministry of Health at the time of the Survey) as the numerator and by the population of each geographic area (Male city and atolls based) per 10,000 population. The benchmark set in this chart is set for 8 facilities per 10,000 population. National benchmark needs to be set that is more appropriate for geographic context of the archipelago of Maldives.

Fig. 1. Number of primary health facilities per 10,000 population

2.1.2 Building accessibility for persons with mobility limitations

Table 2. Building accessibility for persons with mobility

	At least one area where services can be provided to a person in a wheelchair	Grab bars on walls to help people with problems walking access services	At least one functional toilet for patients with disability & handwashing materials within 5 metres of the toilet	Proportion of facilities with all items	n
Outpatient service area					
National	93%	1%	2%	1%	187
Hospital	100%	9%	17%	4%	23
Health centre	92%	0%	0%	0%	163
Other (MBS)	100%	0%	0%	0%	1
Laboratory service area					
National	92%	0%	3%	0%	110
Hospital	100%	0%	13%	0%	23
Health centre	90%	0%	0%	0%	86
Other (MBS)	100%	0%	0%	0%	1
Emergency service area					
National	96%	1%	8%	0%	129
Hospital	100%	0%	25%	0%	20
Health centre	95%	1%	5%	0%	109

National-level statistics show that 93% of the health facilities across the country have at least one area where services can be provided to a person in a wheelchair in the OPD area. However, there is almost no access to grab bars on walks to help people with mobility limitations – only 1% of the facilities have grab bars at the national level. This access service is available only in Malé and B Atoll, and negligible in the rest of the atolls. Similarly, only 2% of the facilities have at least one functional toilet for patients with disability and handwashing materials within 5 metres of the toilet in the OPD service area. This service is only available in Malé (60% of the facilities offer this service) and S Atoll.

In terms of accessibility to facilities with laboratory services, 92% of the facilities have at least one area where services can be provided to a person in a wheelchair. At the national level, patients with disability do not have access to grab bars on walls at any health facility. Toilets are available for patients with disability at 3% of the laboratory facilities across the country.

The proportion of facilities with emergency areas having at least one area where services can be provided to a person in a wheelchair is 96% for the country. HA, TH, GA and GDH have been observed as atolls that are yet to establish such access for persons with disability. Access to grab bars in emergency services for people who find it difficult to walk stands at 1% at the national level and is only found in HDH Atoll. Availability of toilets for patients with disability is recorded at 8%.

2.2 Health Workforce

2.2.1 Core health workforce density

Table 3. Core health workforce density

	Number of health facilities per 10,000 population	Non-physician paramedical practitioners per 10,000 population	Nurses and nurse-midwives per 10,000 population	Midwives per 10,000 population	Public health workers per 10,000 population	Core health workforce density per 10,000 population	n
National	20.65	2.43	47.83	2.83	5.37	79.12	188
Malé/Atoll							
Malé	16.00	0.50	60.12	4.60	0.41	81.63	5
Atolls	23.98	3.82	39.05	1.57	8.91	77.32	183

Core Health Workforce Density per 10,000 Population

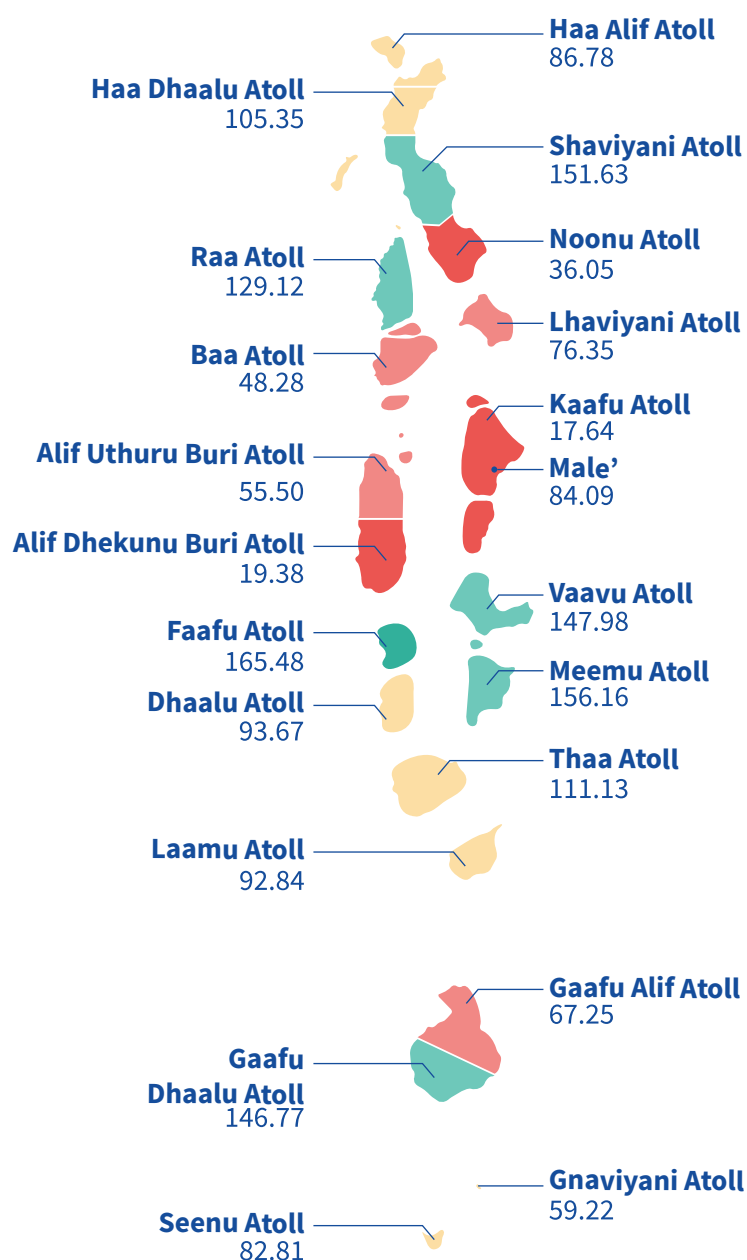
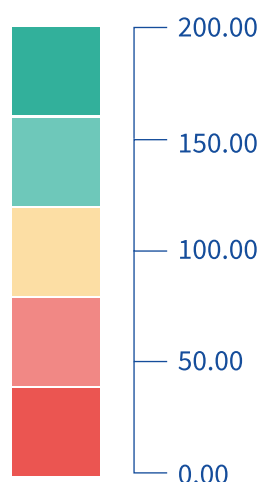


Fig. 2. Core health workforce density per 10 000 population

For every 10 000 population, there are, currently, 21 physicians working in the country. The number of physicians (medical doctors, non-specialists) available per 10 000 population in Malé is below the national average. The lowest health workforce density is in K Atoll, perhaps due to its close proximity to Malé. On the other hand, the health workforce density is higher in F and GDH atolls, and varies in accordance with the population size of these atolls. Overall, the presence of physicians is less, compared with the resident population living in bigger atolls.

The availability of non-physician paramedical practitioners per 10 000 population is low in the country, standing at 2.43. Paramedical practitioners are defined as practitioners who have specific training in providing a limited package of general clinical services. The training, which usually lasts for two or three years, does not qualify them to be doctors; however, they can prescribe and manage patients, and are qualified to provide a higher level of curative care than a professional nurse. Malé does not even have one non-physician paramedical practitioner to attend to 10 000 people. Paramedical practitioners are seen in SH, B, F and GDH atolls.

There are more nurses (including nurse-midwives) as part of the core health workforce, compared with other health professionals. There are 47 nurses and nurse-midwives for 10 000 people nationally. The number of nurses in more than half of the atolls is above the national requirement. Malé has 14 nurses more than the national average. Similarly, the number of nurses in atolls with regional hospitals is also above the national average.

The number of public health workers (community health officers and family health officers) in the health workforce is much lower, compared with the number of medical doctors and nurses. At the national level, the public health worker density is 5.34 per 10 000 population. The highest density is in M Atoll. The density is the lowest in F Atoll followed by that in Malé. S, GH, B, K and LH atolls show lower public health worker density, compared with the national average.

2.3 Services available

2.3.1 Reproductive, maternal, newborn, child and adolescent health (RMNCAH)

Table 4. Percentage of facilities offering Services for Reproductive, maternal, newborn, child and adolescent health (RMNCAH)

	Paediatric preventive and curative (IMCI)	Adolescent health services	Family planning	Antenatal care (ANC)	Prevention of mother-to-child transmission (PMTCT)	Any delivery/childbirth services	Basic emergency obstetric and newborn care (BEmONC)	Comprehensive emergency obstetric and newborn care (CEmONC)	Care for the healthy neonate	Care for the small and sick neonate	Postpartum care (PNC)	n
National	89%	85%	97%	88%	65%	32%	31%	11%	37%	3%	69%	188
Hospital	100%	83%	100%	100%	100%	91%	91%	83%	87%	26%	91%	23
Health centre	88%	85%	96%	87%	60%	24%	23%	1%	30%	0%	66%	164
Other (MBS)	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1

The services offered under RMNCAH vary by type. Family planning (97%) is the most frequently offered service at the health facilities. Paediatric preventive and curative (IMCI) services are offered at 89% of the facilities and antenatal care (ANC) is provided at 88% of the facilities. Results show that 15% of the health facilities do not provide any adolescent health service.

The least offered services at health centres include care for the health of neonates, any delivery/childbirth service, and basic emergency obstetric and newborn care (BEmONC). These services are mainly available at hospitals, along with comprehensive emergency obstetric and newborn care (CEmONC), which is not a planned service at the health centre level.

2.3.2 Immunization

Almost all facilities provide vaccination (99%) to infants, adolescents and adults.

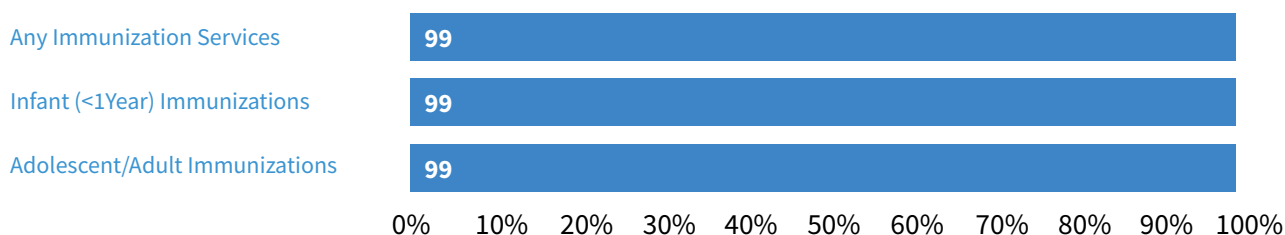


Fig. 3. Percentage of facilities offering Immunization service

2.3.3 Communicable diseases

Table 5. Percentage of facilities offering services for Communicable diseases

	Services for communicable disease outbreaks	Dengue services	Any tuberculosis services	Any services for human immunodeficiency virus (HIV) diagnosis and treatment	Any diagnostic or treatment services for sexually transmitted infections (STIs)	Any services for neglected tropical diseases (NTDs)	n
National	87%	72%	62%	49%	60%	60%	188
Hospital	100%	96%	100%	96%	100%	87%	23
Health centre	86%	69%	57%	43%	55%	56%	164
Other (MBS)	0%	0%	0%	0%	0%	0%	1

The services offered with regard to communicable diseases show that 87% of the health facilities are prepared with the services needed for a communicable disease outbreak. Almost two thirds of the health facilities provide services for dengue fever. The least offered services at health facilities with regard to communicable diseases include support services related to HIV. The prevalence of HIV is low in the country; therefore, services for this is expected to be few and far between. Treatment services for other communicable diseases, such as malaria and leprosy, are minimal. This can be explained by the fact that malaria has been eliminated from the country. With low prevalence, leprosy is also no longer regarded as a public health burden and the country is moving towards zero leprosy. The low level of tuberculosis (TB) services needs attention as the country is embarking on the “end TB” goal by 2025.

2.3.4 Noncommunicable diseases

The results show that most of the health facilities provide any kind of chronic noncommunicable disease (NCD) services (97%). Most of the health facilities can provide services in relation to common diseases within the population, such as diabetes (96%).

Table 6. Percentage of facilities offering services for Noncommunicable diseases

	Any services for chronic non-communicable diseases	Routine screening services for cervical cancer	Routine screening services for high blood pressure	Routine screening services for elevated plasma glucose	Routine screening services for elevated cholesterol	Routine screening services for increase in BMI	Any services for tobacco cessation	n
National	97%	1%	19%	16%	16%	18%	6%	188
Malé	80%	40%	40%	40%	40%	40%	40%	5
Atolls	97%	0%	18%	15%	16%	17%	5%	183
Hospital	100%	9%	52%	52%	52%	52%	39%	23
Health centre	97%	0%	14%	11%	12%	13%	2%	164
Other (MBS)	0%	0%	0%	0%	0%	0%	0%	1

Similarly, services with regard to chronic respiratory diseases and cardiovascular diseases are offered at more than 80% of the facilities. Routine screening services for monitoring high blood pressure, increase in BMI, elevated cholesterol levels and plasma glucose are offered at less than 20% of the facilities. Tobacco cessation services are provided only at 4% of the facilities. Routine screening services for cancer are offered at less than 1% of the health facilities.

2.3.5 Mental health services

Table 7. Percentage of facilities offering mental health services

	Services for mental health	Services for neurological disorders	n
National	59%	37%	188
Malé/Atolls			
Malé	80%	20%	5
Atolls	58%	38%	183
Facility Type			
Hospital	74%	65%	23
Health centre	57%	34%	164
Other (MBS)	100%	0%	1

The demand for mental health services has increased over the past few years; thanks to the impact of COVID-19, this has risen further. However, only half of the health facilities (59%) are providing services for mental health. These include counselling services or specialist services. In Malé, 80% of the facilities offer mental health services and this is above the national average. The provision of mental health services at facilities in atolls varies from 20% in V Atoll to 93% in HA atoll. Services for neurological disorders are offered at 37% of the health facilities. Few facilities in Malé provide neurological disorder services and the proportion is below the national average.

2.3.6 Services for victims of violence

The results show that 77% of the health facilities provide services for victims of violence. Services for victims of intimate partner/gender-based violence and services for youth violence are also within this range. Services for child maltreatment are provided at 70% of the health facilities.

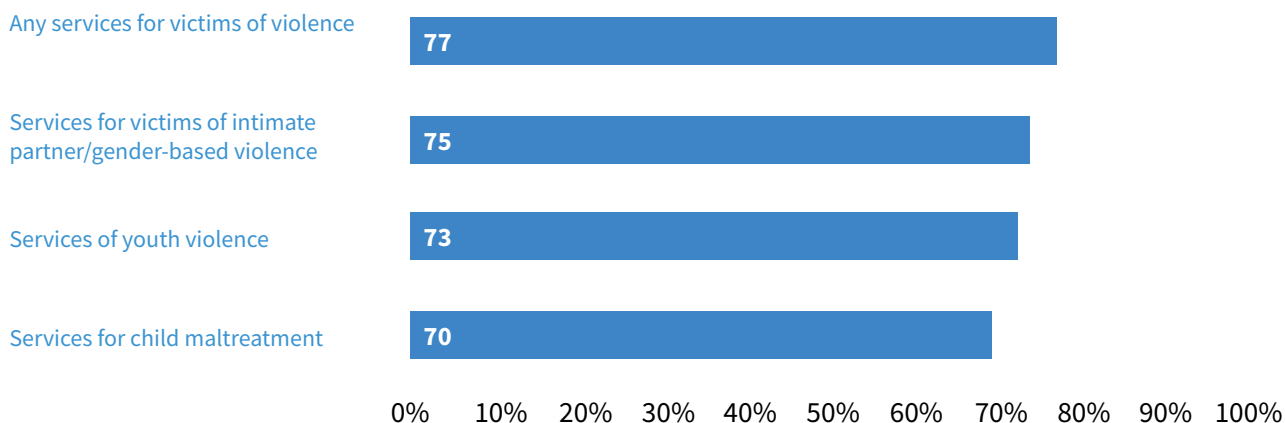


Fig. 4. Percentage of facilities offering service for victims of violence

2.3.7 Surgical Services

Table 8. Percentage of facilities offering surgical services

	Essential surgical procedure	Speciality surgical procedure	Anaesthesia service	n
National	34%	9%	26%	188
Hospital	87%	74%	87%	23
Health centre	27%	0%	17%	164
Other (MBS)	0%	0%	0%	1

Most of the health facilities offer any minor or major surgical services and minor surgical procedures. The majority (87%) of the hospitals and a quarter of the health centres provide essential surgical services with 74% of the hospitals providing speciality services. Anaesthesia services are also available in the majority of the hospitals.

2.3.8 Emergency services

Table 9. Percentage of facilities offering emergency services

	Any emergency services as the first entry to the facility	24-hour dedicated emergency unit	24-hour essential resuscitation procedures in a dedicated emergency unit	n
National	89%	36%	24%	188
Facility Type				
Hospital	100%	83%	78%	23
Health centre	88%	29%	16%	164
Other (MBS)	0%	0%	0%	1

Furthermore, 89% of all health facilities have any emergency services as the first entry to the facility. Only 36% of the facilities have 24-hour dedicated emergency units and 24% of the facilities have 24-hour essential resuscitation procedures in a dedicated emergency unit.

2.3.9 Rehabilitation care and palliative/long-term care

Table 10. Percentage of facilities offering rehabilitation care and palliative/long-term care services

	Any rehabilitation care	Any palliative/long-term care services	n
National	12%	46%	188
Hospital	78%	74%	23
Health centre	3%	42%	164
Other (MBS)	0%	0%	1

Only a few health facilities are equipped to offer any rehabilitation care. Out of the 188 facilities in the country, only 12% provide rehabilitation care, which is mostly provided at the hospitals. The referral hospital (Indira Gandhi Memorial Hospital) and 83% of the Level 3 hospitals have rehabilitation care services; 70% of the hospitals at Level 1 and Level 2 provide rehabilitation care, and it is available at only 3% of the health centres.

Palliative care, including care for bedridden persons, is provided mainly at the hospitals (74%) and less than half (42%) of the health centres.

2.3.10 Imaging Equipment and Procedures

Table 11. Percentage of facilities offering imaging equipment and procedures

	Ultrasound	X-Ray	Mammogram	CT scan	MRI	Angiography/ catheterization	Fluoroscopy	Nuclear medicine	n
National	14%	12%	3%	4%	2%	1%	1%	0%	188
Hospital	83%	91%	22%	30%	17%	4%	9%	0%	23
Health centre	4%	1%	0%	0%	0%	0%	0%	0%	164
Other (MBS)	0%	0%	0%	0%	0%	0%	0%	0%	1

Among the 188 facilities, availability of technologies and procedures is limited; these are available only in a few places. This low availability is observed as, by design of the health system, health centres are regarded as primary health facilities and radiological services are not expected at this level. The majority of the hospitals have ultrasound and X-ray facilities. Mammogram services are only available in Malé, HDH, R and S atolls. MRI service is available only in three locations, namely Malé, HDH and S atolls.

2.3.11 Medical Equipment And Procedures

Table 12. Percentage of facilities offering medical equipment and procedures

	Anaesthesia machine	Defibrillator	Electrocardiogram (ECG)	Infant incubator	Phototherapy machine	Renal dialysis machine	Ventilator	Blood transfusion	Oxygen administration	n
National	12%	28%	97%	16%	18%	6%	24%	52%	99%	188
Hospital	91%	100%	100%	78%	87%	48%	96%	100%	100%	23
Health centre	1%	18%	98%	7%	8%	0%	14%	45%	99%	164
Other (MBS)	0%	0%	0%	0%	0%	0%	0%	100%	100%	1

All health facilities have equipment and provide oxygen administration. The results show 97% of the health facilities have carried out electrocardiogram (ECG). Almost half of the health facilities provide blood transfusion services. Phototherapy machines and infant incubators are available at less than 20% of the facilities, but these are available at most of the hospitals (87%). However, other essential medical equipment, such as defibrillators, are available at all hospitals but at less than 20% of the health centres. Similarly, ventilators are available at 24% of the facilities (96% of the hospitals and 14% of the health centres). Going by the design of the Maldives health system, ventilators (including portable ventilators) are expected to be available at the atoll level.

2.3.12 Laboratory diagnostic tests

Table 13. Percentage of facilities offering laboratory diagnostic tests

	General microscopy	Culture and sensitivity	Syphilis RDT test	HIV diagnostic capacity	Tuberculosis diagnostic test	Urine pregnancy test	Urine dipstick-protein	Urine dipstick-glucose	Urine ketone test	Haemoglobin	n
National	55%	11%	53%	55%	28%	57%	55%	56%	55%	54%	188
Hospital	100%	65%	96%	100%	87%	100%	100%	100%	100%	100%	23
Health centre	48%	3%	47%	48%	20%	51%	49%	50%	49%	47%	164
Other (MBS)	100%	0%	100%	100%	0%	0%	0%	0%	0%	100%	1

	Full blood count	Blood typing and grouping	Blood glucose	Serum electrolyte tests	Renal function tests	Liver function tests	Specific testing capacity: serum cholesterol	Specific testing capacity: lipid profile	n
National	54%	55%	58%	54%	56%	56%	56%	55%	188
Hospital	100%	96%	100%	100%	100%	100%	100%	100%	23
Health centre	47%	49%	52%	48%	50%	50%	50%	49%	164
Other (MBS)	100%	100%	0%	0%	0%	0%	0%	0%	1

The proportion of facilities offering different laboratory diagnostic tests is found to be around 55%. All hospitals provide the majority of the tests, with fewer hospitals providing tuberculosis diagnostic (87%) and culture sensitivity (65%) tests. Similarly, hospitals at Levels 1 and 2 offer all such laboratory testing. About half of the health centres provide the majority of the laboratory tests.

2.4 Basic amenities

2.4.1 Basic amenities for the main service area of a facility

Table 14. Percentage of facilities offering basic amenities for the main service area of a facility

	Power	An improved water source	Access to improved sanitation facilities for clients	Auditory and visual privacy for patient consultations	Communication system	Computer with internet	Emergency transportation system for patients	n
National	100%	98%	99%	99%	97%	100%	90%	188
Hospital	100%	87%	100%	100%	100%	100%	100%	23
Health centre	100%	99%	99%	99%	96%	100%	90%	164
Other	100%	100%	100%	100%	100%	100%	0%	1

Basic amenities are nearly universal at all health facilities; however, a few facilities do not have communication systems and emergency transport for patients.

2.4.2 Basic equipment in the main service area of a facility

Table 15. Percentage of facilities offering basic equipment in the main service area of a facility

	Thermometer	Stethoscope	Blood pressure apparatus	Pulse oximeter	Examination light	Otoscope	Ophthalmoscope	n
National	95%	99%	96%	95%	82%	91%	51%	188
Hospital	100%	100%	100%	96%	96%	91%	78%	23
Health centre	95%	99%	96%	96%	81%	92%	48%	164
Other	100%	100%	0%	0%	0%	0%	0%	1

	Adult weighing scale	Child scale	Infant scale	Measuring tape	Height board/stadiometer	n
National	93%	52%	25%	80%	81%	188
Hospital	100%	61%	43%	83%	83%	23
Health centre	91%	51%	23%	80%	81%	164
Other	100%	0%	0%	0%	0%	1

Most of the basic equipment for adults are available at most of the hospitals and health centres. However, paediatric care equipment, such as child weighing scales, are available at only about half of the hospitals while infant scales are found at fewer hospitals and health centres.

2.4.3 Standard precautions for infection prevention

Table 16. Percentage of facilities offering standard precautions for infection prevention

	Guidelines for standard precautions	Guidelines for health-care waste management	Staff trained in health-care waste management	Hand hygiene items	Latex gloves	Appropriate storage of sharps waste	Appropriate storage of non-sharp infectious waste	Safe final disposal of sharps waste	Safe final disposal of non-sharp infectious waste	n
National	18%	15%	6%	28%	21%	19%	24%	51%	54%	188
Hospital	39%	35%	9%	83%	65%	57%	96%	61%	70%	23
Health centre	15%	13%	5%	20%	15%	13%	14%	49%	51%	164
Other	0%	0%	0%	100%	0%	0%	0%	100%	100%	1

Standard precautions for infection prevention are poor at the health facilities, with less than half of the hospitals and about 15%–20% of the health centres having guidelines for standard precautions and waste management. About half of the hospitals and health centres practise safe final disposal of sharp and non-sharp infectious waste.

2.4.4 Life-saving commodities for reproductive, maternal, newborn and child health (RMNCH)

Table 17. Percentage of facilities offering life-saving commodities for reproductive, maternal, newborn and child health (RMNCH)

	Maternal health			Newborn health			Child health			n	
	Oxytocin injection	Misoprostol tab	Magnesium sulfate injection	Injectable antibiotics (e.g. gentamicin, procaine benzylpenicillin, ampicillin, ceftriaxone)	Antenatal corticosteroids (e.g. betamethasone, dexamethasone)	Skin disinfectant/chlorhexidine	Resuscitation equipment	Amoxicillin suspension	Oral rehydration salts (ORS)	Zinc sulfate tab, dispersible tab or syrup	
National	52%	15%	16%	78%	85%	56%	19%	31%	82%	19%	188
Hospital	91%	96%	96%	96%	96%	100%	87%	48%	83%	30%	23
Health centre	46%	4%	5%	76%	83%	50%	9%	29%	83%	18%	164
Other	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	1

The majority of the hospitals have life-saving commodities for maternal, newborn and child health, but only a few health centres keep these life-saving commodities.

2.4.5 Basic Consumables

Table 18. Percentage of facilities offering basic consumables

	Absorbable sutures	Non-absorbable sutures	Suturing needles	Intravenous infusion set	Blood giving set	Intravenous cannula	Intravenous needle (child)	Sterile needles	Single use syringes	Splinting set, extremities	Casts, set and materials	Examination gloves, latex, single use	n
National	80%	91%	87%	100%	54%	100%	92%	96%	100%	38%	35%	97%	188
Hospital	96%	100%	100%	100%	100%	100%	100%	100%	100%	87%	91%	100%	23
Health centre	79%	91%	86%	100%	47%	100%	91%	96%	100%	31%	27%	97%	164
Other	0%	0%	0%	100%	100%	100%	0%	0%	100%	0%	0%	100%	1

	Examination gloves, latex, single use	Alcohol swabs	Sterile gauze swabs	Adhesive tape	Straight urinary catheter	Urinary catheter with bulb for indwelling	Urine collection bag	Endotracheal tube (adult)	Endotracheal tube (paediatric)	n
National	97%	40%	76%	97%	78%	88%	93%	75%	38%	188
Hospital	100%	61%	83%	100%	87%	91%	96%	96%	91%	23
Health centre	97%	38%	76%	97%	77%	88%	93%	73%	30%	164
Other	100%	0%	0%	100%	0%	0%	0%	0%	0%	1

Basic consumables are available at the majority of the hospitals. However, some items, such as splinting sets for extremities, and cast sets and materials are not available at all hospitals and health centres.

2.4.6 Pharmaceutical commodity storage

Table 19 Percentage of facilities offering pharmaceutical commodity storage

	Medicines off the floor	Medicines protected from water	Medicines protected from direct sunlight	No evidence of pests or rodents in medicine storage area	Medicine storage area swept and cleaned	Sufficient air flow in medicine storage area	Main medicine storage area that can be locked	n
National	43%	95%	73%	77%	76%	84%	89%	186
Hospital	48%	96%	70%	70%	70%	70%	100%	23
Health centre	43%	94%	73%	79%	78%	86%	87%	164
Other	0%	100%	0%	0%	0%	0%	100%	1

	Main medicine storage area that can be locked	Limited access to main medicine storage area	All doors solid in medicine storage area	All windows secure in medicine storage area	Functional thermometer/thermostat	Current room temperature 15 °C to 25 °C (inclusive)	n
National	89%	88%	86%	84%	78%	70%	186
Hospital	100%	96%	87%	87%	78%	65%	23
Health centre	87%	87%	86%	83%	78%	72%	164
Other	100%	100%	100%	100%	0%	0%	1

Storage of pharmaceutical products at most of the pharmacies attached to health facilities is appropriate. However, few facilities need improvement with regard to medicine storage.

2.4.7 WHO essential medicines

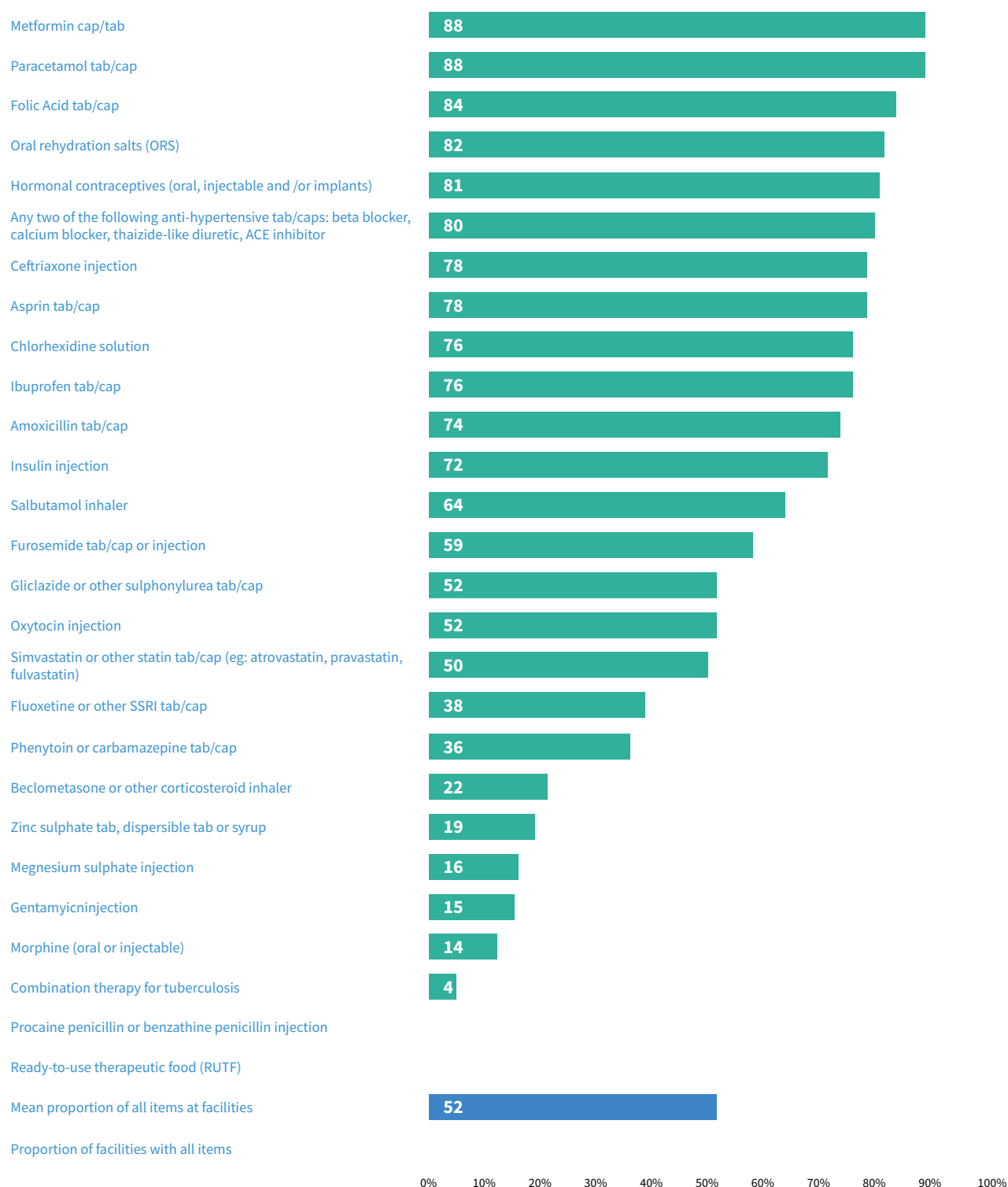


Fig. 5. Percentage of facilities offering WHO essential medicines

3. Service-Specific Availability And Readiness

Service-Specific Availability And Readiness

This section presents selected indicators from the HHFA Module 2 with regard to specific services.

3.1 Reproductive, maternal, newborn, child and adolescent health (RMNCAH)

3.1.1 Family planning

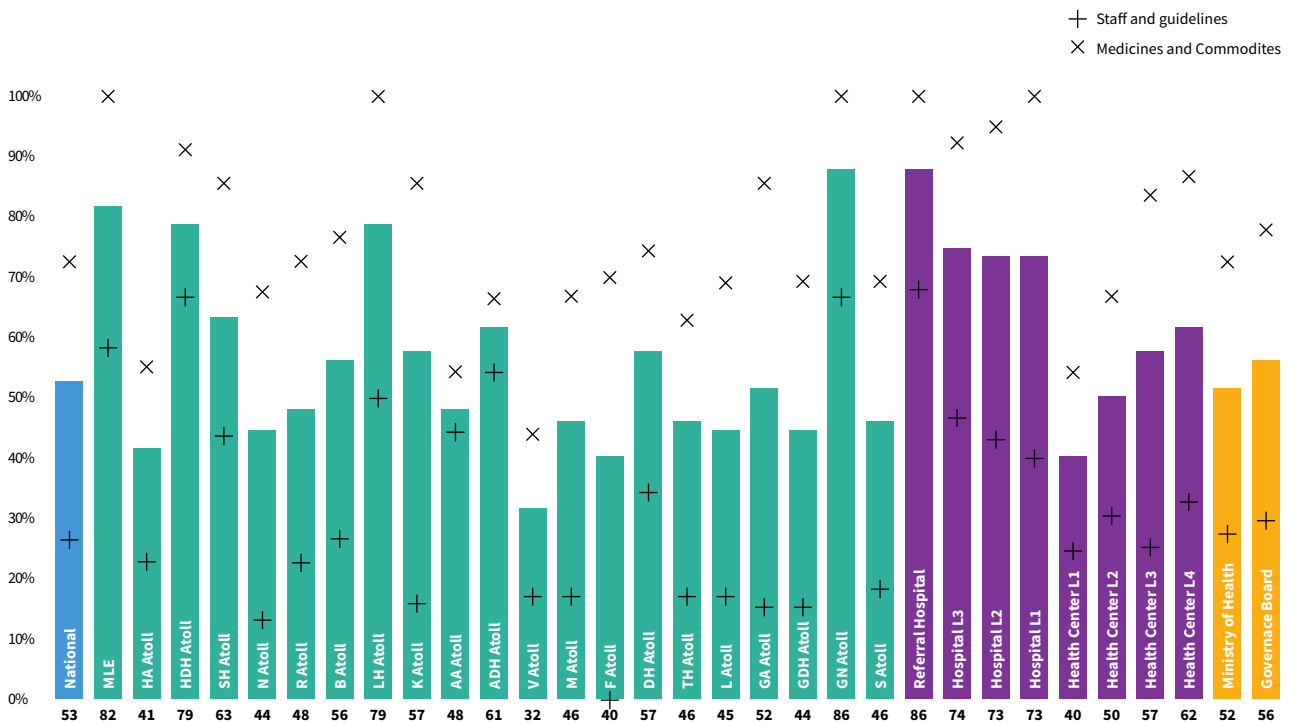


Fig. 6. Family planning service readiness: mean proportion of all items at facilities

Family planning service readiness is assessed by using indicator items regarding guidelines, staff, medicines and commodities. Only one third of the facilities have family planning guidelines at the point of service while 43% have job aids and checklists. Only 7% had staff trained in family planning in the past two years. This translates to only 27% of staff and guideline items across the health facilities. Hospitals report a higher proportion of staff and guideline items – 67% at the national referral hospital and 50% at Level 3 hospitals.

Overall, for family planning readiness, only half (53%) of all items are at health facilities, with hospitals reporting higher readiness, varying between 86% at the national referral hospital and 73% at other hospitals.

Family planning services readiness: mean proportion of all items at facilities

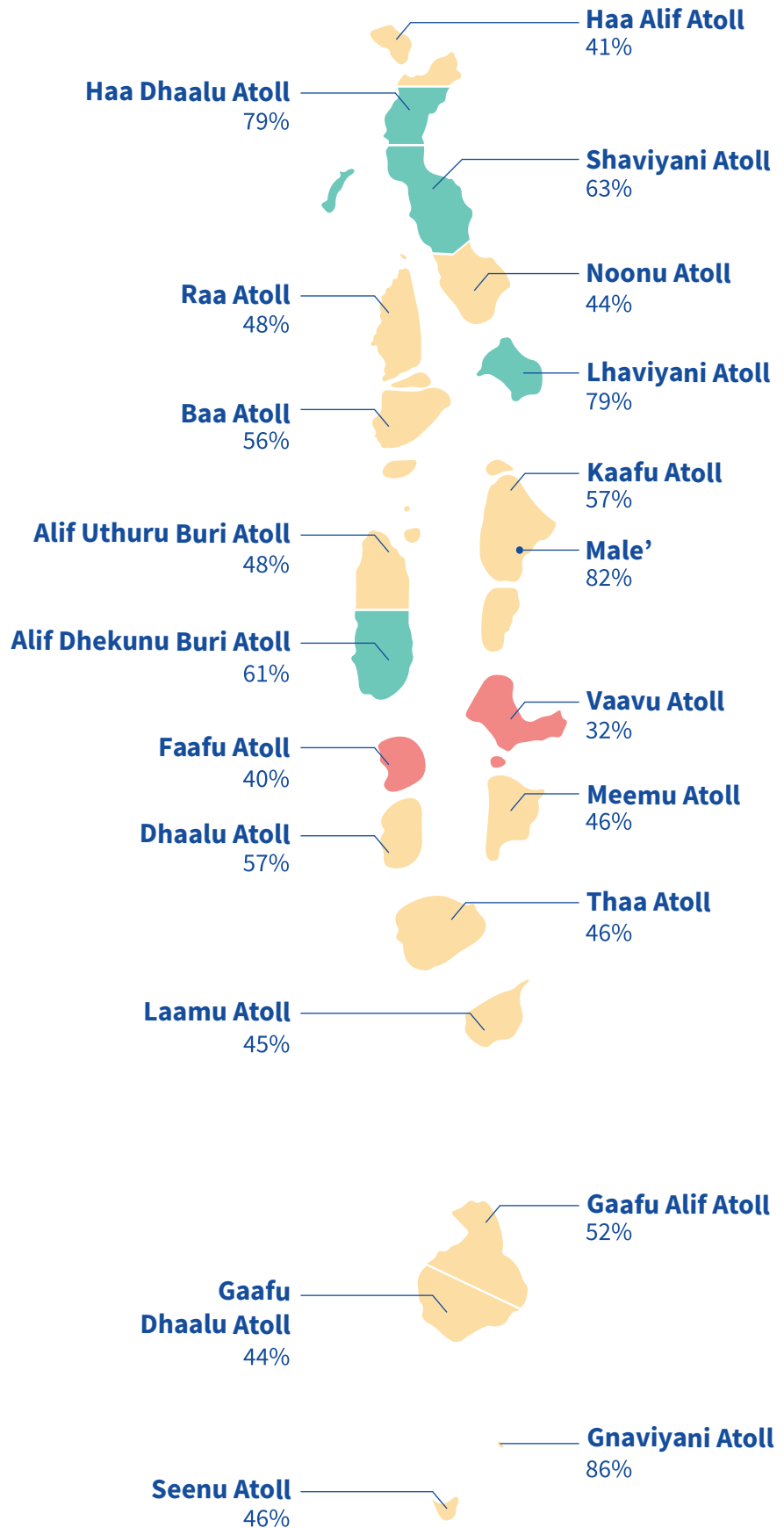
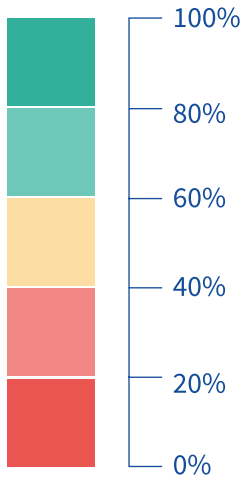


Fig. 7. Family planning services readiness: mean proportion of all items at facilities by atoll

3.1.2 Antenatal care

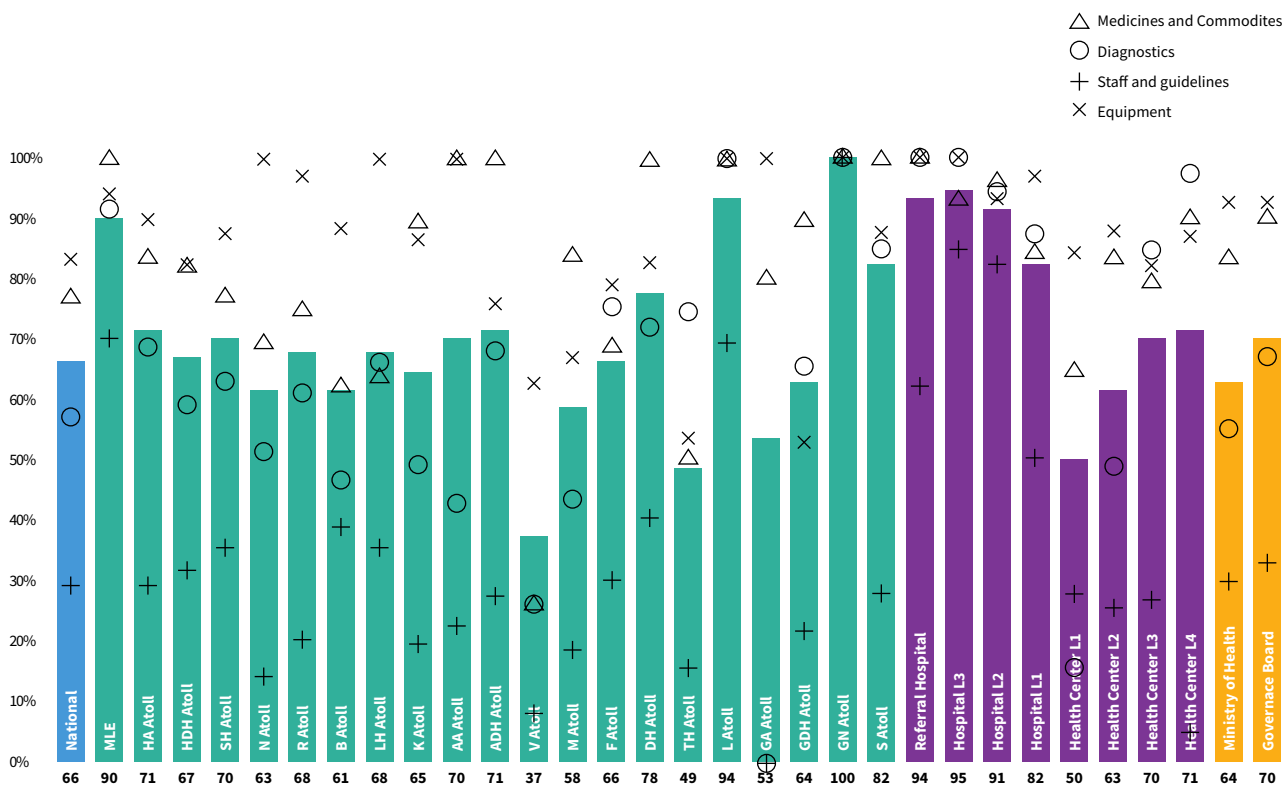


Fig. 8. Antenatal care service readiness: mean proportion of all items at facilities

Antenatal care readiness is assessed with the mean proportions of (i) staff and guideline items at the facilities; (ii) equipment items at facilities; (iii) medicine and commodity items at facilities; and (iv) diagnostic items at facilities. Of the 188 facilities, 141 have reported on readiness items. The results indicate that about 18% of the facilities have guidelines; 16% of the staff had been trained in the past two years in any aspect of antenatal care; none of the staff has had any training in K, V, DH and GA atolls; and all Level 3 hospitals and the national referral hospital have trained staff. About half (48%) of the facilities have job aids and checklists. At the national level, one fourth (27%) of the guidelines and staff are available at the facilities.

With regard to equipment, 89% of the equipment items are available at the facilities with over 90% at the hospitals and over 80% at the health centres. TH and GDH atolls have reported the lowest proportion of equipment items at the facilities. The proportion of medicine and commodity items at facilities is adequate, with 78% of medicines and commodities available nationally. V Atoll has reported the lowest proportion (25%) of medicines and commodities. While the national referral hospital has all medicines and commodities, other hospitals have reported over 80%. The proportion available at the health centres varied from 66% to 82%. At the national level, 57% of the diagnostic items are offered at the facilities.

Table 20. Percentage of facilities offering antenatal care services

	Antenatal care services	Iron supplementation	Folic acid supplementation	Tetanus toxoid vaccination	Monitoring for hypertensive disorder of pregnancy	Routine checks for urine protein	Calcium supplementation for women at risk of pre-eclampsia	Low-dose aspirin for women at risk of pre-eclampsia	HIV testing for pregnant women	Routine syphilis testing for pregnant women	Treatment for pregnant women with syphilis	Diagnosis and treatment for pregnant women with sexually transmitted infections	Monitoring of gestational diabetes	n
National	75%	49%	50%	72%	73%	44%	32%	18%	48%	46%	35%	40%	69%	188
Hospital	96%	78%	83%	96%	96%	91%	83%	74%	100%	100%	87%	100%	96%	23
Health centre	73%	45%	46%	69%	70%	38%	26%	10%	41%	38%	28%	32%	65%	164
Other	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1

Antenatal care services readiness: mean proportion of all items at facilities

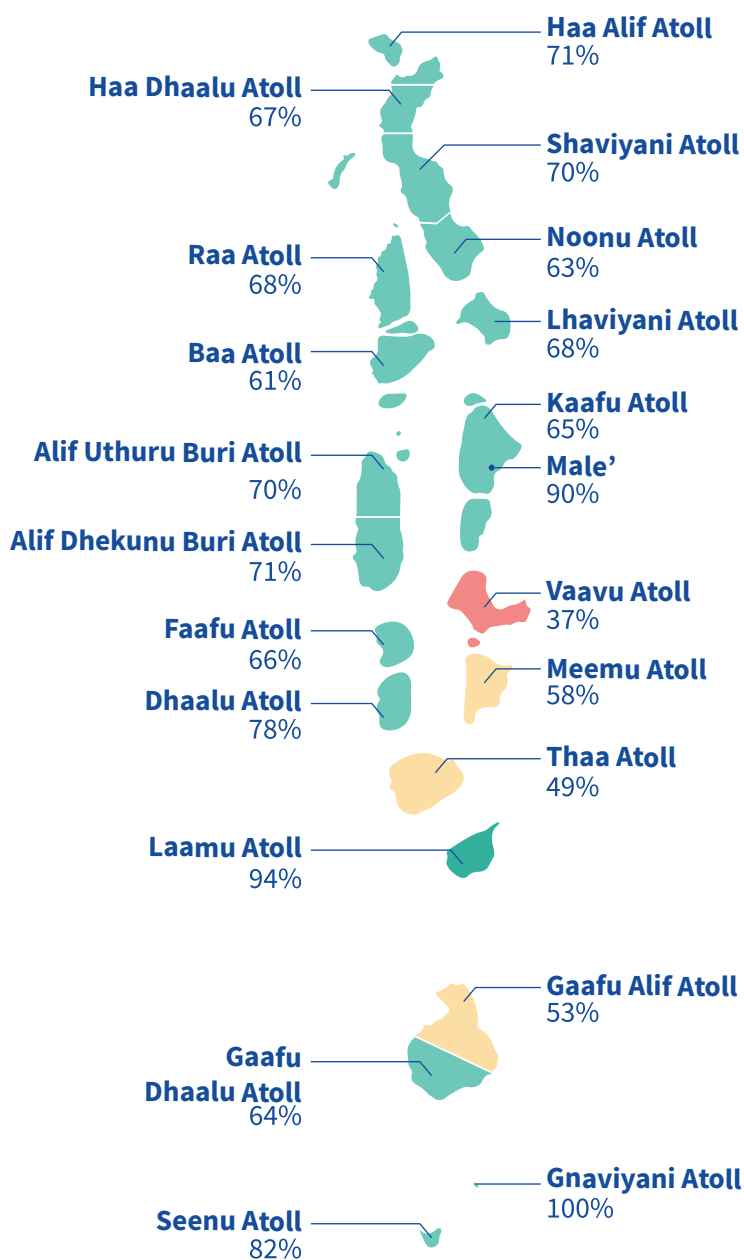
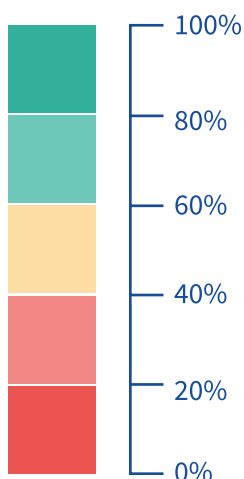


Fig. 9. Antenatal care service readiness: mean proportion of all items at facilities by atoll

3.1.3 Delivery and basic emergency obstetric and newborn care (BEmONC)

Table 21. Percentage of facilities offering delivery and basic emergency obstetric and newborn care (BEmONC) service readiness

	Delivery services	24-hour/7 days a week delivery services by a skilled service provider	Basic emergency obstetric care (BEmOC) – facility reported	All 7 basic obstetric and newborn care signal functions (BEmONC)	n
National	28%	24%	27%	10%	188
Hospital	91%	91%	91%	78%	23
Health centre	19%	15%	18%	0%	164
Other (MBS)	0%	0%	0%	0%	1

Only a small proportion (28%) of the health facilities provide delivery services. Delivery services are reported in all atolls except in V Atoll and at only one facility in each of the L and GA atolls. All Level 2 and Level 3 hospitals and the national referral hospital provide delivery services 24/7 by a skilled service provider and basic emergency obstetric care (BEmOC). While all Level 3 hospitals and the national referral hospital have all seven basic obstetric and newborn care signal functions, these are available only at some Level 2 and Level 1 hospitals. The proportion of health centres providing 24/7 delivery services and BEmOC services is 18% but varies by health centres level from 11% to 23% and none of the health centres provides all seven BEmOC signal functions. Most atolls have at least one facility with all seven BEmONC signal functions. In HA, K and V atolls, none of the facilities provide all seven BEmONC signal functions.

Delivery services availability

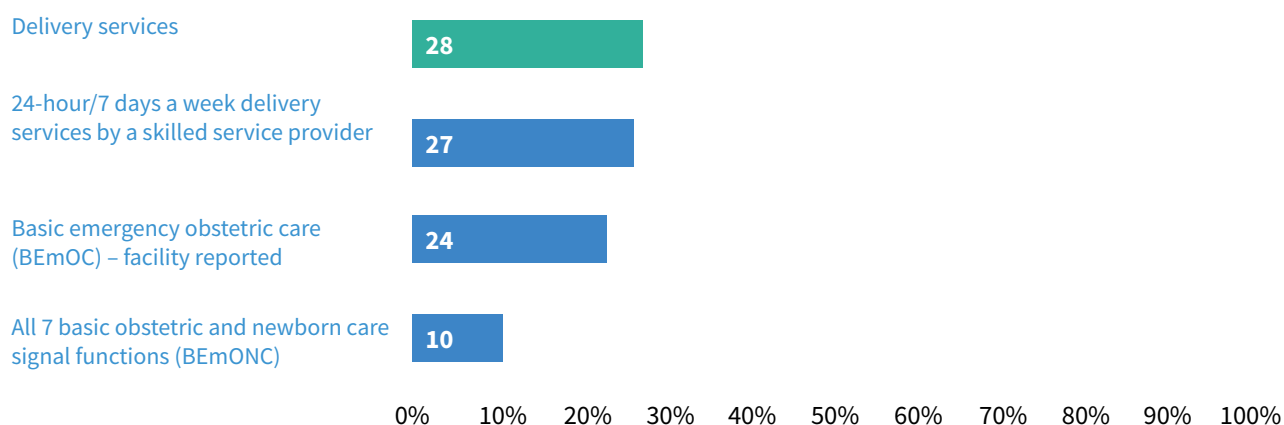


Fig. 10. Percentage of facilities offering delivery service

Service readiness items for basic emergency obstetric and newborn care (BEmONC) show that on average, only 22% of the facilities have staff and guidelines. All facilities in R and B atolls have staff for BEmONC and appear to be outliers, as most of the other facilities have reported “none”, as the question item on trained staff is delimited to have had training in the past two years. The national referral hospital has staff and guidelines, and 60% of Level 3 hospitals have trained staff and guidelines for BEmONC, but these are present only at a third of the hospitals at Levels 2 and 1.

Unlike this, 81% of the facilities have equipment for BEmONC while 98%–99% of the hospitals and 64%–75% of the health centres have equipment for BEmONC. Medicine availability for BEmONC is only slightly less than that of equipment with 72% of the facilities having the medicines and over 80% of the hospitals keeping the medicines for BEmONC; about 60% of the health centres have the medicines. None of the health facilities has all items for BEmONC readiness while 68% of the items for BEmONC are available at the health facilities.



Fig.11. BEmONC service readiness: mean proportion of all items at facilities

3.1.4 Comprehensive emergency obstetric and newborn care (CEmONC)

Table 22. Percentage of facilities offering comprehensive emergency obstetric and newborn care (CEmONC)

	Caesarean section	Blood transfusion	Comprehensive emergency obstetric care (CEmOC) – facility reported	All nine obstetric and newborn care signal functions (CEMOC)	n
National	11%	52%	15%	10%	188
Hospital	87%	100%	87%	78%	23
Health centre	1%	45%	5%	0%	164
Other	0%	100%	0%	0%	1

Comprehensive emergency obstetric care (CEmOC) is provided at about 15% of the health facilities, including the national referral hospital and all Level 2 and Level 3 hospitals. All nine signal functions of CEmONC are provided at 78% of the hospitals, but only 50% of the Level 1 hospitals have CEmONC services. As centres are not planned to provide CEmONC, none of the health centres has the functions of CEmOC, except for blood transfusions.

3.1.5 Care for small and sick neonates

Table 23. Percentage of facilities offering care for small and sick neonates

	Small or sick newborn care	Kangaroo mother care (KMC) for premature/very small babies (provided in last three months)	Alternative feeding if baby unable to breastfeed	Thermal protection	Oxygen	Intravenous rehydration	Exchange transfusion services	Artificial ventilation	n
National	56%	5%	9%	19%	26%	24%	7%	7%	188
Hospital	100%	39%	61%	74%	78%	78%	39%	52%	23
Health centre	50%	0%	2%	12%	18%	16%	2%	1%	164
Other	0%	0%	0%	0%	0%	0%	0%	0%	1

Care for sick or small neonates (any care) is available at all hospitals and at about half of the health facilities (56%). But only 39% of the hospitals have ever provided kangaroo mother care (KMC) for premature babies. Alternative feeding, if a baby is unable to breastfeed, is provided at 61% of the hospitals and 2% of the health centres. Thermal protection, oxygen and intravenous hydration are provided at about 75% of the hospitals but in less than 20% of the health centres. Less than half of the hospitals provide exchange transfusion and about half provide artificial ventilation and exchange transfusion. These findings are anticipated from the way the health system is organized, with such services expected only at hospitals.

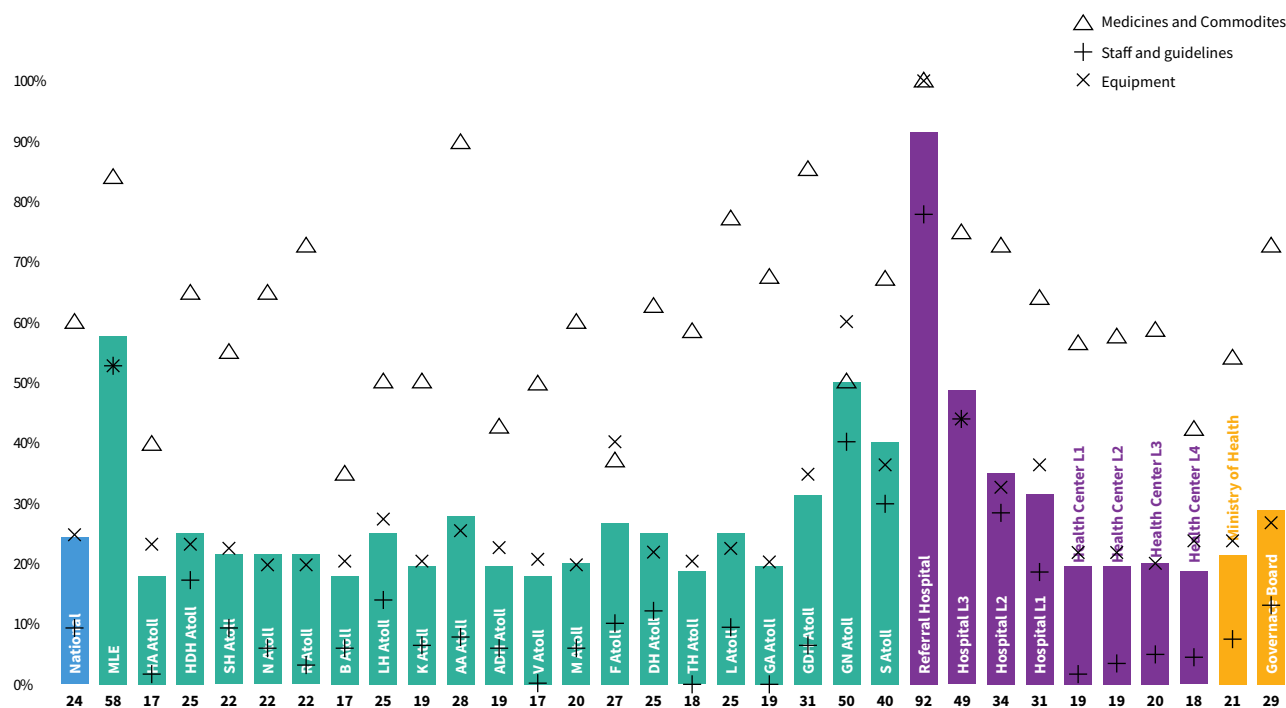


Fig. 12. Small and sick neonatal care service readiness: mean proportion of all items at facilities

With regard to readiness for providing care for small and sick neonates, on average, only 24% of the items for providing care are available at the health facilities. These include 9% of staff and guideline items, 24% of equipment, and 60% of medicines and commodities. The main limiting items involve staff training and guidelines on KMC. However, 92% of the items are available at the national referral hospital, but less than 50% of the items are available at other hospitals, with an average of 30% for hospitals at Levels 1, 2 and 3.

3.1.6 Child health preventative and curative care services

Table 24. Percentage of facilities offering child health preventative and curative care services

	Preventative or curative care for children under 5	Preventative nutrition monitoring in children under 5	Diagnosis and/or treatment of malnutrition in children under 5	Diagnosis and treatment of acute malnutrition in children under 5	Diagnosis and treatment of anaemia with iron supplementation in children under 5	Diagnosis and treatment of diarrhoea with ORS and zinc in children under 5	Diagnosis and first-line treatment of pneumonia in children under 5	n
National	89%	89%	41%	27%	37%	27%	14%	188
Hospital	100%	100%	78%	74%	78%	61%	43%	23
Health centre	88%	88%	36%	21%	32%	22%	10%	164
Other (MBS)	0%	0%	0%	0%	0%	0%	0%	1

The majority (89%) of the facilities provide preventative or curative care for children under five and monitor nutrition. Overall, less than half (41%) of the facilities provide diagnosis and/or treatment of malnutrition in children under five (36% of the health centres and 78% of the hospitals). About a third of the hospitals and a fifth of the health centres are providing diagnosis and treatment of acute malnutrition. With regard to children under five, about a third (32%) of the health centres and 78% of the hospitals diagnose and treat anaemia with iron supplementation. Similarly, only about a fourth (22%) of the health centres and 61% of the hospitals diagnose and treat diarrhoea with ORS and zinc. Less than half of the hospitals (43%) and only 10% of the health centres diagnose and provide first-line treatment of pneumonia in children under five.

3.1.7 Immunization

Table 25. Percentage of facilities offering Immunization

	Any immunization services	Birth doses	Infant immunization	Child immunization	Adolescent/adult immunization	n
National	94%	52%	94%	93%	93%	188
Hospital	100%	91%	100%	91%	91%	23
Health centre	94%	46%	94%	94%	94%	164
Other (MBS)	0%	0%	0%	0%	0%	1

Almost all (94%) facilities provide infant immunization services and 93% are also providing child and adolescent immunization services. Birth doses are provided at 52% of the facilities (91% of the hospitals and 46% of the health centres). Birth-dose vaccination is more or less consistent with the proportion of facilities providing BEmONC. The findings show that all EPI vaccines are provided at more than 90% of the health facilities across hospitals and health centres. Adult vaccination is also provided at the majority of the health facilities.

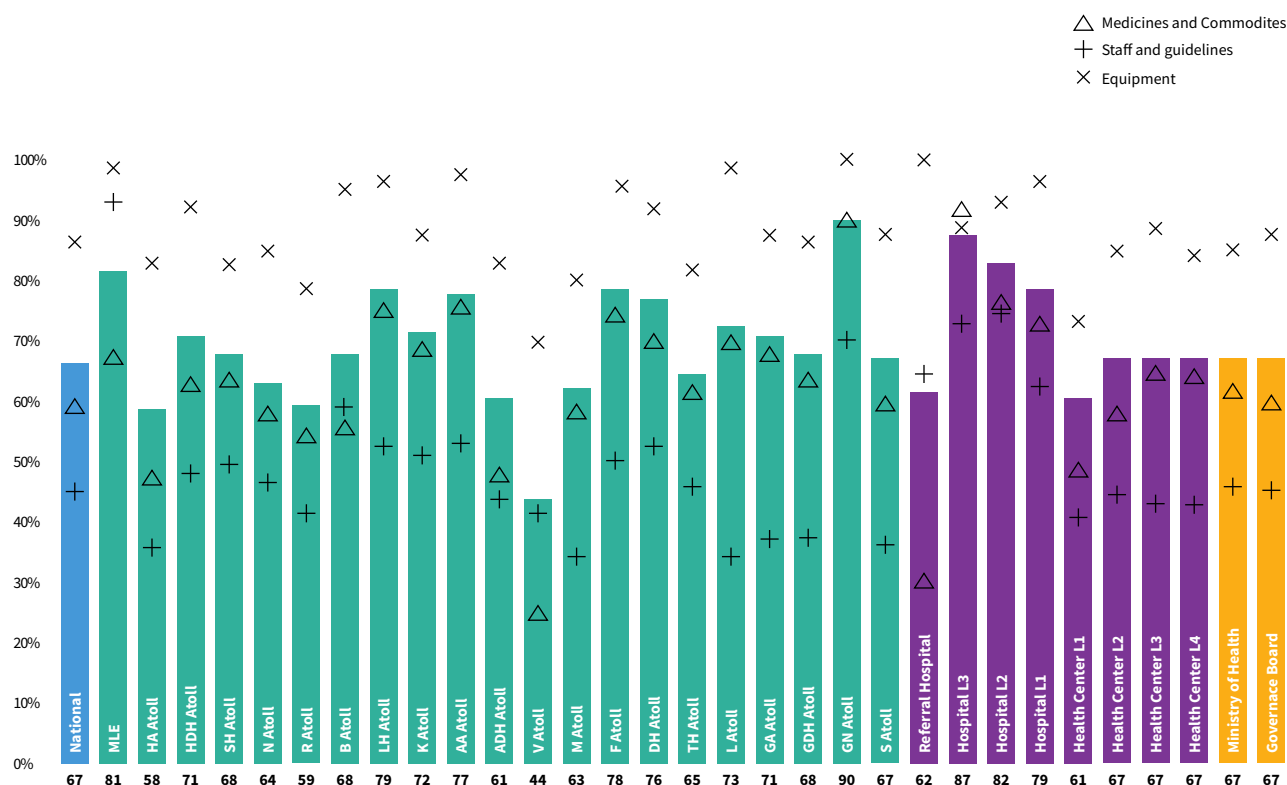


Fig.13 Immunization service readiness: mean proportion of all items at facilities

About two thirds (67%) of the items for immunization readiness are available at the facilities. These include 86% of the equipment, 58% of vaccines and commodities, and 42% of the staff and guideline items. The results regarding the staff trained for immunization are unexpected as a number of staff members had been trained in the past two years in preparation for COVID-19 vaccinations. The lower availability of vaccines and commodities is explained by the inclusion of a number of vaccines in the measure that is not used in the country. For instance, influenza vaccines are not part of the National Immunization Programme; hence, stocks are not maintained at the facilities.

3.1.8 Adolescent health

Table 26. Percentage of facilities offering adolescent health services

	Any adolescent reproductive health service	Any family planning service for adolescents	Provision of combined oral contraceptive pills for adolescents	Provision of male condoms for adolescents	Provision of emergency contraceptive pills for adolescents	HIV testing services for adolescents	n
National	31%	3%	2%	2%	2%	35%	188
Malé	0%	40%	20%	20%	40%	80%	5
Atolls	32%	2%	2%	2%	1%	34%	183
Hospital	52%	17%	13%	13%	17%	70%	23
Health centre	28%	1%	1%	1%	0%	30%	164
Other	0%	0%	0%	0%	0%	100%	1

The provision of adolescent health services is low with only a third (31%) of the facilities providing any adolescent health services. Less than 50% of the hospitals and only a few health centres provide any family planning services to adolescents; nationally, only 3% of the facilities provide adolescents with family planning services. HIV testing services are provided by 35% of the facilities, mainly at the hospitals (70%) and less than one third of the health centres (30%).

3.2 Emergency services

3.2.1 General emergency services

Table 27. Percentage of facilities offering general emergency services

	Any emergency service as first entry to the facility	A 24-hour dedicated emergency unit	24-hour medical and nursing staff on site in emergency unit	24-hour availability of medicines in or near emergency unit	24-hour surgical services that include surgeon and anaesthetist on site 24 hours	24-hour rapid access to emergency transport for referral out	n
National	89%	11%	11%	36%	1%	31%	188
Hospital	100%	48%	52%	26%	9%	43%	23
Health centre	88%	6%	5%	37%	0%	30%	164
Other (MBS)	0%	0%	0%	0%	0%	0%	1

	24-hour pharmacy services	24-hour radiological services	24-hour laboratory services	Doctor or nurse to accompany emergency patients during referral transport	Sea ambulance or other vessel for emergency transportation for clients	Staff avail 24 hours for emergency services: medical officer	n
National	63%	12%	41%	38%	65%	79%	188
Hospital	87%	91%	100%	48%	87%	100%	23
Health centre	60%	1%	34%	37%	62%	76%	164
Other (MBS)	0%	0%	0%	0%	0%	0%	1

The majority of the facilities (98%) provide some form of emergency services at first entry and 79% have a staff member (medical officer) available 24 hours for emergency services. However, about half of the hospitals (48%) have a dedicated emergency unit, including onsite nursing staff (52%). Not all Level 3 hospitals have dedicated emergency units with onsite nursing staff and less than half of hospitals at Levels 1 and 2 have dedicated emergency units. Medicines in or near the emergency unit are available at 36% of the facilities (only 26% of the hospitals and 36% of the health centres). About a third of the facilities (31%) have 24-hour rapid access to emergency transport for referral out and a doctor or nurse accompanies emergency patients during referral transport. Furthermore, 24-hour pharmacy services are available at 63% of the facilities and 41% have 24-hour laboratory services.

3.2.2 Emergency signal interventions and oxygen availability

Table 28. Percentage of facilities offering emergency signal interventions and oxygen availability

	Vital signs measurement in emergency area	Ever provide oxygen in the emergency service area	n
National	89%	98%	168
Hospital	100%	96%	23
Health centre	87%	99%	145

All hospitals and the majority of the health centres (87%) offer measurement of vital signs as part of emergency services. On average, 93% of the equipment for monitoring vital signs are available at the facilities, including all Level 2 and Level 3 hospitals, and the majority of the Level 1 hospitals and health centres. Oxygen services are available at the majority (98%) of the facilities at emergency sites across hospitals and health centres. Readiness for oxygen services is also high with 92% of the items available at facilities; 84% of the facilities have all items.

3.2.3 Airway intervention availability

Table 29. Percentage of facilities offering emergency services with airway intervention availability

	Use of manual manoeuvres	Use of suction	Placement of oro- or nasopharyngeal airway	Placement of supraglottic device	Endotracheal intubation	Creation of surgical airway	n
National	54%	88%	66%	28%	48%	5%	168
Malé/Atolls							
Malé	100%	100%	100%	67%	100%	33%	3
Atolls	53%	88%	65%	27%	47%	5%	165
Facility type							
Hospital	83%	100%	91%	74%	100%	35%	23
Health centre	50%	86%	62%	21%	40%	1%	145

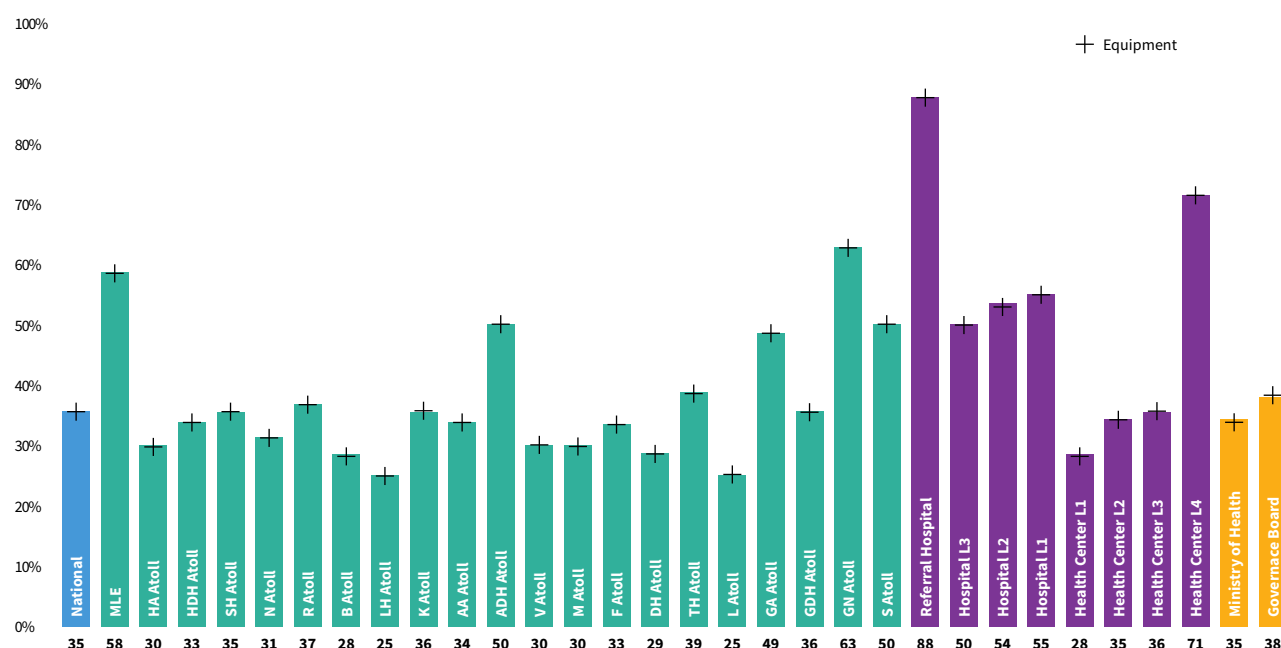


Fig. 14. Airway intervention readiness: mean proportion of all items at facilities

Airway intervention availability indicators vary across the types of facilities. About half (54%) of the facilities provide manual manoeuvres and endotracheal intubation (48%). The majority (88%) provide suction, 66% provide placement of nasopharyngeal or nasopharyngeal airway, 28% provide placement of supraglottic device and only 5% provide creation of surgical airway. While all these services are provided at the national referral hospital, all services are not provided at all hospitals. The majority of the health centres also provide airway interventions except for creation of surgical airways, but wide variations in interventions are observed among the levels of health centres as well. For instance, oxygen administration is available at all facilities, but non-invasive mechanical ventilation with BiPAP/CPAP is available only at 5% of the health centres. Readiness indicators show that about a third (35%) of the equipment items are available at the facilities and none of the facilities has all items for readiness of airway interventions. The lowest availability is observed in tracheostomy sets and intubation sets (both adult and paediatric).

3.2.4 Breathing intervention availability

Table 30. Percentage of facilities offering emergency services with breathing intervention availability

	Pulse oximetry at triage	Pulse oximetry in emergency unit treatment area	Administration of bronchodilators	Administration of oxygen	Bag-valve-mask ventilation	Non-invasive mechanical ventilation (BiPAP/CPAP)	Invasive mechanical ventilation	Needle decompression of tension pneumothorax	Placement of chest tube	n
National	37%	94%	71%	100%	63%	13%	11%	5%	7%	168
Malé/Atolls										
Malé	67%	100%	100%	100%	100%	67%	67%	67%	67%	3
Atolls	36%	94%	70%	100%	62%	12%	10%	4%	5%	165
Facility type										
Hospital	61%	100%	91%	100%	96%	61%	61%	39%	43%	23
Health centre	33%	93%	68%	100%	58%	5%	3%	0%	1%	145

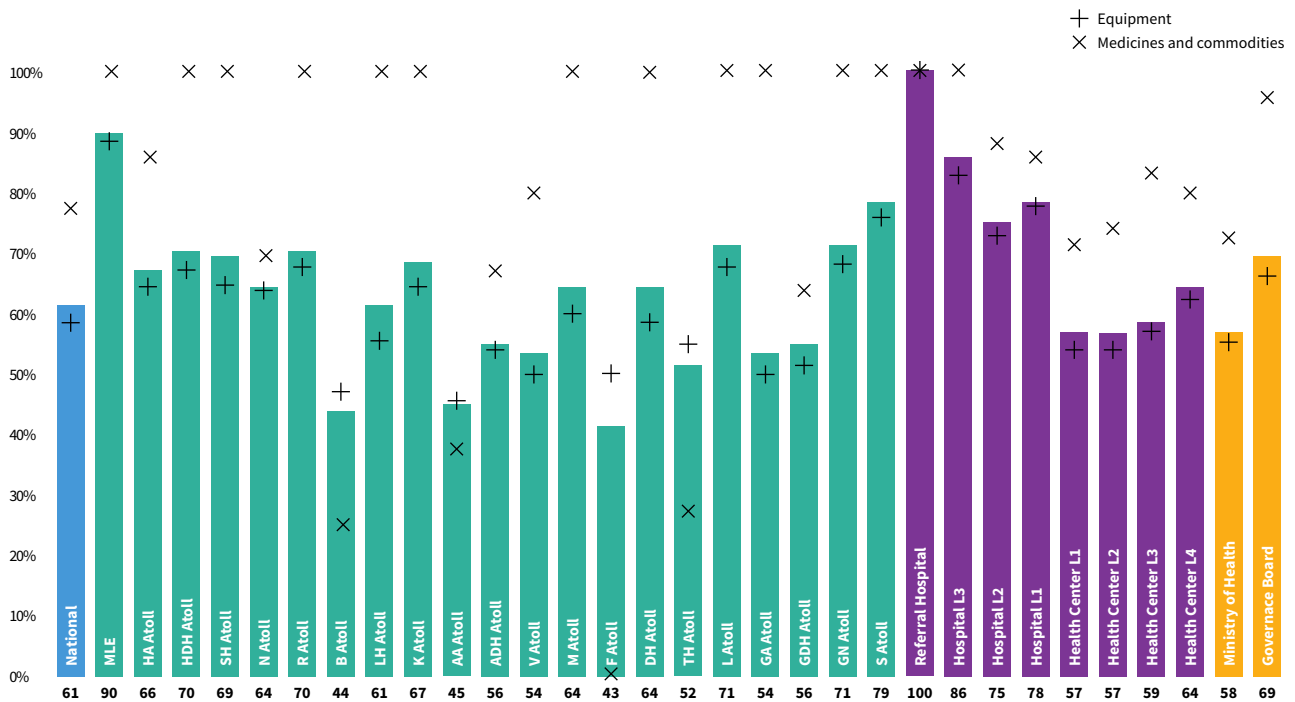


Fig. 15. Breathing intervention readiness: mean proportion of all items at facilities

Breathing intervention availability also varies widely. While all facilities (100%) have administration of oxygen and the majority (94%) have pulse oximetry in emergency unit treatment areas, only 37% of the facilities have pulse oximetry at triage, which include the national referral hospital and the majority of the Level 3, Level 2 and Level 1 hospitals, and a third of the health centres. The majority of the facilities (71%) provide administration of bronchodilators and bag-valve-mask ventilation (63%). Non-invasive mechanical ventilation (BiPAP/CPAP) and invasive mechanical ventilation are provided in about a tenth of the facilities.

Breathing intervention availability also varies widely. While all facilities (100%) have administration of oxygen and the majority (94%) have pulse oximetry in emergency unit treatment areas, only 37% of the facilities have pulse oximetry at triage, which include the national referral hospital and the majority of the Level 3, Level 2 and Level 1 hospitals, and a third of the health centres. The majority of the facilities (71%) provide administration of bronchodilators and bag-valve-mask ventilation (63%). Non-invasive mechanical ventilation (BiPAP/CPAP) and invasive mechanical ventilation are provided in about a tenth of the facilities.

Less than 10% of the facilities provide needle decompression of tension pneumothorax (5%) and placement of chest tube (7%); these are provided at Level 2 and Level 3 hospitals, and the national referral hospital. On average, more than half (58%) of the facilities have equipment items, and 78% of the medicines and commodities for breathing interventions.

Breathing intervention readiness indicators show that on average, 58% of the items are available for breathing interventions, with CPAP available only at 7% of the facilities' emergency areas and chest tubes with insertion set at 8% of the facilities' emergency areas. Oxygen with tubing, flowmeter and humidifier are available at 78% of the facilities. The mean proportion of all items at facilities stands at 61% and only 4% of the facilities have all items for breathing interventions in emergency areas; these include the national referral hospital and 50% of Level 3 hospitals.

3.2.5 Circulation Intervention Availability

Table 31. Percentage of facilities offering emergency services with circulation intervention availability

	Administration of oral rehydration	Placement of peripheral IV access	Establishment of intraosseous access	Establishment of central venous access	Administration of IV fluids	Adjustment of fluid resuscitation for malnutrition or severe anaemia	Adjustment of fluid resuscitation for malnutrition or severe anaemia	n
National	91%	88%	26%	9%	99%	42%	42%	168
Malé	100%	100%	100%	67%	100%	67%	67%	3
Atolls	91%	87%	25%	8%	99%	42%	42%	165
Hospital	100%	100%	48%	57%	100%	91%	91%	23
Health centre	90%	86%	23%	1%	99%	34%	34%	145

	Placement of urinary catheter	External control of haemorrhage	Bleeding control through packing and/or suture	Application of arterial tourniquet	Pelvic binding or sheeting	Safe blood transfusion (including massive transfusion)	Point-of-care ultrasound and interpretation	n
National	95%	76%	93%	43%	10%	52%	13%	168
Malé	100%	100%	100%	67%	33%	100%	100%	3
Atolls	95%	75%	93%	42%	10%	52%	12%	165
Hospital	100%	100%	100%	87%	39%	96%	83%	23
Health centre	94%	72%	92%	36%	6%	46%	2%	145

+ Equipment
 X Medicines and Commodities

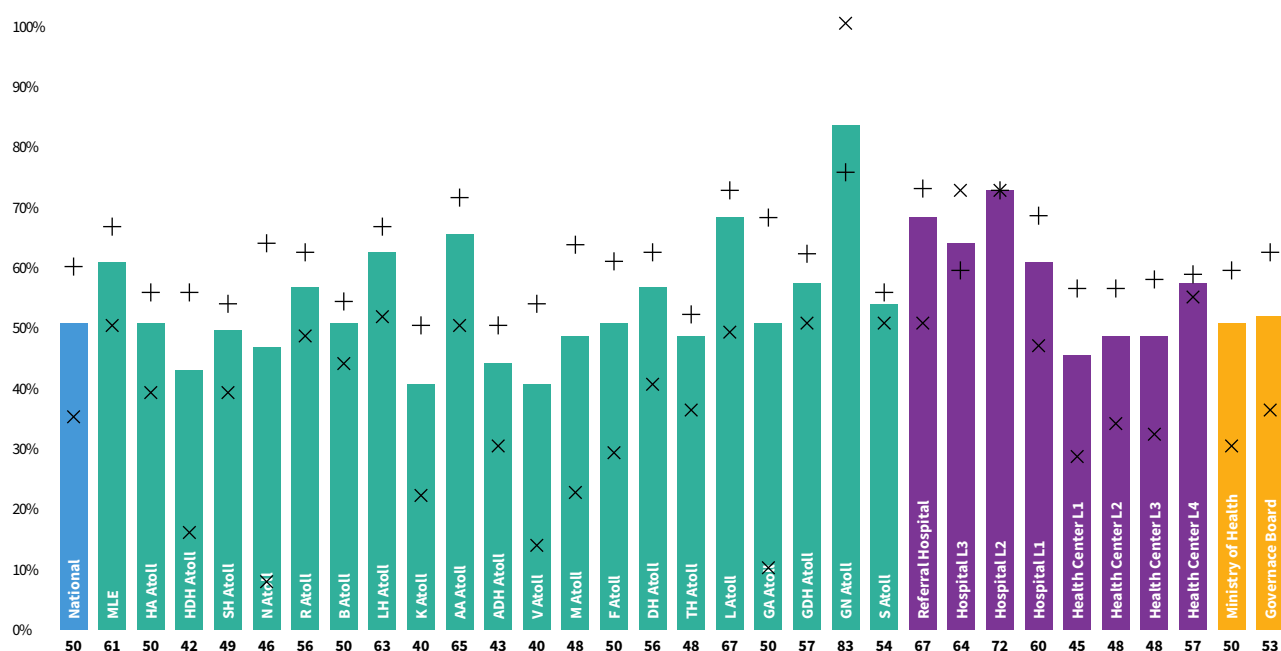


Fig. 16. Circulation intervention readiness: mean proportion of all items at facilities

Circulation interventions show similar variations to the airway and breathing service availability. The majority of the facilities provide administration of oral rehydration (91%) and placement of peripheral IV access (88%), administration of IV fluids (99%), placement of urinary catheter (95%), bleeding control through packing and/or suture (93%) and external control of haemorrhage (76%); about half (52%) provide safe blood (including massive blood) transfusion services. Very few facilities (9%) establish central venous access that includes the national referral hospital and less than half of the Level 1, Level 2 and Level 3 hospitals. Circulation intervention readiness indicators show that 60% of the equipment items and 32% of the medicines and commodities are available at the facilities resulting in half (50%) readiness with all items.

3.2.6 Unconscious patient intervention availability

Table 32. Percentage of facilities offering emergency services with unconscious patient intervention availability

	Glucose level check	Administration of glucose for hypoglycaemia	Administration of insulin for hyperglycaemia	Lumbar puncture	n
National	85%	81%	75%	4%	188
Malé/Atolls					
Malé	60%	60%	60%	20%	5
Atolls	85%	82%	75%	4%	183
Facility type					
Hospital	100%	100%	100%	30%	23
Health centre	83%	79%	72%	1%	164
Other(MBS)	0%	0%	0%	0%	1

The majority of the facilities across the atolls provide services for unconscious patients, with 85% providing glucose level check, 81% providing administration of glucose for hypoglycaemia and 75% providing administration of insulin for hyperglycaemia. Lumbar puncture is, however, provided only at some hospitals, including the national referral hospital, half of the Level 3 hospitals, and less than a quarter of the Level 1 and Level 2 hospitals. Readiness indicators on services for unconscious patients show that about a third of the medicines and commodities are available at the facilities.

3.2.7 Seizure intervention availability

Table 33. Percentage of facilities offering emergency services with seizure intervention availability

	Protection from secondary injury	Administration of benzodiazepine	Administration of IV magnesium for pregnant patient	Administration of antidote for narcotic overdose	n
National	80%	56%	18%	8%	168
Malé/Atolls					
Malé	100%	100%	100%	100%	3
Atolls	79%	55%	17%	6%	165
Facility type					
Hospital	100%	87%	96%	52%	23
Health centre	77%	51%	6%	1%	145

The majority of the facilities, including health centres across the atolls, provide seizure interventions, with 80% providing protection from secondary injury, and 87% of the hospitals and about 50% of health centres providing administration of benzodiazepine. The majority of the hospitals (96%) provide administration of IV magnesium for pregnant patients (mainly at the hospitals) and 52% of the hospitals provide administration of antidote for narcotic overdose. Readiness for seizure interventions is low, with only 12% of the items available at the facilities and with 4% of the facilities having all items.

3.2.8 Sepsis intervention availability

Table 34. Percentage of facilities offering emergency services with sepsis intervention availability

	Protection from secondary injury	Administration of benzodiazepine	Administration of IV magnesium for pregnant patient	Administration of antidote for narcotic overdose	n
National	89%	23%	5%	80%	168
Malé/Atolls					
Malé	67%	100%	33%	100%	3
Atolls	89%	22%	5%	80%	165
Facility type					
Hospital	96%	78%	35%	91%	23
Health centre	88%	14%	1%	79%	145

The sepsis intervention results show that the majority (89%) provide administration of IV antibiotics and 80% of the facilities perform minor surgical techniques for infection source control; however, only 23% provide administration of IV vasopressors. Only 5% of the facilities provide diagnostic paracentesis; these include the national referral hospital, 50% of the Level 3 hospitals, 43% of the Level 1 hospitals and 11% of the Level 2 hospitals. Readiness indicators show that about half (51%) of the medicines and commodities are available, and 20% of the facilities have the minor surgical kits, resulting in less than half (40%) of the items being available at the facilities and 7% of the facilities having all items for readiness to provide sepsis interventions.

3.2.9 Injury intervention availability

Table 35. Percentage of facilities offering emergency services with injury intervention availability

	Immobilization of cervical spine	Three-way dressing for sucking chest wound	Administration of opiate analgesia	Fasciotomy or escharotomy for compartment syndrome	Appropriate initial wound care	Immobilization of fractures	Closed reduction of fracture or dislocation	Administration of antibiotics for open fracture	Tetanus vaccination or IVIg	n
National	29%	11%	21%	2%	95%	68%	17%	53%	85%	168
Malé	100%	33%	100%	33%	100%	100%	100%	100%	100%	3
Atolls	27%	11%	19%	1%	95%	68%	15%	52%	85%	165
Hospital	74%	43%	91%	13%	91%	91%	87%	96%	91%	23
Health centre	21%	6%	10%	0%	96%	65%	6%	46%	84%	145

Appropriate initial wound care is provided at the majority of the facilities (95%) across the atolls, hospitals and health centres; 85% provide tetanus vaccination, 68% provide immobilization of fractures and 53% provide administration of antibiotics for fractures. Immobilization of cervical spine is, however, carried out at 29% of the facilities that include the majority of the hospitals and about 20%–40% of the health centres. Similarly, closed reduction is provided at 17% of the facilities, including the majority of the hospitals and a few health centres. Readiness indicators show that 14% of the items are at the facilities, with 8% of the facilities having cervical collars for cervical spine immobilization. About a third (39%) of the medicines and commodities are available, with the majority having antibiotics and tetanus toxoid. However, only 4% of the facilities have opiates while 26% have splints and cast materials.

4. Management, Finance And Quality Assurance Support Systems

Management, Finance And Quality Assurance Support Systems

This section presents the selected indicators from the HHFA Module 2 – management and finance. Facility management is an important contributor to health facility performance. The quality of health care delivered at hospitals and patient health outcomes are dependent not only on the availability of physical inputs and competent providers, but also on the health-care system, including management, leadership and financing.

4.1 Governance and management systems

4.1.1 Facility governance and management

Table 36. Percentage of facilities offering facility governance and management

	A facility management committee responsible for overall facility management that has met within past three months	Minutes/notes available from most recent facility management committee meeting	A routine system for eliciting community input into facility management decisions	Formal systems for linking services with community volunteers or CSOs for any services	n
National	35%	24%	7%	0%	188
Malé/Atolls					
Malé	60%	60%	0%	0%	5
Atolls	34%	23%	8%	0%	183
Facility type					
Hospital	96%	70%	13%	0%	23
Health centre	26%	18%	7%	0%	164
Other (MBS)	100%	100%	0%	0%	1

Facility governance and management

A facility management committee responsible for overall facility management that has met within past 3 months

35

Minutes/notes available from most recent facility management committee meetings

24

A routine system for eliciting community input into facility management decisions

7

Formal systems for linking services with community volunteers or CSOs for any services

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Fig. 17. Percentage of facilities offering facility governance and management

More than one third (35%) of the facilities have had a facility management committee responsible for overall facility management at the national level in the past three months. In Malé, LH, DH, GN and S atolls, more than half of the facilities have had facility management committees responsible for overall facility management during the past three months. Apart from the hospitals at L1, all hospitals in the country (100%) had facility management committees established at the time of the assessment. Nearly one fourth of the facilities (24%) kept minutes from the most recent facility management committee meeting at the national level.

At the national level, 7% of the facilities have a routine system of eliciting community inputs for facility management decisions. Among the atolls, those which have a routine system of eliciting community inputs for facility management decisions include B, LH, AA, ADH, M, TH and L atolls. None of the facilities has a formal system linking services with community volunteers or civil society organizations (CSOs) for any service.

4.1.2 Maintenance and repair

Table 37. Percentage of facilities offering maintenance and repair

	Routine maintenance systems for any facility vehicles	Systems for routine maintenance of any infrastructure such as electrical, water, sanitation or ventilation systems, incinerator, generator	Systems for routine maintenance of generators	A process for repairing or replacing small medical equipment	n
National	40%	37%	5%	31%	188
Malé	67%	40%	40%	60%	5
Atolls	39%	37%	4%	30%	183
Hospital	65%	70%	39%	52%	23
Health centre	36%	32%	0%	27%	164
Other (MBS)	0%	0%	0%	100%	1

Across all government health facilities in the country, 40% have established routine maintenance systems for any facility vehicle. About two thirds of the hospitals have routine maintenance systems for any facility vehicle. More than 60% of the facilities in Malé, R, ADH and GA atolls have some form of routine maintenance systems for facility vehicles.

The majority of the hospitals (70%) have systems for routine maintenance of any infrastructure, such as electrical, water, sanitation or ventilation systems, incinerators and generators; however, only a third of the health centres have routine maintenance systems for essential infrastructure. Routine maintenance of generators that provide back-up electricity is carried out in less than half (40%) of the facilities; health centres do not implement such maintenance.

A process for repairing or replacing small medical equipment was carried out by 31% of the facilities nationally, with about half of the hospitals and a quarter of the health centres. The national referral hospital and all hospitals at Level 3 have carried out the process for repairing or replacing small medical equipment.

4.1.3 Recalibration of medical equipment

Table 38. Percentage of facilities offering recalibration of medical equipment

	Percentage of facilities with electronic weighing scales (paediatric) ever recalibrated	Percentage of facilities with electronic weighing scales (adult) ever recalibrated	Percentage of facilities with automated analysers in the laboratories ever recalibrated	Percentage of facilities with any other medical devices ever recalibrated	n
National	7%	7%	35%	4%	188
Malé	20%	20%	40%	0%	5
Atolls	7%	7%	35%	4%	183
Hospital	22%	22%	70%	13%	23
Health centre	5%	5%	30%	2%	164
Other (MBS)	0%	0%	0%	0%	1

Only 22% of the hospitals and 5% of the health centres have electronic weighing scales (adult or paediatric). Looking at all government facilities, 70% of the hospitals and 30% of the health centres are with automated analysers in the laboratories ever recalibrated. Recalibration of other medical devices is poor and none of the facilities in Malé has reported any recalibration.

4.2 Facility finances and accounting

4.2.1 Facility budget

Table 39. Percentage of facilities offering facility budget

	Budgeted annual workplan	Budget line item for grounds maintenance and repair	Budget line item for building infrastructure maintenance and repair	Budget line item for routine maintenance and repair of medical equipment	n
National	57%	46%	62%	20%	188
Malé/Atolls					
Malé	100%	100%	80%	60%	5
Atolls	56%	45%	62%	19%	183
Facility type					
Hospital	83%	100%	91%	65%	23
Health centre	54%	38%	59%	13%	164
Other (MBS)	100%	100%	0%	0%	1

All hospitals and 56% of the health centres prepare budget annual workplans. All facilities in Malé and few facilities in the atolls execute budget annual workplans. While the majority of the hospitals have budget for grounds and infrastructure maintenance, only 65% of the hospitals and 13% of the health centres have budget line items for routine maintenance and repair of medical equipment. External audits are not routinely conducted and only 20% of the health facilities have reported that they receive an annual external financial audit.

4.2.2 Accountability for equipment and furnishing

Table 40. Percentage of facilities offering accountability for equipment and furnishing

	Budgeted annual workplan	Budget line item for grounds maintenance and repair	n
National	98%	61%	188
Malé/Atolls			
Malé	80%	60%	5
Atolls	99%	61%	183
Facility type			
Hospital	96%	74%	23
Health centre	99%	59%	164
Other (MBS)	100%	100%	1

Accountability for equipment and furnishing

An inventory of major equipment and furnishings

98

Guidlines for items to be included in the inventory

61

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Fig. 18. Accountability for equipment and furnishing

An inventory of major equipment and furnishings was carried out by 98% of the facilities. There were guidelines for items to be included in the inventory at 74% of the hospitals and 59% of the health centres.

4.3 Systems to support staff

4.3.1 Management of staff

Table 41. Percentage of facilities offering management of staff

	A staffing plan with allocated number of staff by qualification	A written management structure or an organogram	Written job descriptions	n
National	76%	74%	99%	188
Malé/Atolls				
Malé	100%	100%	100%	5
Atolls	75%	74%	99%	183
Facility type				
Hospital	91%	91%	100%	23
Health centre	74%	72%	99%	164
Other (MBS)	100%	100%	100%	1

All hospitals and the majority of the health centres have staffing plan with allocated number of staff by qualification and written job descriptions. Written management structure is also available at the majority of the hospitals and health centres.

4.3.2 Staff credentials and supervision

Table 42. Percentage of facilities offering staff credentials and supervision

	A system for routinely verifying the licence and other relevant credentials for any staff	A system for routine staff evaluation (annual or more frequently), with observed evaluation form	A reported external supervision visit within the past three months	Documentation observed of external supervision visit during the past three months	n
National	85%	91%	11%	1%	188
Malé/Atolls					
Malé	100%	100%	0%	0%	5
Atolls	84%	91%	11%	1%	183
Facility type					
Hospital	87%	96%	13%	0%	23
Health centre	84%	90%	11%	1%	164
Other (MBS)	100%	100%	0%	0%	1

Routine staff evaluation is carried out at 91% of the health facilities. As most of the staff working at the health facilities are in civil service, annual performance appraisals are carried out in this regard. Furthermore, 85% of the health facilities (87% of the hospitals and 84% of the health centres) carry out routine verification of the licence and other relevant credentials for any staff member.

External supervision is poor; in the past three months, only 11% of the health facilities had visits and there were no supervision visits at facilities in Malé.

4.3.3 Staff safety and benefits

Table 43. Percentage of facilities offering staff safety and benefits

	Surveillance of factors that may affect health of facility workers	Supervision of personal protective equipment and its use	Pre-employment, periodic and special medical examinations	Advice to individual workers on work-related disorders	n
National	20%	68%	0%	44%	188
Malé	20%	100%	0%	100%	5
Atolls	20%	67%	0%	42%	183
Hospital	43%	83%	0%	74%	23
Health centre	17%	66%	0%	39%	164
Other (MBS)	0%	100%	0%	100%	1

Most of the health facilities ensure staff safety and well-being by conducting supervision of personal protective equipment and its use (83% hospitals and 66% health centres). Well-being practices are limited, with only one fifth of the health facilities carrying out surveillance of factors that may affect the health of facility workers. None of the health facilities conducts pre-employment periodic and special medical examination of staff, and less than half of the facilities provide advice to individual workers on work-related disorders.

4.4 Systems for patient safety

4.4.1 Management systems for infection prevention and control (IPC)

Table 44. Percentage of facilities offering management systems for infection prevention and control (IPC)

	Guidelines for infection prevention and control	Guidelines for isolation	Guidelines for respiratory-based transmission precautions	Staff trained in a certified infection prevention and control course	At least one dedicated full-time IPC staff	An IPC technical committee	Multidisciplinary meetings to review IPC results	A meeting of the IPC committee or with the person responsible for IPC within the past six months	n
National	20%	18%	12%	14%	1%	3%	1%	2%	188
Malé/Atolls									
Malé	80%	40%	40%	20%	20%	40%	40%	60%	5
Atolls	18%	17%	11%	14%	0%	2%	0%	0%	183
Facility type									
Hospital	39%	43%	35%	30%	4%	26%	9%	9%	23
Health centre	16%	14%	9%	11%	0%	0%	0%	1%	164
Other (MBS)	100%	0%	0%	100%	0%	0%	0%	0%	1

The results show that the management system for infection prevention and control is inadequate at the health facilities. About 20% of the health facilities have guidelines for infection prevention and control, with a slightly higher proportion (but less than half) of hospitals. Guidelines for isolation are available on site at 18% of the health facilities.

The health facilities also have a limited number of staff with knowledge of infection prevention and control; only 14% of the health facilities have staff trained in a certified infection prevention and control course. Similarly, only 12% of the health facilities have guidelines for respiratory-based transmission precautions. Only 2% of the health facilities have an IPC technical committee formulated for the management of infection prevention and control. Less than 1% of the health facilities have meetings to review IPC results and dedicated full-time IPC staff to address and monitor these cases.

Management systems for infection prevention and control

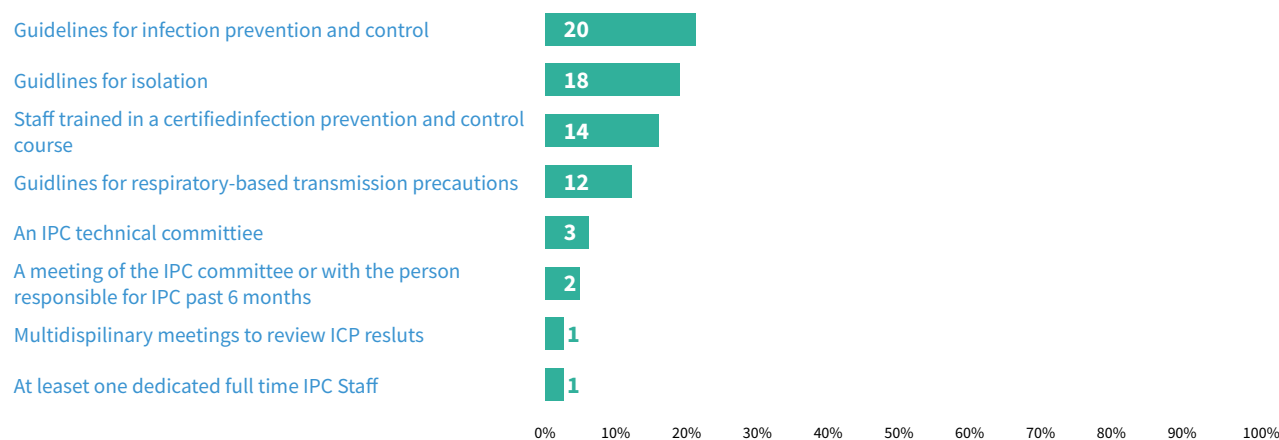


Fig. 19. Percentage of facilities offering management systems for IPC

4.4.2 Management systems for facility cleaning

Table 45. Percentage of facilities offering management systems for facility cleaning

	Facility cleaning guidelines anywhere in facility	Guidelines on step-by-step techniques for specific cleaning tasks	A cleaning roster specifying responsibility for cleaning tasks	A cleaning roster specifying frequency of cleaning tasks	A defined process for training cleaning staff	n
National	23%	23%	26%	25%	15%	188
Malé	80%	60%	80%	60%	60%	5
Atolls	21%	22%	24%	24%	14%	183
Hospital	48%	57%	48%	48%	39%	23
Health centre	19%	19%	22%	21%	12%	164
Other (MBS)	100%	0%	100%	100%	0%	1

	A defined process for training cleaning staff	Specific cleaning instructions for cleaning floors	Specific cleaning instructions for cleaning counters/tables	Specific cleaning instructions for cleaning toilets	Training conducted for all staff responsible for cleaning	n
National	15%	28%	26%	26%	31%	188
Malé	60%	60%	60%	60%	60%	5
Atolls	14%	27%	25%	25%	31%	183
Hospital	39%	61%	57%	52%	43%	23
Health centre	12%	23%	21%	21%	30%	164
Other (MBS)	0%	100%	100%	100%	0%	1

Close to one in five health facilities has proper management systems for facility cleaning, including the Maldivian Blood Services (MBS). About 23% of the facilities have cleaning guidelines anywhere at the facilities and have guidelines on step-by-step techniques for specific cleaning tasks. Only a quarter of the health facilities have cleaning rosters, specifying responsibilities for cleaning tasks.

4.4.3 Emergency preparedness systems

Table 46. Percentage of facilities offering emergency preparedness systems

	A written fire safety plan	A written emergency response plan for outbreaks	Written emergency response plan for natural and non-natural disasters	A practice drill for any emergency plans in the past 12 months	A strategy to meet increased staffing needs in an emergency	n
National	3%	6%	0%	3%	10%	188
Malé/Atolls						
Malé	0%	20%	0%	0%	20%	5
Atolls	3%	6%	0%	3%	9%	183
Facility type						
Hospital	13%	35%	0%	17%	30%	23
Health centre	1%	2%	0%	1%	7%	164
Other (MBS)	0%	0%	0%	0%	0%	1

Only a few health facilities have emergency preparedness systems, with very few facilities having fire safety plans (13% of the hospitals and 1% of the health centres). None of the facilities in Malé has a fire safety plan. About a third of the hospitals has an outbreak response plan and strategy to meet increased staffing needs in an emergency, and this is only available at 2% and 7% of the health centres respectively. None of the health facilities has a written emergency response plan for natural and non-natural disasters.

4.5 Quality monitoring systems

4.5.1 Internal quality assurance and improvement systems

Table 47. Internal quality assurance and improvement systems

	A routine quality assurance process for any service area	A quality assurance committee that met in the past three months	Documentation showing that quality assurance information was reviewed	Any quality improvement process with documented actions based on QA/QI findings or a valid description of the improvement	Dedicated budget line for quality improvement activities	System for eliciting and reviewing client opinion on facility services	n
National	9%	2%	1%	3%	1%	1%	188
Malé/Atolls							
Malé	40%	20%	20%	40%	40%	0%	5
Atolls	8%	1%	0%	2%	0%	1%	183
Facility type							
Hospital	30%	9%	4%	17%	9%	4%	23
Health centre	6%	1%	0%	1%	0%	0%	164
Other (MBS)	0%	0%	0%	0%	0%	0%	1

In terms of improving internal quality of services and systems, not much has been implemented. In Malé, 40% of the facilities have a routine quality assurance process and among them 30% are hospitals. Only 3% of the health facilities carry out any quality improvement process with documented actions, based on QA/QI findings or a valid description of the improvement. Only 1% of the health facilities had any quality assurance committee meeting in the past three months. This may be an indication that such facilities have not set up a quality assurance committee in the first place. No mechanism has been established to review the document that shows quality assurance improvement. Systems for eliciting and reviewing client opinion on facility services are hardly in place at any health facility. Hardly any budget is allocated for quality improvement activities as part of the health facility budget.

4.5.2 Monitoring systems for quality of inpatient care

Table 48. Percentage of facilities offering monitoring systems for quality of inpatient care

	Formal case review system	Formal death review system	Perinatal death review system	Maternal death review system	n
National	0%	1%	13%	3%	188
Malé/Atolls					
Malé	0%	33%	67%	20%	5
Atolls	0%	0%	10%	2%	183
Facility type					
Hospital	0%	5%	33%	22%	23
Health centre	0%	0%	0%	0%	164
Other (MBS)	0%	0%	-	0%	1

Hardly any system has been established to review certain types of death in the country. When a perinatal death occurs, only 13% of the health facilities have a review system to investigate the death, i.e. 33% of the hospitals. Similarly, less than 3% of the health facilities (22% of the hospitals, with 20% of them in Malé) have established maternal death review systems. A formal death review system has hardly been established at any health facility. No formal case review system is being followed at any health facility.

4.5.3 Monitoring systems for prescribing medicines and adverse reactions

Table 49. Percentage of facilities offering monitoring systems for prescribing medicines and adverse reactions

	General prescription practices, such as numbers and combinations of medicines prescribed	Prescription practices for specific types of medicines, such as pain medicines or antibiotics	Medicine utilization, such as comparing medicine use with types of patients being treated	Adverse reactions to medicines	n
National	0%	0%	0%	1%	188
Malé/Atolls					
Malé	0%	0%	0%	0%	5
Atolls	0%	0%	0%	1%	183
Facility type					
Hospital	0%	0%	0%	0%	23
Health centre	0%	0%	0%	1%	164
Other (MBS)	0%	0%	0%	0%	1

Prescribing practices and adverse reactions to medicines are hardly monitored at any health facility. Only adverse reactions to medicines are observed at less than 1% of the health facilities.

4.5.4 Monitoring quality of immunization services

Table 50. Percentage of facilities offering monitoring quality of immunization services

	Indicators for monitoring the quality of immunization services	Guidelines for reporting adverse events following immunization (AEFIs)	n
National	65%	39%	188
Malé/Atolls			
Malé	60%	60%	5
Atolls	65%	39%	183
Facility type			
Hospital	78%	74%	23
Health centre	63%	35%	164
Other (MBS)	0%	0%	1

The quality of immunization services is monitored at 65% of the health facilities. This includes monitoring the indicators needed to assess the quality of immunization services. On the other hand, one in three health facilities has the guidelines on site for reporting adverse events following immunization (AEFIs).

Monitoring quality of immunization services

Indicators for monitoring the quality of immunization services

65

Guidelines for reporting adverse events following immunization (AEFI)

39

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Fig. 20. Percentage of facilities offering monitoring quality of immunization services

4.5.5 Monitoring hospital deaths

Table 51. Percentage of facilities offering monitoring hospital deaths

	Monitor statistics on all deaths within facilities	Conduct death audit/formal review of every death, occurring within facilities	n
National	70%	1%	109
Malé/Atolls			
Malé	100%	50%	2
Atolls	69%	0%	107
Facility type			
Hospital	91%	5%	22
Health centre	64%	0%	87

At the national level, 70% of the facilities maintain statistics on all deaths occurring at the facilities. However, only one facility has conducted a death audit/formal review of every death occurring within the facility.

4.5.6 Monitoring re-admissions

Table 52. Percentage of facilities offering monitoring re-admissions

	Monitor statistics on number of re-admissions within 30 days after myocardial infarction treatment at the facility	Monitor statistics on number of re-admissions within 30 days after CVA treatment at the facility	Monitor statistics on number of re-admissions within 30 days after major surgery at the facility	Monitor statistics on number of re-admissions within 30 days after minor surgery at the facility	Monitor statistics on number of surgical site infection after major surgery at the facility	Monitor statistics on number of surgical site infection after minor surgery at the facility	n
National	0%	0%	0%	0%	10%	31%	109
Malé/Atolls							
Malé	0%	0%	0%	0%	0%	0%	2
Atolls	0%	0%	0%	0%	10%	32%	107
Facility type							
Hospital	0%	0%	0%	0%	36%	41%	22
Health centre	0%	0%	0%	0%	3%	29%	87

None of the health facilities monitors re-admissions and only 10% of the facilities monitor statistics on the number of surgical site infection after major surgery at the facilities. Nearly one third (31%) monitor statistics on the number of surgical site infection after minor surgery at the facilities. This practice is observed at some hospitals in the atolls.

4.5.7 Monitoring maternal and newborn deaths

Table 53. Percentage of facilities offering monitoring maternal and newborn deaths

	Monitor statistics on number of deaths among mothers within facilities	Monitor statistics on number of deaths among neonates within facilities	n
National	69%	71%	52
Malé/Atolls			
Malé	67%	67%	3
Atolls	69%	71%	49
Facility type			
Hospital	90%	95%	21
Health centre	55%	55%	31

Although there are no systems at the health facilities for monitoring quality of inpatient care resulting in maternal and perinatal deaths, over 90% of the hospitals and 50% of the health centres maintain statistics on maternal and newborn deaths.

4.6 Health information systems

4.6.1 Information management systems

With regard to the data quality process, so far, no routine quality check has been carried out for the information collected at different facility levels. There is no systemic process for facility-level quality checking of data compiled for reporting. There is no written policy or guideline for data quality checking, laid out at the central level or at the facility level. This is not practised even at hospitals or at health centres.

4.6.2 Use of information for facility management

Table 54. Percentage of facilities offering use of information for facility management

	Evidence of using service information for planning and management	Observed tables, reports or graphics of any data for the past three months	n
National	1%	3%	188
Malé	20%	20%	5
Atolls	0%	2%	183
Hospital	4%	4%	23
Health centre	0%	2%	164
Other (MBS)	0%	0%	1

Information collected at the facilities is rarely used for facility management. Use of service information for planning and management has been observed at less than 4% of the hospitals and at none of the health centres. Only 3% of the health facilities had observable data as tables, reports or graphics of any data for the past three months.

4.6.3 Patient unique identifiers and individual records

Table 55. Percentage of facilities offering patient unique identifiers and individual records (outpatient)

	Use comprehensive individual patient records for outpatients	Use a unique patient identifier for outpatient curative care services	Use individual patient records (paper or electronic) for outpatients	Use standardized electronic individual patient records for outpatients	Use standardized paper individual patient records for outpatients	n
National	74%	70%	90%	86%	71%	188
Malé/Atolls						
Malé	20%	50%	50%	100%	50%	5
Atolls	75%	70%	91%	85%	72%	183
Facility type						
Hospital	83%	96%	91%	95%	85%	23
Health centre	73%	66%	90%	84%	70%	164
Other (MBS)	0%	0%	0%	-	-	1

Maintaining each person's record and having a unique identifier for each patient are crucial for reviewing a patient's information. Comprehensive individual patient records for outpatients are used at 74% of the health facilities. Malé has by far the lowest proportion in terms of the practice of this method – it stands at 20%. About 70% of the health facilities use unique patient identifiers for outpatient curative care services. This technique is used at 100% of the hospitals at Levels 2 and 3, and at less than 85% of all other health facilities.

Table 56. Percentage of facilities offering patient unique identifiers and individual records (inpatient) (4.6.3b)

	Use comprehensive individual patient records for inpatients	Use a unique patient identifier for inpatient curative care services	Use the same unique patient ID for the patient for both inpatient and outpatient services	Use individual patient records (paper or electronic) for inpatients	Use standardized electronic individual patient records for inpatients	Use standardized paper individual patient records for inpatients	Use Hospital Information Management System (HIMS)	Use HINAI	Use DHIS2	n
National	96%	77%	75%	99%	79%	96%	42%	1%	24%	109
Malé/Atolls										
Malé	67%	67%	67%	100%	0%	67%	33%	33%	33%	3
Atolls	97%	77%	75%	99%	84%	97%	42%	0%	24%	106
Facility type										
Hospital	95%	95%	82%	100%	83%	95%	50%	5%	32%	22
Health centre	97%	72%	73%	99%	80%	96%	41%	0%	22%	86
Other (MBS)	100%	100%	100%	100%	0%	100%	0%	0%	0%	1

The use of unique identifiers when maintaining inpatient services is higher, compared with outpatient services. Overall, 96% of the health facilities use comprehensive individual patient records for inpatients. This is higher among health centres, compared with hospitals at different levels. About 77% of the health facilities use unique patient identifiers for inpatient curative care services. The same unique ID for a patient for both inpatient and outpatient services is used at 75% of the facilities.

4.6.4 Referral records

Table 57. Percentage of facilities offering referral records

	Printed referral form	Records maintained for referral out	Evidence of routine feedback on referrals out (at least 50% of referrals)	n
National	84%	91%	6%	188
Malé/Atolls				
Malé	40%	100%	0%	5
Atolls	85%	91%	7%	183
Facility type				
Hospital	87%	87%	9%	23
Health centre	84%	91%	6%	164
Other (MBS)	0%	100%	0%	1

Health facilities do have a commendable system of maintaining referral records; 91% of the health facilities maintain records for referrals out and 84% of the health facilities maintain printed referral forms. However, routine feedback from referrals out is hardly obtained at hospitals (9% of hospitals) and health centres (6%).

4.6.5 Facility inpatient mortality and morbidity statistics

Table 58. Percentage of facilities offering facility inpatient mortality and morbidity statistics

	Statistics compiled on inpatient discharges by diagnosis	n
National	70%	109
Malé/Atolls		
Malé	67%	3
Atolls	70%	106
Facility type		
Hospital	64%	22
Health centre	71%	86
Other (MBS)	100%	1

The results show that 70% of the health facilities compile statistics on inpatients discharged by diagnosis. This is practised more at health centres, compared with the hospitals in the country. The results also show that all health facilities maintain statistics on the number of major surgeries performed. However, there is no evidence of monitoring of surgery-associated deaths prior to discharge and after post-surgical wound infection at any health facility. Similarly, no statistics are maintained with regard to monitoring of adverse events, such as postoperative pulmonary embolus and deep vein thrombosis, and early initiation of surgery after upper femur fracture.

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Harmonized Health Facility Assessment (HHFA): Maldives 2022/2023
Summary of findings



Ministry of Health
Republic of Maldives



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