

Provincial Minimum Service Standard Annual Report *for* Primary, Secondary A, and Secondary B Hospitals

Karnali

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

2081/82 (2024/25)

Nick Simons Institute, Shrawan 2082 (Aug 2025)

Provincial Minimum Service Standard Report: Karnali

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	7
Introduction	7
Hospital Readiness	8
Foundations	9
Routine Practices	10
Infection Prevention	12
Operations	13
Karnali Report	14
Overview	14
Primary Hospitals	18
Secondary A Hospitals	22
Secondary B Hospitals	26
Annex	28



A digital version of this report can be viewed and shared by scanning the QR code.

Executive Summary

Ensuring equitable and high quality health care is a central goal of the Ministry of Health and Population (MoHP) of Nepal. To improve the quality of hospital services, the Minimum Service Standards (MSS) was pioneered in 2014 under the Hospital Management Strengthening Program (HMSP), in close partnership with the Nick Simons Institute (NSI).

The purpose of this report is to translate MSS data in a way that supports actionable steps to address gaps in health facilities based on the most recent data from the last fiscal year (LFY) 2081/82 BS 01/04/2081 to 31/03/2082 (16/07/2024 - 15/07/2025). This report analyzes the most recent MSS data for 62 Primary hospitals, 39 Secondary A hospitals, and 11 Secondary B Hospitals that have MSS assessments with data from the LFY under Provincial and Local governance. This is the first year Secondary B hospital MSS data has been analyzed. Five Secondary A hospitals from Bagmati were excluded from analysis due to missing 2081/82 MSS assessments. Indicators were analyzed across various groupings to provide an accurate picture of hospital readiness on the ground beyond typical MSS reports, and support officials in decision making to improve service provision across Nepal.

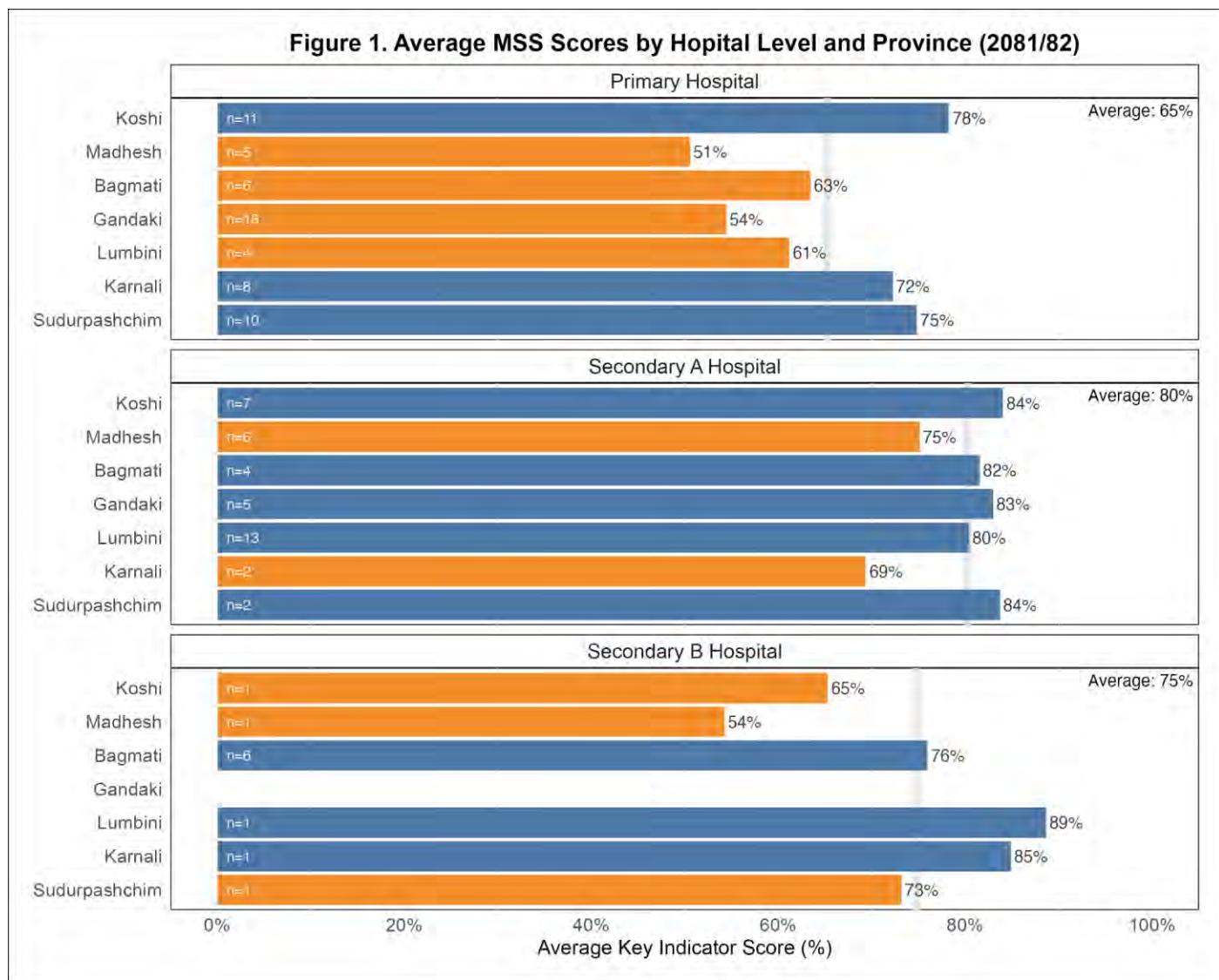


Figure 1. Average MSS Scores of Primary (n=62), Secondary A (n=39), and Secondary B (n=11) Hospitals (2081/82). Scores by province. Orange shows below national average, blue shows above national average. N shows the number of hospitals in that province for that hospital level.

Progress has continued since MSS implementation, with Secondary A hospitals averaging 80% and Primary hospitals averaging 65%. However, this overall progress masks significant disparities across provinces, within provinces, and between hospital levels. Provinces like Koshi, Sudurpashchim, and Lumbini showed balanced improvements, prioritizing low-scoring hospitals, while critical gaps in Gandaki, Bagmati, and Karnali remain.

For example, Lumbini's Secondary A and Secondary B hospitals are meeting MSS scores to an exceptional standard, with more than 50% of their hospitals scoring above 85% in their most recent assessment. Further, their lowest scoring Secondary A hospitals have significantly improved from the previous years, showing an appropriate prioritization to reduce gaps in quality of care at weak hospitals. The exception is Bhalubang Hospital, which has stagnated at 40% since 2080, suggesting an intervention may be needed.

Of note, Bagmati has recently upgraded 10 hospitals to Secondary A and Secondary B level, which has reduced their average Secondary A score as top-scoring hospitals are now assessed by higher level MSS tools aligned with their current upgraded standard.

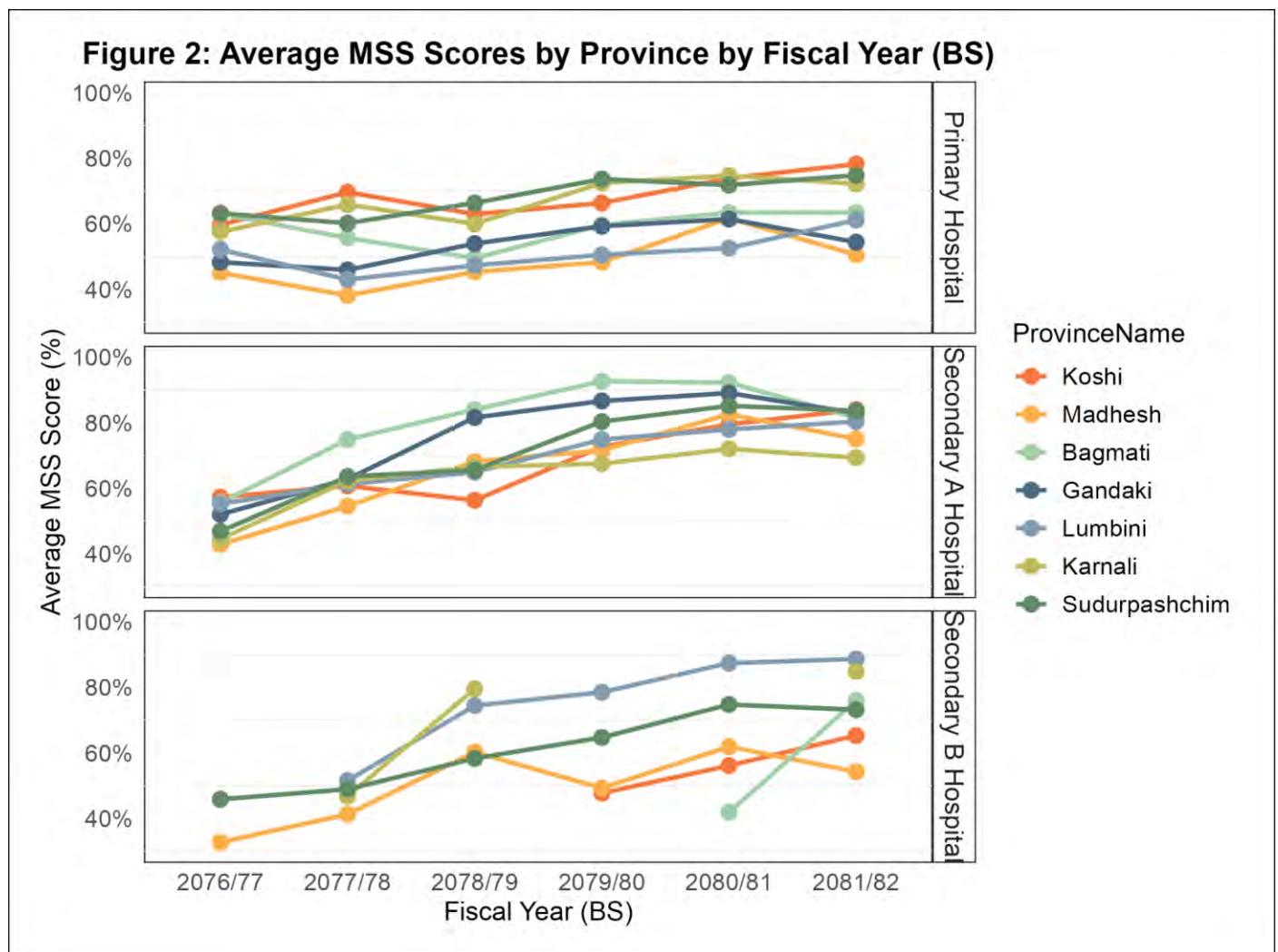


Figure 2. Average MSS Scores by Province over Time for Primary (n=62), Secondary A (n=39), and Secondary B (n=11) Hospitals. Color by province.

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 and Sudurpashchim 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 Koshi maintained high standards, while Madhesh experienced a marked decline of over 10% since last fiscal year (LFY), seen especially in infection prevention and medicine availability as they started to conduct assessments without information to the hospitals, its effect reflected in availability of medicine and IP materials. Staffing shortages in specialized roles, such as physiotherapy and anesthesia supervision, were common, and emergency preparedness (e.g., BLS/BCLS 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, being met at 100% of Secondary A hospitals.

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.
- Waste management remains 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 2082/83 FY at the provincial level. Arrows indicate positive, negative, or no change from the LFY. 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 2081/82

Province	MSS Standing			Notable Trends	Notable Gaps	Priorities for 2082/83
	Prim (n=62)	Sec A (n=39)	Sec B (n=11)			
Koshi	Very High↑↑	Very High↑	Low↑	<ul style="list-style-type: none"> Steady gains across all levels, especially lower scoring hospitals showing equitable distribution of resources. Expansion of specialty wards at Provincial Hospital Bharadrapur. 	<ul style="list-style-type: none"> Persistent routine practice gaps at low-scoring Primary hospitals (Pathari Nagar, Okhaldhunga). Staffing shortages across Primary and Secondary A hospitals (physiotherapy, pharmacists, anesthesiologists, accountants). Patient monitoring, privacy, are province wide concerns. 	<ul style="list-style-type: none"> Target persistent staffing gaps; scale physiotherapy and specialist staffing at Secondary A hospitals.. Address quality gaps (patient monitoring, privacy) at all hospital levels. Target District Hospital Okhaldunga and Panthari Nagar Hospital for improvements.
Madhesh	Very Low↓↓	Low↓	Low↓	<ul style="list-style-type: none"> Dramatic province-wide declines across Primary and Secondary A hospitals, with MSS drops up to -35%. Persistent downward trend in Primary hospitals, with most below 60%. Some gains in physical facilities and ENT services at Provincial Hospital Janakpur. 	<ul style="list-style-type: none"> Severe routine practice failures and non-existent waste management at Primary hospitals Province-wide absence of physiotherapy services; staffing shortages in inpatient wards and maternity at Secondary A. Infection prevention and supply chain breakdown at Provincial Hospital Janakpur; major ward service losses. 	<ul style="list-style-type: none"> Strengthen hospital waste management at all Primary hospitals. Target Bhardaha (27%; -35%) and Chandranigahpur Hospital (35%; -21%) to reverse trends. Invest in Secondary A hospitals to prevent further losses and maintain quality of services. Invest in infection prevention, supply chains, and ward services at Janakpur.
Bagmati	Low↑	Very High↑	High↓	<ul style="list-style-type: none"> 4 Primary and 6 Secondary A hospitals upgraded in the LFY to Secondary A and Secondary B levels, explaining small, expected decreases in scores. Primary hospitals are showing steady improvement. 	<ul style="list-style-type: none"> Badegau PHC lags behind (34%) and needs substantial investment, especially in waste management, USG, and X-Ray services. Secondary A hospitals should focus on infection prevention and physiotherapy department gaps. 	<ul style="list-style-type: none"> Continue to invest in Primary hospitals, ensuring MSS standards are met, specifically targeting Badegau PHC. Strengthen processes at Secondary A and B Hospitals as they transition to higher levels of care.
Gandaki	Very Low↓↓	Very High↓	N/A	<ul style="list-style-type: none"> Struggling Primary hospitals; 12/18 Primary hospitals scored below 55%, and 12/18 had decreasing scores. Secondary A Hospitals scored high (72% - 90%), but some small declines. 	<ul style="list-style-type: none"> Extremely low scoring Primary hospitals, with hospital waste management non-existent. 	<ul style="list-style-type: none"> Province-wide Primary hospital interventions to bring basic services and safety to MSS. Major investments needed across departments. Largest gaps include hospital waste management, supply chain

					<ul style="list-style-type: none"> • Ramja Deurali Health Post lacks basic KIs (24hr X-Ray, health insurance, main-power supply) • Governance, staffing, and training at Secondary A is weak and decreasing. 	systems (medicine, supplies, equipment), staffing and training, infection prevention, and governance.
Lumbini	Low↑↑	Very High↑	High↑	<ul style="list-style-type: none"> • All Primary hospitals improved (+1% to +14%), signaling equitable investment in lower-scoring facilities. • Secondary A hospitals continue to excel, with nearly half scoring above 90% and Bardiya Hospital (97%) among the top nationally. • Lumbini Provincial Hospital has achieved remarkable growth, reaching 89% from 49% in 2077, the second-highest among Secondary B hospitals. 	<ul style="list-style-type: none"> • Primary hospitals still average ~61%, with persistent gaps in dental services, hospital waste management, IEC materials, and training. • Province-wide absence of physiotherapy services and staffing shortages in inpatient, maternity, and specialist posts at Secondary A hospitals. • Infrastructure congestion and underdeveloped psychiatry services at Lumbini Provincial Hospital. 	<ul style="list-style-type: none"> • Invest in basic quality services at Primary hospitals (dental, HCWM, IEC, training) to raise scores above 70%. • Address physiotherapy and staffing gaps across Secondary A hospitals. • Expand infrastructure and strengthen pharmacy and psychiatry services at Lumbini Provincial Hospital.
Karnali	High↓	Low↓	High↑	<ul style="list-style-type: none"> • Uneven progress: Primary and Secondary A lag on basics, while Karnali Provincial Hospital performs strongly. • Primary shows diagnostic gains (USG, X-ray) but loss in infection prevention. • Secondary A mixed, with some improvements and other losses. 	<ul style="list-style-type: none"> • Systemic infection prevention failures, staffing shortages, physiotherapy absent, ER triage not maintained, weak CSSD staffing, inconsistent medicine/supply availability. • Secondary A needs investment in infrastructure, which saw major losses in LFY. 	<ul style="list-style-type: none"> • Target Humla, Dullu, and Mugu District Hospitals for basic infection prevention, sanitation, and waste management.
Sudur-Pashchim	High↑	High↑	High↑	<ul style="list-style-type: none"> • Primary hospitals scored well with equitable improvements concentrated in previously low-performing facilities, but growth has stagnated. • Secondary A and Secondary B hospitals maintained relatively high scores, but have not shown much growth. 	<ul style="list-style-type: none"> • Persistent staffing shortages (nurses, physiotherapists, maternity staff), weak governance, and infection-prevention lapses • Malakheti Hospital meets 0% of patient monitoring indicators. • Waste segregation remains inconsistent in higher-level hospitals. 	<ul style="list-style-type: none"> • Institutionalize hospital waste-management protocols province-wide • Target Malakheti and Jogbuda Hospital broadly for basic improvements. • Develop Province-level innovations to address staff recruitment and retention.

Table 1. Provincial Summaries for Primary (n=62), Secondary A (n=39), and Secondary B (n=11) 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 outlie

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 the minimum level of service. MSS comes in the form of an indicator checklist whereby gaps in minimum service standards can be identified at Primary, Secondary A, and Secondary B 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 peripheral hospitals based on the most recent data from the last Nepali fiscal year, 2081/82. (16/07/2024 - 15/07/2025). There were three main methods of analysis:

1. **Key Indicators:** Key Indicators (KI) 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 peripheral hospital. There are 76 KIs for Primary hospitals and 88 KIs for Secondary A hospitals. Secondary B hospitals did not have key indicator analysis.
2. **Services:** Indicators that identified services available as per the expected hours were assessed to determine what prescribed services are and are not available by district to identify key gaps in service coverage.
3. **Hospital Readiness:** Indicators found to be repeated across departments, measuring the most basic needs of a department such as adequate space, availability of equipment, appropriate staff, record keeping, or treatment counseling. These indicators were categorized into two groups: *Foundations* and *Routine Practices*. Indicators were then grouped into components for easier analysis. See all definitions in Table 5.
 - a. **Foundations:** Indicators related to structural readiness needed for a hospital to function related to the presence of physical materials or personnel:
 - i. Physical Facilities
 - ii. Materials
 - iii. Staffing
 - iv. Governance
 - b. **Routine Practices:** Indicators related to the repeated activities of staff for a hospital to smoothly function and provide quality services:
 - i. Infection Prevention
 - ii. Operations

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.

To see specific hospitals missing or meeting each indicator in tables, see Annex 3.

Hospital Readiness

Hospital readiness involves grouping repeated indicators across departments for cross-departmental analysis and comparisons. This approach highlights areas of strength and weakness in a way that traditional inter-departmental analysis cannot, offering a clearer picture of hospital performance.

This report uses the high-quality health systems framework that understands indicators into Foundations, Routine Practices, and Outcomes. However, because there are no outcome indicators within MSS, we are using this framework to show a theoretical understanding that **Foundations** and **Routine Practices** are necessary to achieve better outcomes. It emphasizes that quality care goes beyond just equipment or staffing, effective hospital processes must be aligned for best practices. By mapping repeated MSS indicators to this framework, this report supports actionable, quality-centered improvements.

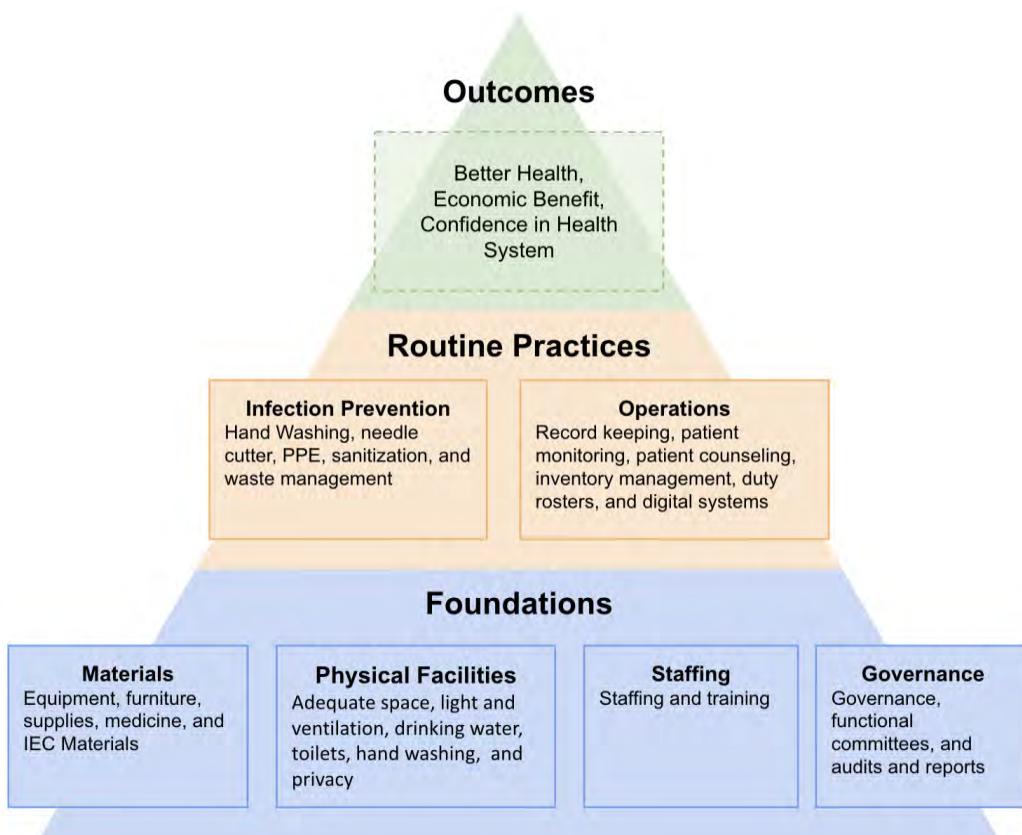


Figure 5. MSS Analysis Conceptual Framework for Hospital Readiness Analysis.

Foundations: Basic and structural components that are necessary for a functional hospital, including physical infrastructure, staffing, governance, and materials and supplies. The foundation is “*What we have*”.

Routine Practices: Small and repeated actions that indicate if a hospital is following best practices such as record keeping, hand washing, or inventory management. Routine Practices are “*What we do with what we have*”. Although all MSS indicators may record items as physical things, they can suggest that the actions are being done.

Outcomes: The ultimate goal of better health in the population with ripple on effects beyond health. There is no outcomes analysis in this report, as MSS scores the readiness of a hospital to offer services, not the outcomes themselves. Conceptually, it is important to remember this is the ultimate goal.

Foundations

Foundations represent the essential structural elements for a hospital's functioning, categorized into four components: **Physical Facilities, Materials, Staffing, and Governance**; it is the “*what we have*”.

These categories are then further broken up into items. For example, Physical Facilities include adequate space, drinking water, ventilation, privacy, and toilets. Materials include essential equipment, furniture, and supplies. Staffing includes available workforce and training of the workforce and Governance has items regarding functional committees, audits and reporting, and governance. These indicators, often repeated across departments, may require investment in infrastructure, staffing, and supplies to ensure the hospital has the “*what*” to operate.

Below, Table 5 shows each component, and their items, with an example standard, and the number of indicators included for each hospital level. Higher level hospitals have more indicators within each group to reflect the greater range of services graded in MSS. For a full list of indicators by group, component, and item, see Annex 2.

Table 5. Foundation Component Items and Example Standards				
Item	No. of Indicators			Example Standard
	Prim.	Sec. A	Sec. B	
A. Foundations: Physical Facilities				
Adequate Space	25	43	62	“Adequate rooms and space for the practitioners and patients are available.” (2.14.8.1)
Drinking Water	8	10	13	“Safe drinking water is available 24 hours for inpatients” (2.7.2.8.3)
Light and Ventilation	11	14	22	“Light and ventilation are adequately maintained.” (2.9.1.4.2)
Privacy	11	11	11	“Appropriate techniques have been used to ensure the patient privacy (separate rooms, curtains hung, maintaining queuing of patients).” (2.2.3.3)
Toilets	7	8	12	“There are adequate toilets for male and female patients in each ward (1 for 6 female bed)” (2.7.2.8.2)
B. Foundations: Materials				
Equipment	41	48	85	“At least one defibrillator in immediate accessible area” (2.7.2.7.3)
Furniture	12	17	26	“Required furniture, supplies and space are available (See Annex 2.10a Furniture and Supplies for Dental Services At the end of this standard)” (2.10.5.3)
IEC Materials	11	13	14	“Appropriate IEC/BCC materials on TB, HIV/AIDS (posters, leaflets) are available in the OPD waiting area.” (2.2.3.4.2)
Medicine	12	10	15	“All of the required medicines and supplies for specific programs are available in pharmacy (less than 50% = 0; 50-70 = 1, 70-90 = 2 90-100 = 3)” (2.5.8)
Supplies	18	30	52	“Instruments, equipments and supplies for Safe Abortion Services available (See Annex 2.2.2a Instruments, equipments and supplies for Safe Abortion services At the end of this standard)” (2.2.4.7.1)
C. Foundations: Staffing				
Staffing	33	39	56	“Doctor: OPD Patients- 1:35-50 per day for quality of care” (2.1.2.1)
Training	17	21	27	“Medical recorder is trained on ICD and DHIS2” (1.5.4.1)
D. Foundations: Governance				
Audits and Reporting	12	15	15	“Final audit/ external audited accounts are available for last year.” (1.4.5.3)

Functional Committees	8	12	12	“Hospital (QHSDMS) Committee meetings are held at least every 4 months” (1.6.1.2)
Governance	8	9	11	“There is work plan prepared and implemented by hospital for hospital waste management” (3.6.1)

Table 5. Foundational Component Items and Example Standards for Primary, Secondary A, and Secondary B hospitals. For a full list of standards by hospital level, see Annex 2.

Figure 5 Summary

Below, Figure 5 shows the Foundation components by hospital level and colored by province. Noticeable, Secondary B hospitals have the least range in scores, with provincial averages very close. However, in Karnali, Secondary A hospitals are significantly lower scoring than the other provinces regarding Materials and Physical Facilities. Further, Koshi and Madhesh have very poor foundations at the Secondary B level. In contrast, Koshi and Sudurpashchim have very high scoring foundations for Secondary A and Secondary B hospitals.

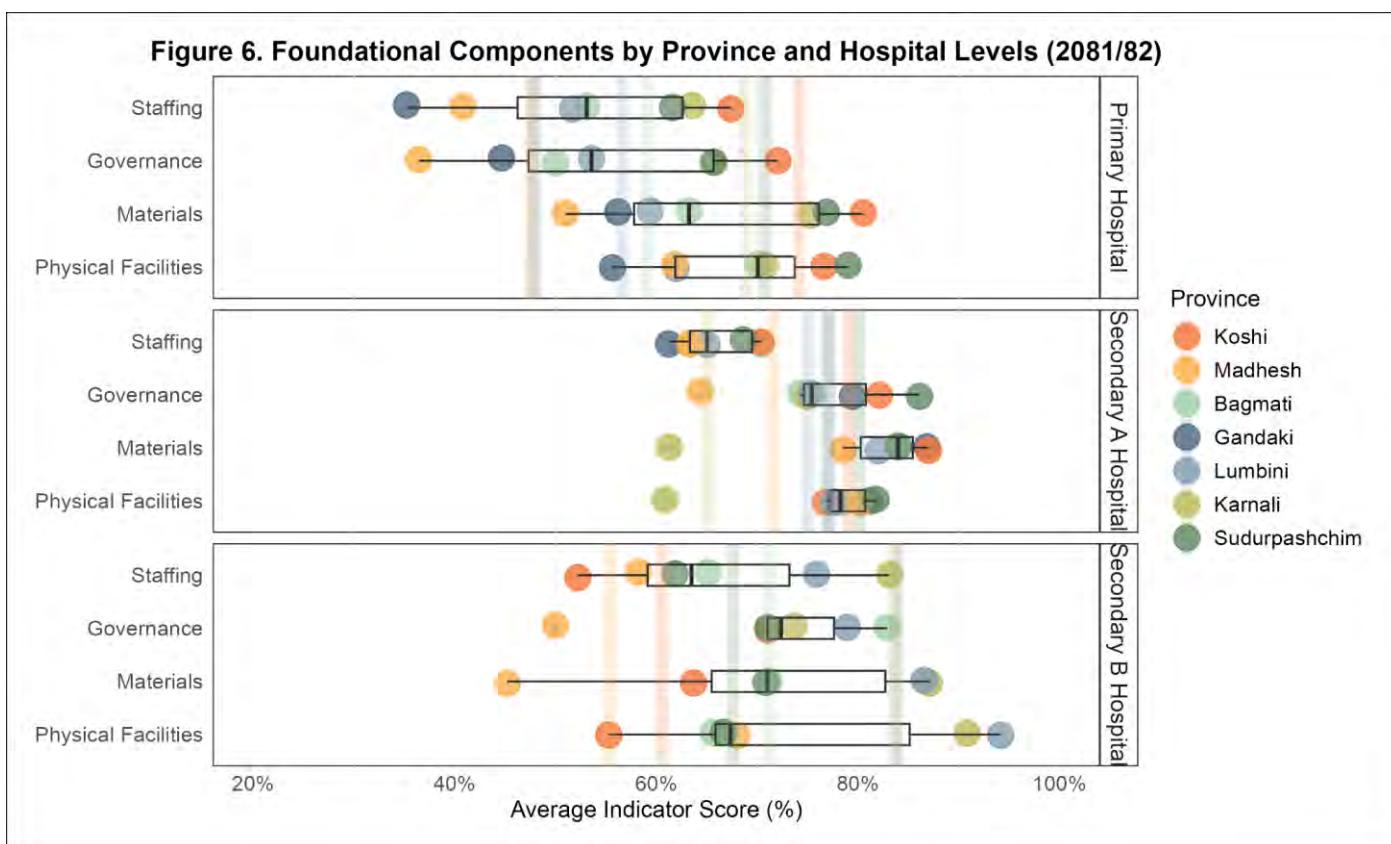


Figure 6. Foundational Components by Province and Hospital Levels (2081/82) for Primary (n=62), Secondary A (n=39), and Secondary B (n=11). Vertical lines show provincial averages. Note the x-axis ranges from 20% - 100%.

Routine Practices

Routine practices are the “what we do with what we have” actions and procedures that help ensure hospitals maintain consistent, high-quality care across departments, categorized into two components: **Infection Prevention** and **Operations**; it is the “*what we do with what we have*”.

These categories are then further broken up into items. Infection Prevention includes hand washing, needle cutter use, PPE, sanitization, and waste segregation. Often these indicators are nearly identical across departments and can easily be identified. Operations include digital systems, duty roster, inventory management, patient counseling, patient monitoring, and record keeping. **Often simple to implement**, these practices require widespread, hospital-wide efforts to ensure adherence. By monitoring routine practices like waste segregation, hand-washing, record-keeping, and patient

Below, Table 10 shows each component, and item, with an example standard, and the number of indicators included for each hospital level. Higher level hospitals have more indicators within each group to reflect the greater range of services graded in MSS. For a full list of indicators by group, component, and item, see Annex 2.

Table 10. Routine Practice Components and Example Standards				
Item	No. of Indicators			Example Standard
	Prim.	Sec. A	Sec. B	
A. Routine Practice: <i>Infection Prevention</i>				
Hand washing	25	28	39	“Hand-washing facility with running water and soap is available for practitioners.” (2.2.1.8.3)
Needle Cutter	14	17	21	“Needle cutter is used.” (2.13.12.4)
PPE	17	21	30	“Masks and gloves are available and used” (2.2.2.10.1)
Sanitization	25	29	46	“Chlorine solution is available and utilized for decontamination” (2.3.16.4)
Waste Segregation	20	26	30	“There are well labeled colored bins for waste segregation and disposal as per HCWM guideline 2014 (MoHP)” (2.1.10.2)
B. Routine Practice: <i>Operations</i>				
Digital Systems	12	12	11	“Pharmacy uses computer with software for inventory management and medicine use” (2.5.10)
Duty Roster	11	13	19	“Duty rosters of all OPDs are developed regularly and available in appropriate location.” (2.1.7)
Inventory Management	13	17	19	“Instrument are maintained and calibrated as per manufacturer instructions” (2.9.1.3.2); “FEFO system is maintained using standard stock book/cards.” (2.5.17)
Patient Counseling	21	21	27	“Counseling is provided to patients about the type of treatment being given and its consequences” (2.1.4.1)
Patient Monitoring	3	7	19	“Patients’ pain management is prioritized, measures well documented and analgesic effect followed up” (2.8.9.4)
Record Keeping	23	26	44	“Drug resistance, complication and referral to other sites recorded and reported” (2.2.3.9.2)

Infection Prevention

Infection prevention 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.** Simple but crucial measures like waste segregation, sanitization, needle cutter use, personal protective equipment (PPE), and hand-washing facilities are key components. Regular monitoring of these practices can significantly reduce hospital-acquired infections and promote overall patient safety. For a full list of indicators by group, component, and item, see Annex 2.

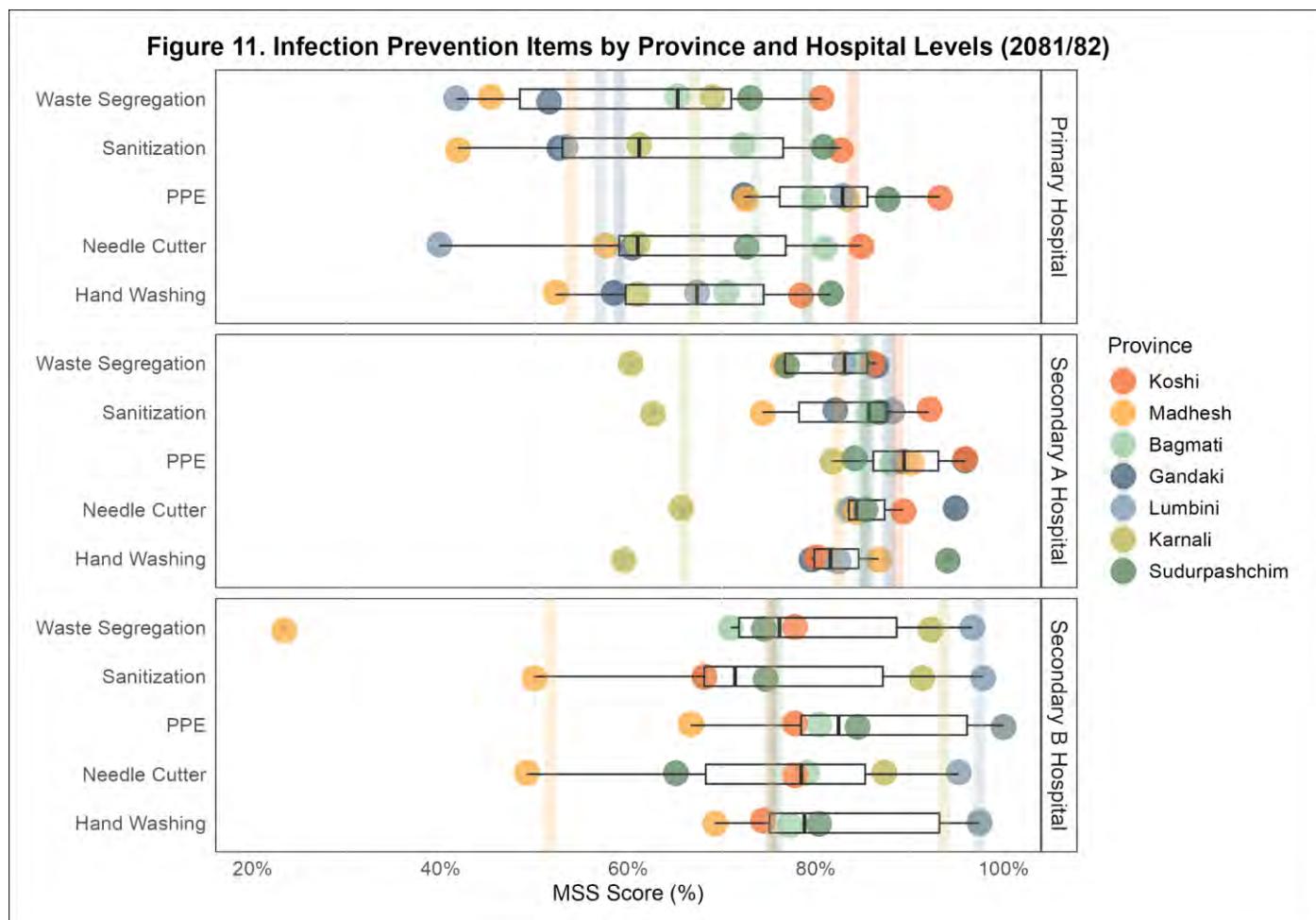


Figure 11. Infection Prevention Compliance by Province (2081/82) for Primary (n=62), Secondary A (n=39), and Secondary B (n=11). Colored by Province. Vertical lines show provincial averages. Note the x-axis ranges from 20% - 100%.

Above, Figure 11 shows Infection Prevention Items by Province and Hospital Levels, with great variation between provinces. Koshi and Sudurpashchim should be commended for their significant improvement and quality of infection prevention at Primary and Secondary B hospitals, significantly higher than other provinces. Similarly, Lumbini Provincial Hospital is nearly meeting 100% of infection prevention indicators and should be an example of excellence.

Operations

Routine Practice Operation indicators are smaller, repetitive indicators across a wide range of departments to ensure that the hospital functions effectively with patients and within the hospital systematically. Specific operation measures across departments include the use of a departmental duty roster, internal record keeping, and treatment counseling for patients. For a full list of indicators by group, component, and item, see Annex 2.

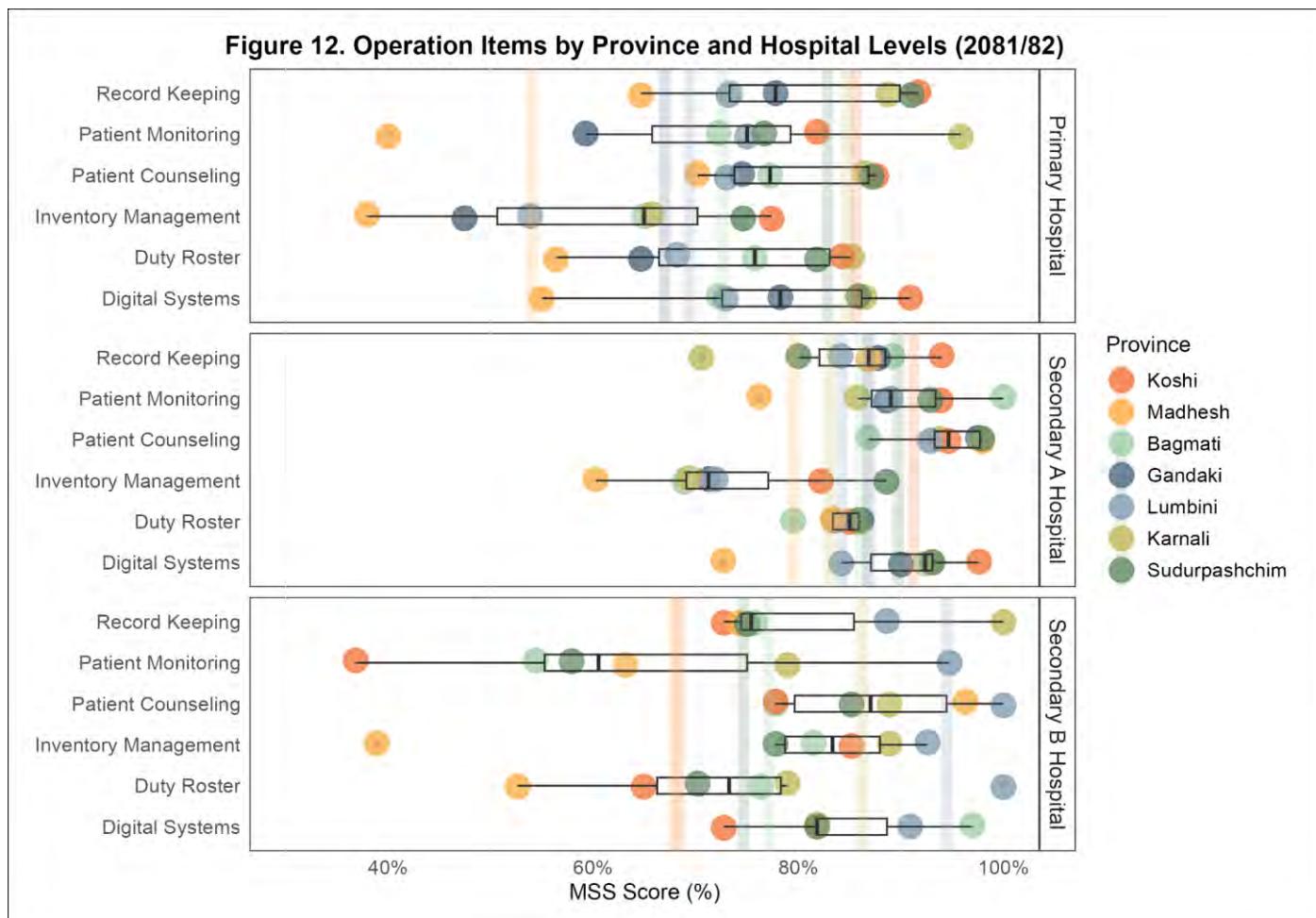


Figure 12. Operations Items by Province and Hospital Levels (2081/82) for Primary (n=62), Secondary A (n=39), and Secondary B (n=11). Vertical lines show provincial averages. Note the x-axis ranges from 30% - 100%.

Above, Figure 12 shows Operation Items by Province and Hospital Level for the LFY. Compared to other components, Operations are relatively high scoring. All provinces show a high fidelity for patient treatment counseling. However, given that the MSS assessment may not be directly witnessing this happen, this number should not be taken at face value.

Karnali Report

Overview

Eleven Primary, Secondary A, and Secondary B hospitals in Karnali Province completed an MSS assessment in 2081/82; 8 Primary, 2 Secondary A, and 1 Secondary B hospital. Among the Primary Hospitals, Seven Hospitals are governed by Karnali Province and One Dullu Hospital at the local level.

Primary hospitals in Karnali are facing significant foundational and operational challenges, with many failing to meet even minimum standards for safe and respectful care. Critical gaps include basic WASH infrastructure, infection prevention and control, staffing, and governance. Facilities such as **Humla, Dullu, and Mugu District Hospitals** scored alarmingly low in sanitation, waste segregation, and hand hygiene, posing direct risks to patient and staff safety. Governance and leadership are weak, with few hospitals having appointed Medical Superintendents or functioning oversight mechanisms. Despite some improvements in diagnostic and surgical readiness, such as increased availability of X-ray and USG equipment, the overall quality of care remains compromised by systemic issues. Strengthening hospital waste management, staffing CSSD units, improving nursing ratios, and enforcing governance standards should be immediate provincial priorities to restore safety and functionality in Karnali's primary hospitals.

Secondary A hospitals in Karnali show moderate overall performance but remain constrained by weak infrastructure, limited staffing, and foundational service gaps, particularly at Jajarkot District Hospital. Both hospitals lack critical systems such as emergency triage, adequate inpatient ward staffing, and physiotherapy services, which are entirely absent across facilities. Governance and human resource shortfalls are severe, with unfilled Medical Superintendent and pharmacist positions undermining hospital functionality. Despite improvements in infection prevention, CSSD operations, and orthopedic surgical readiness, significant declines in emergency preparedness, medicine availability, and staffing indicate fragile service delivery systems. Provincial-level investment in staffing, physiotherapy, and hospital management, alongside technical upgrades in emergency and inpatient services, will be crucial to bring Karnali's Secondary A hospitals up to MSS standards.

Provincial Hospital Surkhet (Karnali Provincial Hospital) continues to perform strongly, scoring 85% in the most recent MSS assessment and ranking third nationally among Secondary B hospitals. The hospital demonstrates high-quality service delivery, with several wards, including Pediatrics, Ob/Gyn, Geriatrics, General Medicine, and Dental, achieving 100%. However, gaps remain in governance and management oversight. Patient monitoring and duty roster systems (79%) and partial implementation of digital systems (82%) also require attention. As Karnali's only referral center, ensuring consistent supply chains, reinforcing governance, and upgrading underperforming wards such as Orthopedics, Surgery, and Psychiatry will be key to sustaining high-quality care and advancing toward national excellence standards.

Overall, Karnali Province demonstrates steady but uneven progress across hospital levels. While Provincial Hospital Surkhet has emerged as a provincial and national leader in quality service delivery, Primary and Secondary A hospitals continue to face widespread challenges in governance, staffing, and basic infrastructure. With targeted support and sustained investment, Karnali has the potential to transform its health facilities into safe, functional, and resilient hospitals capable of delivering consistent, high-quality care across all levels.

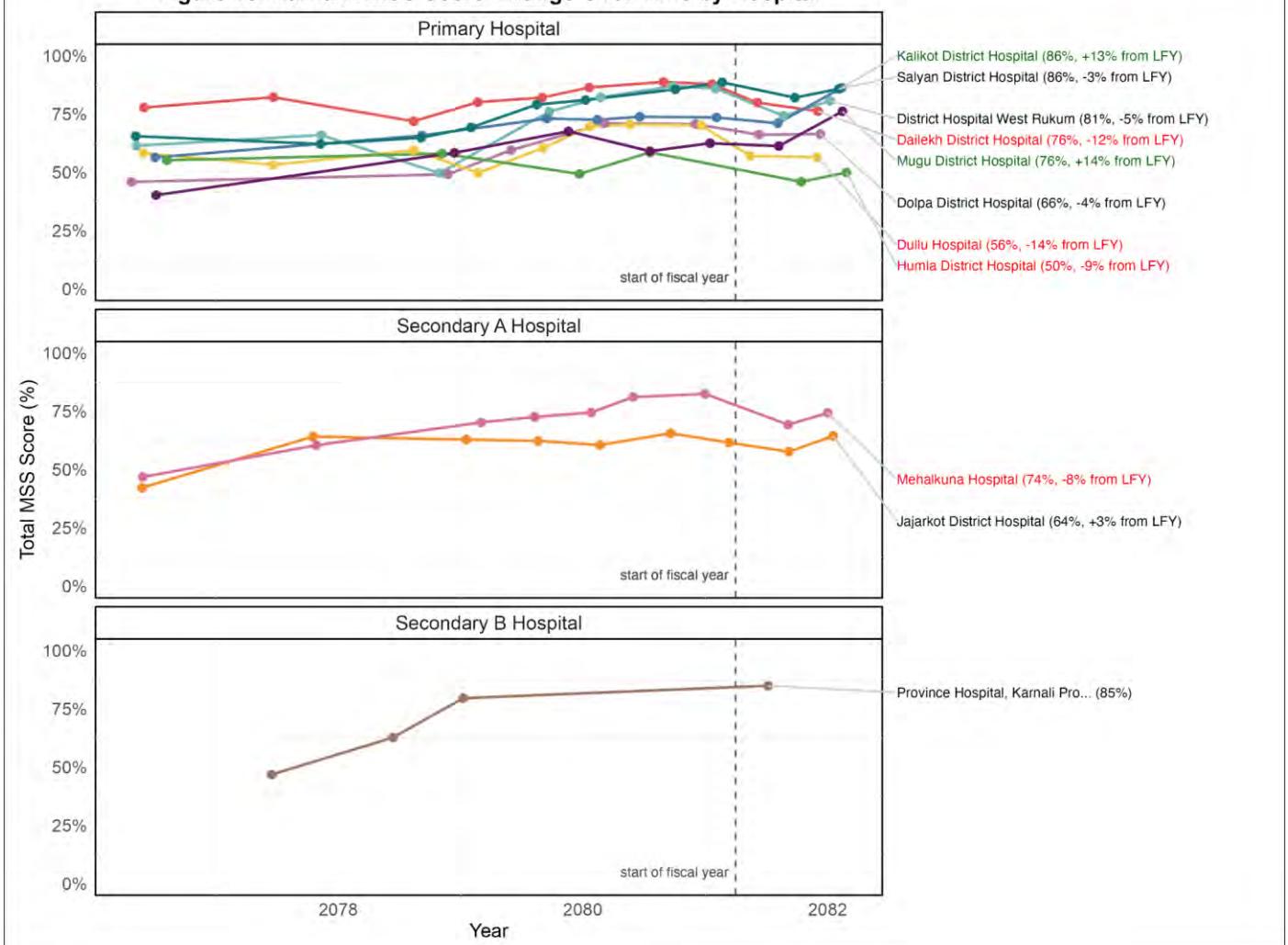
Figure 13. Karnali : MSS Score Change Over Time by Hospital

Figure 13f. Karnali: 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 LFY. Vertical dotted line shows the start of 2081/82 FY. Red labels indicate a positive increase greater than 5%; red labels indicate a decrease of greater than -5%. Dashed lines show MSS assessments from a lower level before the hospital was upgraded. Only hospitals with MSS assessments in 2081/82 FY were included.

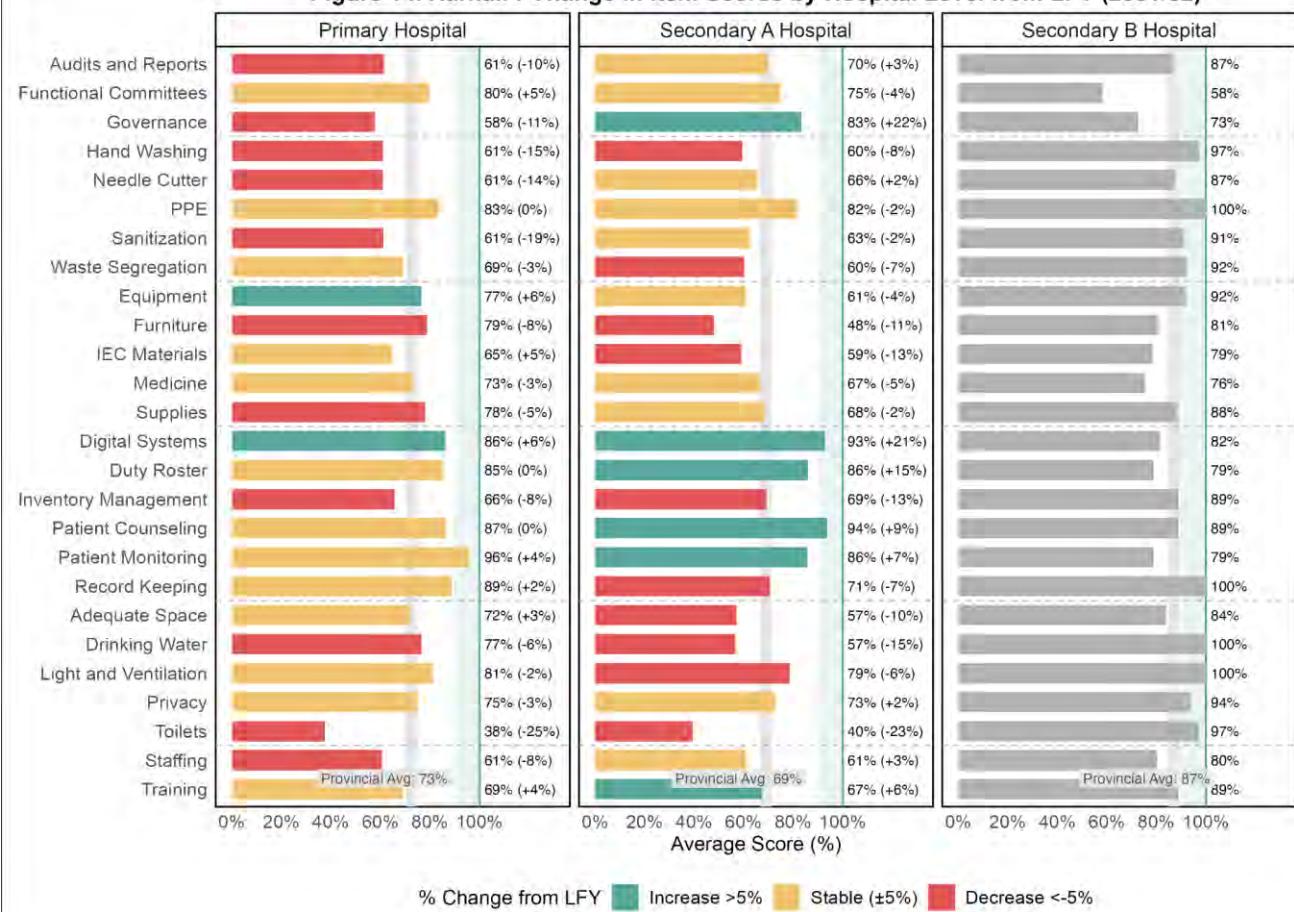
Figure 14. Karnali : Change in Item Scores by Hospital Level from LFY (2081/82)

Figure 14f. Karnali: Change in Item Scores by Hospital Level from LFY (2081/82) (n=11). Color indicates the change in the categorical score from LFY to 2081/82. Labels show the current % MSS score for that item and % change from LFY. If there was no MSS data from LFY, the bar is grey. Provincial Averages shown by the grey vertical line.

Figure 14f shows the change in item scores across the hospital in the LFY by Hospital Level. Primary hospitals (73%) and Secondary A hospitals (69%) show relatively similar average scores, while Secondary B hospitals (87%) are significantly higher. This indicates a clear gap in performance between higher-level and lower-level facilities, unlike some provinces where levels are more comparable.

Although **Primary hospitals**, most categories are stable, several areas experienced notable decreases. Hand Washing (-15%), Needle Cutter (-14%), Sanitization (-19%), Toilets (-25%), and Governance (-11%) are the most concerning drops, reflecting challenges in basic infection prevention and infrastructure. Equipment (+6%) and Digital Systems (+6%) are among the few areas that improved, but the sharp declines in WASH-related services (water, sanitation, hygiene) highlight systemic weaknesses. However, as all areas are lower, there is a need for hospital-wide interventions to improve scores.

In **Secondary A hospitals**, changes are more mixed, with improvements in Digital Systems (+21%) and Duty Roster (+15%), but significant declines in Governance (-11%), IEC Materials (-13%), Inventory Management (-13%), and Adequate Space (-10%). Patient Monitoring (+7%) and Training (+6%) are encouraging, but the overall balance still trends toward stagnation or decline in many critical areas.

By contrast, **Provincial Hospital Surkhet (Karnali Provincial Hospital)** consistently perform the best, with scores above 70% in all categories, many reaching above 90–100% (e.g., Sanitization, Waste Segregation, Drinking Water, Light and Ventilation, Record Keeping). Most of the categorical scores are high but still need to focus on Governance, Availability of IEC materials and Medicine, Patient Monitoring, and staffs' duty roster preparation. This suggests that higher-level facilities are better equipped, staffed, and managed, while Primary and Secondary A hospitals lag behind.

The lowest-scoring areas remain Toilets in Primary (38%) and Furniture (48%) at Secondary A hospitals. Governance is weak in both Primary (58%, -11%) and Secondary A (48%, -11%), indicating systemic administrative challenges. The biggest drops were observed in Toilets (-25%) in Primary, Hand Washing (-15%), and IEC Materials (-13%) in Secondary A.

Overall, the results show a performance divide between hospital levels in Karnali. While Secondary B facilities are strong, Primary and Secondary A hospitals face declines in governance, infrastructure, sanitation, and infection control. Addressing these gaps is critical for equitable service delivery. Provincial authorities have the opportunity to focus resources on upgrading WASH facilities, governance systems, and staffing in primary and secondary A hospitals to bring them closer to the standards already achieved by Secondary B hospitals.

Primary Hospitals

Figure 15. Karnali Lowest-Scoring Primary Hospital Item Scores (2081/82)

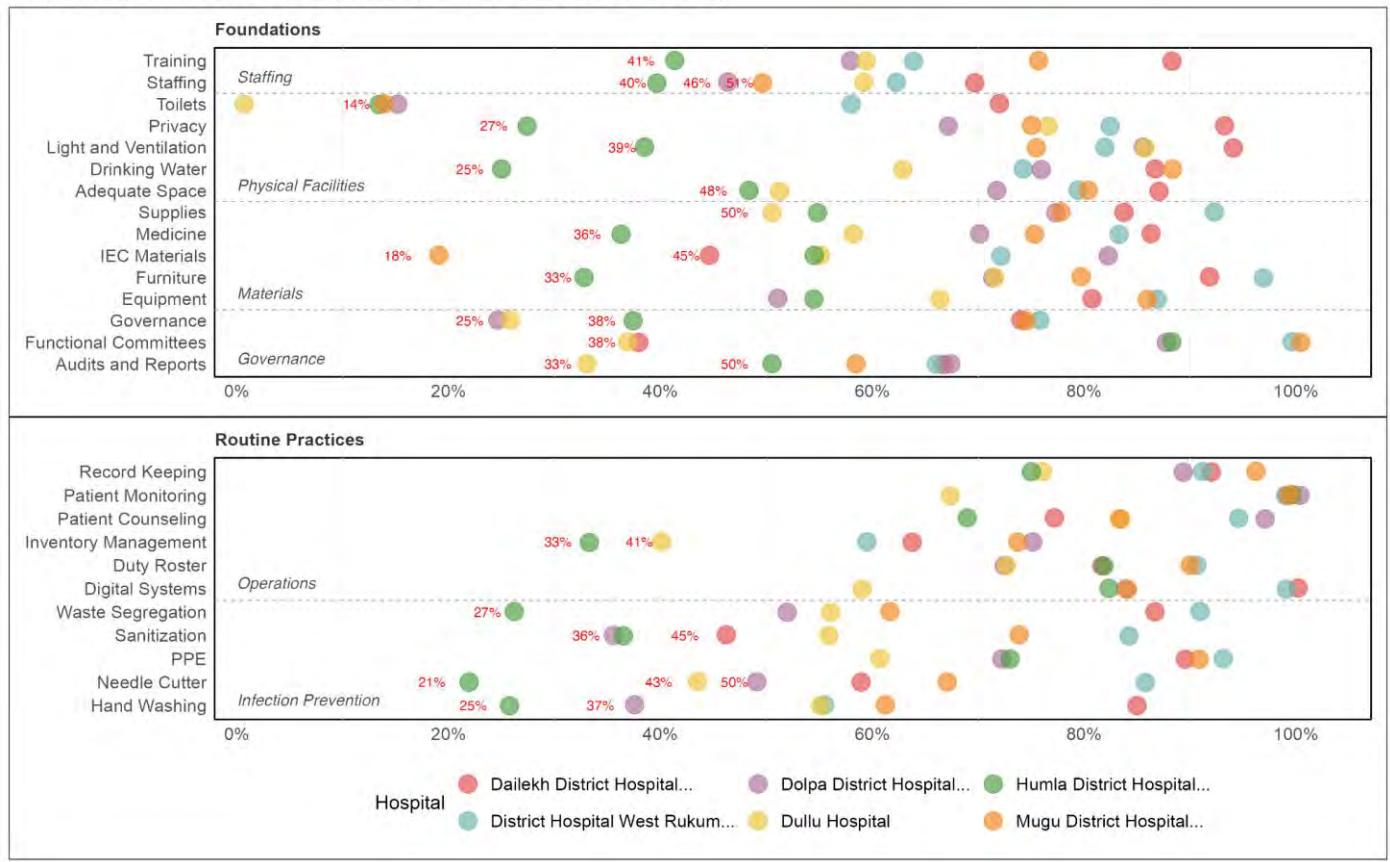


Figure 15f. Karnali: Lowest-Scoring Primary Hospitals Item Scores (n=6). Only the six lowest-scoring primary hospitals in Karnali were included. Items below 51% are labelled with their percent.

The figure highlights the weakest performing items across primary hospitals in the province, with specific scores labeled where they fell below 51%. For both **foundations** (such as staffing, physical facilities, material, and governance) and **routine practices** (such as infection prevention and operations) show substantial gaps.

A number of essential items scored alarmingly low. For example:

- **Toilet:** Dullu Hospital (0%), Humla District Hospital (14%), Mugu District Hospital (15%),
- **Humla District Hospital:**
 - Privacy (27%)
 - Drinking water (25%)
 - Adequate space (48%)
 - IP practices also performed the lowest performing in Humla District Hospital (Needle cutter 21%, Waste segregation 27%, Hand washing 25%, Sanitization: (36%)
- **Governance** at Dolpa District Hospital (25%) and Dullu Hospital (27%)
- **Staffing:** Availability of staffs also lowest in Humla District Hospital 40%

These results raise major concerns around **infection prevention and control (IPC)** and **hospital safety standards**. Items like waste segregation, hand washing, needle cutter use, and sanitation are particularly troubling as they directly impact both patient and provider safety. The data shows that low performance is not confined to a single facility but is widespread across multiple hospitals (e.g., Dolpa, Humla, Mugu, and Dullu).

Although some items like patient counseling and monitoring scored higher, the **failure in routine practices and physical infrastructure** undermines the overall quality of care. Even aspects perceived as “secondary,” such as **privacy**,

IEC materials, and drinking water, scored below 18-30% in several facilities, signaling broader neglect of patient-centered care.

These gaps show that many primary hospitals in Karnali are not meeting even the most basic standards of safe and respectful care. Addressing these issues does not require high-cost interventions but rather clear protocols, strong monitoring, accountability, and governance. Provincial-level strategies, such as targeted investment in WASH facilities, training for staff, and governance strengthening, could have immediate and widespread impact.

Code	Area	Standard	Hospitals meeting standard							
			1	2	3	4	5	6	7	8
<i>Low scoring indicators</i>										
2.1.1.3	OPD Service	EHS services from 3PM onwards and tickets available from 2 PM onwards	0	0	0	0	0	0	0	0
1.1.3	Governance	Medical Superintendent is fulfill as per organogram	0	0	0	0	0	0	0	1
2.9.1.1.3	Laboratory and Blood Bank	Histopathology service in coordination with other health facilities	0	0	0	0	0	0	0	1
3.6.10	Hospital Waste Management	Pharmaceutical waste and radiological waste is disposed based on the HCWM guideline 2014 (MoHP)	0	0	0	0	0	0	1	0
2.5.6.1	Pharmacy Service	Pharmacy unit is led by at least one pharmacist	1	0	0	0	0	0	0	1
3.6.3	Hospital Waste Management	There is separate area/space designated for waste storage and management with functional hand washing facility	1	0	0	0	0	1	0	0
2.8.3.1	Surgery/Operation Service	General Surgeries (See Annex 2.8 a List of Minimum Surgeries Available At the end of this standard)	0	0	0	0	0.3	0.7	0.3	1
2.6.5	Inpatient Service (General Ward)	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) and at least one trained office assistant/ward attendant per shift in each ward	0	1	0	1	0	0	0	1
2.8.1.3	Surgery/Operation Service	At least two functional operating rooms/theater	0	1	0	0	0	1	0	1
3.1.2	CSSD	Separate staffs assigned for CSSD and is led by CSSD trained personal	0	1	0	1	0	0	0	1
<i>High scoring indicators</i>										
2.5.16.1	Pharmacy Service	Medicine is dispensed using electronic billing with barcode system	1	1	1	0	1	1	1	1
2.7.1.1.1	Delivery Service	Separate pre-labor room/ labor room with privacy is available.	1	1	1	1	0	1	1	1
2.8.1.1.1	Surgery/Operation Service	Routine minor and intermediate surgeries available on scheduled days	1	1	1	0	1	1	1	1
2.8.2.2	Surgery/Operation Service	For one surgery, at least a team is composed of: MDGP with one trained medical officer, two OT trained nursing, one anesthesia assistant supervised by MDGP, two nurses for pre-anesthesia and postsurgical care, and one office assistant (for cleaning and helping)	1	0	1	1	1	1	1	1
2.9.1.1.2	Laboratory and Blood Bank	Basic investigations are available See Annex 2.9.1a List of investigations for Laboratory At the end of this standard)	1	1	0.7	0.7	1	1	0.7	1
2.9.2.1.2	X-Ray Service	Emergency x-ray service is available round the clock	1	1	0	1	1	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	1	1	1	0	1
2.9.4.4	Electrocardiogram (ECG)	Functional ECG machine (12 lead with power back up), paper, gel, wipes and hand sanitizer are available in ECG trolley	1	1	0	1	1	1	1	1
3.6.2.1	Hospital Waste Management	There is allocation of staff for HCWM from segregation to final disposal	1	1	1	1	0	1	1	1
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	1	0.7	1	1	1	1	1

Table 12f. Actionable steps for Primary hospitals in Karnali (n=8). Hospital numbers are as follows: (1) Dailekh District Hospital, (2) District Hospital West Rukum, (3) Dolpa District Hospital, (4) Dullu Hospital, (5) Humla District Hospital, (6) Kalikot District Hospital, (7) Mugu District Hospital, and (8) Salyan District Hospital. *Standard out of 3 points.

Above, Table 12a shows the 10 *most met* and the 10 *least met* KI scores for all 8 Primary hospitals in Karnali for the most recent MSS assessment in FY 2081/82. Province-wide low-scoring indicators highlight foundational and operational weaknesses in key service areas. The most critical gaps include:

- **Governance (1.1.3):** Lack of appointed Medical Superintendent as per organogram in several hospitals remains a major issue except Salyan District Hospital.
- **CSSD (3.1.2):** Absence of separate technical staff assigned to lead CSSD for sterilization and cleaning processes, affecting infection prevention standards.
- **Surgery/Operation (2.8.1.3):** Most of the hospital has only one Functional operating rooms/theaters which limits surgical service delivery. District Hospital Rukum West, Kalikot District Hospital, and Salyan District Hospital has two operation theaters as per MSS protocol.
- **Inpatient Service (General Ward) (2.6.5):** Adequate numbers of trained nurses per shift in general and pediatric wards are not available in many hospitals.
- **Pharmacy Service (2.5.6.1):** Only two hospitals; Dailekh District Hospital and Salyan Hospital have pharmacists overseeing pharmacy services.
- **Hospital Waste Management (3.6.3):** Improper segregation, Storage, and disposal of hospital waste as per HCWM guideline (2014) in all hospitals except in Kalikot District Hospital and Dailekh District Hospital.

These gaps are systemic and suggest an urgent need for **provincial-level interventions** focused on human resource management, infection prevention, and governance. Ensuring functional CSSD staffing and compliance with Hospital waste management standards should be prioritized.

Hospital Level Interventions:

Based on the detailed data in Table 12a, hospitals not meeting only one or two standards should be contacted to identify and resolve specific operational challenges. For instance:

- **Humla District Hospital:** Requires immediate action in staffing CSSD and improving governance oversight. Hospital waste management and infection prevention practices (3.6.3 and 3.6.2.1). Arrange delivery service (2.7.1.1.1)
- **Mugu District Hospital:** Needs to strengthen waste segregation and ensure pharmacist availability, Appoint X-ray staff (2.9.2.2)
- **Dolpa District Hospitals:** Ensure availability of emergency x-ray service is available (2.9.2.1.2), Arrange functional ECG machine (2.9.4.4), Assign technical staff to lead CSSD (3.1.2)
- **Dullu Hospitals:** Require adequate trained nursing staff per ward and improvement in surgical readiness.
- **Rukum West Hospital:** Ensure the surgical team available to provide service (2.8.2.2), Hospital waste management (3.6.3)

Above, Table 12f shows the highest and lowest scoring KIs by hospital. Below, Figure 10f shows the biggest *changes* in KIs from LFY to 2081/82. This highlights areas of improvement and areas of loss. The figure does not indicate current scores, only change between FYS.

Figure 16. Karnali : Greatest Changes in KIs at Primary Hospitals from LFY (2081/82)

- 3.6.9.1 - Infectious waste is sterilized using autoclave before disposal
- 2.9.3.5 - USG machine (advanced) with different probes, computer and printer with
- 2.9.2.5.2 - Complete CR system with CR cassette at least 5 of 14 x 17 inch and 3
- 2.8.2.2 - For one surgery, at least a team is composed of: MDGP with one trained
- 2.10.6 - Equipment, instrument and supplies to carry out Dental Services (See Ani
- 1.2.4 - Hospital implements token and / or queue system for users (separate for el
- 2.1.1.1 - OPD is open from 10 AM to 3 pm (See Checklist 2.1 At the end of this sta
- 2.8.2.1 - For overall management of operation theatre, there is one OT nurse (with
- 2.7.1.2.1.1 - Nurse: pregnant women ratio 1:2 in pre-labor; 2:1 per delivery table a
- 2.3.6.1 - Hospital maintains a triage system in the ER with 24 hours triage service
- 1.4.7.1 - The hospital prepares and keeps monthly financial report.
- 3.6.10 - Pharmaceutical waste and radiological waste is disposed based on the HC

Figure 16f. Karnali: Greatest Changes in Key Indicators at Primary Hospitals from LFY (2081/82) (n=8). 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 both FYs were included.

Figure 16f shows the greatest positive and negative changes in Key Indicators (KIs) at Primary hospitals in Karnali province in the LFY. Positive changes were observed mainly in service functionality and diagnostic capacity. The most notable improvements include:

- Infectious waste sterilization (3.6.9.1) increased by 25%, showing better adherence to infection prevention and control protocols.
- Advanced USG machine availability (2.9.3.5) and complete CR X-ray cassette systems (2.9.5.2) each improved by 25%, indicating progress in diagnostic infrastructure.
- Surgical team composition (2.8.2.1) saw a 25% increase, suggesting hospitals have become more capable of managing operations with adequately trained staff.
- Dental department equipment and supplies (2.10.6) also improved by 21%, highlighting renewed attention to oral health services.

These gains collectively reflect progress in diagnostic and procedural readiness across Karnali's primary hospitals. However, significant declines were also recorded. The largest negative change was in pharmaceutical waste and radiological waste disposal (2.1.3.4), which dropped by 50%, signaling weakened biomedical waste management systems. Other areas of concern include:

- OPD service hours (2.1.1.1) decreased by 33%, reducing service accessibility.
- Triage system in emergency (2.3.6.1) fell by 38%, raising concerns about emergency preparedness.
- Financial reporting and documentation (1.4.7.1) declined by 38%, indicating ongoing governance and accountability issues.
- Nurse staffing ratios for pregnant women and delivery (2.7.1.1.1) also dropped by 38%, showing human resource constraints in maternal care.

While Karnali's primary hospitals made meaningful progress in diagnostic and waste sterilization capacities, serious setbacks occurred in waste management, triage, and financial governance. The drop in OPD hours and nursing ratios highlights operational challenges that directly impact patient care. Overall, Karnali's Primary hospitals show mixed progress, with diagnostic services improving but core administrative and operational standards declining. Sustained monitoring and capacity-building support are needed to ensure that service delivery gains are not overshadowed by governance and safety gaps.

Secondary A Hospitals

Figure 17. Karnali Lowest-Scoring Secondary A Hospital Item Scores (2081/82)

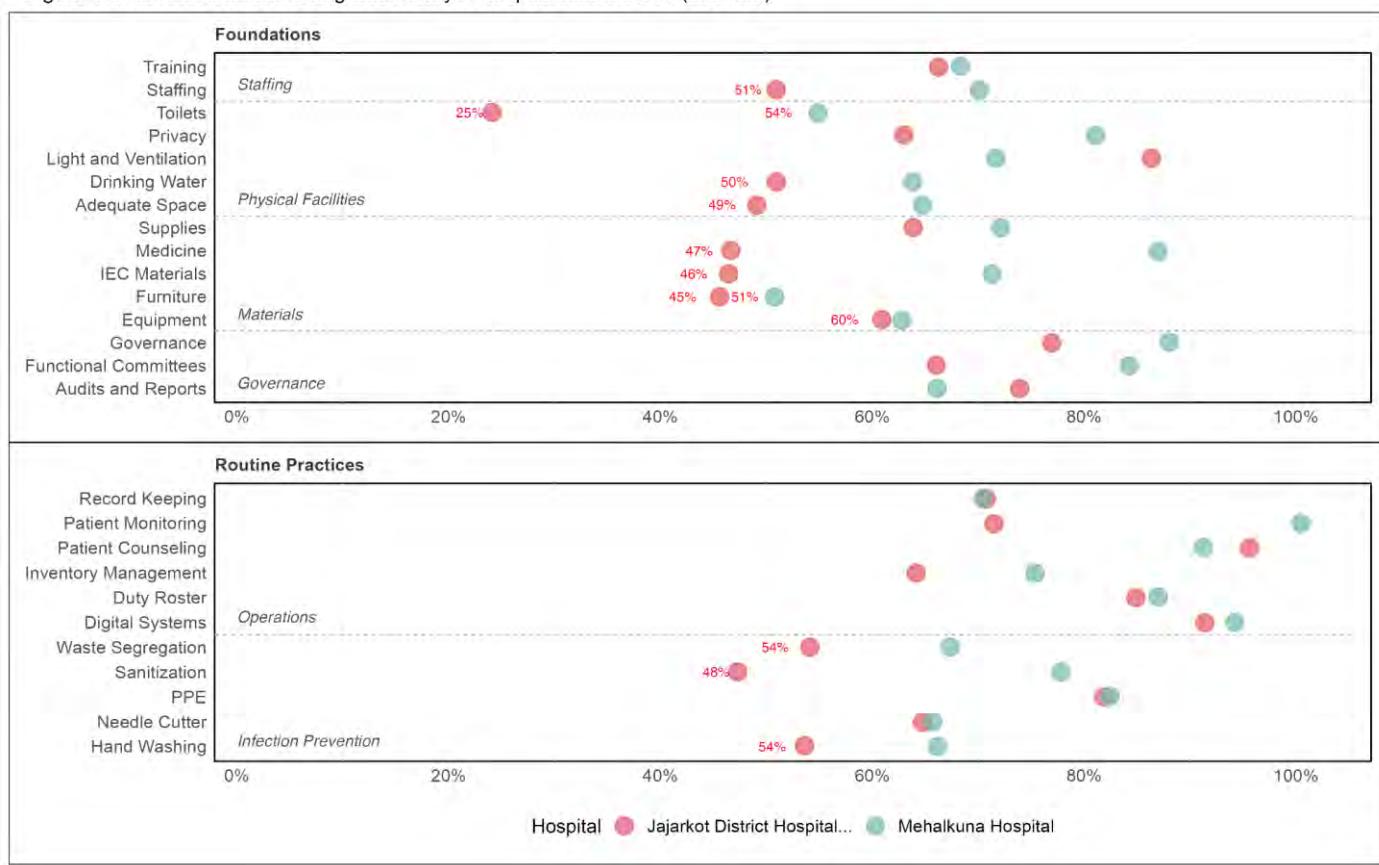


Figure 17f. Karnali: Lowest-Scoring Secondary A Hospitals Item Scores (n=2). Items below 61% are labelled with their percent. Only hospitals with 2081 MSS assessments were included.

Secondary A hospitals in Karnali show moderate performance overall, though several foundational and routine practice gaps remain, particularly in Jajarkot District Hospital. Compared to Mehalkuna Hospital, Jajarkot displays multiple areas scoring below 55%, indicating a need for targeted technical and managerial support.

Under Foundations, the weakest areas at Jajarkot District Hospital are:

- Toilets (25%) and Staffing (51%), indicating infrastructure and human resource constraints.
- Light and ventilation (50%) and Drinking water (49%), reflecting persisting physical facility challenges.
- Medicine (47%), IEC materials (46%), and Furniture (45%) also scored low, suggesting insufficient supply management and limited patient education materials.
- Governance (78%) and Audits and reports (68%) point to gaps in oversight and accountability systems.

Jajarkot District Hospital underperforms compared to Mehalkuna Hospital, especially in staffing, supplies, infection prevention, and governance. In Mehalkuna Hospital it also requires urgent attention to improving its infrastructure, as it currently does not meet the basic standards expected even of a primary-level hospital.

Table 13f. Actionable Steps for Secondary A Hospitals: Karnali (n=2)

Indicator Code	Area	Standard	Hospitals meeting standard	
			1	2
<i>Low scoring indicators</i>				

1.1.3	Governance	Medical Superintendent is fulfill as per organogram	0	0
2.1.1.3	OPD Service	EHS services from 3PM onwards and tickets available from 2PM onwards	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
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
2.3.6.1	Emergency Service	Hospital maintains a triage system in the ER with 24 hours triage service	0	0
2.5.6.1	Pharmacy Service	Pharmacy department is led by at least one clinical pharmacist	0	0
2.6.2.2	Inpatient Service	Surgery Ward (See Annex 2.6a Furniture and supplies for inpatient wards At the end of this standard)	0	0
2.6.3.2	Inpatient Service	Surgery Ward (See Annex 2.6b medicine and supplies for inpatient wards At the end of this standard)	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
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)	0	0

High scoring indicators

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	0	1
3.4.2.3	Repair, Maintenance and Power system	Separate room for storage of repairing tools and instrument	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	0	1
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)	0.7	0.7
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	0.7
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	0.7	1
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)	0.7	1
2.6.2.1	Inpatient Service	Medicine Ward (See Annex 2.6a Furniture and supplies for inpatient wards At the end of this standard)	1	0.7
2.8.3.3	Surgery/ Operation Services	Orthopedic Surgeries (See Annex 2.8c List of Minimum Orthopedics Surgeries Available At the end of this standard)	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)	0.7	1

Table 13f. Actionable steps for Secondary A hospitals in Karnali (n=2). Hospital numbers are as follows: (1) Jajarkot District Hospital and (2) Mehalkuna Hospital. *Standard out of 3 points.

Above, Table 13a shows the highest and lowest scoring KIs for both Secondary A hospitals in Karnali for the most recent MSS assessment in 2081/82. Physiotherapy services remain a significant gap across both hospitals, with multiple unmet standards, including qualified physiotherapy staff (2.14.3), adequate space (2.14.4) and equipment for physiotherapy (2.14.5), and physiotherapy treatment areas (2.14.2). This demonstrates the need for provincial-level attention to strengthen rehabilitation and physiotherapy services in Karnali province Secondary A hospitals.

Similarly, emergency and inpatient services also require improvement. Both hospitals lack the necessary emergency triage systems (2.3.6.1), medicines, and adequate furniture and supplies for inpatient wards (2.6.2.2, 2.6.8.3). These gaps directly affect emergency readiness and inpatient care quality. Strengthening these service areas should be a top priority to ensure hospitals meet minimum service standards for patient management.

At the facility level, improvement is also required in infection prevention and waste management practices. Hospitals need to establish designated waste storage areas with functional handwashing facilities (3.6.3) and strengthen CSSD operations to maintain sterilization standards (3.1.1.2).

As in Primary hospitals, staffing remains a national concern. Both Jajarkot District Hospital and Mehalkuna Hospital are missing key technical staff required for secondary-level service delivery.

- Medical superintendent as per organogram (1.1.3)
- Pharmacist in Pharmacy Department (2.5.6.1)
- Consultants and Staff Nurses in different departments as per organogram.
- BMET staff requirement temporarily arranged from NSI. Karnali province immediately incorporates this BMET cadre on all province level hospitals.

Hospital Level Interventions:

Jajarkot District Hospital

- Requires improvement in inpatient services, including:
Medicines and furniture/supplies for ward (2.8.3.1, 2.8.3.3)
- Availability of Nurses in Inpatient ward (2.6.5)
- Improvement of CSSD (3.1.1.2) and Hospital Waste management (3.6.3)

Mehalkuna Hospital

- Require immediate action on Infrastructure development for almost all departments.
- Medical equipment for X-ray, USG, Physiotherapy, Emergency department

Above, Table 13f. Shows the highest and lowest scoring KIs by hospital. Below, Figure 18f shows the biggest *changes* in KIs from LFY to 2081/82. This highlights areas of improvement and areas of loss. The figure does not indicate current scores, only change from LFY to 2081/82.

Figure 18. Karnali : Greatest Changes in KIs at Secondary A Hospitals from LFY (2081/82)

- 3.6.10 - Pharmaceutical waste and radiological waste treated and disposed based
- 3.1.2 - Separate staffs assigned for CSSD and is led by CSSD trained personal
- 1.5.2.2 - All patients' records are kept in individual folders in racks or held digitally.
- 2.8.3.3 - Orthopedic Surgeries (See Annex 2.8c List of Minimum Orthopedics Surgeries)
- 1.5.1.3 - Electronic health record system that generates the HMIS monthly report (
- 1.2.4 - Hospital implements token and / or queue system for users (separate for each service)
- 2.5.5 - The pharmacy is open 24x7
- 2.3.2.1 - For 5-10 ER beds (Doctor: Nurse: Paramedics: Office Assistant = 1:1:1:1)
- 2.1.1.3 - EHS services from 3PM onwards and tickets available from 2PM onwards
- 1.1.3 - Medical Superintendent is fulfill as per organogram
- 2.6.3.2 - Surgery Ward (See Annex 2.6b medicine and supplies for inpatient wards)
- 2.3.6.1 - Hospital maintains a triage system in the ER with 24 hours triage service

Figure 18f. Karnali: Greatest Changes in Key Indicators at Secondary A Hospitals from LFY (2081/82) (n=2). 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 both FYs were included.

Figure 18f shows the greatest positive and negative changes in Key Indicators (KIs) at Secondary A hospitals in Karnali province from the last fiscal year (LFY) to 2081/82. Overall, Karnali demonstrated notable progress in several technical and management areas, though some critical service gaps remain.

The greatest improvements were observed in pharmaceutical and radiological waste management (3.6.10), CSSD staffing (3.1.2), and patient record keeping (1.5.2.2), all of which improved by 100%. These reflect strengthened infection prevention, documentation, and sterilization practices—essential for patient safety and hospital efficiency. Orthopedic surgery services (2.8.3.3) also improved by 83%, marking a positive development in surgical readiness and emergency response capacity.

However, there were significant declines in key service delivery areas. The most concerning decreases were seen in Maintain hospital triage in emergency (2.3.6.1) and Medicine and supplies availability in surgical ward (Inpatient) (2.6.3.2), both dropping by 100%, followed by Fulfillment of Medical superintendent as per organogram (1.1.3), Staffing in ER (2.3.2.1), and pharmacy service available 24/7 (2.5.5), each with a 50% decline. These losses highlight persistent staffing shortages, responsibility on governance, and emergency care limitations.

To address these issues, targeted support should be prioritized for strengthening hospital management positions, emergency response systems, and surgical and inpatient service readiness across Karnali's Secondary A hospitals.

Secondary B Hospitals

The only Secondary B hospital in Karnali is Provincial Hospital Surkhet (Karnali Provincial Hospital) which scored 85% during the last MSS assessment.

Figure 19. Karnali: Changes in Province Hospital, Karnali Province Item Scores from LFY (2081/82)

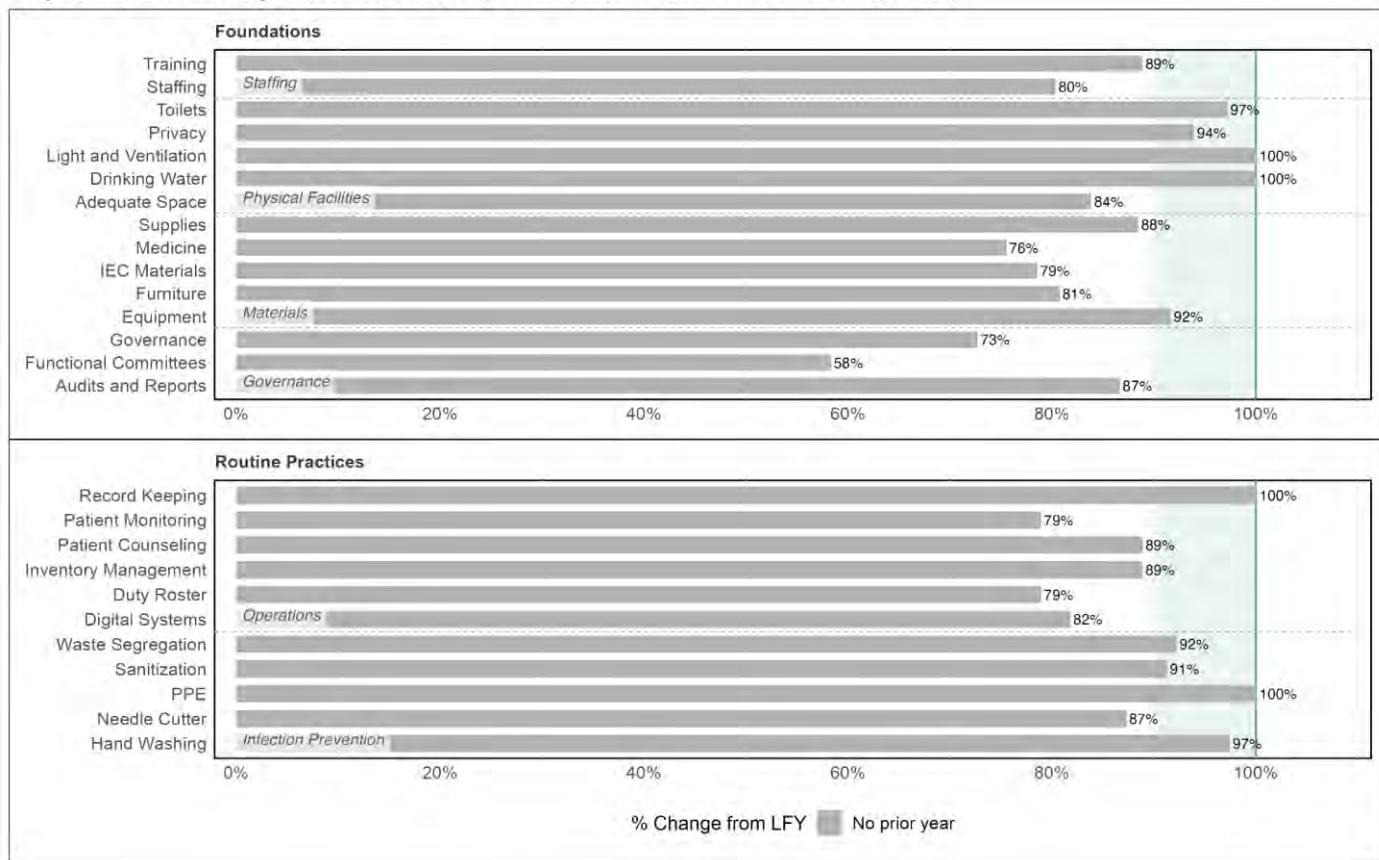


Figure 19f. Karnali: Changes in Provincial Hospital Surkhet (Karnali Provincial Hospital) Item Scores from LFY (2081/82) (n=1). Bars labeled with component average and % change from LFY. Color indicates the change in the MSS score for that item. The green area items >90%.

Province Hospital Surkhet has demonstrated significant improvement in the most recent MSS assessment (FY 2081/82). Although only one assessment was conducted in the last fiscal year, the hospital showed remarkable progress compared to previous scores, achieving an average of 85% across both Foundations and Routine Practices. Action points for Province Hospital Surkhet are:

- Patient Monitoring and Duty Roster each scored 79%, indicating the need for strengthened monitoring systems and arranging staff duty schedules.
- Digital Systems scored 82%, highlighting the importance of promptly implementing systems such as e-attendance and electronic health records (EHR) to enhance efficiency and transparency.
- The Functionality of committees scored 58%, requiring immediate orientation and capacity building to clarify roles, responsibilities, and accountability mechanisms. Governance, at 73%, also requires reinforcement to ensure effective oversight.
- Continuous availability of medical supplies, furniture, and medicines remains essential to maintaining service quality and readiness.

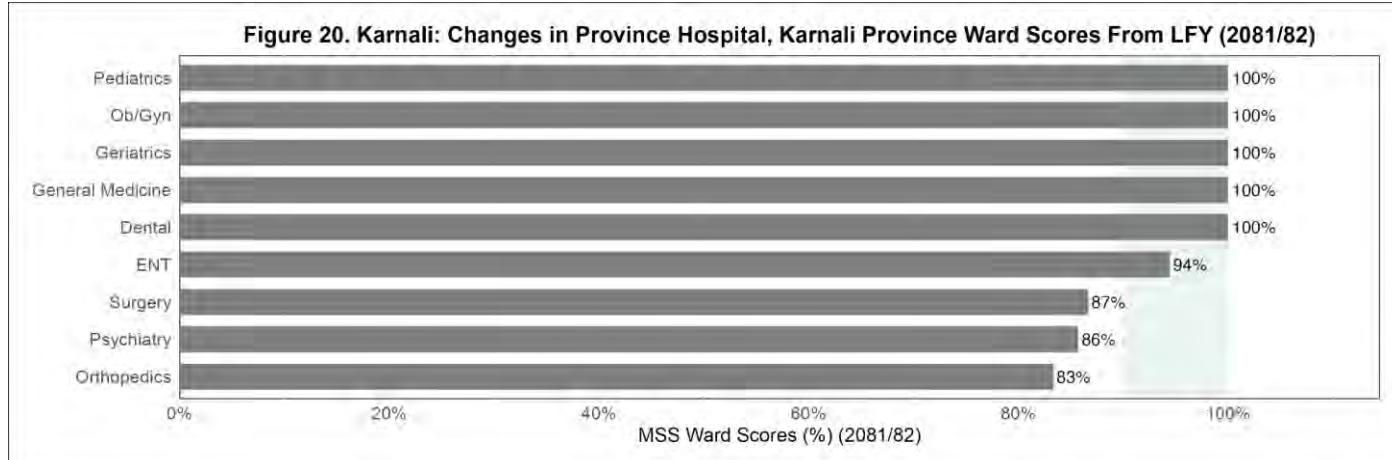


Figure 20f. Karnali: Change in Provincial Hospital Surkhet (Karnali Provincial Hospital) Ward Scores from LFY (2081/82) (n=1). Bars labeled with component average and % change from LFY. Color indicates the change in the ward MSS score. Labels show the current % MSS ward score and % change from LFY. The green area shows Wards >90%.

Provincial Hospital Surkhet serves as the only referral center for the people of Karnali Province and continues to provide high-quality healthcare services. The Pediatric, Obstetrics/Gynecology, Geriatric, General Medicine, and Dental wards are performing exceptionally well, each achieving a 100% score. Similarly, the ENT ward scored 94%, reflecting strong service delivery in this department. However, the Orthopedic, Psychiatric, and Surgery wards require further improvement to strengthen the quality of care and overall performance. Since only one MSS assessment has been conducted, comparative analysis of progress between years is not yet possible. When compared to national data, Provincial Hospital Surkhet ranks third among all Secondary B hospitals, demonstrating its strong overall performance and growing capacity as a key referral institution in the province.

Annex 2A. Summary of Indicator Scores by Province and Primary Hospital, indexed by Tables (2081/82 FY) (n=62)

Annex 2B. Summary of Secondary A Indicator Scores by Province, indexed by Tables (FY 81/82) (n=39)

Annex 3C. Summary of Indicator Scores by Province and Secondary B Hospital, indexed by Tables (n=11)

Table	Indicator Code	Area	Standard	Max Score	Koshi		Madhesh		Bagmati						Lumbini		Karnali		Sudur. P.	
					Provincial Hospital Bhadrapur	Provincial Hospital Janakpur	Bukalhar Ratnanagar Hospital	Bhaktapur Hospital	Dhading Hospital	Hetauda Hospital, Hetauda	Sindhuli Hospital	Trishuli Hospital	Lumbini Provincial Hospital	Province Hospital, Karnali Province	Seti Provincial Hospital					
4c - Basic	2.1.1.3	OPD Service	EHS services from 3PM onwards	1	0	0	0	1	1	1	1	1	1	1	0	1				
4c - Basic	2.11.1.2.1	Blood bank	Blood bank is open / facility	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	0	
4c - Basic	2.11.3.1	Ultrasoundography (USG)	(USG is open from 10 AM to 7pm)	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
4c - Basic	3.11.1.1	Social Service Unit	SSU open from 8am to 7pm	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	
4c - Basic	2.1.1.1	OPD Service	OPD is open from 10 AM to 7pm	3	1	0.7	1	1	1	1	1	1	1	1	1	1	1	1	1	
4c - Basic	3.8.1.1	Transportation and 24-hour ambulance service		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
4c - Basic	2.11.2.1.2	X-Ray Service	Emergency x-ray service is available	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
4c - Basic	2.2.1.1	Immunization and growth monitoring		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
4c - Basic	2.2.2.1	Family Planning Clinic	Family planning service is available	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
4c - Basic	2.2.3.1	ATT, ART clinic	Clinic is open from 10 AM to 7pm	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
4c - Basic	2.2.4.1	Safe Abortion Service	Safe abortion services is available	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
4c - Basic	2.11.1.1.1.1	Laboratory	Laboratory is open from 10 AM to 7pm	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
4c - Basic	2.3.1	Emergency Services	Emergency room/ward is open	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
4c - Basic	2.5.5	Pharmacy Service	The pharmacy is open 24x7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
4c - Surgical	2.8.3.4	Surgery/ Operation	ENT surgeries available (Anesthesia)	3	1	1	0.7	1	0	0.3	0	0	0	1	1	1	1	1	1	
4c - Surgical	2.8.3.1	Surgery/ Operation	General Surgeries (See Annex)	3	1	1	1	1	1	0.7	1	0.7	1	0.7	1	1	1	1	1	
4c - Surgical	2.8.3.2	Surgery/ Operation	Obstetrics and Gynecology	3	1	1	0	1	1	1	1	1	0.7	0.7	1	1	1	1	1	
4c - Surgical	2.8.1.1.1	Surgery/ Operation	Routine minor and intermediate	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	
4c - Surgical	2.8.1.1.2	Surgery/ Operation	Routine major surgeries available	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	
4c - Surgical	2.8.3.3	Surgery/ Operation	Orthopedic Surgeries (See Annex)	3	1	1	0.7	1	1	1	1	1	1	1	1	1	1	1	1	
4c - Surgical	2.8.1.2	Surgery/ Operation	Emergency surgeries available	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
4c - Specialty	2.16.1.2	Cardiac Catheterization	Emergency procedures available	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4c - Specialty	2.11.6.1	Treadmill (TMT)	Treadmill (TMT) service is available	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	
4c - Specialty	2.11.8.1	Audiometry	Audiometry service is available	1	0	0	0	1	0	0	0	0	0	0	1	1	1	1	1	
4c - Specialty	2.11.5.1.1	Echocardiogram	Echo service is available from	1	0	0	1	1	0	0	0	0	1	1	1	1	1	1	1	
4c - Specialty	2.15.2.1	Dietetics and Nutrition	Dietetics and Nutrition rehab	1	1	1	0	1	1	0	0	0	0	0	1	1	1	1	1	
4c - Specialty	2.11.9.1.2	CT Scan	Emergency CT Scan service	1	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	
4c - Specialty	2.14.2.1	Physiotherapy	Physiotherapy OPD is open	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	
4c - Specialty	2.9.1.2	Hemodialysis Service	Emergency hemodialysis is available	1	1	1	1	0	0	1	1	1	0	1	1	1	1	1	1	
4c - Specialty	2.9.1.1	Hemodialysis Service	Hemodialysis service is available	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
4c - Specialty	2.11.7.4	Endoscopy	Counseling is provided to patients	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	
4c - ICU	2.10.3.1.1	Pediatric Intensive Care	PICU service is available for children	1	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0	
4c - ICU	2.10.2.1.1	Neonatal Intensive Care	NICU service is available for babies	1	0	1	1	1	1	0	0	0	0	1	1	1	1	1	1	
4c - ICU	2.10.1.1.1	Intensive Care	Ser ICU service is available for patients	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
4c - Other	3.10.1	Hospital Canteen	A hospital has canteen in its premises	1	0	0	0	1	1	1	1	1	0	1	1	1	1	1	1	
4c - Other	2.12.1.5	Postmortem	Mortuary van is available 24x7	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	
4c - Other	2.13.3.2	One Stop Crisis	Medical Treatment for GBV survivor	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	
4c - Other	2.13.8.1	One Stop Crisis	Mental health and psychosocial services	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	
4c - Other	3.11.1.1	Social Service Unit	SSU open from 8am to 7pm	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	
4c - Other	3.8.1.1	Transportation and 24-hour ambulance service		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
4c - Other	2.12.2.2.1	Medico-Legal Services	Medico-Legal legal services are available	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
5c	2.16.7.2	Cardiac Catheterization	General equipment, instruments	3	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	
5c	2.10.3.2.7	Pediatric Intensive Care	PICU must have air conditioning	1	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0	
5c	2.11.6.4.3	Treadmill (TMT)	Synchronized Defibrillator is available	1	0	1	0	0	1	0	0	0	0	0	0	0	1	1	0	
5c	2.6.8.3	Inpatient Service	At least one defibrillator in inpatient	3	0	0	0	1	0	0	0	0	0	0.3	0.7	1	0	0	0	
5c	2.7.3.9.3	Birth Center	Ser Birth Center is available	1	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0	
5c	2.11.6.4.1	Treadmill (TMT)	Functional TMT machine is available	1	0	1	0	0	1	0	0	0	0	0	1	1	1	0	0	
5c	2.11.8.4	Audiometry	Functional Audiometer with	1	0	0	0	1	0	0	0	0	0	0	1	1	1	1	1	
7c	2.7.2.4.1	Delivery Service	Adequate numbers of nurses	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	
7c	2.7.3.6.1	Birth Center	Ser Birth Center is available	1	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	
7c	2.11.8.2	Audiometry	ENT specialist is available	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	
7c	2.15.3	Dietetics and Nutrition	1 Senior dietitian (Masters in Dietetics)	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	
7c	2.10.3.3	Pediatric Intensive Care	PICU has staffing as per an	3	0	0	0	1	0	0	0	0	0	0.3	1	1	0	0	0	

8c	2.10.3.6.1	Pediatric Intensive PICU must practice given p	1	0	0	0	1	0	0	0	0	0	0
8c	2.7.3.6.4	Birthing Center Ser All staffs- nursing, medical p	1	0	0	0	1	0	0	0	0	1	1
8c	2.15.8.2	Dietetics and Nutri Trained staffs assigned for	1	1	1	0	0	0	0	0	0	1	0
8c	2.7.3.9.1	Birthing Center Ser All staffs in wards are traine	1	0	0	0	1	1	0	0	0	1	1