

Provincial Minimum Service Standard Report for Primary & Secondary A Hospitals

Madhesh

Utilizing the Minimum Service Standards to provide actionable steps to
improve quality of care at government hospitals

2081 Calendar Year

Nick Simons Institute, Baishakh 2082 (April 2025)

Provincial Minimum Service Standard Report: **Madhesh**

Utilizing the Minimum Service Standards to provide actionable steps to improve quality of care at government hospitals.

Nick Simons Institute

Executive Summary	2
National Report	5
Introduction	5
Routine Practice Recommendations	6
Recommended Actionable Steps by Category	8
Madhesh Report	10
Primary Hospitals	12
Secondary A Hospitals	15
Annex	18
Annex 1. Key and Routine Practice Indicators	18
Annex 2. Lists of categorical variables	19

Executive Summary

Ensuring equitable and high quality health care is a central goal of the Ministry of Health and Population (MoHP) of Nepal. In order to address the gaps in quality of hospitals, the Minimum Service Standards (MSS) was pioneered in 2014 under the Hospital Management Strengthening Program of the MoHP, with support from the Nick Simons Institute.

The purpose of this report is to recommend actionable steps to address gaps in the MSS in health facilities based on the most recent data from 2081 (01/01/2024 - 31/12/2024) (2080/09/13 - 2079/09/13) for 61 Primary hospitals and 40 Secondary A hospitals that have MSS assessments from the last calendar year. Six Primary hospitals and four Secondary A hospitals were excluded from analysis due to missing 2081 MSS assessments. Besides looking at all the MSS indicators, **Key Indicators (KI)** were selected that are foundational to a functioning hospital were selected and analyzed by province through an iterative process, detailed in Annex 1. There were 75 KIs at Primary Hospitals and 88 KIs at Secondary A hospitals due to a wider range of services.

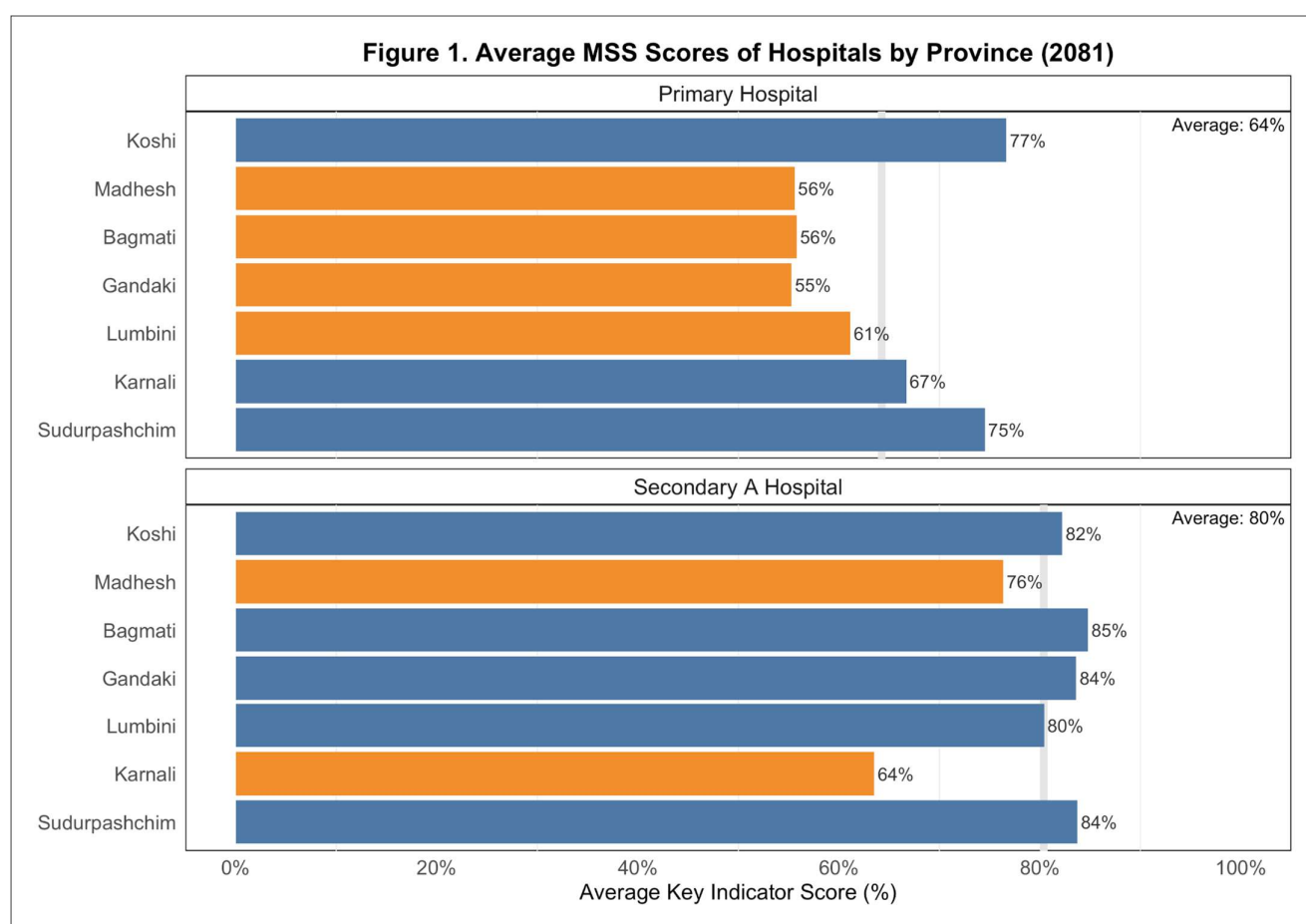


Figure 1. Total Key Indicator Scores of Primary (n=61) and Secondary A (n=40) Scores by province. Orange shows below national average, blue shows above national average.

Progress has continued since MSS implementation, with Secondary A hospitals averaging 80% across key indicators (KIs) and Primary hospitals averaging 64%. However, this overall progress masks significant disparities across provinces, within provinces, and between hospital levels. Routine practice indicators, staffing, training, and governance remain the most underperforming categories nationwide. In contrast, digital systems and basic service availability (e.g., emergency care, family planning) are widely functional. Provinces like Koshi, Sudurpashchim, and Lumbini showed balanced improvements, prioritizing low-scoring hospitals, while Gandaki, Bagmati, and Karnali revealed critical gaps that warrant urgent intervention.

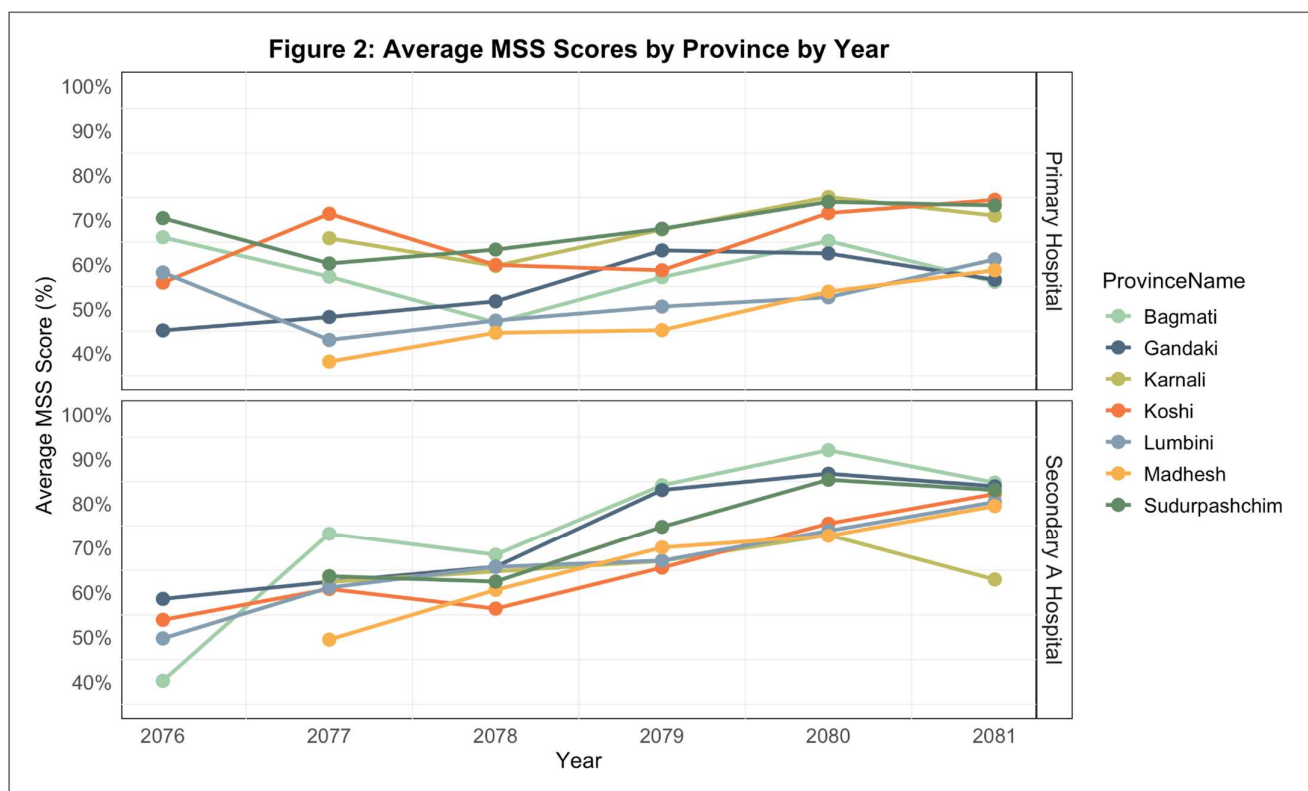


Figure 2. Average MSS Scores by Province over Time for Primary (n=61) and Secondary A (n=40) Hospitals. Color by province.

Primary hospitals continue to face structural and operational disadvantages. More than half of the Primary hospitals in Gandaki and Bagmati scored below 50%, with consistent underperformance in staffing, routine infection prevention, and training. Despite these challenges, Lumbini demonstrated success in lifting scores among their lowest-performing Primary hospitals, signaling the impact of equitable provincial investment. However, chronic issues such as poor waste segregation, limited evening OPD services, and low staff training persist nationwide. These trends suggest a need for resource redistribution, long term healthcare worker interventions, and hospital-level accountability mechanisms.

Secondary A hospitals generally performed better but also exhibited uneven progress. Provinces such as Lumbini and Bagmati maintained high standards (>90%), while Karnali experienced a marked decline of over 10% since 2080, seen especially in infection prevention and equipment availability. Staffing shortages in specialized roles, such as physiotherapy and anesthesia supervision, were common, and emergency preparedness (e.g., BLS/BLCS training and mock drills) remained inconsistent. However, diagnostics (e.g., 100% functional X-rays and 24 hour Emergency Room), and digitization are areas of strength.

Key Findings at a Glance

- Staffing is the most pressing national challenge, with low availability of nurses, anesthesiologists, and medical superintendents across all hospital levels and provinces.
- Training scores are lowest nationally, particularly in Basic Life Support (BLS), emergency drills, and disaster protocols, despite being low-cost interventions.
- Governance and waste management remain weak, especially in Primary hospitals, threatening service quality and safety. This may be an opportunity for federal support.
- Supplies and equipment have improved, particularly in Secondary A hospitals, but gaps remain in anesthesia, pediatric, and physiotherapy items.

- Koshi and Lumbini are models for equitable quality improvement, having improved low-performing Primary hospitals while maintaining high Secondary A performance.
- Gandaki, and Karnali require urgent provincial and federal support due to recent negative trends.

Below, Table 1 summarizes trends, gaps, and priorities for 2082 at the provincial level. Arrows indicate positive, negative, or no change from 2080. Note that MSS Standings are subjective, considering trends and outliers. For example, even though Lumbini has an average Secondary A score of 80%, the majority are sustained above 90% with a few outliers affecting the average. When moving forward, consider where provinces can learn from each other. For example, Karnali could learn from Sudurpashchim's success; and a similar partnership could develop between Madhesh and Lumbini. Both Bagmati and Gandaki could learn from Koshi's Primary hospital's success. Although large gaps remain, focus on areas of success and build on recent improvements while ensuring an equitable distribution of resources to ensure that all people have access to safe, affordable, and quality healthcare.

Table 1. Provincial Summaries and Priority Actions for 2082

Province	MSS Standing		Notable Trends	Notable Gaps	Priorities for 2082
	Prim (n=61)	Sec A (n=40)			
Koshi	High↑	High↑	Strong gains in Primary; consistently high Secondary; training improving.	Physiotherapy, blood bank, declining infrastructure in some Secondary A hospitals; routine practices at Pathari Nagar and Madi Nagar.	Scale physiotherapy, blood bank; address infrastructure at Secondary A hospitals.
Madhesh	Very Low↓↓	Low↑	Primary sees mixed progress but significant declines; routine practices weak; Secondary A okay, but Siraha dropped by 29% to 67%.	Sanitation, waste management, staffing, training, governance.	Target Bhardaha and Chandranigahpur for routine sanitation; strengthen governance; intervention at Siraha.
Bagmati	Very Low↑	Very High↓	Major Primary deficits; Secondary strong but small decreases.	Governance, infection prevention, staffing; Key services missing at Thansingtar and Badegau PHC.	Balance investment across hospital levels; target Thansingtar and Badegau PHC.
Gandaki	Very Low↓↓	Very High↑	Over half of Primary <50%; Secondary stable; significant imbalance between hospital levels.	Governance, staffing (nursing, anesthesia), privacy, waste management.	Equity-based redistribution plan; governance strengthening at Primary hospitals.
Lumbini	Low↑↑	Very High↑	Major Primary gains; maintaining Secondary >90%; outlier at Lalmatiya (40%).	Low scores in Lalmatiya (40%); Dental service at Primary hospitals; Hospital waste management	Target Lalmatiya (40%); continue to invest in primary hospitals; maintain Secondary quality.
Karnali	Low↓	Very Low↓↓	Decline across both levels; >10% Secondary drop; Humla hospital at 46%.	Equipment, sanitation, training, outliers in infection prevention and hygiene.	Urgent provincial response plan.
Suder-Pashchim	High↑	High↑	Consistently high performance across both levels, but room for growth.	Privacy, pediatric infrastructure, occasional equipment shortages, decrease in training.	Share best practices nationally; invest in Secondary A infrastructure and long term staffing.

Table 1. Provincial Summaries for Primary (n=61) and Secondary A (n=40) Hospitals. Symbols indicate general change in MSS scores from 2080 by hospital level: ↑ increasing; ↓ decreasing; ↕ no change or maintaining; ↑↑ significant increases; ↓↓ significant decreases. Change was determined based on average change across the province and if the change was reflected across multiple hospitals, or just influenced by outliers.

National Report

Introduction

The Minimum Service Standards (MSS) is a standard readiness and service availability tool to measure and assess the needs of health facilities so they can provide a minimum level of services that are expected from them. MSS comes in the form of an indicator checklist whereby gaps in minimum service standards can be identified in Primary, Secondary A, Secondary B, and Tertiary health facilities across Nepal.

The purpose of this report is to provide the Ministry of Health and Provincial Governments with actionable steps to address gaps in MSS in Primary and Secondary A health facilities based on the most recent data in the most recent Nepali calendar year, 2081 (14/04/2024 - 13/04/2025). There were three main methods of analysis:

1. **Categorized Indicators:** Indicators were categorized by digital systems, equipment, governance, infrastructure, services, staffing, supplies, and training to provide actionable steps. This categorical analysis attempted to answer questions such as what are the staffing needs? What are the training needs? See Annex 2 for a complete list of categorized indicators.
2. **Routine Practice Indicators:** Specific indicators were found to be repeated across departments, measuring small but important routine practices such as the use of a needle cutter, handwashing, or the use of a departmental duty roster. These repeated indicators were grouped by Environment, Infection Prevention, and Communication to provide hospital-wide information to help understand the hospital-wide practices that are otherwise difficult to understand using MSS. Routine Practice indicators are often relatively simple to address and require low, but hospital-wide efforts to improve patient care, the ability for staff to practice, and a hospital's broader MSS scores. There are 201 Routine Practice Indicators at Primary hospitals and 231 at Secondary A hospitals, although the items themselves are nearly identical.
3. **Key Indicators:** Key Indicators (KI) were selected and analyzed by province and category. These KIs were selected to represent the most important areas of hospital needs like staffing, equipment, supplies, services, and governance that would be a foundation for a high quality hospital. There are 75 KIs for Primary hospitals and 88 KIs for Secondary A hospitals.

Recommendations, figures, and tables all work together to provide a coherent picture of how hospitals are functioning on the ground. These are to allow for both targeted approaches, and broad sweeping changes at each level so that resources are used wisely.

Routine Practice Recommendations

Certain indicators reflected repeated routine practices across departments that measure small but important actions such as the use of a needle cutter, handwashing, or the use of a departmental duty roster. These repeated indicators were grouped by Environment, Infection Prevention, and Communication to provide districts with hospital-wide information to inform targeted interventions to improve hospital quality care. Routine Practice indicators are often relatively simple to address and require low, but hospital-wide efforts to improve patient care.

Routine Practice Indicators were grouped into three categories:

1. **Infection prevention** indicators are routine and repetitive indicators across departments to ensure that the hospital is following best infection prevention practices and patient safety. These measures are especially important given they can be addressed with relatively little input. Specific infection prevention measures include waste segregation, sanitization, needle cutters, masks and gloves, and hand washing.
2. **Communication** indicators are routine and repetitive indicators across a wide range of departments to ensure that the hospital is communicating effectively with patients and within the hospital systematically. Specific Communication measures across departments include the use of a departmental duty roster, IEC materials (posters, leaflets etc.), internal record keeping, and treatment counseling for patients.
3. **Environmental** indicators are routine practice indicators across a wide range of departments to ensure that the hospital is providing a safe and healthy environment for patients. Specific environmental measures include patient privacy, light and ventilation, drinking water, and adequate space.

To see examples and the number of indicators included for each category and item, see Table 5.

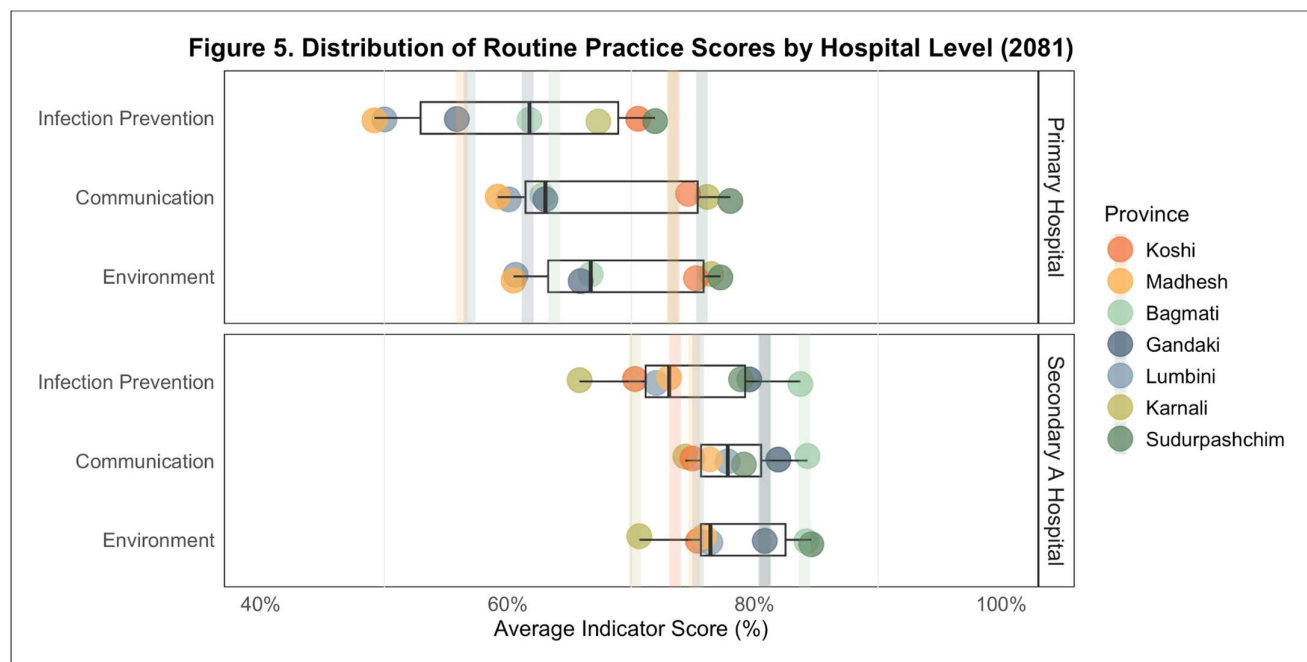


Figure 5. Distribution of Routine Practice Scores by Hospital Level in Primary (n=61) and Secondary A (n=40) Hospitals. Note the x-axis ranges from 40% - 100% for easy reading. Vertical lines show provincial averages.

Routine Practice Highlights:

- **Karnali** shows systemic and worsening gaps across all routine practice areas, especially in Secondary A hospitals. Scores have declined since 2080, highlighting an urgent need for provincial and federal intervention.
- **Madhesh** and **Lumbini** Primary hospitals consistently underperform, especially in critical safety measures such as sanitization, needle cutter use, and basic communication practices like record keeping and duty rosters. These reflect broader governance and systems challenges.

- **Privacy**, space, and **waste segregation** are national weak points, regardless of hospital level or province. Privacy scores are universally low and tied to infrastructure constraints, while waste segregation remains poor even in otherwise high-scoring hospitals. This presents an opportunity for national intervention.
- Bright spots exist in **Sudurpashchim** and **Koshi**, which demonstrate higher adherence to routine practices, especially in infection control and communication. These provinces may serve as models for practical, replicable interventions in similar settings.

Overall, many of these routine practice gaps are low-cost and feasible to address. Prioritizing these items, particularly infection control and communication systems, can yield significant gains in safety and patient experience across both Primary and Secondary A hospitals.

Table 5. Routine Practice Indicator Categories and Items			
Item	No. of Indicators		Example Standard
	Primary	Secondary A	
Infection Prevention			
Waste Segregation	20	23	“There are well labeled colored bins for waste segregation and disposal as per HCWM guideline 2014 (MoHP)” (2.1.10.2)
Sanitization	24	26	“Chlorine solution is available and utilized for decontamination” (2.3.16.4)
Needle Cutter	14	17	“Needle cutter is used.” (2.13.12.4)
Masks and Gloves	16	21	“Masks and gloves are available and used” (2.2.2.10.1)
Hand washing	25	28	“Hand-washing facility with running water and soap is available for practitioners.” (2.2.1.8.3)
Communication			
Duty Roster	11	13	“Duty rosters of all OPDs are developed regularly and available.” (2.1.7)
IEC Materials	10	13	“Appropriate IEC/BCC materials on TB, HIV/AIDS (posters, leaflets) are available in the OPD waiting area.” (2.2.3.4.2)
Record Keeping	19	27	“Drug resistance, complication and referral to other sites recorded and reported” (2.2.3.9.2)
Treatment Counseling	15	14	“Counseling is provided to patients about the type of treatment being given and its consequences” (2.1.4.1)
Environmental			
Privacy	11	11	“Patient privacy maintained with separate rooms, curtains hung, maintaining queuing of patients with paging system in OPD (See Checklist 2.1 At the end of this standard for scoring).” (2.1.3)
Light and Ventilation	11	14	“Light and ventilation are adequately maintained.” (2.2.4.8.2)
Drinking Water	8	10	“Safe drinking water is available 24 hours.” (2.7.2.8.3)
Adequate Space	13	14	“Adequate rooms and space for health worker and patients are available with at least one working table, chair for health worker and two patients’ chair, one examination bed, one procedure table and one footstep” (2.2.4.8.1)

Table 5. Routine Practice Environmental Items for Primary and Secondary A hospitals.

Recommended Actionable Steps by Category

Indicators were categorized by digital systems, equipment, governance, infrastructure, services, staffing, supplies, and training. Categories were decided ahead of time and selected through an iterative process with multiple experts. A decided question was: *Could this be solved with hiring this staff member?* (for Staffing), *completing this training?* (for Training), or *purchasing this equipment?* (for Equipment)? etc. For a detailed description of how indicators were categorized, see Annex 1.

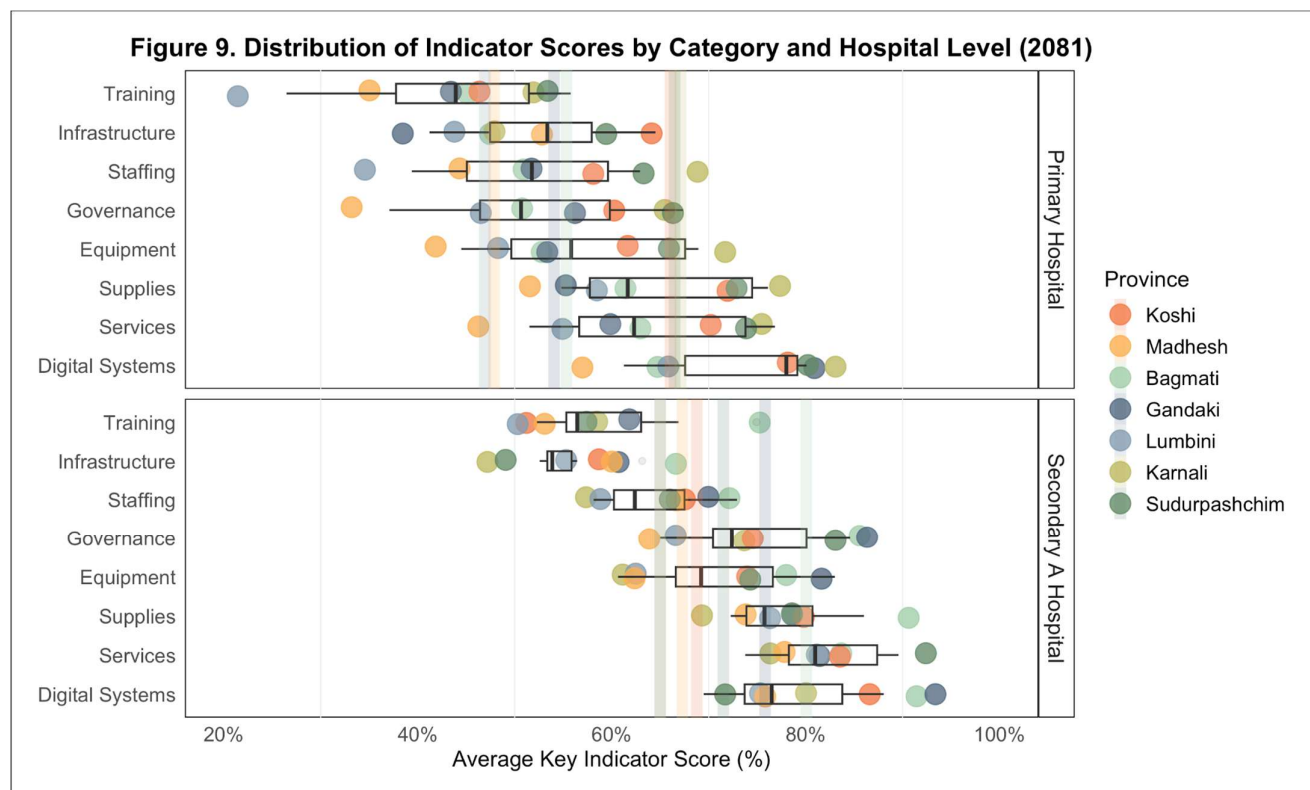


Figure 9. Distribution of Indicator Scores by Category in Primary (n=61) and Secondary A (n=40) Hospitals (2081). Vertical lines show provincial averages. Note the x-axis ranges from 20% - 100%.

Across both Primary and Secondary A hospitals, Nepal's MSS assessment reveals persistent national gaps in hospital readiness, especially between hospital levels, with Primary hospitals being underinvested. Nationally, there are shortages in human resources, emergency preparedness, and basic operational governance. These challenges are especially acute in rural and remote areas, where structural and staffing deficits converge to undermine quality and safety. While Secondary A hospitals show modest gains in training and equipment availability, Primary hospitals have largely stagnated or declined since 2080, pointing to a widening equity gap across the health system.

Provincial variation is stark. Karnali lags behind across nearly all categories, particularly in equipment and environmental conditions at the Secondary A level. Lumbini and Gandaki show consistent underperformance in staffing, governance, and training, especially at the Primary level. Sudurpashchim and Koshi perform relatively well on infection prevention and basic routine practices, although Sudurpashchim needs investment in their Secondary A infrastructure and staffing support.

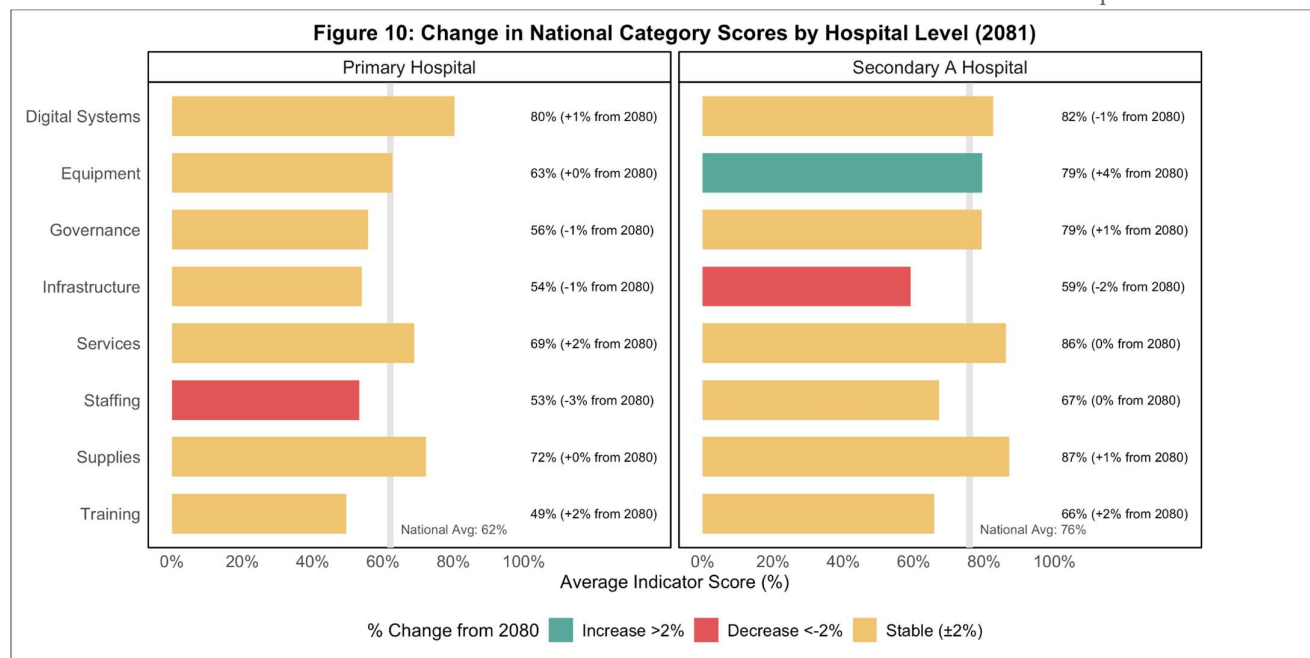


Figure 10. Change in National Category Scores in Primary (n=61) and Secondary A (n=40) Hospitals. Color shows change in categorical scores from 2081 to 2081: positive (+2%), negative (-2%), or neutral change (±2%). Vertical grey lines show hospital level averages. Only hospitals with data for 2080 and 2081 were included.

Key Findings:

- **Staffing remains a major national concern:** Only 26% of Primary and 22% of Secondary A hospitals meet inpatient nursing requirements. Chronic vacancies in key leadership (e.g., Medical Superintendent) and specialized roles (e.g., anesthesiologists, physiotherapists) are consistent across all provinces.
- **Training** is the lowest-performing category nationally, with BLS, BLCS, and emergency drill standards rarely met. This represents a critical, low-cost opportunity for rapid improvement through routine hospital-level training and simulation exercises.
- **Governance** challenges are widespread, particularly in waste management planning, quality committee meetings, and financial oversight, especially in Primary hospitals. Secondary A hospitals perform better but follow a similar pattern.
- **Equipment** availability has improved in Secondary A hospitals, particularly for diagnostic and surgical equipment. However, Primary hospitals still lack essential tools like defibrillators, autoclaves, and anesthesia equipment, affecting clinical safety.
- **Supplies and medicines** are relatively well-stocked, with near-universal 3-month buffer stocks for lab supplies. However, full compliance with essential pharmacy medicines remains low in both hospital types, suggesting supply chain gaps.
- **Digital systems** are a national bright spot, with widespread digitization of billing, admission, and service tracking. However, blood bank digitization remains limited and should be prioritized.

Madhesh Report

Eleven Primary and Secondary A hospitals in Madhesh Province completed an MSS assessment in 2081; 5 Primary Hospitals, and 6 Secondary A hospitals.

Primary hospitals are broadly low scoring with a -8.0% drop in MSS scores since 2080. With the exception of Bardibas Hospital (83%), Primary hospitals in Madhesh range from 36% - 61%, raising concerns for the availability and quality of services provided. Chandranigahpur and Bhardaha Hospitals should be targeted as soon as possible to address gaps in routine sanitation, hand washing, waste segregation, and use of masks and gloves and needle cutters to improve risks to safety and health outcomes. At the provincial level, there are opportunities to meet province-wide needs including coordinating histopathology services with other health facilities (2.9.1.1.3) and implementing an electronic health record system that generates the HMIS monthly report (HMIS 9.4) (1.5.1.3). Given the wide gaps in the minimum standards for service, province wide steps should be taken to improve primary hospitals generally and identify causes that led to substantial drops in MSS scores between 2080 and 2081.

Secondary A were generally higher scoring (63% - 89%) and saw a small increase on average (+5.0%), although the consistently highest scoring hospital, Provincial Hospital Siraha, saw a dramatic decrease from 96% to 67% between 2080 and 2081. This should be explored given that Siraha has maintained a score above 80% since 2079. Province wide, there is room to improve physiotherapy and pediatric inpatient departments. See Table 16b for details. Broadly, Madhesh has seen continuous growth across all Primary and Secondary A hospitals in the past five years. However, 2081 saw dramatic decreases in both Primary and Secondary A hospitals. Improvements only are important if they are sustained. Sustainability should be explored to identify causes and solutions to the drops in 2081.

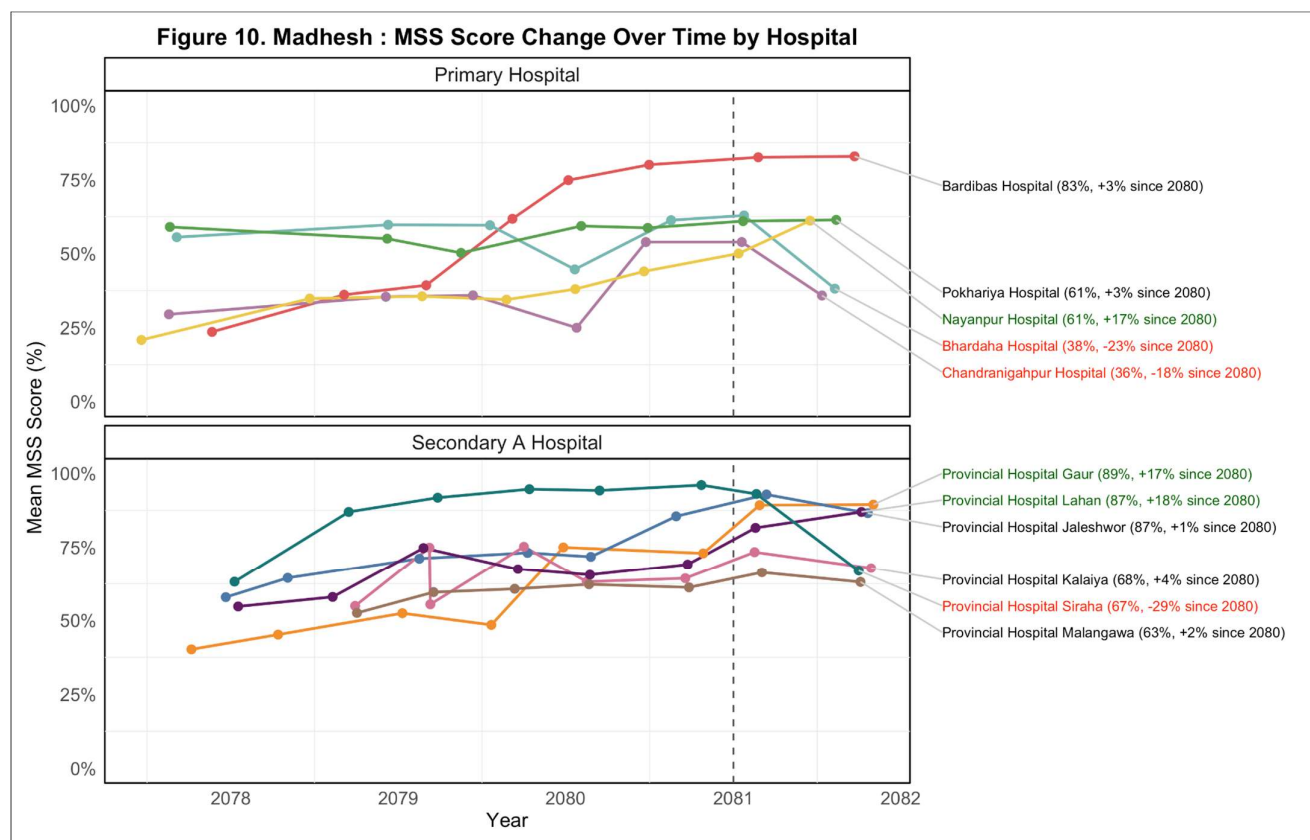


Figure 10b. Madhesh: Change in MSS Score Over Time by Hospital (n=11). Each line is labeled with the hospital name, the most recent MSS score, and the % change since 2080. Vertical dotted line shows the start of 2081. Red labels indicate a positive increase greater than 5%; red labels indicate a decrease of greater than -5%. Only hospitals with MSS assessments in 2081 were included.

Across Madhesh, there was a wide range in growth and reduced MSS scores. Certain hospitals had substantial growth up to 18% in 2081, while others had an equal if not greater loss as great as 29%. Now, four out of five Primary hospitals are below 61%, and half of Secondary A hospitals below 70%.

For Primary hospitals, Bardibas Hospital has sustained their MSS score consistently since their substantial growth in 2079, a significant success. Further, Nayanpur Hospital saw a 17% increase in MSS score, bringing them to 61%. However, this was matched by two significant decreases in Bhardaha Hospital (-23%) and Chandranigahpur Hospital (-18%), who are both now below 40%, bringing concerns for quality of care. These issues should be addressed immediately to ensure patient safety, satisfaction, and cost effectiveness of the hospitals that people rely on for care. Given the significant decreases, Bardibas Hospital could serve as a roadmap for success for other struggling hospitals in the province. Finally, although Pokahriya Hospital stayed relatively stable (+3%), they have stagnated around 60% since 2078. They should be targeted for improvements.

Although Secondary A hospitals are generally higher scoring (63% - 89%) than Primary hospitals, they also saw significant increases and decreases. Provincial Hospitals Gaur and Lahan saw substantial increases, with current scores of 89%, and 87%, respectively, following a long trend of improvement and excellence. Surprisingly, Provincial Hospital Siraha, consistently the highest scoring Secondary A hospital in Madhesh has fallen from 96% in 2080 to 67% in 2081.

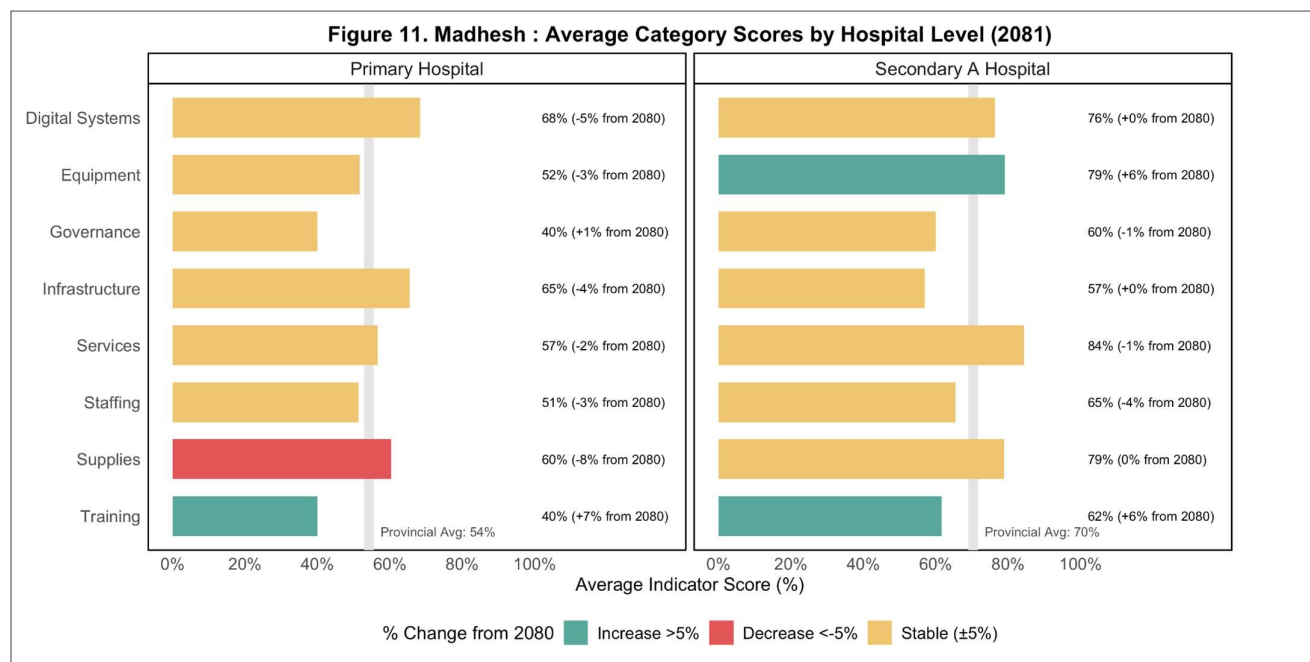


Figure 11b. Madhesh: Average Category Scores by Hospital Level (2081) (n=11). Color indicates the change in the categorical score from 2080 to 2081. Provincial Averages shown by the grey vertical line.

Figure 11b shows the change in categorical scores across the hospital from 2080 to 2081. Overall, Primary hospitals are scoring much lower, with an average of 54% with most categories remaining steady. However, Supplies (-8%) and Infrastructure (-4%) both saw decreases, while Training (+7%) improved. Given the large positive and negative changes across the province, it is likely that improvements and losses across hospitals are cancelling out. This calls for province wide interventions to improve hospitals across the province to ensure widespread growth instead of focusing on individual hospitals which may leave other hospitals behind.

Although Secondary A hospitals have a higher scoring with an average of 72%, they saw similar trends holding steady across the province, likely muted by increases and decreases across different hospitals.

Primary Hospitals

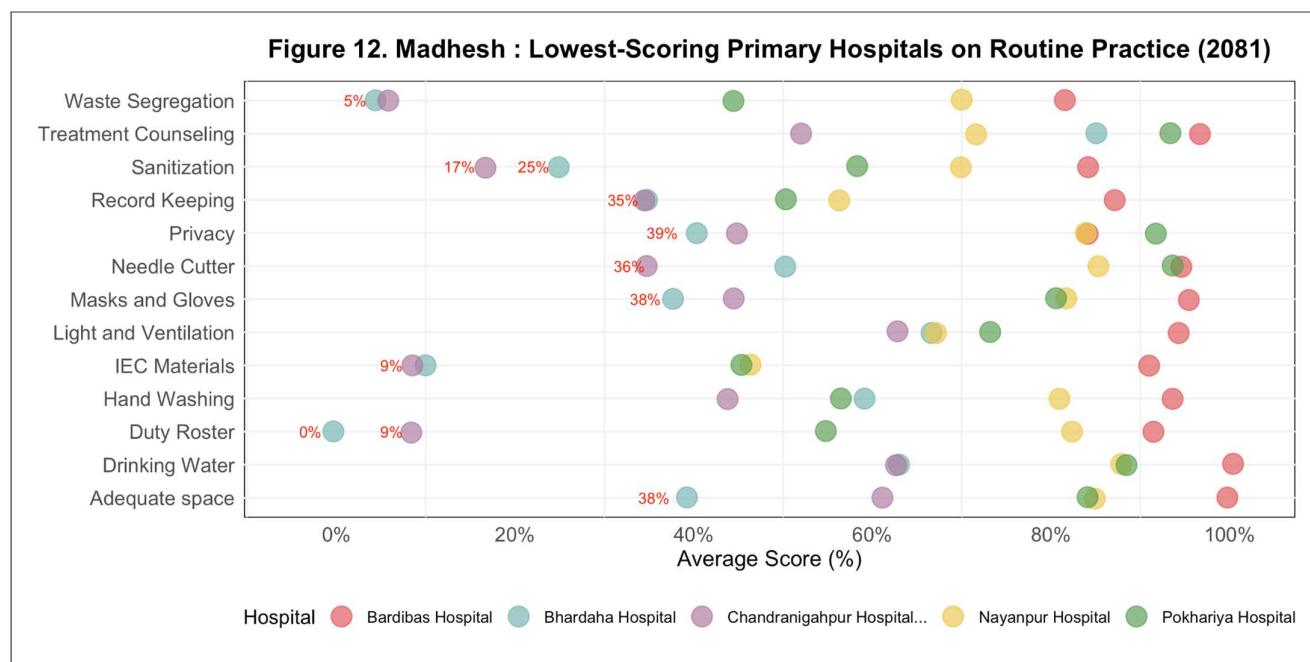


Figure 12b. Madhesh: Lowest-Scoring Primary Hospitals on Routine Practice (n=5). Items below 31% are labelled with their percent.

Certain Primary hospitals in Madhesh were very low scoring, with Chandranigahpur Hospital meeting only 17% of Sanitization, 5% of waste segregation, 9% usage of duty rosters, and 9% of IEC materials across all departments. Sanitization in particular (also low in Bhardaha Hospital at 25%) raises concerns for patient and provider safety as well as quality of care. However, it should be celebrated that Chandranigahpur Hospital is meeting many environmental indicators (drinking water, Light and ventilation, and adequate space), showing opportunity for improvement. However both **Chandranigahpur and Bhardaha Hospitals should be targeted as soon as possible** to address gaps in routine sanitation, hand washing, waste segregation, and use of masks and gloves and needle cutters to improve risks to safety and health outcomes. Pokhariya Hospital also has room for improvement, and this could be preventing them from improving their overall services.

Table 14b. Actionable Steps for Primary Hospitals: Madhesh (n=5)

Table 14b. Actionable Steps for Primary Hospitals: Madhesh (n=5)							
Code	Area	Standard	Hospitals meeting standard				
			1	2	3	4	5
Low scoring indicators							
1.5.1.3	Medical Records and Information Management	Electronic health record system that generates the HMIS monthly report (HMIS 9.4) is in place	0	0	0	0	0
2.1.1.3	OPD Service	EHS services from 3PM onwards and tickets available from 2 PM onwards	0	0	0	0	0
2.6.8.3	Inpatient Service	At least one defibrillator in immediate accessible area	0	0	0	0	0
2.9.1.1.3	Laboratory and Blood Bank	Histopathology service in coordination with other health facilities	0	0	0	0	0
2.9.1.9	Laboratory and Blood Bank	List of donors is available in laboratory for contact during emergency need of the blood	0	0	0	0	0
3.6.10	Hospital Waste Management	Pharmaceutical waste and radiological waste are disposed based on the HCWM guideline 2014 (MoHP)	0	0	0	0	0
3.6.9.1	Hospital Waste Management	Infectious waste is sterilized using autoclave before disposal	0	0	0	0	0

2.10.6	Dental Service	Equipment, instrument and supplies to carry out Dental Services (See Annex 2.10 b Basic Equipment and Instrument for Dental Services at the end of this standard) are available and functioning	1	0	0	0	0
<i>High scoring indicators</i>							
1.4.6.1	Financial Management	The hospital uses central electronic billing system	1	1	1	0	1
2.5.5	Pharmacy Service	The pharmacy is open 24x7	1	0	1	1	1
2.7.2.1.4	Maternity Inpatient Service (General Ward)	Separate space dedicated for pre- labor, labor and postnatal patients	1	0	1	1	1
2.9.1.8.1	Laboratory and Blood Bank	At least three months buffer stock of laboratory supplies is available.	1	0	1	1	1
2.9.2.2	X-Ray Service	Adequate numbers of trained healthcare workers are available in x-ray (at least 2 staffs to cover shifts including ER)	1	1	1	0	1
2.9.2.5.1	X-Ray Service	General X ray unit (with minimum 125KV and 300ma X-ray machine) with tilting table and vertical bucky	1	0	1	1	1
2.9.2.5.2	X-Ray Service	Complete CR system with CR cassette at least 5 of 14 x 17 inch and 3 of 10x12inch.	1	0	1	1	1
2.9.3.1	Ultrasonography (USG)	USG is open from 10 AM to 3 PM for obstetrics, abdominal, pelvic and superficial structure like testis, thyroid	1	1	0	1	1
3.1.2	CSSD	Separate staffs assigned for CSSD and is led by CSSD trained personal	0	1	1	1	1
3.6.2.1	Hospital Waste Management	There is allocation of staff for HCWM from segregation to final disposal	1	0	1	1	1

Table 14b. Actionable steps for Primary hospitals in Madhesh (n=5). Hospital numbers are as follows: (1) Bardibas Hospital, (2) Bhardaha Hospital, (3) Chandranigahpur Hospital, (4) Nayanpur Hospital, and (5) Pokhariya Hospital.

Above, Table 14a shows the 10 *most met* and the 8 *least met* KI scores for all 5 Primary hospitals in Madhesh for the most recent MSS assessment in 2081. There are widespread gaps across Primary hospitals, with seven KIs missed across all Primary hospitals, specifically in the Laboratory and Blood Bank, and the Hospital Waste Management Chandranigahpur. Equipment needed across all Primary hospitals includes:

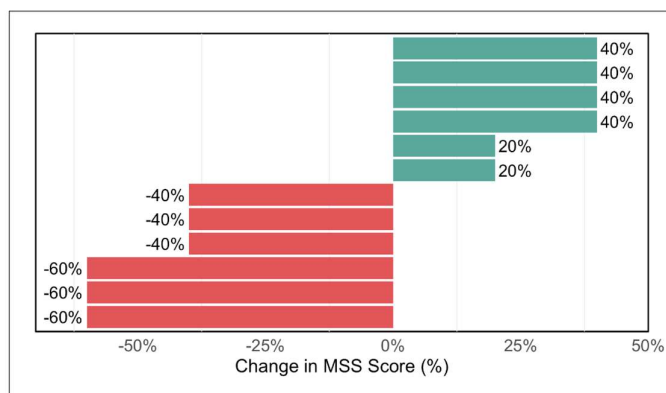
- Functional defibrillator in the Inpatient department (2.6.8.3)
- Functional autoclave to sterilize infectious waste (3.6.9.1)
- Dental equipment and instruments (2.10.6) with the exception of Bardibas Hospital

Further, specific KIs that would be appropriately facilitated at the provincial level include:

- Histopathology services with other health facilities (2.9.1.1.3)
- Electronic health record system that generates the HMIS monthly report (HMIS 9.4) (1.5.1.3)

Bhardaha Hospital is in desperate need of a 24 hours pharmacy service (2.5.5), Separate space dedicated for pre- labor, labor and postnatal patients (2.7.2.1.4), a General X ray unit (2.9.2.2), a complete CR system with CR cassette (2.9.2.5.2), and dedicated staff for the HCWM (3.6.2.1). Other hospital specific gaps can be seen in Table 14b.

Above, Table 14b. Shows the highest and lowest scoring KIs by hospital. Below, Figure 13b shows the biggest *changes* in KIs from 2080 to 2081. This highlights areas of improvement and areas of loss. The figure does not indicate current scores, only change from 2080 to 2081.

Figure 13. Madhesh : Greatest Changes in Key Indicators at Primary Hospitals from 2080 to 2081

3.6.1 - There is work plan prepared and implemented by hospital for hospital waste
 3.1.2 - Separate staffs assigned for CSSD and is led by CSSD trained personal
 2.9.2.1.2 - Emergency x-ray service is available round the clock
 1.6.8.1 - The hospital has functional MPDSR committee (in program district)
 2.9.3.1 - USG is open from 10 AM to 3 PM for obstetrics, abdominal, pelvic and su
 2.9.2.2 - Adequate numbers of trained healthcare workers are available in x-ray (a
 2.8.1.1.1 - Routine minor and intermediate surgeries available on scheduled days
 2.3.2.1 - For 5 ER beds (Doctor on duty: Nurse: Paramedics: Office Assistant = 1:
 1.1.6 - Annual plan & budget is approved by HMC before the fiscal year starts
 2.9.1.1.1 - Laboratory is open from 10 AM to 3 PM and emergency laboratory serv
 2.3.6.1 - Hospital maintains a triage system in the ER with 24 hours triage service
 1.5.1.3 - Electronic health record system that generates the HMIS monthly report (

Figure 13b. Madhesh: Greatest Changes in Key Indicators at Primary Hospitals from 2080 to 2081 (n=5). The indicator code and the beginning of each standard is written to the right of the graph. For the full standard, see the MSS book using the indicator code. Only hospitals with data for 2080 and 2081 were included.

Figure 13b shows the greatest positive and negative changes in KIs at Primary hospitals in Madhesh province from 2080 to the most recent score in 2081. The greatest improvements were seen in Hospital Support Services (3.6.1 and 3.1.2) and emergency X-Ray availability (2.9.2.1.2), a wonderful achievement.

The greatest province-wide problem is the lack of an **electronic health record system to generate the HMIS monthly report** (1.5.1.3). After three hospitals no longer meet this standard, no Primary hospitals in Madhesh have an electronic health record system to general HMIS as of 2081. Further, two hospitals lost their ability to do routine minor and intermediate surgeries on scheduled days (2.8.1.1.1). Given general low scores across Primary hospitals, widespread interventions across the province are needed rather than focusing on specific indicators.

Secondary A Hospitals

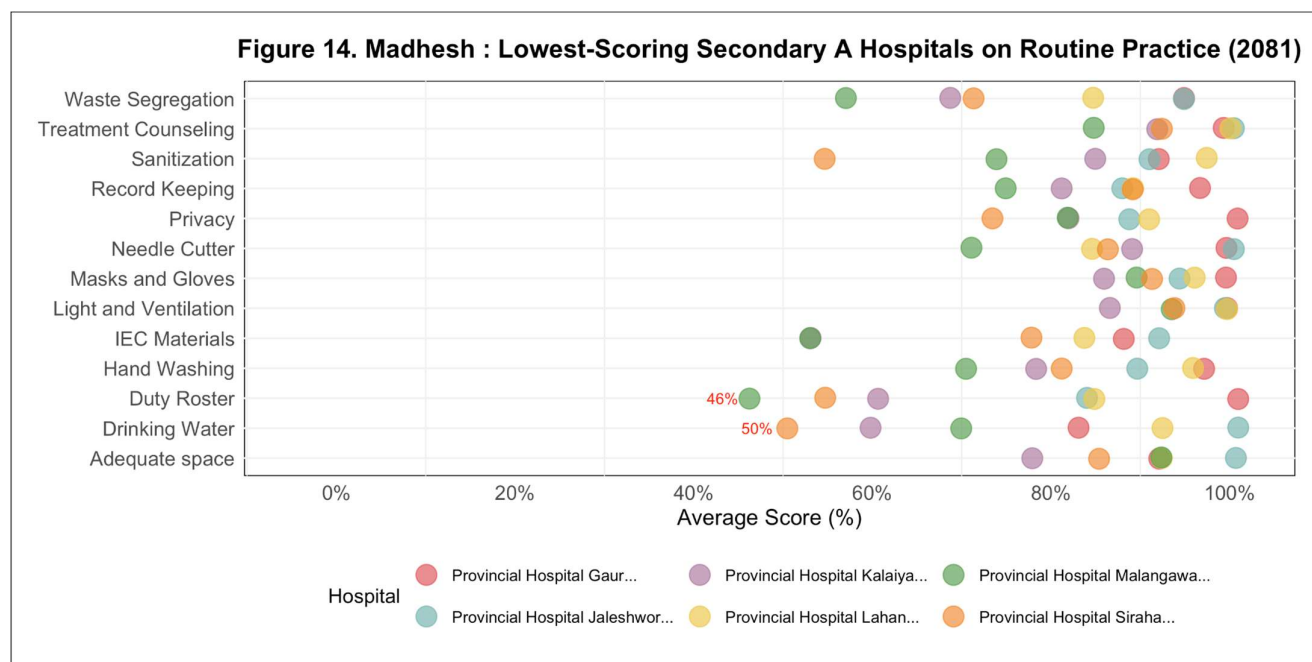


Figure 14b. Madhesh: Lowest-Scoring Secondary A Hospitals on Routine Practice (n=6). Items below 51% are labelled with their percent. Only hospitals with 2081 MSS assessments were included.

Secondary A hospitals in Madhesh are meeting routine practice indicators to a high degree. However, duty roster use across departments should be addressed at Provincial Hospitals Malangawa and Siraha. Other items to address include:

- **Sanitation** practices at Provincial Hospitals Siraha and Malangawa
- **Waste segregation** at Provincial Hospitals Malangawa, Siraha, and Kalaiya
- **IEC materials** at Provincial Hospitals Malangawa and Kalaiya
- **Drinking water** availability at Provincial Hospitals Siraha, Kalaiya, and Malangawa

Table 16b. Actionable Steps for Secondary A Hospitals: Madhesh (n=6)

Code	Area	Standard	Hospitals meeting standard					
			1	2	3	4	5	6
Low scoring indicators								
2.14.3	Physiotherapy	At least 1 physiotherapist trained in Masters in Physiotherapy (MPT), 2 trained in Bachelors in Physiotherapy (BPT),and 2 Certificate in physiotherapy (CPT) or Diploma in physiotherapy (DPT) and 1 trained office assistant treating 20 patients per day on OPD basis	0	0	0	0	0	0
2.6.5*	Inpatient Service	Adequate numbers of nursing staff are available in ward per shift (nurse patient ratio 1:6 in general ward, 1:4 in pediatric ward, 1:2 in high dependency or intermediate ward or post-operative ward or burn/plastic) and at least one trained office assistant/ward attendant per shift in each ward (See Checklist 2.6 At the end of this standard for scoring)	0	0	0	0.3	0	0
2.11.3	Postmortem	At least one MD forensic and one trained medical officer for autopsy and clinical medico-legal services	0	1	0	0	0	0
2.14.1	Physiotherapy	Separate room for OPD physiotherapy with at least 10 physiotherapy beds with 5 exercise beds and 5 electric beds	0	0	0	0	0	1
2.5.6.1	Pharmacy Service	Pharmacy department is led by at least one clinical pharmacist	0	1	0	0	0	0

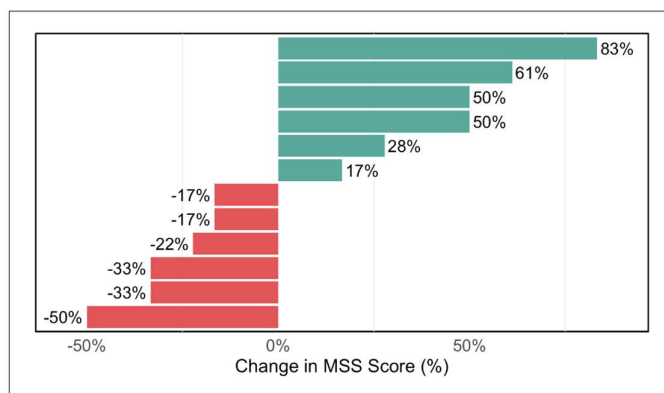
3.5.3	Water supply	Water quality test is done every year and report is available as per Nepal Drinking Water Quality Standards, 2005	1	0	0	0	0	0
3.6.10	Hospital Waste Management	Pharmaceutical waste and radiological waste treated and disposed based on the HCWM guideline 2014 (MoHP)	0	0	0	1	0	0
2.6.2.3.1*	Inpatient Service	Pediatrics Ward (See Annex 2.6a Furniture and supplies for inpatient wards At the end of this standard)	1	0.3	0	0	0	0.3
1.5.1.3	Medical Records and Information Management	Electronic health record system that generates the HMIS monthly report (HMIS 9.4) is in place	1	0	1	0	0	0
2.1.1.3	OPD Service	EHS services from 3PM onwards and tickets available from 2PM onwards	0	1	0	1	0	0
<i>High scoring indicators</i>								
2.8.9.2	Surgery/ Operation Services	Separate area designated for post-operative care to stabilize the patient after surgery	1	1	0	1	1	1
2.9.1.2.1	Blood bank	Blood bank is open / facility is available round the clock	1	1	1	1	1	0
2.9.3.1	Ultrasonography (USG)	USG is open from 10 AM to 3 PM for obstetrics, abdominal, pelvic and superficial structure like testis, thyroid	1	1	1	1	1	0
3.6.3	Hospital Waste Management	There is separate area/space designated for solid waste storage and management with functional hand washing facility	1	1	1	1	0	1
3.7.1.1	Safety and Security	Hospital has trained security personnel round the clock.	1	1	1	1	1	0
2.3.5.1*	Emergency Service	Medicines and supplies to carry out the ER works are available (See Annex 2.3c Medicines and Supplies for ER At the end of this standard)	1	1	0.7	1	1	0.7
2.8.7.3*	Surgery/ Operation Services	Each operating room has medicines and supplies available (See Annex 2.8g General Medicine and Supplies for OT At the end of this standard)	1	1	1	1	0.7	0.7
2.14.7*	Physiotherapy	Instruments and equipment to carry out the Physiotherapy works are available and functioning (See Annex 2.14a Instruments and equipment physiotherapy At the end of this standard).	1	1	0.7	1	1	1
2.7.1.9.2*	Maternity Services	The facility has adequate equipment, instrument and general supplies for delivery services (See Annex 2.7.1a Furniture, equipment, instrument and general supplies for labor room At the end of this standard)	1	1	1	1	1	0.7
2.8.8.2*	Surgery/ Operation Services	Equipment, instrument and supplies for anesthesia available (See Annex 2.8i Equipment, Instrument and Supplies for Anesthesia At the end of this standard)	1	1	1	1	1	0.7

Table 16b. Actionable steps for Secondary hospitals in Madhesh (n=6). Hospital numbers are as follows: (1) Provincial Hospital Gaur, (2) Provincial Hospital Jaleshwor, (3) Provincial Hospital Kalaiya, (4) Provincial Hospital Lahan, (5) Provincial Hospital Malangawa, and (6) Provincial Hospital Siraha. *Standard out of 3 points.

Above, Table 16b shows the 10 *most met* and the 10 *least met* KI scores for all 6 Secondary A hospitals in Madhesh for the most recent MSS assessment in 2081. **Physiotherapy** space and basic equipment (2.14.1) and certified staff for physiotherapy services (2.14.3) are only available not available across all Secondary A hospitals with the exception of Provincial Hospital Siraha, where there are trained physiotherapy staff. This should be a province wide goal to develop and strengthen physiotherapy services across Secondary A hospitals. Province wide, there should be a push to complete water quality tests (3.5.3) and properly treating and disposing of pharmaceutical and radioactive waste (3.6.10). The provincial government can also facilitate the purchasing and distribution of **Pediatric Inpatient** furniture and supplies (2.6.2.3.1), absent across most hospitals.

Provincial Hospital Siraha would benefit from an audit of their missing items, most of which come from annexes with checklists. See specific indicators in Table 16a and in the MSS handbook.

Above, Table 16b. Shows the highest and lowest scoring KIs by hospital. Below, Figure 15b shows the biggest *changes* in KIs from 2080 to 2081. This highlights areas of improvement and areas of loss. The figure does not indicate current scores, only change from 2080 to 2081.

Figure 15. Madhesh : Greatest Changes in Key Indicators at Secondary A Hospitals from 2080 to 2081

2.9.1.2.2 - Adequate numbers of trained healthcare workers are available in blood
 2.14.7 - Instruments and equipment to carry out the Physiotherapy works are avail
 3.6.9.1 - Infectious waste is sterilized using autoclave before disposal
 2.3.10.2 - Disaster area identified with adequate furniture to carry out Triage in cas
 2.11.4 - Adequate supplies and instruments for forensic services (See Annex 2.11
 2.9.1.2.1 - Blood bank is open / facility is available round the clock
 1.5.2.2 - All patients' records are kept in individual folders in racks or held digitally.
 1.4.7.1 - The hospital prepares and keeps monthly financial report.
 2.6.5 - Adequate numbers of nursing staff are available in ward per shift (nurse pa
 2.11.3 - At least one MD forensic and one trained medical officer for autopsy and c
 1.2.4 - Hospital implements token and / or queue system for users (separate for el
 2.8.1.1.1 - Routine minor and intermediate surgeries available on scheduled days

Figure 15b. Madhesh: Greatest Changes in Key Indicators at Secondary A Hospitals from 2080 to 2081 (n=6). The indicator code and the beginning of each standard is written to the right of the graph. For the full standard, see the MSS book using the indicator code. Only hospitals with data for 2080 and 2081 were included.

Figure 15b shows the greatest positive and negative changes in KIs at Secondary A hospitals in Madhesh province from 2080 to the most recent score in 2081. There has been incredible improvement in the number of trained healthcare workers covering the blood bank (2.9.1.2.2), with five additional hospitals meeting this standard in 2081 compared to 2080. This has impacted blood bank availability around the clock (2.9.1.2.1), now being provided at two more hospitals compared to 2080. Further, meeting the MSS standard for physiotherapy instruments and equipment has increased at five hospitals (2.14.7).

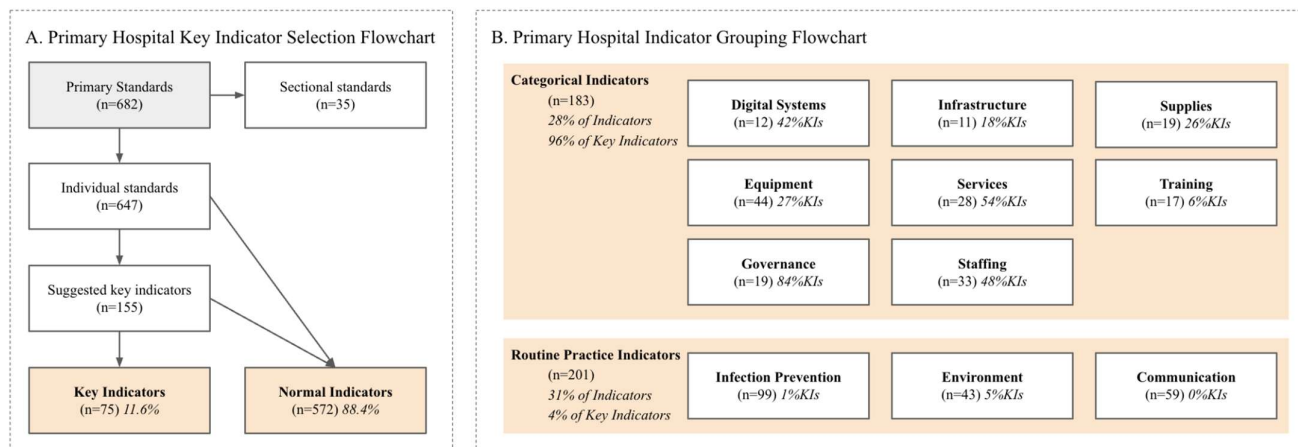
Despite these improvements, there were also substantial decreases. Significantly, four hospitals no longer provide routine minor and intermediate surgeries available on scheduled days (2.8.1.1.1), although Provincial Hospital Jaleshwor now meets this key service standard compared to 2080. Hospitals that have lost this key service:

- Provincial Hospital Kalaiya
- Provincial Hospital Lahan
- Provincial Hospital Malangawa
- Provincial Hospital Siraha

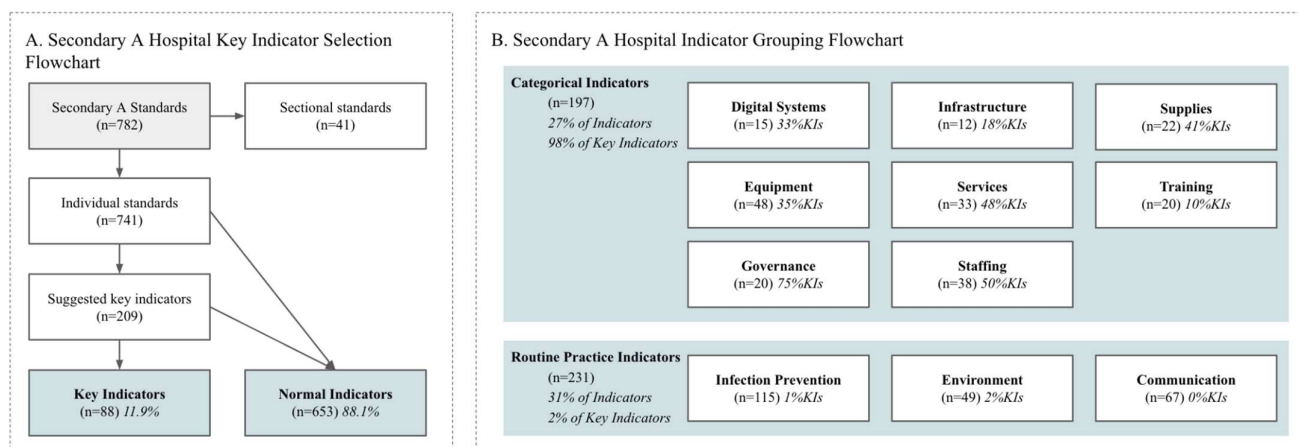
Annex

Annex 1. Key and Routine Practice Indicators

1. Primary Hospital Indicator Selection Process



2. Secondary A Hospital Indicator Selection Process



Annex 2. Lists of categorical variables

Annex 2 details the list of indicators included in each category for Primary and Secondary A hospitals within the MSS Annual Report, 2081. Note that there may be slight variations between Primary and Secondary A MSS indicators.

Always see the original MSS book. N/A = that there is no equivalent indicator between hospitals and it is not included for that hospital level.

Annex 2. List of Categorical Variables			
Prim. Indicator	Sec. A Indicator	Area	Indicator
<i>Digital Systems</i>			
1.2.5	1.2.5	Organizational Management	All staff of hospital use electronic attendance
1.3.6.3	1.3.6.3	Human Resources Management and Development	There is activity conducted to motivate staff (staff retreats, rewards, recognition of performances, etc.) at least once a year.
1.4.6.1	1.4.6.1	Financial Management	The hospital uses central electronic billing system
1.5.1.1	1.5.1.1	Medical Records and Information Management	Client registration is digitized using standard software
1.5.1.2	1.5.1.2	Medical Records and Information Management	Referral in and out records are kept using the standard form (HMIS 1.4) and register.
1.5.1.3	1.5.1.3	Medical Records and Information Management	Electronic health record system that generates the HMIS monthly report (HMIS 9.4) is in place
1.5.3.1	1.5.3.1	Medical Records and Information Management	Hospital monthly reports (HMIS 9.4) of the last three months are shared to the national database
1.5.2.2	1.5.2.2	Medical Records and Information Management	All patients' records are kept in individual folders in racks or held digitally.
N/A	2.3.9	Emergency Service	The hospital has maintained security system for ER for 24 hours with CCTV coverage
2.5.16.1	2.5.15.1	Pharmacy Service	Medicine is dispensed using electronic billing with barcode system
2.6.13	2.6.13	Inpatient Service	Admission and discharge registers are available and are being filled completely (HMIS 8.1 and 8.2) (See Checklist 2.6 At the end of this standard for scoring)
2.7.2.11	2.7.2.11	Delivery Service	Admission and discharge registers are available and are being filled completely (HMIS 8.1 and 8.2)
2.9.1.7.2	2.9.1.1.7.2	Laboratory	Standard reporting sheets are being used and all reports are recorded in a standard register (HMIS 9.4).
N/A	2.9.1.2.7.2	Blood bank	Standard reporting sheets are being used and all reports are recorded in a standard register or NBBTS software and computerized bill available to patients
N/A	3.8.2.2	Transportation and Communication	Internal communication (paging) system has been installed in all major service stations.
3.9.3.1	3.9.3.1	Store (Medical and logistics)	Electronic database system is used in the hospital medical store.
<i>Equipment</i>			
N/A	1.3.7.3	Human Resources Management and Development	Separate space with furniture, audio-visual aids and internet for CPD/CME/meeting are available.

1.3.8.3	1.3.8.3	Human Resources Management and Development	Computers with printing and photocopy facility available
1.5.2.3	1.5.2.3	Medical Records and Information Management	There is a set of functional computer and printer available for maintaining medical records.
2.2.2.7	2.2.2.7	Family Planning Clinic	Functional BP set, stethoscope, thermometer, and weighing scale available
2.2.3.6	2.2.3.6	ATT, ART clinic	OPD has functional BP set, stethoscope, thermometer and weighing scale
2.2.4.7.2	2.2.4.7.2	Safe Abortion Services	Functional BP set, stethoscope, thermometer, and weighing scale available
2.3.4	2.3.4	Emergency Service	Instruments and equipment to carry out the ER works are available and functioning (See Annex 2.3b ER Instruments and Equipment At the end of this standard)
2.3.7.1	N/A	Emergency Service	In red area one of the bed is Resuscitation bed with availability of emergency crash trolley with emergency lifesaving drugs, cardiac monitor, non-invasive ventilator, oxygen concentrator
2.5.10	2.5.10	Pharmacy Service	Pharmacy uses computer with software for inventory management and medicine use
2.5.13.2	2.5.12.2	Pharmacy Service	Temperature of pharmacy is monitored and recorded and is maintained in range of (25+/-2°C)
2.5.13.3	2.5.12.3	Pharmacy Service	Functional freeze +/-4°C for thermolabile medicine
2.6.2	2.6.2.1	Inpatient Service	Medicine Ward (See Annex 2.6a Furniture and supplies for inpatient wards At the end of this standard)
2.6.7	N/A	Inpatient Service (General Ward)	Telephone facility is available with list of important contact numbers and hospital codes visibly kept
N/A	2.6.2.2	Inpatient Service	Surgery Ward (See Annex 2.6a Furniture and supplies for inpatient wards At the end of this standard)
N/A	2.6.2.3.1	Inpatient Service	Pediatrics Ward (See Annex 2.6a Furniture and supplies for inpatient wards At the end of this standard)
2.6.8.3	2.6.8.3	Inpatient Service	At least one defibrillator in immediate accessible area (See Checklist 2.6 At the end of this standard for scoring)
2.7.1.5	2.7.1.5	Maternity Services	At least 2 KMC chairs available for providing KMC to premature and preterm babies
2.7.2.6	N/A	Maternity Inpatient Service	Telephone facility is available with list of important contact numbers and hospital codes visibly kept
2.7.1.9.2	2.7.1.9.2	Maternity Services	The facility has adequate equipment, instrument and general supplies for delivery services (See Annex 2.7.1a Furniture, equipment, instrument and general supplies for labor room At the end of this standard)
2.7.2.7.3	2.7.2.7.3	Delivery Service	At least one defibrillator in immediate accessible area
2.8.7.4	2.8.7.4	Surgery/ Operation Services	Surgical sets for minimum list of the surgical services available (See Annex 2.8h Surgical sets for Minimum list of the surgical procedures At the end of this standard)
2.8.7.2	2.8.7.2	Surgery/Operation Service	Each operating room has general equipment, instruments and supplies available (See Annex 2.8d Furniture, Equipment, Instruments and Supplies for OT at the end of this standard)
2.8.8.2	2.8.8.2	Surgery/ Operation Services	Equipment, instrument and supplies for anesthesia available (See Annex 2.8i Equipment, Instrument and Supplies for Anesthesia At the end of this standard)
2.8.9.1	2.8.9.1	Surgery/ Operation Services	Dedicated space for pre-anesthesia assessment and post-anesthesia recovery with patient bed, IV stand, IV cannula, fixing tapes, infusion sets, burette sets, syringes, three-way stop cocks and at least one cardiac monitor
2.9.1.3.2	2.9.1.2.4	Laboratory and Blood Bank	Instruments and equipment are calibrated, available and functioning with record of smear kept (See Annex 2.9.1.2b Equipment and Instrument for Blood Bank At the end of the standard)
2.9.1.8.2	2.9.1.1.8.2	Laboratory	Reagents are stored at appropriate temperature in store and lab
N/A	2.9.1.1.9.2	Laboratory	Blood storage has required instrument and equipment (See Annex 2.9.1.1c At the end of this standard)
N/A	2.9.1.2.3.4	Blood bank	Thermometers are attached to all equipment requiring temperature control and temperatures are recorded daily

2.9.2.5.1	2.9.2.5.1	X-Ray Service	General X ray unit (with minimum 125KV and 300ma X-ray machine) with floatation table top and vertical bucky
2.9.2.5.2	2.9.2.5.2	X-Ray Service	Complete CR system with CR cassette at least 5 of 14 x 17 inch and 3 of 10x12inch.
2.9.2.6.1	2.9.2.6.1	X-Ray Service	X ray room of at least 4x4sqm with wall of at least 23cm of brick or 6cm RCC or 2mm lead equivalent.
2.9.3.5	2.9.3.5	Ultrasonography (USG)	USG machine (advanced) with different probes, computer and printer with USG papers , gel and wipes is available and functional
2.9.4.4	2.9.4.5	Electrocardiogram (ECG)	Functional ECG machine (12 lead with power back up), paper, gel, wipes and hand sanitizer are available in ECG trolley
2.10.6	2.10.6	Dental Service	Equipment, instrument and supplies to carry out Dental Services (See Annex 2.10b Basic Equipment and Instrument for Dental Services at the end of this standard) are available and functioning
2.11.1.2	2.11.1.1.2	Postmortem Service	Body dissection table (at least one) is available and used
2.11.1.3	2.11.1.1.3	Postmortem Service	Organ dissection table (at least one) is available and used
2.11.5	2.11.5	Postmortem	Mortuary van is available 24 hours (at least one)
N/A	2.14.7	Physiotherapy	Instruments and equipment to carry out the Physiotherapy works are available and functioning (See Annex 2.14a Instruments and equipment physiotherapy At the end of this standard).
3.1.3	3.1.3	CSSD	Equipment and supplies for sterilization available and functional round the clock (See Annex 3.1a CSSD Equipment and Supplies At the end of this standard)
3.1.6	3.1.6	CSSD	All wrapped instruments are indicated with thermal indicator and autoclaved in a separate room.
3.2.5	3.2.5	Laundry	All linens are washed using a washing machine.
3.4.3.2	3.2.6.2	Laundry	Linen dryer is available and used
3.4.3.4	3.4.3.2	Repair, Maintenance and Power system	Hospital has alternate power generator capable of running x-ray and other hospital equipment
3.4.3.4	3.4.3.4	Repair, Maintenance and Power system	Hospital has solar system installed (at least for essential clinical services and administrative function).
3.6.9.1	3.6.9.1	Hospital Waste Management	Infectious waste is sterilized using autoclave before disposal
3.7.6.1	3.7.6.1	Safety and Security	The hospital has fire extinguisher in all blocks including the fire extinguishing system
3.7.6.2	3.7.6.2	Safety and Security	The hospital has installed safety alarm system including smoke detector
3.8.1.2	3.8.1.2	Transportation and Communication	Hospital has its own well-equipped ambulance at least 2
3.8.1.3	3.8.1.3	Transportation and Communication	The hospital has access to utility van
3.8.2.1	3.8.2.1	Transportation and Communication	The hospital has telephone with intercom (EPABX) network.
<i>Governance</i>			
1.1.1	1.1.1	Governance	Hospital Management Committee is formed
1.1.4.2.7	1.1.4.2.7	Governance	Review of decisions and recommendations of staff meeting and QI Committee meetings discussions
1.1.6	1.1.6	Governance	Annual plan & budget is approved by HMC before the fiscal year starts
1.2.4	1.2.4	Organizational Management	Hospital implements token and / or queue system for users (separate for elderly, disable and pregnant)
1.4.5.2	1.4.5.2	Financial Management	Internal audit, financial and physical progress review is done at least once each trimester (once in every 4 months).
1.4.7.1	1.4.7.1	Financial Management	The hospital prepares and keeps monthly financial report.
1.4.9	1.4.9	Financial Management	Inventory inspection is done once in a year and managed accordingly
1.6.1.2	1.6.1.2	Quality Management	Hospital (QHSDMS) Committee meetings are held at least every 4 months

2.9.1.9	1.6.7.1	Quality Management	Hospital has implemented the specific activities based on the MSS plan.
1.6.8.1	1.6.8.1	Quality Management	The hospital has functional MPDSR committee (in program district)
2.3.12	2.3.12	Emergency Service	Separate inventories for emergency lifesaving drugs/equipment and narcotics are maintained
2.5.2.1	2.5.2.1.1	Pharmacy Service	Drug and Therapeutic committee (DTC)
2.8.9.2	2.8.9.2	Surgery/ Operation Services	Separate area designated for post-operative care to stabilize the patient after surgery
3.2.9	3.2.9	Laundry	All linens are distributed using a proper method (basket supply system and on demand supply system).
3.5.3	3.5.3	Water supply	Water quality test is done every year and report is available as per Nepal Drinking Water Quality Standards, 2005
3.6.1	3.6.1	Hospital Waste Management	There is work plan prepared and implemented by hospital for hospital waste management
3.6.3	3.6.3	Hospital Waste Management	There is separate area/space designated for solid waste storage and management with functional hand washing facility
3.6.10	3.6.10	Hospital Waste Management	Pharmaceutical waste and radiological waste treated and disposed based on the HCWM guideline 2014 (MoHP)

Infrastructure

2.1.8.3	2.3.3.5	Emergency Service	Space allocated for duty room and changing room separate for male and female staffs with facilities of tea room
2.3.3.6	2.3.3.6	Emergency Service	Separate toilets for staffs at least one each male, female and universal
	2.3.3.7	Emergency Service	Separate toilets for staffs at least one each male, female and universal
2.3.14.3	2.3.14.3	Emergency Service	There are at least 3 toilets with hand-washing facilities (1 for males, 1 for females, and 1 universal) for every 10 ER beds and for additional beds increase proportionately for male and female
2.6.10.2	2.6.10.2	Inpatient Service	There are adequate separate toilets for male and female patients in each ward (1 for 6 female bed and 1 for 8 male beds) and also adequate wash basins/sinks for the patients. (See Checklist 2.6 At the end of this standard for scoring)
2.7.1.10.2	2.7.1.10.2	Delivery Service	Separate toilet for patient is available in pre-labor room and accessible to patient after delivery
2.7.2.8.2	2.7.2.8.2	Delivery Service	There are adequate toilets for male and female patients in each ward (1 for 6 female bed)
2.8.1.3	2.8.1.3	Surgery/Operation Service	Primary: At least two functional operating rooms/theater Secondary A: At least four functional operating rooms/theater
N/A	2.14.1	Physiotherapy	Separate room for OPD physiotherapy with at least 10 physiotherapy beds with 5 exercise beds and 5 electric beds
3.1.1.2	3.1.1.2	CSSD	There are separate rooms designated for dirty utility, cleaning, washing and drying and sterile area for sterilizing, packaging and storage
3.4.2.3	3.4.2.3	Repair, Maintenance and Power system	Separate room for storage of repairing tools and instrument

Services

All service indicators are listed in Tables 4a and 4b for Primary and Secondary A hospitals, respectively.

Staffing

1.1.3	1.1.3	Governance	Medical Superintendent is fulfill as per organogram
1.3.3.1	1.3.3.1	Human Resources Management and Development	Staffs available for service in hospital as per organogram (See Annex 1.3a Functional Organogram Section I: At the end of this standard)
1.4.1.2	1.4.1.2	Financial Management	At least one accountant available for hospital financial management
	1.5.4.2	Medical Records and	An information officer is specified to communicate with patients/clients, their relatives,

		Information Management	media and other stakeholders.
2.1.2.1	2.1.2.1	OPD Service	Doctor: OPD Patients- 1:35-50 per day for quality of care
2.1.2.2	2.1.2.2	OPD Service	One screening counter with 1 paramedics
2.2.1.2	2.2.1.2	Immunization and Growth Monitoring Clinic	Adequate numbers of healthcare workers are available (at least 2 mid-level health workers are assigned)
2.2.2.3	2.2.2.3	Family Planning Clinic	Adequate numbers of healthcare workers are available (at least 2 mid-level health workers are assigned)
2.2.3.2	2.2.3.2	ATT, ART clinic	Adequate numbers of healthcare workers are available in OPD (at least 2 mid-level health workers are assigned)
2.2.4.3.2	2.2.4.3.2	Safe Abortion Services	For surgical abortion, at least one medical officer or gynecologist or MDGP trained and certified in second trimester SAS is available
2.3.2.1	2.3.2.1	Emergency Service	For 5-10 ER beds (Doctor: Nurse: Paramedics: Office Assistant = 1:1:1:1)
2.5.6.1	2.5.6.1	Pharmacy Service	Pharmacy department is led by at least one clinical pharmacist
2.5.6.2	2.5.6.2	Pharmacy Service	Pharmacy has at least 3 pharmacist, 6 assistant pharmacist and 2 office assistants
2.6.5	2.6.5	Inpatient Service	Adequate numbers of nursing staff are available in ward per shift (nurse patient ratio 1:6 in general ward, 1:4 in pediatric ward, 1:2 in high dependency or intermediate ward or post-operative ward or burn/plastic) and at least one trained office assistant/ward attendant per shift in each ward (See Checklist 2.6 At the end of this standard for scoring)
2.7.1.2.1.1	2.7.1.2.1.1	Maternity Services	Nurse: pregnant women ratio 1:2 in pre-labor; 2:1 per delivery table and 1:6 in post-natal ward
2.7.1.2.1.2	2.7.1.2.1.2	Maternity Services	At least one ASBA trained medical officer on duty
2.7.1.2.1.3	2.7.1.2.1.3	Maternity Services	At least one office assistant is available per shift
2.7.2.4.1	2.7.2.4.1	Delivery Service	Adequate numbers of nursing staff are available in ward per shift (nurse patient ratio 1:6 in general ward)
2.7.2.4.2	2.7.2.4.2	Delivery Service	At least one trained office assistant per shift in each ward
2.8.2.1	2.8.2.1	Surgery/ Operation Services	For one surgery, at least a team is composed of: MS/MDGP with one trained medical officer, two OT trained nurse (one scrub and one circulating), one Anesthesiologist/MDGP, one anesthesia assistant and one office assistant (for cleaning and helping)
2.8.2.2	2.8.2.2	Surgery/ Operation Services	For overall management of operation theatre, there is one OT nurse (with minimum bachelors degree) assigned as OT in-charge
N/A	2.8.2.3	Surgery/ Operation Services	At least two nurses in pre-anesthesia area for receiving and transferring of the patient and
N/A	2.8.2.4	Surgery/ Operation Services	At least two ICU trained nurses for post anesthesia care for receiving patient after OT
2.8.8.4.1	2.8.8.4	Surgery/ Operation Services	Anesthesia should be provided, led, or overseen by an anesthesiologist
2.8.8.4.2	N/A	Surgery/Operation Service	When anesthesia is provided by non-physician anesthesiologists, these providers should be directed and supervised by anesthesiologists/ MDGP.
2.9.1.2	2.9.1.1.2	Laboratory	At least 2 medical technologist, 3 lab staffs (1 lab Technician, 1 Lab Assistant and 1 Helper) in each shift
N/A	2.9.1.2.2	Blood bank	Adequate numbers of trained healthcare workers are available in blood bank (at least 2 blood bank staffs to cover shifts including ER)
2.9.2.2	2.9.2.2	X-Ray Service	Adequate numbers of trained healthcare workers are available in x-ray (at least 2 staffs to cover shifts including ER) with on call radiologist
2.9.3.2	2.9.3.2	Ultrasonography (USG)	USG trained medical practitioner and midlevel health worker in each USG room
2.10.2	2.10.2	Dental Service	Dental Hygienist/Dentist : OPD Patients- 1:20 per day for quality of care
2.11.3	2.11.3	Postmortem	At least one MD forensic and one trained medical officer for autopsy and clinical medico-legal services
2.12.3	2.12.3	Medico-Legal Services	Trained medical officer for medicolegal services at least one.

N/A	2.13.5.2	One Stop Crisis Management Center (OCMC)	At least two Staff nurse working in the hospital and 1 trained psycho social counselor
N/A	2.14.3	Physiotherapy	At least 1 physiotherapist trained in Masters in Physiotherapy (MPT), 2 trained in Bachelors in Physiotherapy (BPT), and 2 Certificate in physiotherapy (CPT) or Diploma in physiotherapy (DPT) and 1 trained office assistant treating 20 patients per day on OPD basis
3.1.2	3.1.2	CSSD	Separate staffs assigned for CSSD and is led by CSSD trained personal
3.3.2.1	3.3.2.1	Housekeeping	Allocation of the staff for cleaning with visible duty roster
3.4.1.1	3.4.1.1	Repair, Maintenance and Power system	Human resource trained in biomedical engineer is designated for repair and maintenance
3.6.2.1	3.6.2.1	Hospital Waste Management	There is allocation of staff for HCWM from segregation to final disposal
3.7.1.1	3.7.1.1	Safety and Security	Hospital has trained security personnel round the clock.
<i>Supplies</i>			
N/A	2.2.1.5	Immunization and Growth Monitoring Clinic	Immunization and growth monitoring instrument, equipment and supplies are available (See Annex 2.2.1a Immunization and growth monitoring At the end of this standard)
2.2.3.5	2.2.3.5	ATT, ART clinic	Medicines for TB, HIV/AIDS as per government treatment protocol available in OPD
2.4.4	2.4.4	Dressing Injections and Procedures Room	Medicines and supplies needed for dressing, injection and routine procedures are available (See Annex 2.4c Medicine and Supplies for DIRP At the end of this standard)
N/A	2.4.5.1	Dressing and injections, Routine procedures (DRIP)	Sterile supply for Minor OT are available (See Annex 2.4d Sterile Supplies for Minor OT At the end of this standard).
2.4.5.1	N/A	Dressing Injections and Procedures Room	Adequate quantity of sterilized packs for wound dressing are available (See Annex 2.4d Sterile Supplies for DIRP At the end of this standard)
2.3.5.1	2.3.5.1	Emergency Service	Medicines and supplies to carry out the ER works are available (See Annex 2.3c Medicines and Supplies for ER At the end of this standard)
2.5.8	2.5.8	Pharmacy Service	All of the required medicines and supplies for specific programs are available in pharmacy (less than 50%= 0; 50-70 =1, 70-85=2 85-100= 3)
2.6.3	2.6.3.1	Inpatient Service	Medicine Ward (See Annex 2.6b medicine and supplies for inpatient wards At the end of this standard)
2.6.8.2	2.6.3.2	Inpatient Service	Surgery Ward (See Annex 2.6b medicine and supplies for inpatient wards At the end of this standard)
N/A	2.6.3.3	Inpatient Service	Pediatrics Ward (See Annex 2.6b medicine and supplies for inpatient wards At the end of this standard)
2.7.1.4	2.7.1.4	Maternity Services	Partograph available and being used rationally
2.7.1.9.3	2.7.1.11.8	Maternity Services	Dry gauze and cotton are stored separately in clean containers.
2.8.7.3	2.8.7.3	Surgery/ Operation Services	Each operating room has medicines and supplies available (See Annex 2.8g General Medicine and Supplies for OT At the end of this standard)
2.8.8.3	2.8.8.3	Surgery/ Operation Services	Medicine and supplies for anesthesia available (See Annex 2.8j Medicine and Supplies for Anesthesia At the end of this standard)
2.7.1.9.4	2.7.1.9.4	Maternity Services	Labor room has emergency cart with medicines and supplies available (See Annex 2.7.1c Medicines and Supplies for ER[2] Trolley Labor Room At the end of this standard)
2.7.2.7.2	2.7.2.7.2	Delivery Service	At least one emergency trolley with emergency medicine available in ward (Annex 2.7.2c Medicine and Supplies for ER Trolley for Maternity In patient Ward At the end of this standard)
2.9.1.8.1	2.9.1.1.8.1	Laboratory	At least three months buffer stock of laboratory supplies is available.
N/A	2.9.1.2.8.2	Blood bank	Blood bags, transfusion sets, blood and blood components, reagents are stored at appropriate temperature in store and lab
2.11.4	2.11.4	Postmortem	Adequate supplies and instruments for forensic services (See Annex 2.11a Supplies and instrument for post mortem At the end of this standard)
3.1.4	3.1.4	CSSD	Wrapper, gauze, cotton balls, bandages are prepared.

3.4.2.4	3.4.2.4	Repair, Maintenance and Power system	Availability of spare parts for repair and maintenance of biomedical equipment and instruments
3.7.4	3.7.4	Safety and Security	The hospital has replaced all mercury apparatus with other appropriate technologies.
3.9.2.1	3.9.2.1	Store (Medical and logistics)	A separate hospital medical store with 3 months' buffer stock is available
<i>Training</i>			
1.3.6.1	1.3.6.1	Human Resources Management and Development	A training plan for the hospital is developed based on the training needs of the staff identified at the performance appraisal
1.3.7.1	1.3.7.1	Human Resources Management and Development	Hospital conducts CPD / CME classes to technical staff weekly
1.5.4.1	1.5.4.1	Medical Records and Information Management	Medical recorder is trained on ICD and DHIS2
2.2.4.3.1	2.2.4.3.1	Safe Abortion Services	At least one medical officer or gynecologist trained and certified in first trimester SAS is available
2.2.4.6	2.2.4.6	Safe Abortion Services	WHO safe surgery checklist is available and used for safe abortion services including written informed consent
2.3.2.2	2.3.2.2	Emergency Service	The doctor, nurse and paramedics are trained in PTC, ETM, BLS and ACLS training
2.3.10.1	2.3.10.1	Emergency Service	The hospital has mass casualty management protocol, and all staffs are updated with well labelled direction, prepositioning clipboards
2.3.10.3	2.3.10.3	Emergency Service	Hospital carried out at least one mock preparedness once a year
2.6.8.1	2.6.8.1	Inpatient Service	All staffs in wards are trained for BLS and oriented about emergency code 001 or blue code (See Checklist 2.6 At the end of this standard for scoring)
2.7.1.2.2	2.7.1.2.2	Maternity Services	All staffs- nursing, medical practitioner designated for delivery services are trained skilled birth attendants
2.7.2.7.1	2.7.2.7.1	Delivery Service	All staffs in wards are trained for BLS and oriented about emergency code 001 or blue code
2.8.5	2.8.5	Surgery/ Operation Services	The WHO Safe Surgery Checklist is available in OT and used
2.9.1.10.2	2.9.1.1.10.2	Laboratory	All staffs know how to respond in case of spillage and other incidents
N/A	2.9.1.2.9.2	Blood bank	All staffs know how to respond in case of spillage and other incidents
N/A	2.13.7.1	One Stop Crisis Management Center (OCMC)	Whole site orientation on GBV clinical protocol conducted
3.6.2.2	3.6.2.2	Hospital Waste Management	Whole site coaching/ orientation on health care waste management is done
3.7.1.2	3.7.1.2	Safety and Security	All security staffs are oriented with hospital codes like 001- call for help for crashing patients, 007- call for disaster in ER
3.7.1.3	3.7.1.3	Safety and Security	All security staffs have participated in emergency drills
3.7.6.4	3.7.6.4	Safety and Security	Disaster preparedness orientation has been given to all staff at least every six months.