

National Facilitation Guide for Intrapartum Care Program Implementation

2081



Ministry of Health and Population
Department of Health Services
Family Welfare Division
Teku, Kathmandu

Message

The Constitution of Nepal 2072 has envisioned every Nepalese citizen has the right to be healthy and every woman has the right to safe maternity and reproductive health. In line with this, the Government of Nepal is committed to providing reproductive health services for women through Safe Maternal and Reproductive Health Rights Act, 2075 and the Public Health Act 2075, both of which were endorsed for the implementation of the fundamental rights granted by the constitution. This provides legal basis for developing this National Facilitation Guide for Intrapartum Care Program Implementation in order to provide quality intrapartum care for women and newborn.

Safe-motherhood program is one of the priority programs of Government of Nepal and it is well reflected in its policies and plans. The National facilitation guide on Intrapartum Care Services prepared by the Ministry of Health and Population, Department of Health Services, Division of Family Welfare can be considered as an important step for achieving the sustainable development goal of reducing maternal and newborn mortality and morbidity as well as reducing stillbirths aligning with direction provided by the Safe Motherhood and Newborn Child Roadmap 2030 and Nepal Every Newborn Action Plan Implementation Plan 2030.

I am confident that the implementation of this guideline will receive the full support of relevant divisions, centres, provincial ministries, local governments, and agencies under them as well as hospitals and other health institutions, non-governmental organizations and partner organizations.

I would like to thank from the bottom of my heart the Family Welfare Division, who led the work of preparing this guide, the technical working committee, provincial teams, experts and partner organizations who assisted in this work.

Dr. Bikash Devkota,
Director General,
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Acknowledgment

Over the couple of decades Nepal has made significant progress in maternal and newborn health. Nepal has one of the progressive policy environments in South-Asia. The Safe-motherhood and Reproductive Health Rights Act 2075, has endorsed the implementation of fundamental rights of women for health in accordance the Constitution of Nepal. The SDG target aims to reduce maternal mortality ratio from 151/100000 live births in 2021 to 70/100000 live births and newborn mortality rate from 21 in 2022 to 12 per thousand live births by 2030.

In order to achieve these targets, improving quality of the maternal and newborn services is of highest importance as increasing access only will not be adequate. In recent years, FWD has developed key documents such as National Medical Standards for Maternal and Newborn Care (NMS Vol III), RH Clinical Protocols as well as National Guidelines for ANC and PNC Continuum of Care. Considering, many maternal and perinatal deaths occur around labour and childbirth, effective coverage of quality of intrapartum care must be prioritized.

In this regard, in order to improve overall health and wellbeing of women and newborn with focus on intrapartum care, Family Welfare Division/DoHS has prepared this National Facilitation Guide for Intrapartum Care Program Implementation. I expect this will help improve quality of labour and childbirth along with women's positive experience of childbirth.

I expect all the support from federal, provincial, and local government agencies and partners for the implementation of this guidelines and I would like to request for the support.

Finally, I would like to thank all the agencies such as NHTC, Provincial Health Directorate and Training Centres, hospitals as well as professional societies and academic institutions and individual who contributed to developing this guideline. I would like to express my gratitude to WHO Nepal for providing technical and financial support for development of this guidelines. Finally, I would like to appreciate dedication and efforts of Dr Gauri Pradhan and her team of MNH Section, FWD for leading and guiding the process for this guideline development.

Dr. Bibek Kumar Lal,

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Preface

Nepal has made significant progress in maternal and newborn health, both in policy environment and service delivery fronts, over the past couple of decades. This has been demonstrated by significant reduction in maternal and newborn mortality. But unless we put more efforts, it will be not possible to achieve SDG targets Nepal has set.

In recent years, several efforts such as Nepal Medical Standards for Maternal and Newborn Care, Reproductive Health Protocols, SHP and SBA Strategy as well as ANC and PNC Guidelines have made and being implemented in order to provide evidence-based quality of MNH care to women and newborn. As it is important to provide ANC to PNC continuum of care but ANC and PNC Guidelines particularly do not cover Intrapartum Care.

In 2018, WHO published recommendations for Intrapartum Care which has several new recommendations. Nepal is already implementing several of these recommendations but there are some recommendations which needs to be initiated such as the use of Labour Care Guide instead of exiting partograph for monitoring labour.

In order to implement this, the National Facilitation Guide for Intrapartum Care Program Implementation has been developed. This document aims to improve the quality, safety, and effectiveness of maternal and newborn care during labour and childbirth to ultimately improve health outcome for women and their babes. The guide details out IPC recommendations as well as Labour Care Guide which would replace existing partograph. These recommendations have been adapted in Nepal context so that it would suit our ground realities to provide optimum care to women and newborn. The adaptation in Nepal context resulted extensive review and consultation process engaging various MNH health professional from public hospitals and academic institutions, provincial health offices as well as professional societies.

The guide is largely divided into three sections. The Section I covers background, legal and policy provisions, objectives and target audience. The Section II includes recommendation for intrapartum care and use of labour care guide. The Section III details out implementation of the IPC including labour care guide and various action points, organizational structure and monitoring and evaluation.

Finally, I would like to thank all the organizations and individual for providing valuable input for developing this guideline and also expect support in implementation of the guidelines across all the tiers of health institutions.

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Abbreviation

ANC	Ante-natal Care
BC	Birthing Centre
BHCC	Basic Health Care Centre
DoHS	Department of Health Services
FWD	Family Welfare Division
Ob/Gyn	Obstetrician and Gynecologist
HP	Health Post
IPC	Intrapartum Care
ICT	Information and Communication Technology
LCG	Labour Care Guide
MDGP	MD in General Practice
MD	Management Division
MMR	Maternal Mortality Ratio
MNH	Maternal and Newborn Health
MoHP	Ministry of Health and Population
MoSD	Ministry of Social Development
MSS	Minimum Service Standards
NHTC	National Health Training Centre
NGO	Non-governmental Organization
NMR	Neonatal Mortality Rate
PDSA	Plan-Do-Study/Learn-Act
PHCC	Primary Health Care Center
PHD	Provincial Health Directorate
PHTC	Provincial Health Training Center
PNC	Post-natal Care
PoCQI	Point of Care Quality Improvement
QI	Quality Improvement
QoC	Quality of Care
RHCC	Reproductive Health Coordination Committee
RMNC	Respectful Maternal and Newborn Care
SBA	Skilled Birth Attendant
SDGs	Sustainable Development Goals
SHP	Skilled Health Personnel
SMNH	Safe Motherhood and Newborn Health
SN	Staff Nurse
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WHO	World Health Organization

National Facilitation Guide for Intrapartum Care Program Implementation

SECTION ONE: BACKGROUND AND OBJECTIVES

1. Chapter 1: Background and Rationale

Maternal and Newborn Health (MNH) is one of the priority programs of the Government of Nepal (GoN). In recent decades, Nepal has made a significant progress and improved the coverage of MNH services. Institutional delivery has increased from 8.2% in 1996 to 79.4% in 2022 (NDHS 2022). With this, Nepal has made a significant improvement in reducing maternal mortality from 538 per 100,000 live births in 1996 to 151 in 2021. Similarly, newborn mortality has decreased from 50 to 21 / 1000 live births from 1996 to 2022.

For countries with MMR less than 420 in 2010 (all South-East Asia countries including Nepal) – the SDG target is to reduce the MMR by at least two thirds from the 2010 baseline by 2030 and no country should have more than 140 deaths per 100,000 livebirths by 2030. According to the UNMMEIG, Nepal’s MMR for 2010 was 349/100,000 live births. Reduction of MMR by two thirds would be to reach at least 116/100,000 live births by 2030. The GoN has determined the Sustainable Development Goals (SDG) to reduce the maternal mortality to 70 per 100000 live births and neonatal mortality to 12 per 1000 live births by 2030. It would take significant efforts to reduce maternal mortality from 151 in 2021 to 70 by 2030. The neonatal mortality has stagnated at 21/1000 live births since 2016, far short of the 2025 milestones of 14/1000 live births.

There are concerns regarding the lack of expected decline in maternal and newborn mortality despite high coverage of deliveries in institutions.

Table 1: SDG Targets¹

Indicators	2019	2022	2025	2030
Maternal Mortality Ratio/10000 live births	125	116	99	70
Neonatal mortality Rate/1000 live births	18	16	14	12
Institutional Delivery	70	74.35	80.88	90
Proportion of birth attended by SBA (SHP)	69	73	79	90

Recently, a new definition of Skilled Health Personnel (SHP) for providing care during childbirth has been put forth by the international community; and a coverage of 90 percent of births by these cadres has been recommended². Global Strategy for Women’s, Children’s and Adolescents’ Health (2016–2030)³, emphasizes the action to ‘equip the

health workforce everywhere to provide good-quality, non-discriminatory care including facility-based childbirth with a skilled birth attendant’. Similarly, the global Strategies towards Ending Preventable Maternal Mortality (EPMM 2015–2030)⁴, emphasizes in providing support and resources to deploy skilled maternity care providers with renewed focus⁵ for target ‘birth attended by skilled health personnel’.

The maternal mortality study⁶ has shown that majority of direct maternal deaths are due to obstetric hemorrhage

¹ Nepal’s Sustainable Development Goals, Status and Roadmap: 2016-2030, Government of Nepal, National Planning Commission Singha Durbar, Kathmandu Nepal

²Defining competent maternal and newborn health professionals. Geneva: World Health Organization; 2018. Licence: CC BY-NC-SA 3.0 IGO.

³ The Global Strategy for Women’s, Children’s and Adolescent Health (2016-2030, Survive, Thrive, Transform, SDG Goals, Every Women Every Child 2015, www.everywomaneverychild.org G

⁴ Strategies toward ending preventable maternal mortality (EPMM). WHO 2015

⁵ Ending preventable maternal mortality (EPMM): a renewed focus for improving maternal and newborn health and well-being, WHO UNFPA

⁶ MoHP, NSO. (2022). National Population and Housing Census 2021: Nepal Maternal Mortality Study 2021, Kathmandu: Ministry of Health and Population; National Statistics Office.

(26%) and hypertensive disorders in pregnancy, childbirth and the puerperium (12%) which can be prevented with timely identification, referral and complication management.

The Lancet Commission⁷ in 2016 reported that 8.6 million excess deaths were amenable to health care of which 5.0 million were estimated to be due to receipt of poor-quality care and 3.6 million due to non-utilisation of health care services. In addition, **Lancet Commission, HQSS Sept 2018** mentioned that 3/4th of the interventions to improve quality of care targets the micro level (health facilities, health workers and community) which are very difficult to sustain and results in “clashing of the interventions” at the point of service delivery. In addition, it also pointed out that sustainable quality improvement needs broader reforms/ interventions at the Meso (districts/ province) and Macro (national) level.

All these indicate that unless there is an improvement in the quality of MNH services at health facilities including early identification of life-threatening conditions and referrals, it would be difficult to reduce maternal and newborn deaths further.

More than one third of maternal deaths, half of stillbirths and a quarter of neonatal deaths result from complications during labour and childbirth⁸. The majority of these deaths occur in low-resource settings and are largely preventable through timely interventions. Monitoring of labour and childbirth, and early identification and treatment of complications are critical for preventing adverse birth outcomes. The Lancet⁹ series (2016) mentions that ‘care during labour and birth: by 2030, effective respectful intrapartum care should be given to all women in all countries, including high quality intrapartum monitoring; timely and appropriate obstetric interventions, including caesarean section; and adequate, context-appropriate clinical and respectful management of stillbirths. Improving the quality of care around the time of birth has been identified as the most impactful strategy for reducing stillbirths and maternal and newborn deaths, compared with antenatal or postnatal care strategies. In February 2018, the World Health Organization (WHO) published a consolidated set of recommendations on intrapartum care for a positive childbirth experience. Though Nepal has initiated the transition of skilled birth attendants to SHP¹⁰, as per the WHO recommendations, and already has many recommended actions during labour and childbirth, several new recommendations regarding labour care guide are yet to be included. The new SHP/SBA training package and Midwifery Education is expected to train or educate providers on these new recommendations, but it would take years before we train providers or produce adequate numbers of midwives to cover all the delivery sites across the country. In addition, the previously trained SBA providers also urgently need capacity enhancement to provide services based on these recommendations.

Process of guidelines development

The meeting conducted by FWD with stakeholders in 2023 led to the decision to use the Labour Care Guide (LCG) by replacing the existing partograph. But it took time to decide regarding developing a separate Intrapartum Care Guidelines including the labour care guide.

The formal approval process was completed in the first quarter of 2024 after the conceptualization, followed by the desk review and preparatory work. The FWD, with support from WHO, had organized a one-day Preparatory Workshop (Jun 10, 2024) to review the IPC recommendations and LCG (WHO 2018) and draft outline of the IPC implementation guideline. The workshop had representatives from NHTC, NESOG, MIDSON, UNICEF, UNFPA, GoN and private hospitals.

Following the formal approval process, the FWD with support from WHO, organized a two-day Consultative

⁷ Lancet, 2016 (<http://dx.doi.org/10.1016/>)

⁸ WHO labour care guide: user's manual. Geneva: World Health Organization;2020. Licence: CC BY-NC-SA 3.0 IGO.

⁹ [Stillbirths: ending preventable deaths by 2030 \(thelancet.com\)](https://www.thelancet.com)

¹⁰Defining competent maternal and newborn health professionals. Geneva: World Health Organization; 2018. Licence: CC BY-NC-SA 3.0 IGO.

Workshop (Jun 18-19, 2024) for in-depth review of IPC recommendations and LCG in Nepalese context as well as discuss about barriers and challenges of implementing IPC recommendations including LCG and possible solutions. Representatives from NHTC, Trainers from SBA training sites, NESOG, UNICEF, UNFPA, GoN and private hospitals had participated this workshop.

After revisions based on the feedback from Consultative Workshop FWD organized a two-day Finalization Workshop (Jul 4-5, 2024) to collect feedback in draft IPC/LCG implementation Guidelines. Representatives from NHTC, NESOG, MIDSON, WHO, UNICEF, UNFPA, MNH managers from Provincial Health Directorates, as well as public, private hospitals and academia had participated in the workshop.

Following the Finalization workshop, revisions were made in the document and discussed in finalization meeting (Jul 10, 2024) which was led by FWD and represented by NHTC, NESOG, MIDSON, WHO, UNICEF, and NHEICC. This meeting guided the preparation of the final draft of the guidelines.

Adaptation made on IPC LCG recommendations for Nepal

Most of the WHO recommendations for intrapartum care including labour care guide are adapted with some changes listed below:

1. FHR auscultation by pinard fetal stethoscope included.
2. If FHR is <110 or ≥ 160 , early referral from peripheral birthing centers and health facilities not having complication management team.
3. Blood pressure measure during labour in sitting posture or left lateral posture can be adapted.
4. SBP Alert: <80 , ≥ 140 , if SBP <80 or ≥ 140 alert a senior provider and follow SBA/SHP protocol.
5. If IV fluid is given during labour, the amount should be noted.
6. Epidural analgesia to be provided only at the facilities with trained service provider for epidural analgesia with ASBA/MDGP/Ob/Gyn.
7. Duration of first stage of labor should not exceed 10 hours in multi and 12 hours in Primi gravida and duration of second stage of labour; as in WHO labour care guide should be 3 hours for Primi and 2 hours for multi gravida. However early referral is recommended in case of suspected obstetric emergencies from peripheral birthing sites with limited facilities.
8. Early referral recommended from peripheral birthing centers with limited access and facilities to manage obstetric complications.
9. Option for mindful exercise during labour/companionship/delivery in alternate position should be gradual after structured orientation of providers or if trained providers are available in sufficient number.
10. In the Section 1 of LCG; Hospital name and patient ID no. added.
11. Section 8 in LCG added to include maternal and newborn conditions immediately after delivery, blood loss, placenta and birth outcome.
12. Monitoring of mother during first 2 hours of postpartum period; every 15-30 mins minutes. If condition is normal, monitor every 4 hours thereafter for 24 hours.

2. Chapter 2: Legal and policy provisions related to maternal and newborn health

The Constitutions of Nepal has established health as a fundamental right and under Rights to women it mentions that 'Ever woman shall have the rights to safe motherhood and reproductive health'. To ensure the safe motherhood and reproductive health rights of women guaranteed by the Constitution of Nepal, the Right to Safe Motherhood and Reproductive Health Act 2075, and the Public Health Service Act 2075, have been issued.

The Right to Safe Motherhood and Reproductive Health Act (2018) and Regulations (2020) respects, preserves, and commits to fulfil the rights of women to safe motherhood and reproductive health services and to ensure the safety, quality, and accessibility of services to guarantee the reproductive right of every woman. It also mandates the provincial and local governments to allocate funds for reproductive health services.

The **Public Health Act (2018) and Regulations (2020)**, focuses on integrated service provision for reproductive, child and maternal health, with emphasis on quality of care and strengthening of referral mechanisms. The regulations to implement the law are being drafted, which is expected to further streamline the coordination mechanisms and accountabilities of various levels of the government in the federal context.

National Health Policy (2019) recommends one skilled birth attendant per ward of each municipality. The operational guidelines for the Basic Health Service Package recommends birthing centres only at those health posts that have a catchment population of 7,000 or above.

The Safe Motherhood and Newborn Health Roadmap 2030, recommends that all women give birth at Basic Emergency Obstetric and Newborn Care (BEONC) site or a Comprehensive Emergency Obstetric and Newborn Care (CEONC) site that is within 2 hours walking distance, and recommends strategic birthing centre for women who are not able to access the CEONC/BEONC site easily. Further, in the sparsely populated areas of the mountain and hills, the new birthing centres are set-up strategically, based on the local contextual realities.

Strategy for SHP and SBA 2020-2025

This strategy mentions in its general objective, to ensure that the SHP/SBAs have the appropriate clinical skills, comply with the national standards and protocols, and provide evidence-based quality of care. They engage with women in a non-discriminatory and respectful manner so that the women have a positive pregnancy and childbirth experience. Regarding training, the proposed modular training has Respectful maternity and newborn care (RMNC), right based continuum of care (in Module 1); Obstetric first aid (in Module 2), Physiology of birth and early identification of complications and referral (in Module 3) and Identification of danger signs, management of complications and referral of mother and newborn (in Module 4). The Module 5 is about Caesarean section as Advance SBA and the Module 6 is a combination in skills (Module 1-4) particularly for remote areas.

Though the strategy has mentioned partograph (in Module 3), it does not specifically mention about use of labour care guide. The strategy has WHO 'Joint Statement on definition of skilled health personnel and their competencies'¹¹ in its annex which mentions about facilitating physiological processes during labour and delivery to ensure a clean and positive childbirth experiences. In addition, the FWD has made a decision on partograph to be replaced by Labour Care Guide and SHP and SBA Learning Resource Package (LRP) has include Labour Care Guide.

ANC and PNC continuum of care Guidelines, 2079¹² (2022/23)

ANC and PNC Guidelines describes care to be provided during ANC and PNC along with information on continuum of care. The guidelines has replaced the previous four focused ANC (FANC) with 8 ANC contacts / check-up and three PNC to 4 PNC visits based on WHO recommendations. But the guidelines does not include intrapartum care which is an important aspect of ANC to PNC continuum of care.

¹¹ Defining competent maternal and newborn health professionals. Geneva: World Health Organization; 2018. Licence: CC BY-NC-SA 3.0 IGO.

¹² गर्भवती सेवा तथा सुत्केरी सेवा निरन्तरता सम्बन्धी सहजीकरण सामग्री, परिवार कल्याण महाशाखा, स्वास्थ्य सेवा विभाग, टेकु, २०७९

3. Chapter 3: Objectives and target audience

3.1. Objectives

The overall aim of this guidelines is to improve the quality, safety, and effectiveness of maternal and newborn care during labour and childbirth, and ultimately improve health outcomes for women and their babies.

This document will facilitate the effective implementation of the WHO recommendations (2018) on intrapartum care (see Chapter 4) to:

1. Improve the quality of maternal and newborn care by promoting the use of evidence-based interventions and best practices. This includes ensuring that women receive appropriate care during labour and childbirth, such as monitoring vital signs, providing pain relief, and using appropriate interventions to manage labour, it's complications and effective referral.
2. Promote the rights and preferences of women and their families during labour and childbirth. This involves respecting women's choices and preferences for care, providing clear and accurate information about their care options, and ensuring that the decision-making process is shared with women and her family member throughout the labour and childbirth process.
3. Improve the overall experience of care for women and their families during labour and childbirth. This includes promoting respectful and compassionate care, addressing cultural and social norms that may impact care, and providing emotional support and counselling as needed.

The LCG represents a change in mindset for care during labour and childbirth rather than only a different format of the previously used partograph. The LCG is a person-centered clinical decision-making support tool to help healthcare providers for early identification of clinical conditions that may challenge the safety of both mother and baby and jointly establish a shared decision-making plan with the mother irrespective to level of health facility (basic, secondary or tertiary). Importantly, the tool reminds busy frontline health professionals caring for women and babies during labour, to optimize conditions for a positive childbirth experience.

3.2. Target Audience

The implementation guidelines for IPC LCG can be used in a wide range of settings such as service provision from health facilities, program management as well as teaching and learning process. The target audience are a range of country stakeholders responsible for enabling high quality management of labour and childbirth in public and private sectors. This includes not only service providers but also policy makers, managers as well as other stakeholders.

- National, provincial and local level maternal and newborn policy makers, managers and implementors
- Maternal and newborn health service providers including
 - Skilled Health Personnel: Ob/Gyn, MDGP, Paediatrician, Advanced SBA (MBBS), Midwife, Nurses and
 - Skilled Birth Attendant: Auxiliary Nurse Midwife
- Public/private hospitals and institutions providing MNH services
- Professional organizations and experts related to maternal and newborn health area
- National, international organization and partners working in maternal and newborn health areas
- Health professional and organization working in planning, management, training/orientation on maternal and newborn health
- Faculty members of academic institutions and health professional or institutions engaged in pre-service education and research related to maternal and newborn

Definition of SHP and SBA, as per the National Strategy for Skilled Health Personnel and Skilled Birth Attendants, 2020-2025 are as follows:

Skilled Health Personnel (SHP): For the purpose of this strategy, a nurse with PCL Nursing or higher degree, and doctor with MBBS or higher degree that have successfully completed Module 1-4 of the SHP/SBA in-service training provided by NHTC.

Skilled Birth Attendants (SBA): ANM who has successfully completed Module 1-3 of SHP/SBA training provided by NHTC.

SECTION TWO: INTRAPARTUM CARE FOR POSITIVE CHILDBIRTH EXPERIENCE AND LABOUR CARE GUIDE

4. Chapter 4: WHO recommendations on Intrapartum Care for a positive Childbirth experience.

4.1. Guiding principles for intrapartum care

- Labour and childbirth should be individualized and woman-centered
- No intervention should be implemented without a clear medical indication
- Only interventions that serve an immediate purpose and have been proven to be beneficial should be promoted
- A clear objective that a positive childbirth experience for the woman, the newborn, and her family should be at the forefront of labour and childbirth care at all times

This guideline includes 56 evidence-based recommendations on intrapartum care – 26 new recommendations and 30 existing recommendations included in the WHO recommendations on Intrapartum care for positive childbirth experience 2018.

Summary list of recommendations on intrapartum care for a positive childbirth experience

The list of recommendations in the table are taken from the WHO recommendations. An additional column has been added to inform on the resources required for providing the services in Nepal.

Table 2 IPC Recommendations

Care Options	Recommendations	Category of Recommendations	Resource requirement
Care Throughout Labor and Birth			
Respectful Maternity Care (RMC)	1. Respectful maternity care – which refers to care organized for and provided to all women in a manner that maintains their dignity, privacy and confidentiality, ensures freedom from harm	Recommended	Staff: SHP/SBA Training/Orientation: Orientation to enable effective delivery of RMC services. Health facility team advocated to apply RMC practices. Supplies: Health education materials in the local languages of the communities.

Care Options	Recommendations	Category of Recommendations	Resource requirement
	and mistreatment, and enables informed choice and continuous support during labour and childbirth – is recommended.		<p>Infrastructure: Rooming-in to allow women and their babies to remain together.</p> <p>Clean, appropriately illuminated, well-ventilated labour, childbirth and neonatal areas that allow for privacy and are adequately equipped and maintained</p> <p>Continuous energy supply in the labour, childbirth and neonatal areas</p> <p>Clean and accessible bathrooms for use by women in labour</p> <p>Safe drinking water, and a hand hygiene station, with soap or alcohol-based hand rubs</p> <p>Curtains, screens, partitions and sufficient bed capacity</p> <p>Facilities for labour companions, including physical private space for the woman and her companion wherever possible.</p> <p>Essential medicines</p>
Effective Communication	2. Effective communication between maternity care providers and women in labour, using simple and culturally acceptable methods, is recommended.	Recommended	<p>Staff: SHP/SBA</p> <p>Supplies: Relevant Health education materials</p> <p>Supervision and monitoring: Regular supportive supervision and review by labour/facility incharge with positive support.</p> <p>Regular meetings to discuss and review communication approaches.</p>
Companionship during labour and childbirth	3. A companion of choice is recommended for all women throughout labour and childbirth.	Recommended	<p>Staff: SHP/SBA</p> <p>Training/Orientation: Orientation on instruction for companions.</p> <p>Supplies: Health education materials.</p> <p>Infrastructure: Basic accommodation facilities for companions, including a chair, space to change clothes, access to a toilet</p> <p>Supervision and monitoring: Regular supportive supervision and review by labour/facility incharge with positive support.</p> <p>Regular meetings to discuss and review.</p>
Continuity of Care.	4. Midwife-led continuity-of-care models, in which a known	Recommended	<p>Staff: SHP/SBA</p> <p>Training/Orientation: Orientation on national guidelines for continuum of care to provide ANC, IPC and PNC.</p>

Care Options	Recommendations	Category of Recommendations	Resource requirement
	midwife or small group of known midwives supports a woman throughout the antenatal, intrapartum and postnatal continuum, are recommended for pregnant women in settings with well functioning midwifery programmes.		
First Stage of Labour			
Definitions of the latent and active first stages of labour	<p>5. The use of the following definitions of the latent and active first stages of labour is recommended for practice.</p> <p>— The latent first stage is a period of time characterized by painful uterine contractions and variable changes of the cervix, including some degree of effacement and slower progression of dilatation up to 5 cm for first and subsequent labours.</p> <p>— The active first stage is a period of time characterized by regular painful uterine contractions, a substantial degree of cervical effacement and more rapid cervical dilatation from 5 cm until full dilatation for first and subsequent labours.</p>	Recommended	<p>Staff: SHP/SBA</p> <p>Training/Orientation: regular practice-based, in-service training on labor care guide.</p> <p>Supplies: Health education materials in local languages of the communities. Essential medicines, Basic and adequate equipment for management during first stage of labour.</p> <p>Infrastructure: Sufficient beds in the pre labour ward and labor ward to support women who are in labour with basic facilities.</p> <p>Supervision and monitoring: Ongoing supervision and monitoring with regular auditing and review of outcomes related to application of the new definition of the active phase</p>
Duration of the first stage of labour.	6. Women should be informed that a standard duration of the latent	Recommended	<p>Staff: SHP/SBA</p> <p>Training/Orientation: On IPC and LCG</p>

Care Options	Recommendations	Category of Recommendations	Resource requirement
	<p>first stage has not been established and can vary widely from one woman to another. However, the duration of active first stage (from 5 cm until full cervical dilatation) usually does not extend beyond 12 hours in first labours, and usually does not extend beyond 10 hours in subsequent labours.</p>		<p>Supplies: Updated training manuals and clinical protocols for health care providers and those in pre-service training. Educational materials for women on what comprise “normal” labour in terms of its duration and when birth should be expected. Revised paper LCG. Infrastructure: Sufficient beds in the labour ward to support women who labour for longer than the average for their population. Supervision and monitoring: Ongoing supervision and monitoring with regular audit and review of outcomes related to extending the upper limits to diagnose prolonged labour, when fetal and maternal conditions are reassuring</p>
<p>Progress of the first Stage of labour.</p>	<p>7. For pregnant women with spontaneous labour onset, the cervical dilatation rate threshold of 1 cm/hour during active first stage (as depicted by the partograph alert line) is inaccurate to identify women at risk of adverse birth outcomes and is therefore not recommended for this purpose.</p> <p>8. A minimum cervical dilatation rate of 1 cm/ hour throughout active first stage is unrealistically fast for some women and is therefore not recommended for identification of normal labour progression. A slower than 1-cm/hour cervical dilatation rate alone should not</p>	<p>Not Recommended</p> <p>Not Recommended</p>	

Care Options	Recommendations	Category of Recommendations	Resource requirement
	<p>be a routine indication for obstetric intervention.</p> <p>9. Labour may not naturally accelerate until a cervical dilatation threshold of 5 cm is reached. Therefore, the use of medical interventions to accelerate labour and birth (such as oxytocin augmentation or caesarean section) before this threshold is not recommended, provided fetal and maternal conditions are reassuring.</p>	Not Recommended	
Labour ward admission policy	10. For healthy pregnant women presenting in spontaneous labour, a policy of delaying labour ward admission until active first stage is recommended only in the context of rigorous research.	Research-context Recommendation	<p>Staff: SHP/SBA.</p> <p>Training/Orientation: Orientation/training to implement the LCG.</p> <p>Supplies: Few vaginal examinations (gloves). Fetoscope, Infection prevention supplies.</p> <p>Equipment: Armchairs and other supportive resources such as a radio, a television set,</p> <p>Infrastructure: Clean, comfortable waiting room for women and their companions, with space for women to walk around. Toilets and drinking water should be easily accessible.</p> <p>Supervision and monitoring Regular medical supervision Audit and review of babies born before arrival in the labour ward, and other key outcomes</p>
Clinical pelvimetry on admission	11. Routine clinical pelvimetry on admission in labour is not recommended for healthy pregnant women.	Not Recommended	
Routine assessment of fetal well-being on labour admission.	12. Routine cardiotocography (CTG) is not recommended for the assessment of fetal well-being on labour admission in	Not Recommended	

Care Options	Recommendations	Category of Recommendations	Resource requirement
	<p>healthy pregnant women presenting in spontaneous labour.</p> <p>13. Auscultation using a Doppler ultrasound device or Pinard fetal stethoscope is recommended for the assessment of fetal wellbeing on labour admission.</p>	Recommended	<p>Staff; SHP/SBA Training/orientation: CTG can be used in indicated cases like IUGR, decreased fetal movement, oligohydramnios etc. Practice-based training /orientation on when and how to apply and interpret the findings. Supplies: CTG, Doppler, Pinard fetal Stethoscope, ultrasound gel, thermal paper, tissue paper or small towel. Some CTG require replaceable batteries. Pinard: variable, depending on provider experience. Supervision and monitoring CTG: supervision is needed to accurately identify all the parameters of a non-reassuring CTG trace</p>
Perineal/pubic shaving	14. Routine perineal / pubic shaving prior to giving vaginal birth is not recommended.	Not Recommended	
Enema on admission	15. Administration of enema for reducing the use of labour augmentation is not recommended	Not Recommended	
Digital-vaginal examination	16. Digital vaginal examination at intervals of four hours is recommended for routine assessment of active first stage of labour in low-risk women.	Recommended	<p>Staff: SHP/SBA. Supplies: Gloves, Hand washing station, Infection Prevention supplies.</p>
Continuous cardiotocography during labour	17. Continuous cardiotocography is not recommended for assessment of fetal well-being in healthy pregnant women undergoing spontaneous labour.	Not Recommended	

Care Options	Recommendations	Category of Recommendations	Resource requirement
Intermittent fetal heart rate auscultation during labour.	18. Intermittent auscultation of the fetal heart rate with either a Doppler ultrasound device or Pinard fetal stethoscope is recommended for healthy pregnant women in labour.	Recommended	Staff: SHP/SBA Supplies: Doppler: fairly easy to use without additional training, Ultrasound gel; some require replaceable batteries (1.5V AA) Pinard fetal stethoscope.
Epidural analgesia for pain relief.	19. Epidural analgesia is recommended for healthy pregnant women requesting pain relief during labour, depending on a woman's preferences.	Recommended	Staff: An anesthetist or Ob/Gyn, MDGP with training in epidural insertion and management of complication. Supplies: Infusion solution, sterile pack (including gloves, gown, cap, mask, sterile drapes), epidural insertion kit, intravenous catheter, appropriate medicines for resuscitation, oxygen, drip stand, infusion pump, full resuscitation equipment Monitoring: Specialist supervision and close monitoring for early identification and management of complications associated with epidural.
Opioid analgesia for pain relief.	20. Parenteral opioids, such as fentanyl, diamorphine and pethidine, are recommended options for healthy pregnant women requesting pain relief during labour, depending on a woman's preferences.	Recommended	Staff: An anesthetist or Ob/Gyn, MDGP with training in opioid analgesia during labor and management of complication. Supplies: Opioid (e.g., pethidine), needle, syringe, intravenous catheter (optional) Anti-emetics for preventing or treating associated nausea/vomiting Naloxone for reversing respiratory depression, if necessary, Oxygen Equipment: Resuscitation equipment Time: An estimated 2–10 minutes to obtain, prepare and administer. Monitoring: Supervision of administration and monitoring for side-effects. Secure method of storing opioids and recording opioid use to avoid abuse
Relaxation techniques for pain management	21. Relaxation techniques, including progressive muscle relaxation,	Recommended	Staff: SHP/SBA Training in relaxation techniques (e.g., included in provider training, labour companion training)

Care Options	Recommendations	Category of Recommendations	Resource requirement
	breathing, music, mindfulness and other techniques, are recommended for healthy pregnant women requesting pain relief during labour, depending on a woman's preferences.		Time to perform: varies depending on the intervention. Some of these interventions can be performed by the woman herself.
Manual techniques for pain management	22. Manual techniques, such as massage or application of warm packs, are recommended for healthy pregnant women requesting pain relief during labour, depending on a woman's preferences.	Recommended	Staff: SHP/SBA Orientation: manual techniques of pain relief Time to perform: provided intermittently over the course of labour
Pain relief for preventing labour delay	23. Pain relief for preventing delay and reducing the use of augmentation in labour is not recommended	Not Recommended	
Oral fluid and food	24. For women at low risk, oral fluid and food intake during labour is recommended.	Recommended	Light food and drinks.
Maternal mobility and position.	25. Encouraging the adoption of mobility and an upright position during labour in women at low risk is recommended	Recommended	Infrastructure: Sufficient space for mobility. Close Monitoring.
Vaginal Cleansing	26. Routine vaginal cleansing with chlorhexidine during labour for the purpose of preventing infectious morbidities is not recommended.	Not Recommended	
Active management of labour	27. A package of care for active management of labour for prevention of delay in labour is not recommended	Not Recommended	
Routine amniotomy	28. The use of amniotomy alone for prevention of delay in labour is not recommended	Not Recommended	

Care Options	Recommendations	Category of Recommendations	Resource requirement
Early amniotomy and oxytocin	29. The use of early amniotomy with early oxytocin augmentation for prevention of delay in labour is not recommended	Not Recommended	
Oxytocin for woman with epidural anesthesia	30. The use of oxytocin for prevention of delay in labour in women receiving epidural analgesia is not recommended	Not Recommended	
Anti-spasmodic Agents	31. The use of antispasmodic agents for prevention of delay in labour is not recommended	Not Recommended	
Intravenous fluids for preventing labour delay	32. The use of intravenous fluids with the aim of shortening the duration of labour is not recommended	Not Recommended	
Second stage of labour			
Definition and duration of the second stage of labour	33. The use of the following definition and duration of the second stage of labour is recommended for practice. — The second stage is the period of time between full cervical dilatation and birth of the baby, during which the woman has an involuntary urge to bear down, as a result of expulsive uterine contractions. — Women should be informed that the duration of the second stage varies from one woman to another. In first labours, birth is usually completed within 3 hours whereas in subsequent labours, birth is usually completed within 2 hours.	Recommended	Staff: SHP/SBA Training/Orientation: training /orientation on IPC and use of LCG. Supplies: Updated training/Orientation materials and clinical protocols for health care providers Revised paper LCG. Infrastructure: Sufficient beds in the labour ward to support women whose second stage might be slower than the average for their population Monitoring: Ongoing supervision and monitoring with regular audit and review of outcomes related to extending the upper limits to diagnose prolonged second stage, when fetal and maternal conditions are reassuring.

Care Options	Recommendations	Category of Recommendations	Resource requirement
Birth position (for women without epidural analgesia)	34. For women without epidural analgesia, encouraging the adoption of a birth position of the individual woman's choice, including upright positions, is recommended.	Recommended	Staff: SHP/SBA Training/Orientation to support upright birth positions. Equipment: Bed: same as for recumbent positions Birthing cushion or other options to support upright birth (optional) Infrastructure: Birthing room with space to accommodate a birthing stool (optional) Monitoring: Good access to medical supervision; same as for recumbent birth positions
Birth position (for women with epidural analgesia)	35. For women with epidural analgesia, encouraging the adoption of a birth position of the individual woman's choice, including upright positions, is recommended	Recommended	Staff: An anesthetist or Ob/Gyn, MDGP with training in epidural insertion and management of complication.
Method of pushing	36. Women in the expulsive phase of the second stage of labour should be encouraged and supported to follow their own urge to push.	Recommended	Staff: SHP/SBA Infrastructure: sufficient labour bed and spacious labour room with cubical or screen in between.
Method of pushing (for women with epidural analgesia)	37. For women with epidural analgesia in the second stage of labour, delaying pushing for one to two hours after full dilatation or until the woman regains the sensory urge to bear down is recommended in the context where resources are available for longer stay in second stage and perinatal hypoxia can be adequately assessed and managed.	Context-specific Recommendation	Staff: Anesthetist, MDGP, Ob/Gyn.
Techniques for preventing perineal trauma	38. For women in the second stage of labour, techniques to reduce perineal trauma and facilitate spontaneous birth (including	Recommended	Staff: SHP/SBA Training /Orientation/Pre-service skill: on how to perform this perineal technique Supplies: Gloves: similar to usual care

Care Options	Recommendations	Category of Recommendations	Resource requirement
	perineal massage, warm compresses and a “hands on” guarding of the perineum) are recommended, based on a woman’s preferences and available options.		Lubricant, e.g., petroleum jelly Time: Performed during the second stage so time is the same as for usual care Supervision and monitoring: Same as for usual care
Episiotomy policy	39. Routine or liberal use of episiotomy is not recommended for women undergoing spontaneous vaginal birth.	Not Recommended	
Fundal pressure	40. Application of manual fundal pressure to facilitate childbirth during the second stage of labour is not recommended.	Not Recommended	
Third Stage of Labour			
Prophylactic Uterotonics.	41. The use of uterotonics for the prevention of postpartum haemorrhage (PPH) during the third stage of labour is recommended for all births.	Recommended	Staff: SHP, SBA Supplies: Continuous supply of uterotonics with maintenance of cold chain. Additional supplies of Inj Tranexamic acid and Tablet Misoprostol. Syringes, gloves
	42. Oxytocin (10 IU, IM/IV) is the recommended uterotonic drug for the prevention of postpartum haemorrhage (PPH).	Recommended	
	43. In settings where oxytocin is unavailable, the use of other injectable uterotonics (if appropriate, ergometrine/ methylergometrine, or the fixed drug combination of oxytocin and ergometrine) or oral misoprostol (600 µg) is recommended.	Recommended	

Care Options	Recommendations	Category of Recommendations	Resource requirement
Delayed umbilical cord clamping	44. Delayed umbilical cord clamping (not earlier than 1 minute after birth) is recommended for improved maternal and infant health and nutrition outcomes.	Recommended	Staff: SHP/ SBA Supplies: Cord clamp
Controlled cord traction (CCT)	45. In settings where skilled birth attendants are available, controlled cord traction (CCT) is recommended for vaginal births if the care provider and the parturient woman regard a small reduction in blood loss and a small reduction in the duration of the third stage of labour as important	Recommended	Staff: SHP/SBA.
Uterine massage	46. Sustained uterine massage is not recommended as an intervention to prevent postpartum haemorrhage (PPH) in women who have received prophylactic oxytocin.	Not Recommended	
Care of the Newborn			
Routine nasal or oral suction	47. In neonates born through clear amniotic fluid who start breathing on their own after birth, suctioning of the mouth and nose should not be performed	Not Recommended	
Skin to skin contact	48. Newborns without complications should be kept in skin-to-skin contact (SSC) with their mothers during the first hour after birth to prevent hypothermia and promote breastfeeding	Recommended	Staff: SHP/SBA

Care Options	Recommendations	Category of Recommendations	Resource requirement
Breast feeding	49. All newborns, including low-birth weight (LBW) babies who are able to breastfeed, should be put to the breast as soon as possible after birth when they are clinically stable, and the mother and baby are ready.	Recommended	Staff: SHP/SBA
Hemorrhagic disease prophylaxis using vitamin K	50. All newborns should be given 1 mg of vitamin K intramuscularly after birth (i.e. after the first hour by which the infant should be in skin-to-skin contact with the mother and breastfeeding should be initiated).	Recommended	Staff: SHP/SBA Supplies: Inj Vit K.
Bathing and other immediate postnatal care of the newborn	51. Bathing should be delayed until 24 hours after birth. Appropriate clothing of the baby suitable according to temperature is recommended. This means one to two layers of clothes more than adults, and use of hats/caps. The mother and baby should not be separated and should stay in the same room 24 hours a day.	Recommended	Staff: SHP/SBA
Care of the woman after birth			
Uterine tonus assessment.	52. Postpartum abdominal uterine tonus assessment for early identification of uterine atony is recommended for all women	Recommended	Staff: SHP/SBA
Antibiotics for uncomplicated vaginal birth	53. Routine antibiotic prophylaxis is not recommended for women with uncomplicated vaginal birth.	Not Recommended	
Routine antibiotic prophylaxis for episiotomy	54. Routine antibiotic prophylaxis is not	Not Recommended	

Care Options	Recommendations	Category of Recommendations	Resource requirement
	recommended for women with episiotomy		
Routine postpartum maternal assessment	55. All postpartum women should have regular assessment of vaginal bleeding, uterine contraction, fundal height, temperature and heart rate (pulse) routinely during the first 24 hours. First 2 hours every 15 minutes If normal, the next blood pressure measurement should be taken within 4 hours. Urine void should be documented within 2-4 hours	Recommended	Staff: SHP/SBA
Postnatal discharge following uncomplicated vaginal birth	56. After an uncomplicated vaginal birth in a health care facility, healthy mothers and newborns should receive care in the facility for at least 24 hours after birth.	Recommended	Staff: SHP/SBA and Medical Officer who take rounds.

5. Chapter 5: The Labour Care Guide and its Use

5.1. Introduction

The principal aims of the LCG are to:

- Guide the monitoring and documentation of the well-being of women and babies and the progress of labour;
- Guide skilled health personnel to offer supportive care throughout labour to ensure a positive childbirth experience for women;
- Assist skilled health personnel to promptly identify and address emerging labour complications, by providing reference thresholds for labour observations that are intended to trigger reflection and specific action(s) if an abnormal observation is identified;
- Prevent unnecessary use of interventions in labour;
- Support audit and quality improvement of labour management.

a For whom should the LCG be used?

The LCG was primarily designed to be used for the care of apparently healthy pregnant women and their

babies (i.e., women with low-risk pregnancies). Women at high risk of developing labour complications may require additional specialized monitoring and care.

Upon arrival in the labour unit, women should have an initial assessment to determine whether labour has started. Although the LCG should not be initiated in the latent phase of labour, it is expected that women and their babies are monitored and receive labour care and support during the latent stage, as guided by “WHO *Pregnancy, childbirth, postpartum and newborn care: a guide for essential practice*”. Women in labour will require further monitoring of the progress of labour with the LCG.

b When should the LCG be initiated?

Documentation on the LCG of the well-being of the woman and her baby as well as progression of labour should be initiated when the woman enters active phase of the first stage of labour (5 cm or more cervical dilatation), regardless of her parity and membranes status.

c Where should the LCG be used?

The LCG is designed to be used for all births in health facilities, including primary, secondary and tertiary care settings. Women giving birth in lower-level facilities may require referral to a higher level of care if complications ensue. Women in such settings should therefore have access to appropriate referral and transportation options for safe and timely transfer. The use of the LCG can facilitate early identification of potential complications.

Structure of the LCG

The LCG has eight sections, which were adapted from the previous partograph design. The sections are as follows (see Figure. 1):

1. Identifying information and labour characteristics at admission
2. Supportive care
3. Care of the baby
4. Care of the woman
5. Labour progress
6. Medication
7. Shared decision-making
8. Birth outcome

Section 1 is for documenting the woman’s name and labour admission characteristics that are important for labour management: parity, mode of labour onset, date of active labour diagnosis, date and time of rupture of membranes, and risk factors. This section should be completed with the information obtained when active labour diagnosis is confirmed.

Sections 2–7 contain a list of labour observations. The health-care provider should record observations for all sections soon after the woman is admitted to the labour ward. The remainder of the LCG is then completed following subsequent assessments throughout labour. For all observations, there is a horizontal time axis for documentation of the corresponding time of observation and a vertical reference values axis for determination of any deviation from normal observations. The LCG also provides a second-stage section to continue the observations made during the first stage of labour (except for cervical dilatation assessment, which ends at the first stage of labour).

Section 8 is for documenting the outcome including maternal condition, blood loss, placenta, and birth outcome after the delivery.

Section 8: Birth Outcomes							
1. Date of delivery:				2. Time of delivery (24 hr format):			
3. Mode of delivery: a. Normal Delivery (ND): Yes / No b. ND with episiotomy: Yes / No c. ND with laceration: Yes / No d. ND with Tear: 1 st degree / 2 nd degree / 3 rd degree e. Assisted delivery: Yes / No f. Instrumental delivery: Yes / No g. Other complicated delivery: Yes / No				4. Placenta & membrane delivery: a. Time of delivery: b. Complete: Yes / No c. Retained: Yes / No			
5. Medications used for Active Management of Third Stage of labour (AMTL) a. Inj. Oxytocin b. Misoprostol / Tranexamic Acid / Inj. Methyl Ergometrine c. Any Additional medication (specify): _____							
6. Baby: Live / Stillborn		7. Sex: Male / Female / Ambiguous			8. Weight (in grams):		
9. APGAR Score:		10. Resuscitation: Yes / No		11. Skin to skin contact: Yes / No		12. Breast feeding within 1 hr: Yes / No	
13. Maternal Vitals (after delivery):		15 mins	30 mins	45 mins	60 mins	1 hr 30 mins	2 hrs
a. Pulse (per min)							
b. BP (mm of Hg)							
c. Respiratory rate (per min)							
d. Temperature (F)							
14. Blood loss (in ml):		15. Uterus contracted: Yes / No			16. Urine passed in 2 hours: Yes / No		
17. Hematoma: Yes / No		18. Any sign of complication: Yes / No			19. Specify complication: _____		
20. Newborn Condition:		15 mins	30 mins	45 mins	60 mins	1 hr 30 mins	2 hrs
a. Grunting: (Yes / No)							
b. Chest indrawing: (Yes / No)							
c. Fast breathing: (Yes / No)							
d. Feet (warm): (Yes / No)							
21. Colour of skin (Cyanosed): Yes / No		22. Umbilical cord oozing: Yes / No			23. Sucking / feeding: Yes / No		
24. Any additional findings (congenital anomalies / prematurity / Hypothermia / Convulsion, etc.): Specify _____							

5.2. How to use the Labor Care Guide

Labor monitoring to action

Regular assessments of labor events are required to ensure the well-being of women and their babies during labor. The decision to intervene in the course of labour is primarily based on observation of a deviation from expected observations during these assessments.

To facilitate action-oriented labour monitoring, the LCG provides explicit reference values for labour observations and includes a section to document shared decisions to address any deviation from the expected norm. To ensure the systematic and consistent application of the LCG, health providers are encouraged to use the Asses—Record-- Check – Plan approach which involves:

Assess: assess the well-being of woman and her baby, and progress of labour

Record: document labour observations

Check: reference threshold (compare labour observations with reference values in the “Alert” column)

Plan: decide whether and what interventions are required, in consultation with the woman, and document accordingly.

The LCG is intended as a guide and is not a substitute for good clinical judgment with respect to the individual women’s circumstances and preferences.

Using the LCG

Time axis: The first row of the time axis (“Time”) is to register the actual time for each observation, while the second row (“Hours”) identifies the number of hours that have elapsed during the course of labour (see Fig. 2). The “Time” row is divided into columns for recording the actual time in hours and minutes. Each column represents 1 clock hour.

As described in the example below, if the first assessment is conducted at 06:30 and the second and third assessments are conducted 1 and 2 hours later, at 07:30 and 08:30, these should all be recorded in the respective columns. If at 12:30 the woman reaches full cervical dilatation, recording of time in the cells under the second stage should continue.

If labour extends beyond 12 hours, a second LCG form should be commenced. Time should be recorded using the 12- or 24-hour format, depending on local practice.

The reference (“Alert”) column: The “Alert” column presents thresholds for abnormal labour observations that require further assessment and action by the health-care provider, as summarized in Tables 3–7. If labour observations do not meet any of the criteria in the “Alert” column, labour progression and care should be regarded as normal, and no medical intervention is warranted.

Figure 2: How to record time on the LCG

Time	6:30	7:30	8:30	9:30	10:30	11:30	12:30	:	:	:	:	:	12:45	:	:
Hours	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3

Health-care providers should circle any observations meeting the criteria in the “Alert” column. This should help to highlight those observations that require special attention.

While the reference thresholds are largely based on WHO guidance, a few were derived from expert consensus. It is important to note that the reference thresholds are meant to be used as early-warning signals. Therefore, reference values should be adapted in accordance with national / relevant guidelines and should not replace the expert clinical judgement of a care provider.

Frequency of assessment:

The frequency of observations is similar to that in the previous partograph design, as presented in Tables 4–7.

While the frequency of assessment in the LCG is largely based on WHO guidance, for some variables the frequency of monitoring is based on expert consensus rather than high quality evidence.

It is important that health personnel adapt the monitoring frequencies to each particular clinical case and in accordance with national / relevant guidelines. It is expected that the required frequency of assessment will depend on the results of labour observations and the status of the woman and her baby.

Nomenclature to complete the LCG

Table 3: Abbreviations for recording non-numerical observations.

How to complete Section 1: Identifying information and labour characteristics at admission

Variable	Step 1. Assess	Step 2. Record
Hospital ID no.	Note hospital ID no. in patient's chart.	Record hospital ID no. from patient's chart.
Name and Age	Ask the woman her full name and age.	Record the woman's full name an age and verify that it matches the name on her medical record
Parity	Extract from medical records the number of times the woman has given birth to a baby after the age of viability (as per national guidelines).	Use the local coding system to record parity, e.g. Parity (or P) = number of babies born (after the national definition of viability)
Labor Onset	Was onset of labour spontaneous or induced (using any artificial means)?	Record "Spontaneous" if the woman achieved active first stage of labour without any artificial stimulation of labour onset (either through pharmacological or nonpharmacological means). Record "Induced" if the onset of labour was artificially stimulated, by administering oxytocin or prostaglandins to the pregnant woman, artificially rupturing the amniotic membranes, applying a balloon catheter into the cervix, or any other means.
Active Labor diagnosis	On what date was active first stage of labour diagnosed?	Date of active labour diagnosis. Use 24 hour format to record dates (e.g., dd/mm/yy).
Ruptured membranes	On what date and at what time were amniotic membranes ruptured (if membranes have ruptured before admission)?	Date and time [hh: mm] that rupture of membranes occurred. These data could be reported by the woman or her companion, or they could be extracted from medical records if membranes ruptured after admission but prior to initiating the LCG. Use 24 hour format to record time. Record "U" or "unknown" if rupture of membranes is confirmed and the woman cannot report the date and/ or time and there is no documentation in the medical record.
Risk factors	Risk factors	Known obstetric, medical and social risk factors with implications for care provision and potential outcome of labour management. For example, preexisting medical condition (e.g., chronic hypertension), obstetric conditions (e.g., pre-eclampsia), woman's advanced age, adolescent pregnancy, preterm labour, and group B Streptococcus colonization.

EXAMPLES: How to complete section one

Example of how to complete Section 1

Date : Asar 7, 2080

Time 06:00

Kanchhi Maya, a low risk pregnant woman, presented with contractions and reports that she has experienced leakage of fluid from the vagina for the last hour. Her gestational age is 38 weeks.

This is her fourth pregnancy. She previously had two births, one of a live baby and one of a stillbirth at term. She also had a miscarriage. She is taking oral iron to treat anaemia.

The nurse / midwife in charge of the admission asked all necessary questions and she offers Kanchhi Maya clinical evaluation to assess the baby's well-being and labour stage. Among other parameters, the nurse / midwife found that Kanchhi Maya has contractions (3 contractions every 10 minutes), 5 cm dilatation and ruptured membranes.

Figure 3 shows how the LCG would be complete with the above information.

Fig.3. How to complete Section 1

LABOUR CARE GUIDE NEPAL

Name: Kanchhi Maya	Age:	Parity: 2	Labour onset: spontaneous	Active labour diagnosis [Date: 07/03/2080]
Ruptured membranes: [Date 07/03/2080 Time: 5:00]		Risk factors: History of stillbirth, anaemia		Hospital ID:

How to complete Section 2: Supportive care

Respectful maternity care is a fundamental human right of pregnant women and is a core component of the WHO intrapartum care recommendations. WHO also recommends effective communication between maternity health providers and women in labour, including the use of simple and culturally appropriate language at every stage of labour care. Clear explanations of procedures and their purpose should always be provided to each woman. The findings of physical examinations should be explained to the woman and her companion, and the subsequent course of action made clear to enable shared decision-making.

This section of the LCG aims to encourage the consistent practice of respectful maternity care during labour and childbirth, through the continuous provision and monitoring of supportive care. This includes labour companionship, access to pharmacological and non-pharmacological pain relief, ensuring women are offered oral fluid, and techniques to improve women's comfort (such as encouraging women to be mobile during labour) (see Table 4). Supportive care measures should be offered and evaluated continuously during labour. However, to streamline documentation, observations regarding the provision of supportive care should be recorded every hour.

Table 4. Guidance for completing Section 2 of the LCG

	Step 1 Assess	Step 2 Record	Step 3 Check threshold	Step 4 Plan
Companion	Does the woman have a companion of her choice present and providing support at the time of assessment?	Y= Yes N=No D=woman declines	Alert N=No	If you recorded “No”, offer to find a companion of the woman’s choice. If you recorded “Yes” or “Declines”, continue to assess her preference during the progress of labour and childbirth.
Pain relief	Has the woman received any form of pain relief?	Y= Yes N=No D=woman declines to receive pain killer.	Alert N=No	If you recorded “No”, offer pain relief according to the woman’s preferences, availability of pain relief and provider’s experience. You can offer an epidural at the lowest effective concentration of local anesthetic to avoid complications, or opioids such as fentanyl, diamorphine and pethidine. Relaxation techniques such as those using muscle relaxation, breathing, music, mindfulness and manual techniques can also be used, based on the woman’s preferences.
Oral fluid	Has the woman taken oral fluid on demand since her last assessment?	Y= Yes N=No D=woman declines.	Alert N=No	If you recorded “No”, encourage the woman to take a light diet and drink as she wishes during labour.
Posture	What posture is the woman adopting during labour and childbirth?	SP = Supine MO = Mobile (Includes walking, swaying or any non-supine position, e.g., left lateral, squatting, kneeling, standing)	Alert: SP = Supine	If you recorded “SP”, encourage the woman to walk around freely during the first stage of labour. Support the woman’s choice of position (left lateral, squatting, kneeling, standing supported by companion) for each stage of labour.

Example:

Example of how to complete Section 2

Date : Asar 7, 2080

Time 06:00

Kanchhi Maya received a general and clinical assessment, and she has been admitted to the labour ward.

She is monitored by the nurse / midwife on duty but she is not accompanied by a relative or someone from her social network.

She reports feeling significant pain due to the uterine contraction, and requests pain relief.

She drank a fruit juice and is walking.

The nurse / midwife caring for and monitoring Kanchhi Maya during labour offered her a companion of her choice. Kanchhi Maya wanted to be accompanied by her sister. The nurse / midwife gave directions to Kanchhi Maya's sister as to when and how to call for assistance.

Given that another woman was in labour in the same room, the nurse / midwife used a divider between beds to provide more privacy.

Kanchhi Maya is with her sister and receiving instructions on relaxation techniques for pain relief.

Time 07:00

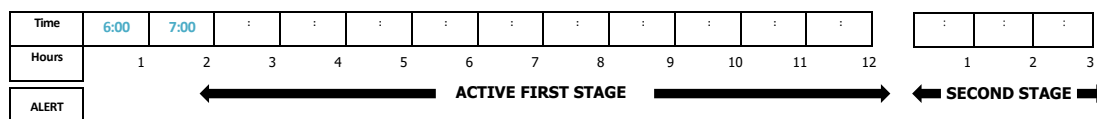
Kanchhi Maya is with her sister and using relaxation techniques for pain relief. She has been drinking water when thirsty, and Kanchhi Maya is now lying bed in a supine position.

Figure 4 shows how the LCG would be complete with the above information, Circled in red are those observations that meet the corresponding criterion in the "Alert:" Column.

Fig.4. How to complete Section 2

LABOUR CARE GUIDE NEPAL

Name: **Kanchhi Maya** Age: Parity **2** Labour onset **spontaneous** Active labour diagnosis [Date **07/03/2080**]
 Ruptured membranes [Date **07/03/2080** Time: **5:00** Risk factors **History of stillbirth, anaemia** Hospital ID:



Supportive Care	Companion	N	N	Y													
	Pain relief	N	N	Y													
	Oral Fluid	N	Y	Y													
	Posture	SP	MD	SP													

Section 3: How to Complete Section 3: Care for baby

This section is to facilitate decision-making while monitoring the well-being of the baby. The well-being of the baby is monitored by regular observation of baseline fetal heart rate (FHR) and decelerations in FHR, and of amniotic fluid, fetal position, moulding of the fetal head, and development of caput succedaneum (diffuse swelling of the scalp) (see Table 5).

Table 5: Guidance for completing Section 3 of the LCG

	Step 1 Assess	Step 2 Record	Step 3 Check Threshold	Step 4 Plan
Baseline FHR	Listen to the FHR for a minimum of 1 minute. Auscultate during a uterine contraction and continue for at least 30 seconds after the contraction. Assess the woman's pulse to differentiate between the heartbeat of the woman and that of the baby.	Record the baseline FHR (as a single counted number of beats in 1 minute). For the second stage, record the most clinically significant value within the 15-minute timeframe.	Alert: <110, ≥160 Intermittent auscultation of the FHR with either a Doppler ultrasound device or a Pinard fetal stethoscope is recommended for healthy pregnant women in labour. Very slow FHR in the absence of contractions or persisting after contractions is suggestive of fetal distress. In the absence of a rapid maternal heart rate, a rapid FHR should also be considered a sign of fetal distress.	If FHR is <110 or ≥160, ask the woman to turn on her left side, then alert a senior care provider and follow clinical guidelines. If FHR ranges between 110 and 159, continue to assess FHR every 30 minutes during the first stage and every 5 minutes during the second stage of labour. Early referral from peripheral birthing centers and health facilities not having complication management team.
FHR Deceleration	Listen to the FHR for a minimum of 1 minute. Auscultate during a uterine contraction and continue for at least 30 seconds after contraction.	Record the presence of decelerations using: N = No E = Early L = Late V = Variable	Alert L=late Record the presence of decelerations. Very slow FHR in the absence of contractions or persisting after contractions is suggestive of fetal distress.	If Late decelerations or a single prolonged deceleration is present, ask the woman to turn on her left side, then perform a prolong auscultation, alert a senior care provider and follow clinical guidelines. If No decelerations are present, continue monitoring FHR every 30 minutes during the first stage and every 5 minutes during the second stage. Early Referral from peripheral birthing centers and health facilities not having complication management team.
Amniotic fluid	What is the status of membranes? Is there leakage of amniotic fluid? If "Yes", what is the colour of the amniotic fluid?	I= Intact membranes C = Membranes ruptured, clear fluid M = Membranes ruptured, meconium-stained	Alert: M+++ (thick meconium), B = Blood Note the status of the membranes. If the membranes have ruptured, note the colour of the draining amniotic fluid.	If blood-stained fluid or thick meconium is present, alert a senior care provider and follow clinical guidelines. If membranes are Intact or ruptured and amniotic fluid is Clear, assess

	Step 1 Assess	Step 2 Record	Step 3 Check Threshold	Step 4 Plan
		fluid: use +, ++ and +++ to represent non-significant, medium and thick meconium, respectively B = Membranes ruptured, blood-stained fluid.	The presence of thick meconium indicates the need for close monitoring and possible intervention for management of fetal distress. Bloody amniotic fluid is common in placental abruption, placenta praevia, vasa praevia or uterine rupture.	amniotic fluid during the next vaginal examination in 4 hours, unless otherwise indicated. Early referral from peripheral birthing centers and health facilities not having complication management team.
Fetal Position	Perform gentle vaginal examination using aseptic technique to assess fetal position, after obtaining the woman's consent and ensuring privacy. Do not start the examination during a contraction. Assess all parameters that require a vaginal examination at the same time.	A = Occiput anterior position P = Occiput posterior position T = Occiput transverse position	Alert: P = Occiput posterior, T = Occiput transverse With descent, the fetal head rotates so that the fetal occiput is anterior in the maternal pelvis. Failure of a fetal occiput transverse or posterior position to rotate to an occiput anterior position should be managed as abnormal fetal position.	If Occiput posterior or Occiput transverse position is detected, alert a senior care provider and follow clinical guidelines. If Occiput anterior position is diagnosed, reassess position during next vaginal examination in 4 hours, unless otherwise indicated.
Caput	When performing vaginal examination to assess other clinical parameters, assess the presence of caput succedaneum (diffuse swelling of the scalp).	Grade caput from 0 (none) to +, ++ or +++ (marked).	Alert: +++ Assess caput succedaneum along with other maternal and fetal observations to monitor the well-being of the woman and her baby and identify risks for adverse birth outcomes. If the presenting part has large caput succedaneum, this (along with other abnormal observations) could be a sign of obstruction.	If caput = +++, alert a senior provider and If caput = 0 to ++, repeat the assessment during next vaginal examination in 4 hours, unless otherwise indicated. Follow national protocols and early referral in case of early sign of Caput.
Moulding	When performing vaginal examination to assess other clinical parameters, assess the shape of the fetal skull and the degree of overlapping fetal head bones during labour.	Grade from 0 (none) to +++ (marked). Assign: + (sutures apposed), ++ (sutures overlapped but reducible), +++ (sutures overlapped and not reducible).	Alert: +++ Assess moulding along with other maternal and fetal observations to monitor the well-being of the woman and her baby and identify risks for adverse birth outcomes (5). Third degree moulding (along with other abnormal observations) could indicate obstructed labour.	If moulding = +++, alert a senior provider and follow national / relevant protocols. If moulding = 0 to ++, usually signs of normality (mainly if ++ is developed in the later stages of labour), reassess during next vaginal examination in 4 hours, unless otherwise indicated. Follow national protocols and early referral in case of early sign of Moulding.

Example of how to complete Section 3

Date : Asar 7, 2080

Time 06:00

The baby moves during monitoring and shows a heart rate of 140 beats per minutes (bpm) without deceleration.

Vaginal examination shows 5 cm cervical dilatation, cephalic presentation. There is no caput or moulding and the fetal position is occiput posterior. Amniotic fluid is clear.

Time 06:00

FHR 136 bpm without decelerations

Time 07:00

FHR 136 bpm with variable

Time 07:30

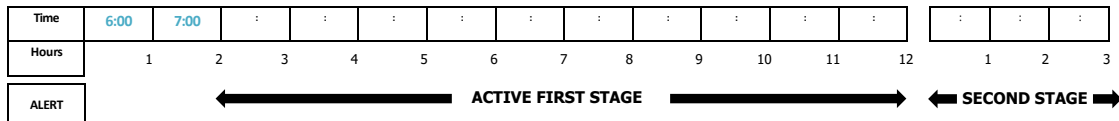
FHR 148 bpm without decelerations. The nurse / midwife checks Kanchhi Maya's pad and observes that the amniotic fluid is clear. Given that all other clinical parameters are normal and that Kanchhi Maya is coping well with labour, her nurse / midwife continues checking the FHR every 30 minutes and will check the amniotic fluid during the next vaginal examination.

Figure 5 shows how the LCG would be complete with the above information. Circled in red are those observations that meet the corresponding criterion in the "Alert:" Column.

Fig.5. How to complete Section 3

LABOUR CARE GUIDE NEPAL

Name: **Kanchhi Maya** Age: Parity: **2** Labour onset: **spontaneous** Active labour diagnosis: [Date: **07/03/2080**]
 Ruptured membranes: [Date: **07/03/2080**] Time: **5:00** Risk factors: **History of stillbirth, anaemia** Hospital ID:



Supportive Care	Companion	N	N	Y															
	Pain relief	N	N	Y															
	Oral Fluid	N	Y	Y															
	Posture	SP	MD	SP															

Baby	Baseline FHR	<110, ≥160	140	136	132	148													
	FHR deceleration	L	N	N	V	N													
	Amniotic fluid	M+++ , B	C																
	Fetal Position	P,T	P																
	Caput	+++	0																
	Moulding	+++	0																

Pulse	<50, ≥120																		
Systolic BP	<80, ≥140																		
Diastolic BP	≥ 90																		
Temperature°C	<35.0, ≥ 37.5																		
Urine	P++,A++																		

Contractions per 10min	≤2, >5																		
Duration of contractions	<20, >60																		

Section 4: How to complete Section 4: Care of the woman

This section aims to facilitate decision-making for consistent, intermittent monitoring of the woman's well-being. The woman's health and well-being are monitored on the LCG by regular observation of the pulse, blood pressure, temperature and urine.

Table 6: Guidance for completing Section 4 of the LCG

	Step 1 Assess	Step 2 Record	Step 3 Check threshold	Step 4 Plan
Pulse	Count woman's pulse rate for at least 1 full minute	Record woman's pulse (bpm).	Alert: <60, ≥120 If the woman's pulse is increasing, she may be dehydrated or in pain, she may be developing a fever, or it could be a sign of bleeding or shock. Maternal bradycardia should trigger a series of maternal (and fetal) assessments to identify the probable cause, including use of specific medications, supine position, pain, bleeding or cardiac disease.	If pulse <60 or ≥120 bpm, alert a senior care provider and follow national / relevant guidelines. If pulse ≥60 or <120 bpm, assess pulse rate every 4 hours.
Systolic BP	Measure blood pressure in sitting position.	Record woman's systolic blood pressure (SBP) in mmHg.	Alert: <80, ≥140 Assess blood pressure to monitor the well-being of the woman and identify risks for adverse birth outcomes. Low blood pressure could be a sign of haemorrhagic shock, septic shock, occult or frank haemorrhage. Systolic blood pressure of 140 mmHg could be a sign of hypertension (further assessments are required to reach a diagnosis).	If SBP <80 or ≥140 alert a senior provider and follow national / relevant guidelines. If SBP ≥80 or <140, assess SBP every 4 hours.
Diastolic BP	Measure blood pressure in sitting position.	Record woman's diastolic blood pressure (DBP) in mmHg.	Alert: ≥90 Diastolic blood pressure ≥90 could be a sign of hypertension (further	If DBP ≥90, alert a senior care provider and follow national / relevant guidelines.

	Step 1 Assess	Step 2 Record	Step 3 Check threshold	Step 4 Plan
			assessments are required to reach a diagnosis)	If DBP <90, assess DPB every 4 hours.
Temperature	Measure axillary temperature.	Record woman's temperature in degrees Celsius	Alert: <35.0, ≥ 37.5 Temperature should be monitored throughout labour to assess the wellbeing of the woman and identify risks for adverse birth outcomes (5).	If temperature <35.0 or ≥37.5, alert a senior care provider and follow national / relevant guidelines. If temperature is between 35.0 and 37.4 degrees, assess temperature every 4 hours.
Urine	Check protein and acetone in urine with a reagent strip.	Record readings of protein (P) and acetone (A) as Negative, Trace, +, ++, +++, +++++.	Alert: P++, A++ A 2+ protein (P++) could guide further management, although confirmation may be done with a second dipstick of 2+ at the next urine void. Proteinuria could be a sign of pre-eclampsia, urinary tract infection, severe anaemia, or previously undiagnosed renal or cardiac disease. Ketonuria could be a sign of dehydration secondary to reduced fluid intake or excessive losses (vomiting or diarrhea), prolonged labour or previously undiagnosed diabetes.	If P++, A++ or more, interpret measurements in the context of a full clinical examination. Alert a senior provider and follow national guidelines. If P = Trace or +, assess every 4 hours, if woman with hypertension or renal conditions. If first urine protein is negative in admission and woman is normotensive, no need to repeat every 4 hourly.

Example of how to complete Section 4

Date : Asar 7, 2080

Time 06:00

Kanchhi Maya's pulse rate is 88 bpm, with blood pressure of 120/80 mmHg. Her temperature is 36.5°C.

She passed urine at admission, without proteinuria or acetone.

Given that all clinical woman parameters are normal, the nurse / midwife plans to reassess the woman's observations in 4 hours unless otherwise indicated.

Time 06:00

Kanchhi Maya's pulse is 96 bpm, with blood pressure of 128/84 mmHg. Her temperature is 36.9°C.
She passed urine again, without proteinuria or acetone.

Figure 6 shows how the LCG would be completed with the gathered information. Circled in red are those observations meeting the criteria in the "Alert" column. For those observations that are evaluated and recorded every 4 hours, leave the cells blank at times where assessment is not required.

Fig.6. How to complete Section 4

LABOUR CARE GUIDE NEPAL

Name: **Kanchhi Maya** Age: Parity **2** Labour onset **spontaneous** Active labour diagnosis [Date **07/03/2080**]
 Ruptured membranes [Date **07/03/2080** Time: **5:00**] Risk factors **History of stillbirth, anaemia** Hospital ID:

Time	6:00	7:00	8:00	9:00	10:00	:	:	:	:	:	:	:	:	:	:	:	:
Hours	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3		
ALERT	← ACTIVE FIRST STAGE →												← SECOND STAGE →				

Supportive Care	Companion	N	N	Y	Y	Y	Y	N	:	:	:	:	:	:	:	:	:	
	Pain relief	N	N	Y	Y	Y	Y	N	:	:	:	:	:	:	:	:	:	:
	Oral Fluid	N	Y	Y	Y	D	Y	:	:	:	:	:	:	:	:	:	:	:
	Posture	SP	MO	SP	MO	MO	SP	:	:	:	:	:	:	:	:	:	:	:

Baby	Baseline FHR	<110, ≥160	140	136	132	148	133	145	138	128	151	133	:	:	:	:	:	:	
	FHR deceleration	L	N	N	V	N	N	N	N	N	V	N	:	:	:	:	:	:	:
	Amniotic fluid	M+++ , B	C								+								
	Fetal Position	P,T	P								T								
	Caput	+++	0								+								
	Moulding	+++	0								+								

Woman	Pulse	<60, ≥120	88	:	:	:	:	:	:	:	96	:	:	:	:	:	:	:
	Systolic BP	<80, ≥140	120								128							
	Diastolic BP	≥90	80								84							
	Temperature°C	<35.0, ≥37.5	36.5								36.9							
	Urine	P++, A++	-/								-/							

Contractions per 10min	≤2, >5	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
Duration of contractions	<20, >60																	

Section 5: How to complete Section 5: Labour progress

This section aims to encourage the systematic practice of intermittent monitoring of labour progression parameters. Labour progress is recorded on the LCG by regular observation of the frequency and duration of contractions, cervical dilatation and descent of the baby’s head (see Table 7).

Table 7: Guidance for completing Section 5 of the LCG

	Section 1 Assess	Section 2 Record	Section 3 Check threshold	Section 4 Plan
Contraction per 10 minutes.	Count the number of uterine contractions over a 10-minute period.	Record the absolute number of contractions.	Alert: ≤2, >5 If contractions are inefficient, suspect inadequate uterine activity. Continuous contractions are a sign of obstructed labour.	If contractions are ≤2 or >5 per 10 minutes, verify the number of contractions over another 10 minutes. If frequency is confirmed, alert a senior care provider and follow clinical guidelines. If contractions are 3–5 per 10 minutes, assess uterine contractions every 30 minutes during the first stage of labour and

	Section 1 Assess	Section 2 Record	Section 3 Check threshold	Section 4 Plan
				at least every 15 minutes during the second stage.
Duration of Contractions	Assess the duration of contractions.	Record duration of contraction in seconds.	Alert: <20, >60 Short contractions could indicate inadequate uterine activity. More than five contractions in 10 minutes or continuous contractions are signs of obstructed labour or hyperstimulation (9).	If contractions last <20 or >60 seconds, verify the number of contractions over another 10 minutes. If duration is confirmed, alert senior provider and follow national / relevant clinical guidelines. If contractions last ≥ 20 or ≤ 60 seconds, assess contractions every 30 minutes during the first stage of labour and at least every 15 minutes during the second stage.
Cervix	Perform gentle vaginal examination, after obtaining the woman's consent and ensuring privacy. Use aseptic technique to examine the cervix. Do not start the examination during a uterine contraction. Assess all parameters that require a vaginal examination at the same time.	In the active first stage of labour, plot "X" in the cell that matches the time and the cervical dilatation each time you perform a vaginal examination. In the second stage, insert "P" to indicate when pushing begins.	Alert values for first stage: 5 cm = ≥ 6 h (cervical dilatation remains at 5 cm for 6 or more hours) 6 cm = ≥ 5 h (cervical dilatation remains at 6 cm for 5 or more hours) 7 cm = ≥ 3 h (cervical dilatation remains at 7 cm for 3 or more hours) 8 cm = ≥ 2.5 h (cervical dilatation remains at 8 cm for 2.5 or more hours) 9 cm = ≥ 2 h (cervical dilatation remains at 9 cm for 2 or more hours) Alert value for second stage: ≥ 3 h in nulliparous women; ≥ 2 h in multiparous women (birth is not completed by 3 hours from the start of	Alert triggered when lag time for current cervical dilatation or in second stage is exceeded with no progress. During the first stage, if labour progresses as expected, assess cervical dilatation every 4 hours unless otherwise indicated. When performing a vaginal examination less than 4 hours after the previous assessment, be sure that the examination will add important information to the decision-making process. (NOTE: not to exceed total duration of first stage of labour for 10 hours in Multi gravida and 12 hours in Primi gravida)

	Section 1 Assess	Section 2 Record	Section 3 Check threshold	Section 4 Plan
			<p>the active second stage in nulliparous and 2 hours in multiparous women)</p> <p>Evidence shows important variations in the distribution of cervical dilatation patterns among women without risk factors for complications, with many women progressing more slowly than 1 cm/hour for the most part of their labour and yet still achieving vaginal birth with normal birth outcomes (5,14).</p>	
Descent	<p>Assess descent by abdominal palpation; refer to the part of the head (divided into five parts) palpable above the symphysis pubis</p>	<p>Plot "O" in the cell that matches the time and the level of descent. Plot an "O" at every vaginal examination. 5/5, 4/5, 3/5, 2/5, 1/5 and 0/5 should be used to describe the fetal station by abdominal palpation.</p>	<p>There is no reference thresholds for this observation, which will vary on each individual case.</p>	<p>During first stage, assess descent every 4 hours before performing vaginal examination, unless otherwise indicated. During the second stage, take into account the woman's behaviour, effectiveness of pushing, and baby's position and wellbeing when deciding the timing of descent assessment.</p>

Example:

Example of how to complete Section 5

Date: Asar 7, 2080

Time 06:00

At the time of admission, Kanchhi Maya presented with three uterine contractions every 10 minutes, of moderate intensity, and lasting 40 seconds.

Vaginal examination shows 5 cm cervical dilatation, cephalic presentation. Fetal descent is 4/5.

Given that all other clinical parameters are normal and that Kanchhi Maya is coping with the labour, the nurse / midwife assesses the number and duration of uterine contractions half-hourly. Unnecessary vaginal examinations are avoided and vaginal examinations are only performed after 4 hours.

Time 10:00

Kanchhi Maya complains of strong pains. Her sister left the labour ward and Kanchhi Maya is alone, lying in bed in a supine position. Her vitals are heart rate 96 bpm. blood pressure 128/84 mmHg, and FHR is 151 bpm with variable decelerations. Kanchhi Maya has three strong uterine contractions in 10 minutes, lasting 50 seconds each. Fetal descent is 3/5. Cervical dilatation is 8 cm and the fetal position is occiput transverse. Amniotic fluid shows meconium 1+/4.

The nurse / midwife offers her a companion of her choice. Kanchhi Maya wants to be accompanied by her sister who had left to speak with the family in the waiting room. The nurse / midwife gives directions to Kanchhi Maya's sister on how to support Kanchhi Maya and comfort her by using a cool, damp cloth on her face and body, and by massaging her back.

Time 13:00

Kanchhi Maya maintains three uterine contractions in 10 minutes, lasting 50 seconds each. Fetal descent is 2/5. Cervical dilatation is 10 cm and the fetal position is occiput anterior. Amniotic fluid shows meconium 1+/4. FHR 132 bpm, without decelerations.

Time 13:30

Kanchhi Maya maintains four uterine contractions in 10 minutes, lasting 50 seconds each. Fetal descent is 0/5. FHR 118 bpm, with early decelerations. Childbirth takes place vaginally at 13.45.

Section 6: How to complete Section 6: Medication

This section aims to facilitate consistent recording of all types of medication used during labour, by describing whether the woman is receiving oxytocin, and its dose, and whether other medications or IV fluids are being administered (see Table 8).

Table 8: Guidance for completing Section 6 of the LCG

	Step 1 Assess	Step 2 Record
Oxytocin	Is oxytocin currently being administered to the woman?	If oxytocin is not being administered, record N = No. If oxytocin is being administered , record the amount of oxytocin in units per liter (U/L) and drops per minute (drops/min). When oxytocin is used, record the amount being administered every 60 minutes.
Medicine	Is the woman receiving any other medication?	If no other medication is being administered, record N = No. Record the name, dose and route of administration of any additional medication that is being administered to the woman during active first or second stage of labour (e.g. 50 mg pethidine, intramuscular (IM)).
IV fluids	Is the woman on IV fluids?	Record: Y = Yes N = No The routine administration of IV fluids for all women in labour is not recommended, given that it reduces women's mobility and unnecessarily increases costs. Low-risk women should be encouraged to drink oral fluids, and they should receive IV fluids (4) only if indicated (5).

Section 7: How to complete Section 7: Shared decision-making

This section aims to facilitate continuous communication with the woman and her companion, and the consistent recording of all assessments and plans agreed (see Table 9).

Table 9: Guidance for completing Section 7 of the LCG

	Record
Assessment	Record the overall assessment and any additional findings not previously documented but important for labour monitoring.
Plan	Record the plan following assessment. For example: <ul style="list-style-type: none"> • continuation of routine monitoring • prescription of diagnostic tests • augmentation of labour with oxytocin infusion • procedures, such as artificial rupture of membranes • assisted birth with vacuum or forceps • caesarean section. Take into consideration that women should be involved in discussions and be allowed to make informed decisions. Each time a clinical assessment of the woman's and baby's well-being is completed, record the plan based on the shared decision.

Example of how to complete Section 6 and 7

Kanchhi Maya had normal progress of labour and childbirth.

During labour, Kanchhi Maya was encouraged to walk and to have a companion of her choice present.

Clinical parameters remained within normal thresholds. Consequently, additional interventions were not required.

Below you will find an example of how to complete Sections 6 and 7 of the LCG (see Fig. 8) based on the above information.

Fig.8. How to complete Section 6 and 7

LABOUR CARE GUIDE NEPAL

Name: **Kanchhi Maya** Age: Parity: **2** Labour onset: **Spontaneous** Active labour diagnosis: [Date **07/03/2080**]
 Ruptured membranes: [Date: **07/03/2080** Time: **5:00**] Risk factors: **History of stillbirth, anaemia** Hospital ID:

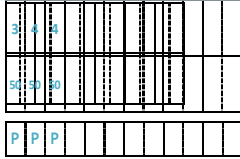
Time	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	:	:	:	:	13:05	13:45	:
Hours	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
ALERT	← ACTIVE FIRST STAGE →												← SECOND STAGE →		

Supportive Care	Companion	N	N	Y	Y	Y	N	Y	Y	Y					Y		
	Pain relief	N	N	Y	Y	Y	N	Y	Y	Y					Y		
	Oral Fluid	N	Y	Y	Y	D	Y	Y	D	Y					Y		
	Posture	SP	MO	SP	MO	MO	SP	MO	MO	SP					SP		

Baby	Baseline FHR	<110, ≥160	140	136	132	148	133	145	138	128	151	133	149	125	153	130	132	145	128	118
	FHR deceleration	L	N	N	V	N	N	N	N	N	V	N	N	N	N	N	N	N	N	N
	Amniotic fluid	M+++ , B	C									+					+			
	Fetal Position	P,T	P									T					A			
	Caput	+++	0									+					+			
	Moulding	+++	0									+					++			

Woman	Pulse	<60, ≥120	88								96									
	Systolic BP	<80, ≥140	120								128									
	Diastolic BP	≥90	80								84									
	Temperature°C	<35.0, ≥37.5	36.5								36.9									
	Urine	P++, A++	-/-								-/-									

Labour Progress	Contractions per 10min	≤ 2, > 5	3	3	3	3	3	3	3	3	3	3	4	3	3	3					
	Duration of contractions	< 20, > 60	40	40	40	40	40	45	40	45	50	50	50	40	50	50	50				
	Cervix [Plot X]	10																			
		9	≥ 2h																		
		8	≥ 2.5h										x								
		7	≥ 3h																		
		6	≥ 5h																		
	Descent [Plot]	5	≥ 6h	x																	
		4		o																	
		3										o									
2																	o				
1																					



In active first stage, plot 'X' to record cervical dilatation. Alert triggered when lag time for current cervical dilatation is exceeded with no progress. In second stage, insert 'p' to indicate when pushing begins.

Medication	Oxytocin (U/L, drops/min)	N	N	N	N	N	N	N	N									N			
	Medicine	N	N	N	N	N	N	N	N										N		
	IV fluids	N	N	N	N	N	N	N	N										N		

Shared Decision-Making	Assessment	PAIN RELIEF REQUIRED	NORMAL PROGRESS	NORMAL PROGRESS	NORMAL PROGRESS	PAIN RELIEF REQUIRED	NORMAL PROGRESS	NORMAL PROGRESS	NORMAL PROGRESS					NORMAL PROGRESS		
	Plan	Offer companionship and relaxation techniques, continuation of routine monitoring		Continuation of routine monitoring		Offer companionship and manual pain relief, encourage mobilization, continue monitoring		Continuation of routine monitoring						Continuation of routine monitoring		
Signature	LA	LA	LA	6P	6P	6P	6P	6P						6P		
Delivery conducted by: _____																

INSTRUCTIONS: CIRCLE ANY OBSERVATION MEETING THE CRITERIA IN THE 'ALERT' COLUMN, ALERT THE NURSE / MIDWIFE OR DOCTOR AND RECORD THE ASSESSMENT AND ACTION TAKEN. IF LABOUR EXTENDS BEYOND 12H, PLEASE CONTINUE ON A NEW LABOUR CARE GUIDE.

Abbreviations: Y – Yes, N – No, D – Declined, U – Unknown, SP – Supine, MO – Mobile, E – Early, L – Late, V – Variable, I – Intact, C – Clear, M – Meconium, B – Blood, A – Anterior, P – Posterior, T – Transverse, Pt – Protein, A+ – Ac

Maternal condition and Birth Outcome Record:

This section reflects the maternal and newborn conditions during the immediate postpartum period first 2 hours after delivery.

Table 10: Birth Outcomes

Section 8: Birth Outcomes							
1. Date of delivery:				2. Time of delivery (24 hr format):			
3. Mode of delivery: a. Normal Delivery (ND): Yes / No b. ND with episiotomy: Yes / No c. ND with laceration: Yes / No d. ND with Tear: 1 st degree / 2 nd degree / 3 rd degree e. Assisted delivery: Yes / No f. Instrumental delivery: Yes / No g. Other complicated delivery: Yes / No				4. Placenta & membrane delivery: a. Time of delivery: b. Complete: Yes / No c. Retained: Yes / No			
5. Medications used for Active Management of Third Stage of labour (AMTL) a. Inj. Oxytocin b. Misoprostol / Tranexamic Acid / Inj. Methyl Ergometrine c. Any Additional medication (specify): _____							
6. Baby: Live / Stillborn		7. Sex: Male / Female / Ambiguous			8. Weight (in grams):		
9. APGAR Score:		10. Resuscitation: Yes / No		11. Skin to skin contact: Yes / No		12. Breast feeding within 1 hr: Yes / No	
13. Maternal Vitals (after delivery):		15 mins	30 mins	45 mins	60 mins	1 hr 30 mins	2 hrs
a. Pulse (per min)							
b. BP (mm of Hg)							
c. Respiratory rate (per min)							
d. Temperature (F)							
14. Blood loss (in ml):		15. Uterus contracted: Yes / No			16. Urine passed in 2 hours: Yes / No		
17. Hematoma: Yes / No		18. Any sign of complication: Yes / No			19. Specify complication: _____		
20. Newborn Condition:		15 mins	30 mins	45 mins	60 mins	1 hr 30 mins	2 hrs
a. Grunting: (Yes / No)							
b. Chest indrawing: (Yes / No)							
c. Fast breathing: (Yes / No)							
d. Feet (warm): (Yes / No)							
21. Colour of skin (Cyanosed): Yes / No		22. Umbilical cord oozing: Yes / No			23. Sucking / feeding: Yes / No		
24. Any additional findings (congenital anomalies / prematurity / Hypothermia / Convulsion, etc.): Specify _____							

How to complete section 8:

In this section, the birth outcome needs to be documented. Following information should be recorded with close monitoring of mother and baby. In case of complications within 2 hours of delivery, senior should be informed.

1. The date of delivery should be recorded.
2. The time of delivery should be recorded in 24 hours format.
3. Mode of delivery: Record the mode of delivery by circling "Yes" in the appropriate mode. Circle "No" for other modes of delivery. If there was perineal tear during delivery, circle the degree of tear.
4. Placenta: Note the details of the placenta including the time of placenta delivery, whether it was complete and whether it was retained.
5. Record the medications used for Active Management of Third Stage of Labour (AMTSL).
6. Whether the baby is live born or stillborn.
7. Record the sex of the baby.
8. Record the birth weight of the baby in grams.
9. Record the APGAR score in 5 minutes and 10 minutes.
10. Resuscitation: If the baby needed resuscitation, this should be recorded as "Yes".
11. Skin to skin contact: The newborn should be kept in skin-to-skin contact with the mother immediately following the vaginal delivery. Record whether the newborn is kept in skin-to-skin contact or not.
12. Breastfeeding: Breastfeeding should be initiated within 1 hour of delivery if no other complications. Record whether the newborn was breast fed within 1 hour after delivery.
13. Maternal vitals upto 2 hours after delivery: Record maternal vitals (Pulse, BP, respiratory rate, temperature in Fahrenheit) every 15 minutes till 1st hour after delivery. Then record every half hourly till two hours after delivery. In case of fluctuation of the vitals (low BP, feeble pulse, tachycardia), senior staff should be informed timely for management. If the vitals are normal, then monitor four hourly for 24 hours.
14. Blood loss: The amount of blood loss should be noted in ml.
15. Uterus contracted: Uterus contraction should be confirmed and recorded.
16. Urine passed in 2 hours: The mother should be encouraged to pass urine within 2 hours after delivery and documented before transferring to ward.
17. Hematoma: Any signs of hematoma should be checked before transferring the mother to ward.
18. Complication: The mother should be closely monitored for any sign for postpartum complications during the first 2 hours after delivery.
19. Specify complications: if any complications, record the complication and inform senior staff.
20. Newborn condition: Condition of the newborn upto 2 hours after delivery should be monitored and documented. Assess and record the presence of grunting, chest indrawing, fast breathing and whether the newborn baby's feet are warm or not. Record the newborn's condition every 15 minutes till 1st hour after birth. Then record every half hourly till 2 hours after delivery. In case of fluctuation of the condition (tachycardia/bradycardia, chest indrawing, tachypnea, hypothermia), senior should be informed timely for management. If the vitals are normal, then monitor four hourly for 24 hours.
21. Skin colour: The colour of the skin should be noted for cyanosis.
22. Umbilical cord: Any oozing from the umbilical stump should be examined.

23. Sucking / feeding: Baby should be examined if sucking / feeding normally.

24. Additional findings: Any additional or abnormal findings (prematurity, hypothermia, convulsions, congenital anomalies) observed in the newborn baby should be recorded and informed to senior.

Additional Guidance for labour management including the following areas have been provided in Annex 2

- I. Examination of the woman in labour during admission**
- II. Management of First stage of labor; (Latent Phase)**
- III. Supportive care throughout labour**
- IV. Delivery of Baby**
- V. Management of third stage of labour**
- VI. Respond to problems during labour and delivery**
- VII. Care of mother and newborn within first two hours of delivery**

SECTION THREE: IMPLEMENTATION OF THE LABOUR CARE GUIDE

6. Chapter 6: Implementation level

As mentioned above, though Nepal is already implementing several recommendations pertaining to LCG but several key recommendations (WHO 2018) are yet to be initiated and there is a need to scale up in the earliest possible time frame for meeting SDG milestones regarding MNH. In this context, this guideline considers following all levels of implementation so that it can move to maturity sooner.

6.1 Levels of implementation

Followings are the levels of implementation

1. Level 1: Generate awareness, adapting & adopting the LCG.
2. Level 2: Implementing transformative practices & the optimal use of the LCG.
3. Level 3: Consolidating and sustaining the use of the LCG & transformative practices.
4. Level 4: Sustaining the use of the LCG & implementing additional measures to improve the Quality of Care.
5. Level 5: Continuous improvement of quality of implementation, consolidate previous achievements, and develop innovative solutions to further improve quality-of-care.

Table 8: Level of Implementation

	Level 1	Level 2	Level 3	Level 4	Level 5
Description	Generate awareness, adapt & adopt the LCG.	Implement transformative practices & optimal LCG use.	Consolidate and sustain LCG use & transformative practices.	Sustain LCG use & implement additional measures to improve the quality of LCG use.	Continuously improve quality-of-care.
Main focus	Prepare for LCG implementation, understand the context and adapt the LCG to the country needs across public and private health-care facilities.	LCG implementation to replace the WHO standard partograph, including LCG user training.	Consolidate the LCG use. Prepare for the implementation of wider intrapartum care transformational practices.	Sustain LCG use. Implement the full set of intrapartum care recommendations for a positive birth experience.	Continuous improvement of quality of LCG use. Consolidate previous achievements and develop innovative solutions to further improve quality implementation to improve quality-of-care.

Level wise implementation timeline (year)					
Federal level	2024	2024-25	2025-26	20-27 onwards	Continue
Province level	2024-25	2024-25	2025-26	2027 onwards	Continue
Local level	2024-25	2025 -26	2027	2028	continue onwards
Actions of the implementation approach	Action 1 Action 2 Action 3 Action 4	Action 4 Action 5	Action 4 Action 5 Action 6 Action 7	Action 6 Action 7	
Note: Action 1: Establish leadership; Action 2: Conduct situation analysis; Action 3: Take ownership and create implementation plan; Action 4: Ensure essential infrastructure: Action 5: Build capability and implementation; Action 6: Monitoring and Evaluate Quality of Care and Outcomes Action 7: Scaling up					

The actions applied to LCG implantation are as follows which are based on the quality of care seven- action implementation approach

- **Action 1: Establish leadership**

Establishing leadership is to gain national-level support of LCG implementation as a priority. FWD (DoHS/MoHP) will provide the leadership at federal level, and this will be supported by Technical Working Group if needed and other related divisions and centres such as NHTC, Management Division etc. The FWD being the lead, will coordinate the LCG implementation process including the approach and to determine the need for technical assistance.

- **Action 2: Conduct situation analysis**

Conduct a situation of intrapartum care in public and private health-care facilities to better understand the countries' context including sub-national level and identify implementation priorities and opportunities for improvement including potential barriers at national and sub-national level.

- **Action 3: Take ownership and create implementation plan:**

Take ownership and develop an implementation plan with timelines for pilots and rollout. Select appropriate implementation strategies, for the prioritized clinical practice issue.

- **Action 4: Ensure essential resources to get started.**

This action includes standardizing national policies on intrapartum care to embed LCG implementation into healthcare policies and guidelines, adapting WHO LCG to the national context, planning the budget for supplies and infrastructural changes and developing all required resources such as orientation materials or monitoring and evaluation systems.

- **Action 5: Build capability and implement**

Build capacity of program managers and facilitators/trainers (coach/mentors) by orienting them and initiating Plan-Do-Study/Learn-Act quality improvement cycles.

- **Action 6: Continuously monitor and evaluate**

Continuously monitor and evaluate the implementation process to identify opportunities to strengthen LCG use for high quality of intrapartum care across public and private health-care facilities.

- **Action 7: Refine strategies for scale up**

Finally refine strategies for scale up to ensure sustainability and LCG use is institutionalized for all births.

7. Chapter 7: Implementation of IPC/Labour Care Guide

The implementation of this guidelines is based on quality of care seven actions.

7.1 Action 1: Establish leadership

Following government bodies will provide leadership needed for the implementation and monitoring of the IPC/LCG guidelines.

At federal level, FWD will take the overall leadership for providing technical and programmatic guidance at nationwide level under the overarching guidance of National Reproductive Health Coordination Committee (RHCC) at MoHP. Existing Technical Working Groups responsible for MNH will support to facilitate planning and implementation in coordinated manner. A task team with relevant members will be formed as needed under the Technical Working Group.

At provincial level, existing provincial **Reproductive Health Coordination Committee** (RHCC) formed under Provincial MoHP, or Health Directorate will take the leadership for providing technical and programmatic guidance. If needed, under this committee, a **Provincial IPC LCG Task Group** will be formed to facilitate planning and implementation.

- The members of the group could include representative of Provincial Health Directorate, Obstetrician/Gynaecologist from referral hospital, presentative from professional organizations, representative from external development partners (multilateral and bilateral) and experts.

At local level, **Local RHCC** will take the leadership for providing technical and programmatic guidance and will be responsible to facilitate implementation, monitoring and reporting.

Local level RHCC will define and assign team according to need based. Some the suggested members could be.

- Health section chief- Coordinator/Chairperson
- Ob/Gyn/Paediatrician/MDGP/Advance SBA/Medical officer- Member
- Nursing in charge of basic hospital or SHP/SBA of birthing centre - Member
- MNH Focal Person, Local level - Member secretary
- Invitee- experts as per the need

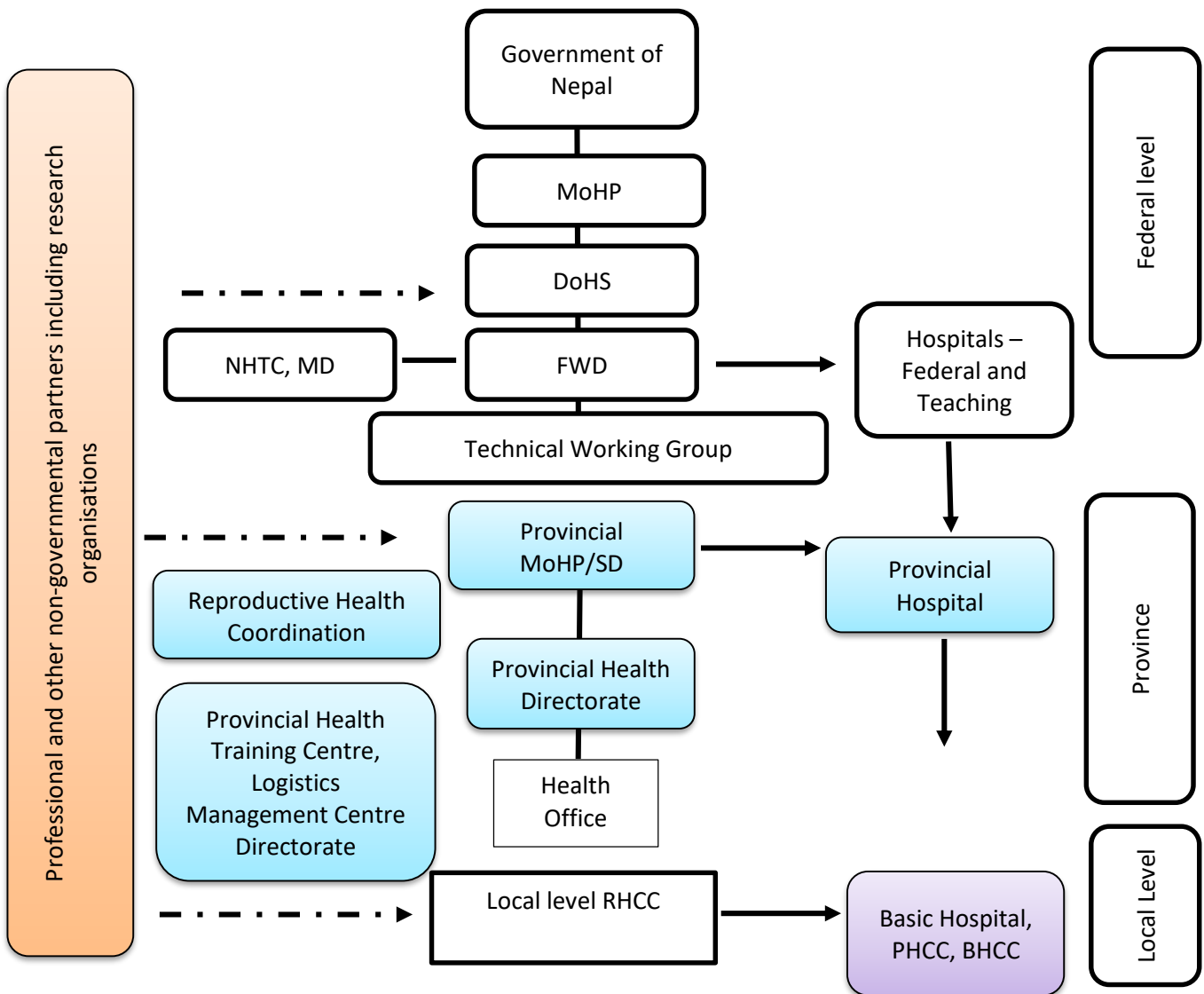
7.1.1 Organizational structure and responsibilities

Overall, the implementation of this guideline will be led by the FWD/DoHS/MoHP. The NHTC and Management Division at federal level; the Health Directorate, Health Logistics Management Center, Health Training Center at provincial level and respective municipality at local level in collaborate and coordination, should provide financial, technical, and other support to health institutions providing labour and delivery services such as hospitals, PHCC and BHCC.

Professional and partner organizations should offer financial, technical, and other support at all levels according to their capabilities and scope.

The organizational structure for the implementation of this guidelines is as follows (Figure 9)

Figure 9 Organizational Structure



The Table no .12 summarizes the key agencies and stakeholders for implementation of LCG and their key roles

Table 9: Roles ad Resonsiblites

Organisations		Maternal and newborn health services stakeholders	Key responsibilities
Ministries of health policy makers	<ul style="list-style-type: none"> • Federal-MoHP DoHS/FWD/NHTC/MD • Provincial – MoHP/MoSD, • Local level (municipality) 	<ul style="list-style-type: none"> • Leaders and technical officers at national and sub-regional levels 	<ul style="list-style-type: none"> • Provides guidance and oversights to implementation of guidelines. • Ensures allocation of resources (financial and human). • Coordinate for orientation/ coaching mentoring linking with linking to quality improvement processes.
Healthcare managers in public and private health sector	<ul style="list-style-type: none"> • Federal, provincial and local level section/units/ health personnel engaged in management. • Public hospital and health institution managers. • Medical college/private health institution managers. 	<ul style="list-style-type: none"> • Involved in the planning and management of maternal and newborn health services at health-care facilities. 	<ul style="list-style-type: none"> • Support/facilitate implementation of LCG as per guidelines in its own institutions and its peripheral health institutions including monitoring.
Healthcare professionals in public and private health sector		<ul style="list-style-type: none"> • Midwives, nurses, medical doctors, obstetricians, and other skilled health personnel and SBA working in maternity wards and birthing centres. labour and delivery wards. 	<ul style="list-style-type: none"> • Use and Support/facilitate implementation of LCG as per guidelines by providing orientation to service providers of their own institutions and peripheral health institutions as well as post orientation monitoring and support including clinical coaching and mentoring linking with improving quality of care.
Professional associations - national and sub-national	<ul style="list-style-type: none"> • Respective Professional Organizations. 	<ul style="list-style-type: none"> • Midwives, obstetricians, nurses, paediatricians and other skilled health personnel and SBA . 	<ul style="list-style-type: none"> • Use and Support providing technical guidance tools to support health professional practice.
External Development and Implementing Partners including non-governmental organizations	<ul style="list-style-type: none"> • Implementing partners including NGOs, Donor/ funding agencies. 	<ul style="list-style-type: none"> Partners working on maternal and newborn health. 	<ul style="list-style-type: none"> • Provides technical guidance to support countries deliver high quality maternal and newborn care including labour care guide.

(NGOs), bilateral and multilateral agencies			• Support in ensuring adequate resources needed for scale up.
Researchers and academics	• Research agencies and academic institutions.	• Researchers focused on generating evidence for maternal and newborn care and reducing stillbirth.	• Provides a common framework to generate priority evidence regarding learning questions to improve LCG implementation.

7.2 Action 2: Conduct situation analysis

A situation analysis should be done at national, provincial and local level while implementing IPC-LCG. The situation analysis should look into following key area:

- Leadership
- Ownership and planning
- Infrastructure and resources- human, physical
- Building capacity and implement
- Monitoring and evaluation
- Reporting

The situation analysis has two aspects viz Programmatic and Health Institution. For details questions are provided in see Annex 3 Situation Analysis Tools – adapted from WHO).

The responsibility of conducting programmatic aspect of the situation analysis will be as follows:

- At Provincial level, respective Provincial Health Directorates will take lead in conducting provincial level situation analysis.
- At Local level, respective Health Coordinator will take lead in conducting local (municipal) level situation analysis.

The situation analysis for health institution will be done as follows:

- In Federal and Teaching Hospital, Head of Obstetrics and Gynaecology Department together with Head of Nursing Team under the overall guidance of Medical Superintendent/ Medical Director of the hospital will conduct situation analysis.
- In Provincial hospital including district level, Head of Obstetrics and Gynaecology Department together with Head of Nursing Team under the overall guidance of Medical Superintendent/ Medical Director of the hospital will conduct the situation analysis.
- In local level hospital, PHCC, BHS with birthing centre, SHP/SBA with support from Head of the Facility and Nursing Unit will conduct the situation analysis.

7.3 Action 3: Take ownership and create implementation plan

At Federal level, after conducting situation analysis of both programmatic and facility level, based on the findings, develop a detail plan for LCG implementation in federal hospital, teaching hospitals/ academia, private sector hospital under its jurisdictions.

Similarly at Provincial level, after conducting situation analysis of both programmatic and facility level the Provincial

Health Directorate will develop a detail plan for LCG implementation in their respective hospitals (both public and private) under its jurisdiction within the provinces. In coordination with the federal and the provincial government particularly Health Office (district), the local level governments will conduct situation analysis at local level and detail out implementation plan in all basic hospital and basic health care centres (e.g. PHCC HP, UHC, CHU) conducting deliveries.

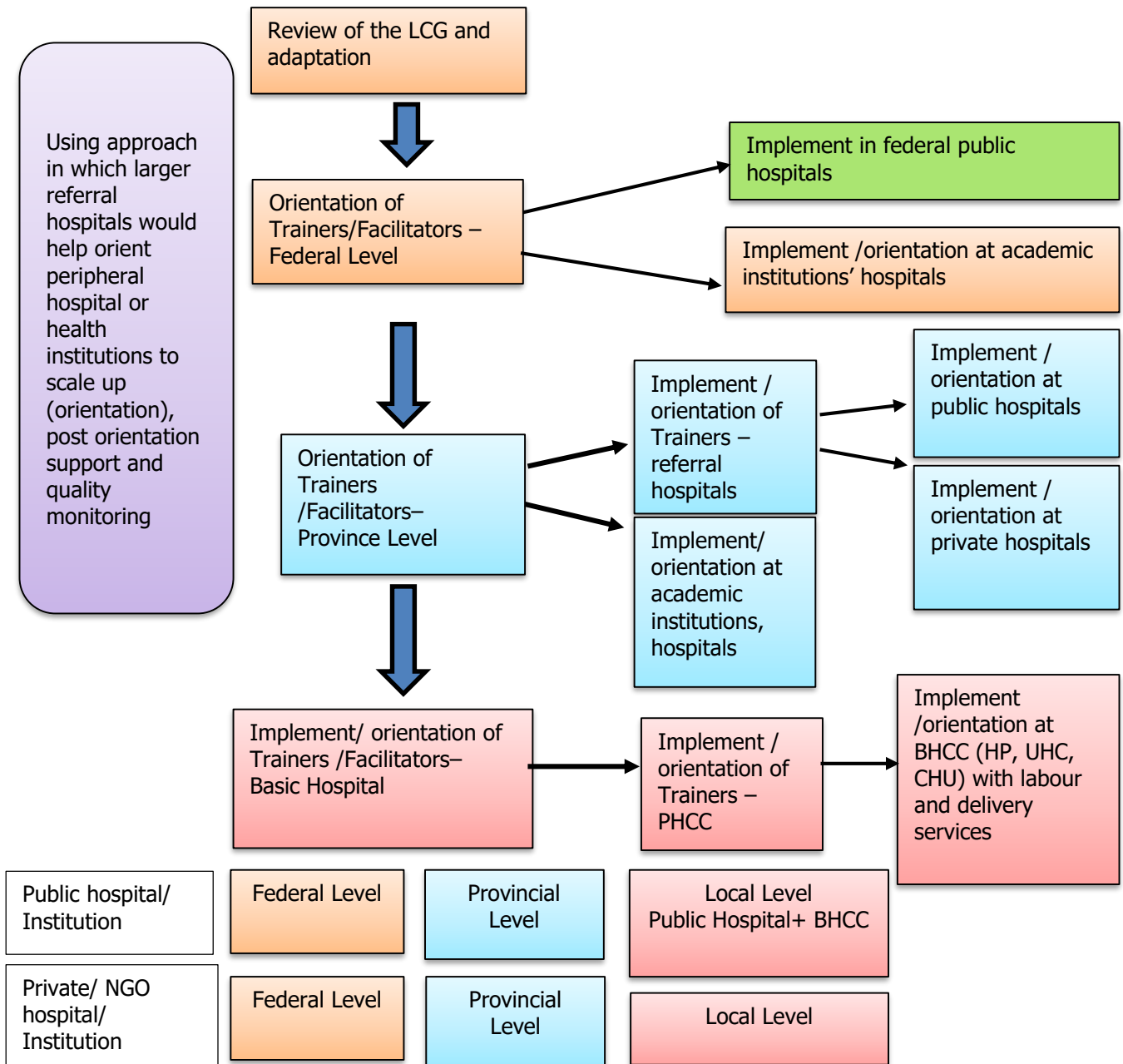
Develop an **Action Plan** which includes activities and specific tasks, timeline, responsible person/ organization, budget or resource needed (See Annex 6 for the form). The authority should consider public (government) and non-government/ private health institutions providing delivery services.

For implementation, a cascading approach will be used (see Figure 3). For initiating implementation, FWD will organize orientation of trainer/ facilitators at federal level and they will be mobilized for IPC/LCG implementation (orientation) at public hospitals and academic (teaching) hospitals.

In addition, FWD will organize orientation of trainers / facilitators of provincial level and they will be mobilized to orient trainers /facilitators of referral hospital and academic (teaching) health institutions. The trainers/ facilitators from referral hospital would be further mobilized to implement IPC-LGC in public and private hospitals of the respective provinces.

The trainers/ facilitators from the Province level also conduct orientation of trainer / facilitators of Basic Hospitals and trainers/ facilitators from implement and orient staff (trainers) from PHCC which then visit BHCC providing labour and child birth services to implement IPC-LGC.

Figure 10: Implementation Approach



7.4 Action 4: Ensure essential infrastructure and resources to get started

Service readiness is critical for quality service provision. In context of Nepal, many setting (hospitals, PHCC, HP with BC) may already have some of the resources needed. Fortunately, Nepal is implementing Minimum Service Standards (MSS) of various level of hospital and peripheral health facilities.

Ensure infrastructure, equipment, instruments, supplies and other items necessary for implementing labour care guide (see Annex 4 – MSS for Maternity Services). A list of LCG essential infrastructure and resources is provided in Table no 13).

In addition, it is important to ensure availability of training materials and monitoring and evaluation

Table 10: LCG essential infrastructure and resources (For detail please refer to Annex 4)

LCG section	Examples of essential resources needed in sufficient quantities at all times	Examples of context specific responsible departments for costed budget plans
LCG section 1 Identifying information	Supply of printed LCG for every facility birth. LCG user guide for every labour and delivery ward. Posters and job-aids.	Logistics
LCG section 2 Supportive care	Companion: Basic accommodation for companions (chair, space, access to toilet).	Infrastructure and logistics Equipment for sterilization equipment – autoclave functional both electric and gas/wood stove
	Pain relief Supplies of pharmacological and non-pharmacological pain relief methods.	Logistics
	Oral fluid: drinking water and food	
	Mobility: with access to clean and accessible bathrooms.	Infrastructure and logistics
LCG section 3 Assess baby	Fetal heart rate monitoring Fetoscope– one for each service provider on duty in labour and delivery.	Logistics
	Amniotic fluid/ caput/ moulding Room: examination beds with clean linens, privacy curtains Hand washing: clean water supply, soap, nail brush, clean towels Waste bucket for soiled linens Equipment: sterile speculum, gloves, light source	Logistics
LCG section 4 Assess woman	Vital signs: Thermometer, stethoscope, blood pressure machine.	Logistics
	Urine: dipsticks for protein and acetone	Logistics
LCG section 5 Labour progress	Uterine contractions: Wall clock with second hand. Sterile delivery kits	Logistics
LCG section 6 Medication	Supplies for augmentation medications and family planning methods	Logistics
LCG section 7 Shared decision-making	Private physical space to enable effective communication between women and health professionals.	Infrastructure
LCG section 8 Birth Outcomes	Vital signs: Thermometer, Stethoscope, Clock / stop watch	Infrastructure and logistics
Cross-cutting	Orientation/ Training: e.g., courses, manuals, videos, or webinars	Pre-service, in-service curriculum
	Monitoring and evaluation e.g., updating standardised registers/ case notes, electronic HMIS.	Information systems

7.5 Action 5: Build capability and implementation

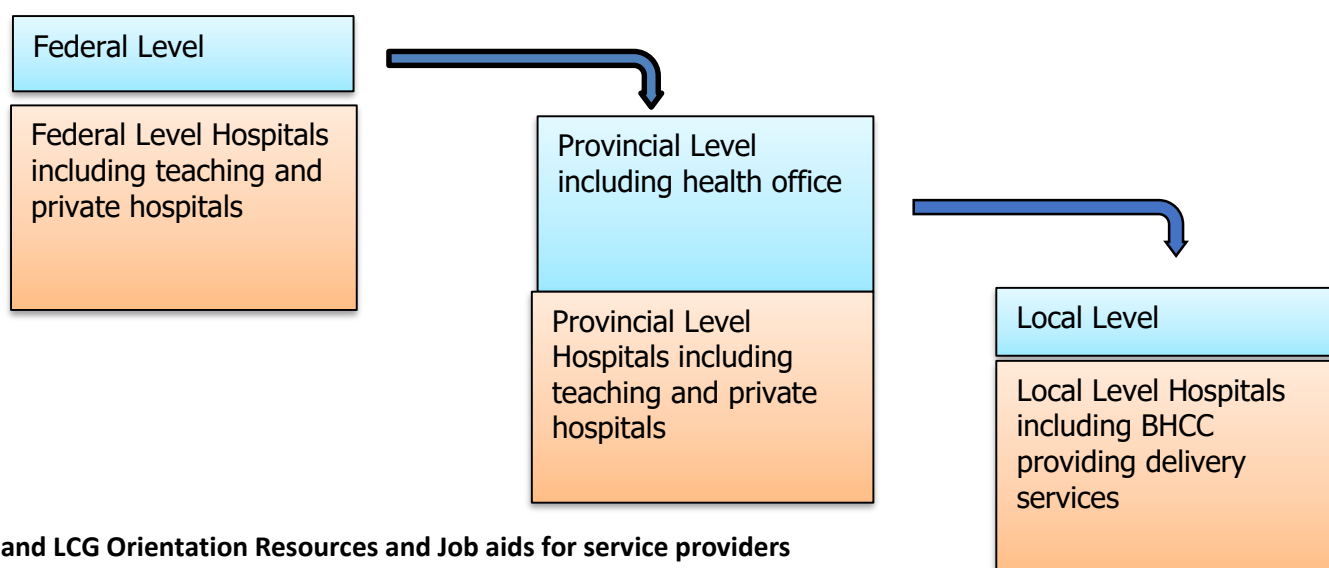
The key actions for the capacity building and implementation will be carried out using cascading model (see Fig No) i.e. Federal level building capability of provincial level team and provincial level team building capability of local level. Whenever possible, In province and local level, it is advised to integrate it with MNH training and mentoring and coaching program.

For capability building will be primarily done conducting orientation for:

1. Health Managers of health institutions, health directorate and Ministry of Health/ Social Development (such as medical superintendents, director, MNH focal persons).
2. Service providers (all the service providers engaged in labour and delivery services).

For LCG orientation cascading model will be used as follow

Figure 11: Implementation - Cascading approach



IPC and LCG Orientation Resources and Job aids for service providers

The resources needed for orientation include:

- Implementation guidelines for Intrapartum Care
- Copies of Labour Care Guide
- Copies of different case scenario for labour and delivery
- A set (deck) of power point presentation
- A schedule of the orientation

IPC and LCG Orientation Resources and Job aids for MNH managers

The resources needed for orientation include:

- Implementation guidelines for Intrapartum Care
- A set (deck) of power point presentation highlighting importance, resources needed, their roles
- A schedule of the orientation

7.6 Action 6: Monitoring and Evaluation of Quality of Care and Outcomes

It is important to monitor whether implementation is bringing results or not. This will be integrated into quality improvement (QI) process (point of care quality improvement i.e PoCQI). It is important using LCG implementation as an opportunity to strengthen routine core MNH indicators (see Table 14). The LCG quality improvement approach uses PDSA cycle (see below).

Table 11: Core Intrapartum Indicators

Type of indicator	Indicator	Disaggregate
Coverage	Number of hospital and health institutions oriented on IPC/LCG	Federal, Provincial, District, Municipal
	Proportion of federal, provincial and local level hospital or health institutions oriented	Public and private
Care practices	Proportion of women giving birth in health facility for whom LCG was used	
	Proportion of women giving birth in the health facility whose admission assessment included fetal heart assessment.	
	Proportion of women with a birth companion of choice during labour	
	Proportion of women with a birth companion of choice during childbirth	Vaginal births, caesarean section
Intervention rates	Caesarean Section Rate	Robson classification
	Vacuum delivery rate	
	Neonatal resuscitation (with ambu bag and-mask-ventilation rate/number of live birth	Livebirths/ stillbirths
Impact (institutional/ facility)	Stillbirth rate	Antepartum/ intrapartum. Before/ after admission
	Neonatal mortality rate	Early, late
	Maternal mortality ratio	Antenatal / intrapartum / postnatal

In addition to LCG, the managers as well as providers should use following tools.

For readiness, use MNH section of the Minimum Service Standards (MSS) tools and findings. This has been either already implemented or being implemented in many health institutions. It would help not only in identifying gaps in MNH services but also address those gaps.

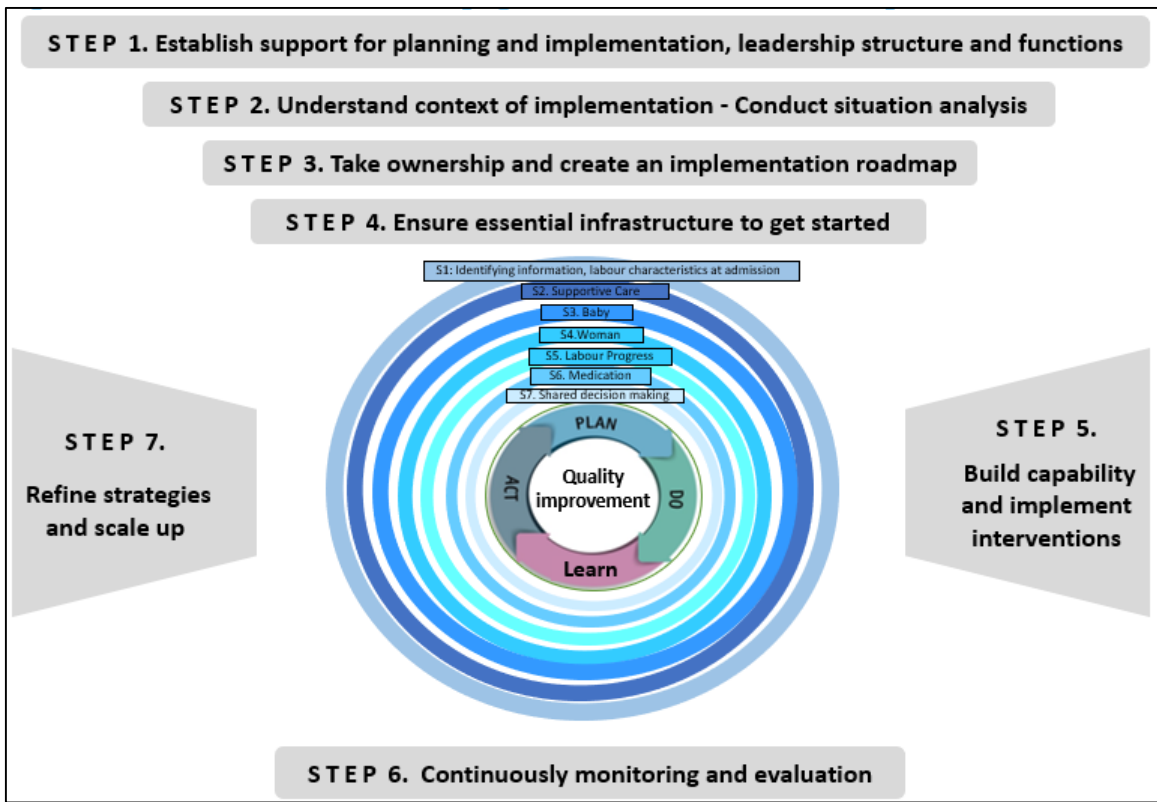
For process, use QI tools (Annex 5) for labour and childbirth, immediate newborn care. In many health facilities, during MNH coaching and mentoring these tools are in the use. For bigger hospitals one can use PoCQI.

At the centre of the LCG implementation framework are quality improvement cycles, involving continuous repetitions of four linked actions: Plan-Do-Study/Learn-Act (**PDSA**):

- **PLAN:** identify the specific intervention/ practice/ section in the LCG that will be implemented; consider the associated barriers/ enablers and identify strategies how to implement. Set clear goals and objectives for the process and plan to monitor the implementation process.
- **DO:** implement the identified specific intervention/ practice/ section in the LCG intervention you identified. Collect data during implementation, including for any challenges or barriers/ enablers you encounter.
- **STUDY / LEARN:** evaluate the process and result of LCG implementation including any data you collected. Ask the questions: is the LCG implementation going as planned? Is LCG implementation achieving the desired results for women and newborns? Identify any changes to your LCG implementation plans and identify any new strategies to enable implementation.

- **ACT:** continue to implement using your learnings continue the cycle of improvement for the specific intervention/ practice/ section you identified. Begin a PDSA cycle for the next intervention.

Figure 12: LCG implementation approach for quality improvement



Using the PDSA cycles enables strategies to implement the LCG more effectively to be identified and applied. Remember that implementation processes are not linear, so it is likely you will need to facilitate actions concurrently as well as loop back and repeat actions when contextual circumstances change over time.

7.6.1 Recording and reporting

The information captured in HMIS (DHIS-2) system should be recorded and reported accordingly. In addition, IPC/LCG related information including implementation of LCG should be recorded and compiled report should be submitted (monthly or quarterly) as described below (Figure 13) as per the format provided in Annex 7.

a) Recording

The record should include the following points.

Orientation (capacity building)

- Number, name service providers, their units participated and completed orientation (orientation event wise)
- Number and name of facilitator providing orientation (orientation event wise) along with name of the institution and date

Care practices

- Number of total delivery (vaginal, complicated, Caesarean Section)
- Number of women giving birth for whom LCG was used (in health institution wise)
- Number of women giving birth in the health facility whose admission assessment included fetal heart assessment
- Number of women with a birth companion of choice during labour

- Number of women with a birth companion of choice during childbirth (disaggregated by vaginal birth and caesarean section)

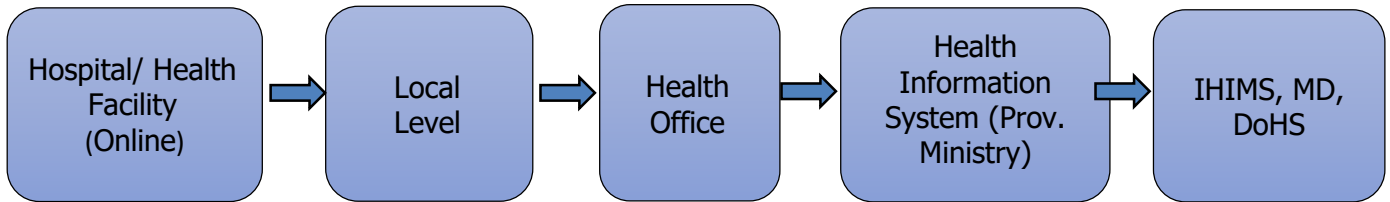
b) Reporting

While sending the monthly report, key points as mentioned in Figure 1 should be included.

- Number of service providers oriented (each institution)
- Number of total delivery (vaginal, complicated, Caesarean Section)
- Proportion of women giving birth for whom LCG was used (in health institution wise)
- Proportion of women giving birth in the health facility whose admission assessment included fetal heart assessment
- Proportion of women with a birth companion of choice during labour
- Proportion of women with a birth companion of choice during childbirth (disaggregated by vaginal birth and caesarean section)

Records should be kept, and report should be sent according to the form outlined in Annex 7,

Figure 13: Process of Reporting



7.7 Action 7: Scaling up

The seventh action in the implementation approach is action for scale up to ensure every woman and baby has the benefit of the care practices described in the LCG.

As per the implementation plan, federal, provincial and local government should ensure needed resources and scaling up orientation of LCG in all the health institutions for its implementation.

Birth Outcomes						
1. Date of delivery:			2. Time of delivery (24 hr format):			
3. Mode of delivery: a. Normal Delivery (ND): Yes / No b. ND with episiotomy: Yes / No c. ND with laceration: Yes / No d. ND with Tear: 1 st degree / 2 nd degree / 3 rd degree e. Assisted delivery: Yes / No f. Instrumental delivery: Yes / No g. Other complicated delivery: Yes / No			4. Placenta & membrane delivery: a. Time of delivery: b. Complete: Yes / No c. Retained: Yes / No			
5. Medications used for Active Management of Third Stage of labour (AMTL) a. Inj. Oxytocin b. Misoprostol / Tranexamic Acid / Inj. Methyl Ergometrine c. Any Additional medication (specify): _____						
6. Baby: Live / Stillborn		7. Sex: Male / Female / Ambiguous		8. Weight (in grams):		
9. APGAR Score:		10. Resuscitation: Yes / No		11. Skin to skin contact: Yes / No		12. Breast feeding within 1 hr: Yes / No
13. Maternal Vitals (after delivery):		15 mins	30 mins	45 mins	60 mins	1 hr 30 mins
a. Pulse (per min)						
b. BP (mm of Hg)						
c. Respiratory rate (per min)						
d. Temperature (F)						
14. Blood loss (in ml):		15. Uterus contracted: Yes / No			16. Urine passed in 2 hours: Yes / No	
17. Hematoma: Yes / No		18. Any sign of complication: Yes / No			19. Specify complication: _____	
20. Newborn Condition:		15 mins	30 mins	45 mins	60 mins	1 hr 30 mins
a. Grunting: (Yes / No)						
b. Chest indrawing: (Yes / No)						
c. Fast breathing: (Yes / No)						
d. Feet (warm): (Yes / No)						
21. Colour of skin (Cyanosed): Yes / No		22. Umbilical cord oozing: Yes / No			23. Sucking / feeding: Yes / No	
24. Any additional findings (congenital anomalies / prematurity / Hypothermia / Convulsion, etc.): Specify _____						

Annex 2: Additional Guidance for labour management

I. Examination of the woman in labour during admission:

First do rapid assessment and management. Then use this chart to assess the woman's and fetal status and decide stage of labour. Remember to use the Informed consent form for signature while admitting for management.

Ask, check record, look, listen, feel	
<p>History of this labour:</p> <ul style="list-style-type: none"> • When did contractions begin? • How frequent are contractions? • How strong? • Have your waters broken? If yes, when? Were they clear or green? • Have you had any bleeding? If yes, when? How much? • Is the baby moving? Do you have any concern? 	<p>Current pregnancy:</p> <ul style="list-style-type: none"> • RPR status • Hb results • Tetanus immunization status • HIV status/VDRL • Infant feeding plan • Receiving any medicine • Observe the woman's response to contractions: →→Is she coping well or is she distressed? Is she pushing or grunting? • Check abdomen for: →→caesarean section scar →→horizontal ridge across lower abdomen (if present, empty bladder and observe again) • Feel abdomen for: →→contractions frequency, duration, any continuous contractions? →→fetal lie—longitudinal or transverse? →→fetal presentation—head, breech, other? →→more than one fetus? →→fetal movement. • Listen to the fetal heart beat: →→Count number of beats in 1 minute. Alert: if less than <110, and more than ≥160 beats per minute. Ask her to lie in the left side and count again. • Measure blood pressure. • Measure temperature. • Look for pallor. • Look for sunken eyes, dry mouth. Pinch the skin of the forearm: does it go back quickly?
<p>Check record, or if no record:</p> <ul style="list-style-type: none"> • Ask when the delivery is expected. • Determine if preterm (less than 37 weeks of gestation). • Review the birth plan. • If prior pregnancies: Number of prior pregnancies/deliveries. • Any prior caesarean section, forceps, or vacuum, or other complication such as postpartum hemorrhage? Any prior third- or fourth-degree tears? 	

Decide stage of labour on admission based on cervical dilatation and uterine contraction

Ask, check record, look, listen, feel	Signs	Classify	Manage
<p>Explain to the woman that you will give her a vaginal examination and ask for her consent</p>	<p>Look at vulva for: →→bulging perineum →→any visible fetal parts →→vaginal bleeding →→ leaking amniotic fluid; if yes, is it meconium stained, foul-smelling? →→ warts, keloid tissue or scars that may interfere with delivery. →→Check uterine contractions</p>	<p>*Bulging thin perineum, vagina gaping and head visible, full cervical dilatation.</p>	<p>Imminent delivery See second stage of labour Record in LCG</p>
<p>Perform vaginal examination DO NOT shave the perineal area. Prepare: →→sterile gloves →→swabs, pads. Wash hands with soap before and after each examination. Wash vulva and perineal areas with tap water. Put on sterile gloves. Position the woman with legs flexed and apart. <u>DO NOT perform</u> vaginal examination if bleeding now or at any time after 7 months of pregnancy.</p> <p>Perform gentle vaginal examination (Not during contraction) →→Determine cervical dilatation in centimeters. →→ Feel for presenting part. Is it hard, round and smooth (the head)? If not, identify the presenting part. →→Feel for membranes – are they intact? →→Feel for cord – is it felt? Is it pulsating? If so,</p>	<p>*Cervical dilatation: →→multigravida ≥5 cm →→primigravida ≥5 cm</p> <p>Cervical dilatation ≥5 cm.</p> <p>Cervical dilatation: 0-4 cm; contractions weak and <2 in 10 minutes</p>	<p>Late active labour</p> <p>Early active labour</p> <p>Not yet in Active labour</p>	<p>See first stage of labour – active labour Start plotting LCG</p> <p>See first stage of labour – not active labour Record in labour record book.</p>

Ask, check record, look, listen, feel	Signs	Classify	Manage
	act immediately as on		
RESPOND TO OBSTETRICAL PROBLEMS ON ADMISSION			
For all situations mentioned below, refer urgently to health facilities with complication management team (CEONC and above)			
	Signs	Classify	Treat and advice
	Transverse lie. Continuous contractions. Constant pain between contractions. Sudden and severe abdominal pain. Horizontal ridge across lower abdomen. Labour >24 hours (with no progress in dilatation or fetal descent).	Obstructed labour.	If distressed, insert an IV line and give fluids If in labour >24 hours. Refer urgently to Health facilities with complication management (CEONC and above)
Rupture of membranes and any of: →→Fever >38°C →→Foul-smelling vaginal discharge	Uterine and Fetal infection	Give appropriate IM/IV antibiotics If late labour, deliver and refer to hospital after delivery Plan to treat newborn if not trained refer.	
Continue For all situations mentioned below, refer urgently health facilities with complication management (CEONC and above)			
<i>Rupture of membranes at <8 months of pregnancy</i>	<i>Risk of uterine And fetal infection And respiratory Distress syndrome</i>		Give appropriate IM/IV antibiotics If late labour, deliver Discontinue antibiotic for mother after delivery if no signs of infection. Plan to treat newborn, If no facilities: Refer
<i>Diastolic blood pressure >90 mmHg.</i>	Pre-Eclampsia		If SHP/SBA available initial management and Referral from peripheral birthing centers to CEONC and above health facilities.
<i>Severe palmar and conjunctival pallor and/or haemoglobin <7 g/dl.</i>	Severe anaemia		
<i>Breech or other malpresentation. Multiple pregnancy Fetal distress Prolapsed cord</i>	Obstetrical Complication		

II. Management of First stage of labor (Latent Phase):

When the women not in active labor

Cervical dilatation 1-4 cm and contraction 2/3 in 10 minutes.

Monitor every hour	Monitor every 4 hour	Assess progress of labor	Treat / advice, if required.
For emergency signs, using rapid assessment (RAM)	Cervical dilatation	After 8 hour if: →→ Contractions stronger and more frequent but →→ No progress in cervical dilatation with or without membranes ruptured.	Refer the woman urgently to hospital
Frequently, intensity and duration of contractions	Unless indicated, do not do vaginal examination more frequently than every 4 hours		
Fetal heart rate.	Temperature	After 8 hour if: →→ No increase in contractions, and →→ Membranes are not ruptured, and →→no progress in cervical dilatation	Discharge the woman if living nearby health facilities and advise her to return if: →→pain / discomfort increases →→vaginal bleeding →→membranes rupture.
Record time of rupture of membranes and colour of amniotic fluid.	Blood pressure	Cervical dilatation 5 cm or greater	Begin plotting the Labour care guide (LCG) and manage the woman as in active labour.
Give Supportive care never leave the woman alone.			
Record findings regularly in labour record or LCG (5cm)			

III. Supportive care throughout labour

<p>Communication</p> <ul style="list-style-type: none"> • Explain all procedures, seek permission, and discuss findings with the woman. • Keep her informed about the progress of labour. • Praise her, encourage and reassure her that things are going well. • Ensure and respect privacy during examinations and discussions. • If known HIV-infected, find out what she has told the companion. Respect her wishes 	<p>Cleanliness</p> <ul style="list-style-type: none"> • Encourage the woman to bathe or shower or wash herself and genitals at the onset of labour. • Wash the vulva and perineal areas before each examination. • Wash your hands with soap before and after each examination. Use sterile gloves for vaginal examination. • Ensure cleanliness of labour and birthing area(s). • Clean up spills immediately. • DO NOT give enema
<p>Pain and discomfort relief</p> <ul style="list-style-type: none"> • Suggest change of position. • Encourage mobility, as comfortable for her. 	<p>Breathing technique</p> <ul style="list-style-type: none"> • Teach her to notice her normal breathing. • Encourage her to breathe out more slowly, making a sighing noise, and to relax with each breath.

<ul style="list-style-type: none"> • Encourage companion to: →→massage the woman’s back if she finds this helpful. →→hold the woman’s hand and sponge her face between contractions. • Encourage her to use the breathing technique. • Encourage warm bath or shower, if available. • If woman is distressed or anxious, investigate the cause. • If pain is constant (persisting between contractions) and very severe or sudden in onset 	<ul style="list-style-type: none"> • If she feels dizzy, unwell, is feeling pins-and-needles (tingling) in her face, hands and feet, encourage her to breathe more slowly. • To prevent pushing at the end of first stage of labour, teach her to pant, to breathe with an open mouth, to take in 2 short breaths followed by a long breath out. • During delivery of the head, ask her not to push but to breathe steadily or to pant.
<p>Mobility</p> <ul style="list-style-type: none"> • Encourage the woman to walk around freely during the first stage of labour. • Support the woman’s choice of position (left lateral, squatting, kneeling, standing supported by the companion) for each stage of labour and delivery. 	<p>Urination</p> <ul style="list-style-type: none"> • Encourage the woman to empty her bladder frequently. Remind her every 2 hours.
<p>Eating, drinking</p> <ul style="list-style-type: none"> • Encourage the woman to eat and drink as she wishes throughout labour. • Nutritious liquid drinks are important, even in late labour. • If the woman has visible severe wasting or tires during labour, make sure she eats and drinks 	<p>Birth companion</p> <ul style="list-style-type: none"> • Encourage support from the chosen birth companion throughout labour. • Describe to the birth companion what she or he should do: →→Always be with the woman, encourage her. →→Help her to breathe and relax. →→Rub her back, wipe her brow with a wet cloth, do other supportive actions. →→Encourage woman to move around freely as she wishes and to adopt the position of her choice. →→Encourage her to drink fluids and eat as she wishes and allowed. →→Assist her to the toilet when needed. <ul style="list-style-type: none"> • Ask the birth companion to call for help if: →→The woman is bearing down with contractions. →→There is vaginal bleeding. →→She is suddenly in much more pain. →→She loses consciousness or has fits. →→There is any other concern. <ul style="list-style-type: none"> • Tell the birth companion what she or he should NOT do and explain why: →→DO NOT encourage woman to push. →→DO NOT give advice other than that given by the health worker. →→DO NOT keep woman in bed if she wants to move around

IV. Delivery of Baby

- Ensure controlled delivery of the head:
→→Keep one hand gently on the head as it advances with contractions.
→→Support perineum with other hand and cover anus with pad held in position by side of hand during delivery.

- Leave the perineum visible (between thumb and first finger).
- Ask the mother to breathe steadily and not to push during delivery of the head.
- Encourage rapid breathing with mouth open.
 - *Feel gently around baby's neck for the cord.*
 - *Check if the face is clear of mucus and membranes.*
 - *Await spontaneous rotation of shoulders and delivery (within 1-2 minutes).*
 - *Apply gentle downward pressure to deliver top shoulder.*
 - *Then lift baby up, towards the mother's abdomen to deliver lower shoulder.*
 - *Place baby on abdomen or in mother's arms.*
 - *Note time of delivery.*
 - *Thoroughly dry the baby immediately. Wipe eyes. Discard wet cloth.*
 - *Assess baby's breathing while drying.*
 - *If the baby is not crying, observe breathing:*
 - breathing well (chest rising)?
 - not breathing or gasping?
 - *Palpate mother's abdomen to exclude a second baby.*
 - *Give 10 IU oxytocin IM to the mother.*
 - *Watch for vaginal bleeding.*
 - *Change gloves.*
 - *Clamp and cut the cord (1-3 minutes after birth):*
 - put ties tightly around the cord at 2 cm and 5 cm from baby's abdomen.
 - cut between ties with sterile instrument.
 - observe for oozing blood.
 - *Leave baby on the mother's chest in skin-to-skin contact. Place identification label.*
 - *Cover the baby, cover the head with a hat.*
 - *Encourage initiation of breastfeeding within the first hour after birth.*

V. Management of third stage of labour

DELIVER THE PLACENTA	TREAT AND ADVISE IF REQUIRED
<ul style="list-style-type: none"> • Ensure 10-IU oxytocin IM is given /misoprostol 600mcg if oxytocin not available. • Await strong uterine contraction (2-3 minutes) and deliver placenta by controlled cord traction: <ul style="list-style-type: none"> →→Place side of one hand (usually left) above symphysis pubis with palm facing towards the mother's umbilicus. This applies counter traction to the uterus during controlled cord traction. <ul style="list-style-type: none"> • At the same time, apply steady, sustained controlled cord traction. →→If placenta does not descend during 30-40 seconds of controlled cord traction, release both cord traction and counter traction on the abdomen and wait until the uterus is well contracted again. <ul style="list-style-type: none"> • Then repeat controlled cord traction with counter traction. →→As the placenta is coming out, catch in both hands to prevent tearing of the membranes. →→If the membranes do not slip out spontaneously, gently twist them into a rope and 	<ul style="list-style-type: none"> • If, after 30 minutes of giving oxytocin, the placenta is not delivered and the woman is NOT bleeding: <ul style="list-style-type: none"> →→Empty bladder →→Encourage breastfeeding →→Repeat controlled cord traction. If woman is bleeding, manage <ul style="list-style-type: none"> • If placenta is not delivered in another 30 minutes (1 hour after delivery): <ul style="list-style-type: none"> →→Remove placenta manually in CEONC sites/ →→Prepare for referral if Not a Functioning CEONC site or Birthing centers. →→Give appropriate IM/IV antibiotic <ul style="list-style-type: none"> • If in 1 hour unable to remove placenta: <ul style="list-style-type: none"> →→Refer the woman to hospital →→Insert an IV line and give fluids with 20 IU of oxytocin at 30 drops per minute during transfer DO NOT exert excessive traction on the cord. DO NOT squeeze or push the uterus to deliver the placenta. <ul style="list-style-type: none"> • If placenta is incomplete: <ul style="list-style-type: none"> →→Remove placental fragments manually in OT or Refer to higher center. →→Give appropriate IM/IV antibiotic • Heavy bleeding

DELIVER THE PLACENTA	TREAT AND ADVISE IF REQUIRED
<p>move them up and down to assist separation without tearing them</p> <ul style="list-style-type: none"> • Check that uterus is well contracted and there is no heavy bleeding. • Repeat check every 5 minutes. • Examine perineum, lower vagina and vulva for tears. • Collect, estimate and record blood loss throughout third stage and immediately afterwards • Clean the woman and the area beneath her. Put sanitary pad or folded clean cloth under her • buttocks to collect blood. Help her to change clothes if necessary. • Keep the mother and baby in delivery room for a minimum of one hour after delivery of placenta. • Dispose of placenta in the correct, safe and culturally appropriate manner 	<p>→→Massage uterus to expel clots if any, until it is hard. →→Give oxytocin 10 IU IM /Give inj. Tranexamic acid 1 gm x IM within 3 hours.</p> <p>→→Call for help. →→Start an IV line, add 20 IU of oxytocin to IV fluids and give at 60 drops per minute. →→Empty the bladder .</p> <ul style="list-style-type: none"> • If bleeding persists and uterus is soft: <p>→→Continue massaging uterus until it is hard. →→Apply bimanual or aortic compression →→Continue IV fluids with 20 IU of oxytocin at 30 drops per minute.</p> <p>Treat the cause of PPH. →→Refer woman urgently to Health facilities with complication management (CEONC and above)</p>

VI. Respond to problems during labour and delivery

IF FETAL HEART RATE (FHR) <110 OR ≥160 BEATS PER MINUTE	<u>Timely Referral from birthing centers and health facilities not having facilities for complication management</u>
IF PROLAPSED CORD	
IF BREECH PRESENTATION	
IF SHOULDER DYSTOCIA	
IF MULTIPLE PREGNANCY	
RETAINED PLACENTA AND OTHER COMPLICATIONS.	

VII. Care of mother and newborn within first two hours of delivery

<p>MONITOR MOTHER EVERY 15 MINUTES:</p> <ul style="list-style-type: none"> • For emergency signs • Feel if uterus is hard and round. • Record findings, treatments and procedures in Labour care guide (LCG). • Keep mother and baby in delivery room - do not separate them. • Never leave the woman and newborn alone. 	<p>MONITOR BABY EVERY 15 MINUTES:</p> <ul style="list-style-type: none"> • Breathing: listen for grunting, look for chest in-drawing and fast breathing. • Warmth: check to see if feet are cold to touch Check colour, umbilical cord for oozing, sucking/feeding.
<ul style="list-style-type: none"> • Assess the amount of vaginal bleeding. • Encourage the woman to eat and drink. • Ask the companion to stay with the mother. • Encourage the woman to pass urine. 	<ul style="list-style-type: none"> • NEWBORN • Wipe the eyes. • Apply antiseptic eye drops or ointment (e.g. tetracycline ointment) to both eyes once, according to national guidelines. • DO NOT wash away the eye antimicrobial. • If blood or meconium, wipe off with wet cloth and dry. • DO NOT remove vernix or bathe the baby for 24 hours.

	<ul style="list-style-type: none">• <i>Continue keeping the baby warm and in skin-to-skin contact with the mother.</i>• <i>Encourage the mother to initiate breastfeeding as early as possible. Offer her help.</i>• <i>DO NOT give artificial teats or pre-lacteal feeds to the newborn: no water, sugar water, or local feeds.</i>
<p><i>Refer to higher center if woman or new born has any complications</i></p>	
<p>MONITOR: mother and newborn for danger signs every 15 minutes in first hour then half hourly till 2 hours then every 4 hours for 24 hours.</p>	

Annex 3: Situation Analysis Tools for LCG

Situation Analysis tool for LCG

Part One: Programmatic

LCG Implementation Approach Steps		Federal*	Provincial**	Local***	Remarks
Leadership /Governance	Has dedicated leadership agency identified for LCG implementation				
	Has partner agencies/ stakeholder outside of GoN identified				
	Number of hospital/health institutions both public and private providing IPC under your management authority (disaggregated by level and type)				
	Any research related to on labour and childbirth including women's and/or health care provider experience				
Ownership and planning (roadmap)	National policy or strategy supporting WHO LCG already exist or available				
Infrastructure/ Resources (human and physical)	Doppler handheld instrument to monitor fetal heart rate procured and made available along with supplies like gel to hospital and health institutions				
	Pinard Stethoscope to monitor fetal heart rate procured and made available to hospitals and health institutions				
	Sphygmomanometer procured and made available to hospitals and health institutions				
	Health personnel are available for routine childbirth care 24 hours a day in hospitals and health institutions providing delivery services				
	Health personnel are available for Caesarean Section 24 hours a day in hospitals (CEONC sites)				
Build capacity and implement	IPC/LCG guidelines (based on WHO) is provided to hospital and health institutions to keep in labour and delivery wards				
	Training/ orientation materials are available				

LCG Implementation Approach Steps		Federal*	Provincial**	Local***	Remarks
	Pre-service education (nurses, midwives and obstetrician) includes IPC/LGC in curriculum				
	In-service training program includes IPC/LGC and maintain database				
	LCG is charted (used and filled) for every woman in labour?	In federal/teaching hospital			
	All service providers indicate findings on a labour monitoring tools in health institutions.				
	All health institutions allow companion of choice to all woman throughout the labour and childbirth .				
	What percentage of women who wanted and had a companion?				
	All health institutions allow birth position of choice to all women.				
	Quality improvement (including MSS) mechanism established and functioning in all health institutions.				
Continuous M&E in information system	Forms and registers to recording are available in labour and delivery wards of all health institutions.				
	Total number of birth/ deliveries per year (estimates)				
	Caesarean section rate (%)				
	Proportion of health institutions actively conducting MPDSR.				
	Maternal Mortality Ratio (per 100000)				
	Neonatal mortality rate/1000 live births.				
	Still birth rate /1000 total birth (disaggregate antepartum and intrapartum, very early intrapartum death).				
Refine strategies and scale up	Has well developed plan with timeline to scale LCG implementation in all health institutions conducting deliveries.				

Note: *Federal Hospitals and Teaching hospital; **Provincial including district level hospital, * Local level hospital, PHCC and BHS with birthing centre**

Part Two: Health Institution

LCG Implementation Approach Steps	Questions	Yes/No	Remarks
Leadership /Governance	National policy or strategy supporting WHO LCG already exist or available in the health institution.		
Ownership and planning (roadmap)	Hospital management fully supports implementation of LCG.		
Infrastructure/ Resources (human and physical)	Doppler handheld instrument to monitor fetal heart rate is available along with supplies like gel in the hospital or health institution.		
	Pinard Stethoscope to monitor fetal heart rate is available in the hospitals and health institution.		
	Sphygmomanometer is available in the hospital and health institution.		
	Health personnel are available for routine childbirth care 24 hours a day in hospital or health institution (providing delivery services) as per MSS (if not available – should mention not available).		
	Health personnel are available for Caesarean Section 24 hours a day in the hospital (CEONC sites).		
Build capacity and implement	IPC/LCG guidelines (based on WHO) is provided and available in the labour and delivery wards of the hospital or health institution.		
	Training/ orientation materials are available.		
	IPC/LCG is taught to pre-service education (nurses, midwives, and obstetrician if hospital or health institution if students visit the site for clinical practice.		
	IPC/LCG is taught in-service training to the participants if they visit the site for clinical practice.		
	LCG is charted (used and filled) for every woman in labour?		
	All the service providers indicate findings on a labour monitoring tools in the health institutions.		
	The health institutions allow companion of choice to all woman throughout the labour and childbirth.		
	What percentage of women who wanted and had a companion in the institution?		
	The health institution allows birth position of choice to all women.		
	Quality improvement (including MSS) mechanism established and functioning in the health institution.		
Continuous M&E in information system	Forms and registers to recording are available in labour and delivery wards of the health institution.		
	Total number of birth/ deliveries per year (last year) of the institution.		
	Caesarean section rate (%) of the health institution (last year)		
	Conducts MPDSR		
	Number of maternal deaths		
	Number of neonatal deaths		
	Number of still births (disaggregate antepartum and intrapartum, very early intrapartum death).		
The major causes of neonatal death			

Annex 4: Minimum Service Standards for Maternity Services

MSS for Maternity Services for Primary Hospitals¹³ (Please refer to specific MSS for Maternity Services as per the level of health institution.

Area	Code	Verification		
Maternity Services	2.7			
Delivery Services	2.7.1			
Components		Standards	Obtained Score	Maximum Score
2.7.1.1 Availability of delivery service	2.7.1.1.1	Separate pre-labor room/ labor room with privacy is available.		1
	2.7.1.1.2	Delivery service is available round the clock.		1
	2.7.1.1.3	At least one delivery bed is assigned for every 15 maternity beds.		1
	2.7.1.1.4	Labor room has adequate space for accommodating team of health workers during emergencies and easy access to OT.		1
2.7.1.2 Trained Human Resource for Delivery Services	2.7.1.2.1 Hospital delivery service has adequate and trained staffing			
	2.7.1.2.1.1	Nurse: pregnant women ratio 1:2 in pre- labor; 2:1 per delivery table and 1:6 in post- natal ward.		1
	2.7.1.2.1.2	At least one ASBA trained medical officer on duty.		1
	2.7.1.2.1.3	At least one office assistant is available per shift.		1
	2.7.1.2.2	All staffs- nursing, medical practitioner designated for delivery services are strained killed birth attendants.		1
2.7.1.3 Duty rosters	2.7.1.3	Duty roster to cover 24 hours shift is developed and placed n visible place.		1
2.7.1.4 Appropriate use of partograph for decision making	2.7.1.4	Partograph available and being used rationally.		1
2.7.1.5 KMC done for low-birth-weight babies	2.7.1.5	At least 2 KMC chairs available for providing KMC to premature and preterm babies.		1
2.7.1.6 Birth certificate prepared and released	2.7.1.6	A formally signed standard birth certificate is issued.		1
2.7.1.7 Patients' counseling	2.7.1.7.1	Pre-labor/ during labor patient and patients' family are adequately given counseling on labor, possible complications and written consent taken.		1
	2.7.1.7.2	Health education on PNC, danger signs of mother and child, Immunization, nutrition, hygiene and family planning is given.		1
	2.7.1.7.3	Postpartum family planning and breastfeeding-early, exclusive and extended counseling is done prior to discharge.		1
2.7.1.8 IEC/BCC ² materials	2.7.1.8	Appropriate IEC/BCC materials (posters, leaflets etc.) on postnatal care, breastfeeding- early, exclusive and extended, nutrition, immunization are used and available for users.		1
	2.7.1.9.1	Separate storeroom for delivery service related logistics.		1
		The facility has adequate equipment, instrument and general supplies for delivery services (See		

¹³ Minimum Service Standards (MSS) – Checklist to Identify the Gaps in Quality Improvement of Primary Hospitals, Quality Stands and Regulation Division, MoHP, 2075

2.7.1.9 Furniture, equipment, instrument, medicine and supplies for labor room	2.7.1.9.2	Annex 2.7.1a Furniture, equipment, instrument and general supplies for labor room at the end of this standard).	3
	2.7.1.9.3	Labor room has medicines and supplies available for delivery services (See Annex 2.7.1b Medicines and supplies for Labor Room At the end of this standard).	3
	2.7.1.9.4	Labor room has emergency cart with medicines and supplies available (See Annex 2.7.1c Medicines and Supplies for ER Trolley Labor Room At the end of this standard).	3
2.7.1.10 Facilities for patients	2.7.1.10.1	Safe drinking water is available 24 hours.	1
	2.7.1.10.2	Separate toilet for patient is available in pre- labor room and accessible to patient after delivery.	1
	2.7.1.10.3	There should be maternity waiting homes ³ where there are more than 20 deliveries per day and the waiting home must be taken round by every shift with at least one visit (by nurse).	1* (only for program districts)
2.7.1.11 Infection prevention	2.7.1.11.1	Personal protective equipment are available and used whenever required.	1
	2.7.1.11.2	Washable labor room.	1
	2.7.1.11.3	Separate slipper designated for labor room and hand sanitizer placed in visible place for use.	1
	2.7.1.11.4	There are at well labeled color-coded bins for waste segregation and disposal as per HCWM guideline 2014 (MoHP).	1
	2.7.1.11.5	Hand washing facility with running water and liquid soap is available.	1
	2.7.1.11.6	Needle cutter is used.	1
	2.7.1.11.7	Liquid sodium hypochloride (0.5% Chlorine solution) is available and utilized for decontamination.	1
	2.7.1.11.8	Dry gauze and cotton are stored separately in clean containers.	1
	2.7.1.11.9	Separate bowls/ bucket for placenta and plastic.	1
	2.7.1.11.10	Placenta pit is used to dispose placenta.	1
Standard 2.7.1	Total Obtained Score		39
	Total Percentage = Total Obtained Score/ 39 x100		

MSS Annex 2.7.1a Furniture, equipment, instrument and general supplies for labor room

S.No.	Items	Required Number	Score
1.	Delivery bed	At least 1 for every 15 beds	
2.	Clean bed linen	Each bed	
3.	Curtains	As per need	
4.	Clean surface (for alternative delivery position)	Available	
5.	Newborn Resuscitation table	1	
6.	Light source	1	
7.	Room Heater	1	
8.	Baby heater	1 per delivery bed	
9.	Refrigerator for labor room	1	
Equipment and Instruments			
10.	BP Set (Non mercury) and Stethoscope	1	
11.	Body Thermometer (Non- mercury)	1	
12.	Room thermometer	1	
13.	Fetoscope	2	
14.	Fetal stethoscope	1	
15.	Baby weighing scale	1	
16.	Self-inflating bag air mask – neonatal size	1	
17.	Mucus extractor with suction tube/ (Penguin)	2	
18.	Doppler	1	
19.	Vaginal speculum (Sims)	2	
20.	Neonatal resuscitation kit	1	
21.	Adult resuscitation kit	1	
22.	Sterile Delivery Instrument Set (Check each set)	4 sets per delivery beds	
22.1	Sponge forceps	2	
	Artery forceps	2	
	S/S bowl (Galli pot)	1	
	S/S bowl (receive placenta) (1-2 litre)	1	
	Cord cutting Scissors (blunt end)	1	
	Cord ties/ cord clamp	2	
	Plastic sheet/ rubber sheet	1	
	Gauze swabs	4	
	Cloth squared	3	
	Kidney tray	1	
	Peripad/ big dressing pad	2	
	Leggings	2	
	Perineal sheet	1	
Baby receiving towel	1		
Sterile gown	1		
23.	Suture set (Check each set)	2 sets	
23.1	Needle holder	1	
	Sponge holder	1	
	Suture cutting scissors	1	
	Dissecting forceps (tooth and plain)	2	
	Artery forceps	1	
	Galliport	2	
24.	Episiotomy set (Check each set)	2 sets	
24.1	Episiotomy scissors	1	
	Needle holder	1	
	Suture cutting scissor	1	
	Dissecting forceps (tooth and plain)	2	
	Artery forceps	1	
25.	Vacuum set	2	
26.	Forceps set for delivery	1	
			Total Score
Total percentage= Total Score/26x100			

Each row gets a score of **1** if the mentioned medicines are available otherwise **0**.

Scoring Chart	
Total percentage	Score
0-50	0
50-70	1
70-85	2
85-100	3
Score for Standard 2.7.1.9.2	

MSS Annex 2.7.1b Medicines and Supplies for Labor Room

S.No.	Medicines and supplies	Required No.	Score
Medicines			
1.	Oxytocin injection (keep in 2-8°C)	20 amp	
2.	Tranexamic acetate injection	10 amp	
3.	Ergometrine injection	10 amp	
4.	Magnesium sulphate injection	50 amp	
5.	Calcium gluconate injection	3 amp	
6.	Diazepam injection	10	
7.	Labetalol injection	10	
8.	Ampicillin injection	10	
9.	Gentamycin injection	5	
10.	Metronidazole injection	5	
11.	Lignocaine injection	2	
12.	Adrenaline injection	5	
13.	Ringers' lactate injection	10	
14.	Normal saline injection	10	
15.	Dextrose 5% injection	10	
16.	Water for injection	5	
17.	Eye antimicrobial (1% silver nitrate or Tetracycline 1% eye ointment)	2	
18.	Povidone iodine	5	
19.	Tetracycline 1% eye ointment	2	
20.	Paracetamol Tablet	20	
21.	Nifedipine SL Tablet 5 mg	4 tab	
22.	Misoprostol Tablet	5 tabs	
Supplies			
23.	Syringes and needles	20	
24.	IV set	10	
25.	Spirit (70% alcohol)	1 bottle	
26.	Steel drum with cotton	1	
27.	Urinary catheter (plain and foley's)	5 each	
28.	Sutures for tear or episiotomy repair (2.0 chromic catgut)	12 PC	
29.	Bleach (chlorine-base compound)	2 packets	
30.	Clean (plastic) sheet to place under mother	4	
31.	Sanitary pads	1 box	
32.	Peri-pads Sterile	As per need	
33.	Clean towels for drying and wrapping the baby	5	
34.	Cord ties (sterile)	50	
35.	Blanket for the baby	5	
36.	Baby feeding cup	3	
37.	Impregnated bed net	2	
38.	Utility Gloves	10 pairs	
39.	Sterile Gloves	50 pairs	
40.	Long plastic apron	2	
41.	Goggles	2	
42.	Container for sharps disposal	1	
43.	Needle cutter	1	
44.	Receptacle for soiled linens	1	
45.	Bucket for soiled pads and swabs	2	

46.	Bucket for placenta (5 ltr.)	2	
47.	Well labelled color coded bins as per HCWM guideline	1 set	
48.	Wall Clock	1	
49.	Torch with extra batteries and bulb	1-2	
50.	Maternity register	1-2	
51.	Birth certificate	as per need	
52.	<u>Partograph/LCG</u>	as per need	
Total Score			
Total percentage= Total Score/52 x 100			

Each row gets a score of **1** if the mentioned medicines are available otherwise **0**.

Scoring Chart	
Total percentage	Score
0-50	0
50-70	1
70-85	2
85-100	3
Score for Standard 2.7.1.9.3	

MSS Annex 2.7.1c Medicines and Supplies for ER Trolley Labor Room

SN	Name	Required No	Score
1.	Atropine Injection	10 amp	
2.	Adrenaline Injection	3vial	
3.	Xylocaine 1% and 2% Injections with Adrenaline	2vial	
4.	Xylocaine 1% and 2 % Injections without Adrenaline	2vial	
5.	Xylocaine Gel	2 tube	
6.	Diclofenac Injection	5 amp	
7.	Hyoscine Butyl bromide Injection	5amp	
8.	Diazepam injection	2 amp	
9.	Morphine Injection / Pethidine Injection	2 amp	
10.	Hydrocortisone Injection	4vial	
11.	Chlorpheniramine maleate Injection	4amp	
12.	Dexamethasone Injection	4vial	
13.	Ranitidine/Omeprazole Injection	4 amp	
14.	Frusemide Injection	5 amp	
15.	Dopamine injection	2 amp	
16.	Noradrenaline injection	2 amp	
17.	Digoxin injection	2 amp	
18.	Verapamil injection	2 amp	
19.	Amidarone injection	2 amp	
20.	Glyceryl trinitrate/nitroglycerine injection	10 tab/ 5amp	
21.	Labetalol injection	5 amp	
22.	Magnesium sulphate injection	30 amp	
23.	Calcium gluconate injection	2 amp	
24.	Sodium bicarbonate injection	2 amp	
25.	Ceftriaxone Injection	4 vials	
26.	Metronidazole Injection	4 bottles	
27.	Dextrose 25%/ 50% Injection	2 ampoules each	
28.	IV Infusion set (Adult/Pediatric)	2	
29.	IV Canula (16, 18, 20, 22, 24, 26 Gz)	2 each	
30.	Disposable syringes 1 ml, 3 ml, 5 ml, 10 ml, 20 ml, 50 ml	5 each	
31.	Disposable Gloves 6, 6.5, 7, 7.5	3 each	
32.	Water for injection 10 ml	10 amp	
33.	Sodium chloride-15%w/v and Glycerin-15% w/v (for enema)	5	
34.	PPH management Set <ul style="list-style-type: none"> (IV canula: 16/18G, IV fluids as per treatment protocol, IV set, Foley's catheter, Urobag) Condom tamponade set- Sponge holder:2, Sim's speculum:1, Foley's catheter:1, Condom:2, IV fluids: NS1, IV set, Thread, Cord Clamp), Inj Oxytocin, Tab Misoprostol, 	At least 1	
35.	Eclampsia management Set (Knee hammer, IV canula: 16/18G, IV fluids, IV set, Foley's catheter, Urobag, ambu bag, Oxygen, Inj MgSO4: 46 ampoules, Inj lignocaine 2%, Inj Calcium gluconate, Distilled water, Disposable syringe 20ml-1, 10ml-8, Cap Nifedipine- 5mg 4 Cap)	At least 1	
Total Score			
Total Percentage =Total Score/35X100			

Each row gets a score of **1** if all the required number is available otherwise **0**.

Scoring chart	
Total percentage	Score
0-50	0
50-70	1
70-85	2
85-100	3
Score Standard 2.7.1.9.4	

Area	Code	Verification		
Maternity Services	2.7			
Maternity Inpatient Service	2.7.2			
Components		Standards	Obtained Score	Maximum Score
2.7.2.1 Space for work	2.7.2.1.1	Separate space for nursing station is available		1
	2.7.2.1.2	Separate changing room available for male and female staffs		1
	2.7.2.1.3	Separate storeroom is available		1
	2.7.2.1.4	Separate space dedicated for pre-labor, labor and postnatal patients		1
2.7.2.2 Furniture and supplies available and functioning	2.7.2.2	Furniture and supplies to carry out the inpatient services are available and functioning (See Annex 2.7.2a Furniture and supplies for maternity inpatient wards At the end of this standard) (including nursing station)		3
2.7.2.3 Medicine and supplies available	2.7.2.3	Medicine and supplies to carry out the inpatient services are available General Ward (See Annex 2.7.2b medicine and supplies for maternity inpatient wards At the end of this standard)		3
2.7.2.4 Nursing and support staff for maternity inpatient service	2.7.2.4.1	Nurse patient ratio 1:6 per general bed		1
	2.7.2.4.2	At least one trained office assistant per shift in each ward		1
2.7.2.5 Duty rosters	2.7.2.5	Duty roster of doctors, nurses, paramedics and support staffs kept visibly in nursing station		1
2.7.2.6 Communication	2.7.2.6	Telephone facility is available with list of important contact numbers and hospital codes visibly kept		1
2.7.2.7 Emergency management of inpatients	2.7.2.7.1	All staffs in wards are trained for BLS and oriented about emergency code 001 or blue code		1
	2.7.2.7.2	At least one emergency trolley with emergency medicine available in ward (See Annex 2.7c Medicine and Supplies for ER Trolley for Maternity Inpatient Ward At the end of this standard)		3
	2.7.2.7.3	At least one defibrillator in immediate accessible area		1
2.7.2.8 Physical facilities for patient	2.7.2.8.1	Separate area designated for admission of male and female inpatients in general ward		1
	2.7.2.8.2	There are adequate toilets for male and female patients in each ward (1 for 6 female bed)		1
	2.7.2.8.3	Safe drinking water is available 24 hours for inpatients		1
	2.7.2.8.4	Hours/ Time allocated for visitors to meet the inpatients and controlled traffic to prevent cross infection		1
	2.7.2.8.5	Separate space is available for patients' visitors (Kuruwa Ghar).		1
2.7.2.9 Communication	2.7.2.9	Basic information regarding admitted patients is displayed in a separate board		1

2.7.2.10 IEC/ BCC Materials	2.7.2.10	Appropriate IEC materials (posters, leaflets etc.) are available in the inpatient ward with focus on infection prevention		1
2.7.2.11 Recording and reporting	2.7.2.11	Admission and discharge registers are available and are being filled completely (HMIS 8.1 and 8.2)		1
2.7.2.12 Infection prevention	2.7.2.12.1	Personal protective equipment are available and used whenever required		1
	2.7.2.12.2	Hand sanitizer is in visible place for health workers to use before and after touching patients		1
	2.7.2.12.3	There are well labeled color-coded bins for waste segregation and disposal as per HCWM guideline 2014 (MoHP)		1
	2.7.2.12.4	Hand washing facility with running water and liquid soap is available and being practiced		1
	2.7.2.12.5	Needle/sharps cutter is used		1
	2.7.2.12.6	Chlorine solution is available and utilized for decontamination		1
Standard 2.7.2	Total Obtained Score			33
	Total Percentage (Total Obtained Score/ 33 x100)			

MSS Annex 2.7.2a Furniture and Supplies for Maternity Inpatient wards

SN	General Items	Required No.	Score
1.	Working table	1-2	
2.	Chairs	2	
3.	Cup board	2	
4.	Shelves	1	
5.	Bed side table	per bed - 1	
6.	Stools (for visitor)	per bed - 1	
7.	Patient Beds (Metal bed / adjustable head/ mechanical ratchet, 3 X 6 ft.)	As per sanctioned bed	
8.	IV stand	As per bed	
9.	Medicine trolley	1	
10.	Dressing trolley	1	
11.	Wall Clock	2	
12.	Oxygen Concentrator	1 per 5 bed	
13.	Suction machine (foot/electric)	1	
14.	Laryngoscope with blade and batteries	1	
15.	Self-inflating bag air mask – adult, child, neonate size	1 set	
16.	BP set and stethoscope (Non-Mercury)	2 sets	
17.	Thermometer (Non-mercury)	3-5	
18.	Baby and adult weighing scale	1 each	
19.	Steel drum with sterile cotton	1	
20.	Steel drum with sterile gauze and pad	1	
21.	Scissors	2	
22.	Cheatele Forceps with Jar	2	
23.	Catheter set	2	
24.	Dressing set	2	
25.	Mattress with bedcover, pillow with pillow cover, blanket with cover	1 set per bed	
26.	Torch with extra batteries and bulb	2-3	
27.	Inpatient register as per ICD code	As per need	
28.	Inventory Records	As per need	
29.	Cardex files	As per bed	
30.	Waste bins color coded based on HCWM	1 set per room	
Total Score			
Total percentage= Total Score/30 x 100			

Each row gets a score of **1** if the mentioned medicines are available otherwise **0**.

Scoring Chart	
Total Percentage	Score
0-50	0
50-70	1
70-85	2
85-100	3
Score for Standard 2.7.2.2	

	Medicine and supplies	Required No.	Score
1.	Normal Saline Injection	15	
2.	Dextrose 5% Injection	15	
3.	Ringers' Lactate Injection	15	
4.	Dextrose 5% Normal Saline Injection	15	
5.	Distilled Water	10	
6.	IV Infusion Set	10	
7.	IV set	5	
8.	IV Canula (16G,18G,20G,22G,24G,26G)	5 each	
9.	Gloves (Utility)	1 box	
10.	Mask, Cap, Gowns	As per need	
11.	Disposable syringes 1 ml, 3 ml, 5ml, 10 ml, 30 ml, 50 ml	As per need	

Scoring Chart	
Total Percentage	Score
0-50	0
50-70	1
70-85	2
85-100	3
Score for Standard 2.8.3	

MSS Annex 2.7.2c Medicines and Supplies for ER Trolley Maternity Inpatient Ward

SN	Name	Required No	Score
1.	Atropine Injection	10	
2.	Adrenaline Injection	3	
3.	Xylocaine 1% and 2% Injections with Adrenaline	2	
4.	Xylocaine 1% and 2 % Injections without Adrenaline	2	
5.	Xylocaine Gel	2	
6.	Diclofenac Injection	5	
7.	Hyoscine Butyl bromide Injection	5	
8.	Diazepam injection	2	
9.	Morphine Injection / Injection Pethidine	2	
10.	Hydrocortisone Injection	4	
11.	Antihistamine Injection	4	
12.	Dexamethasone Injection	4	
13.	Ranitidine/Omeprazole Injection	4	
14.	Frusemide Injection	5	
15.	Dopamine injection	2	
16.	Noradrenaline injection	2	
17.	Digoxin injection	2	
18.	Verapamil injection	2	
19.	Amiodarone injection	2	
20.	Glyceryl trinitrate/nitroglycerine injection	10 tab/ 5amp	
21.	Labetalol injection	1	
22.	Magnesium sulphate injection	30	
23.	Calcium gluconate injection	2	
24.	Sodium bicarbonate injection	2	
25.	Ceftriaxone Injection	4	
26.	Metronidazole Injection	4	
27.	Dextrose 25% / 50% Injection	2 ampoule each	
28.	IV Infusion set (Adult/Pediatric)	2	
29.	IV Canula (16, 18, 20, 22, 24, 26Gz)	2 each	
30.	Disposable syringes 1 ml, 3 ml, 5 ml, 10 ml, 20 ml, 50 ml	5 each	
31.	Disposable Gloves 6, 6.5, 7, 7.5	3 each	
32.	Distilled Water	3	
33.	Sodium chloride-15%w/v and Glycerin-15% w/v (for enema)	5	
Total Score			
Total Percentage = Total Score/33 X100			

Each row gets a score of **1** if all the required number is available otherwise **0**.

Scoring chart	
Total percentage	Score
0-50	0
50-70	1
70-85	2
85-100	3
Score for Standard 2.7.2.8.2	

Annex 5: Quality Improvement Tools

Quality Improvement Tools

MN 03: Normal Delivery and Immediate Newborn Care

Facility Name and Place		Rural Municipality/ Municipality			Health Facility Code	
Period of assessment	First <input type="checkbox"/>	Second <input type="checkbox"/>	Third <input type="checkbox"/>	external assessment		
				1st <input type="checkbox"/>	2nd <input type="checkbox"/>	
Date of observation						
Name of observer						
Designation of observer						

Note: Write in DD/MM/YY format

Scoring Key: Yes=1, No=0, NA=Not Applicable

PERFORMANCE STANDARD	DEFINITION (VERIFICATION CRITERIA)	Trimester			External Assessment	
		1st	2nd	3rd	1st	2nd
Care During Labor and Delivery						
1. The service provider receives the woman in admission room in a cordial manner	Service provider does the following in the labor and delivery room:					
	Greets the woman and her companion in a cordial manner.					
	Maintains privacy and explains that conversation will be confidential.					
	Responds to questions using easy-to-understand language.					
	Responds to her immediate needs (thirst, hunger, cold/hot, need to urinate, etc.)					
	Score: All "Yes"=1 point; Any "No"=0 points					
2. The service provider properly reviews and fills out the clinical history of the woman in admission room	The service provider does the following in the labor room:					
	Asks the woman the following information and verifies the information in the patient's record card:					
	Name					
	Age					
	Number of previous pregnancies and births					
	Any complications during labor or postpartum period.					
	Previous births by cesarean section, forceps or vacuum.					
	Other general medical problems					
	Use of medications					
	Estimated date of delivery or last menstrual period					
	Asks the woman about her labor:					
	Time when painful regular contractions began					
	Frequency of contractions					
If her membranes ruptured: time, color and smell						

PERFORMANCE STANDARD	DEFINITION (VERIFICATION CRITERIA)	Trimester			External Assessment	
		1st	2nd	3rd	1st	2nd
	Whether she feels the baby's movements					
	Records the information on clinical history chart					
	Score: All "Yes"=1 point; Any "No"=0 points					
3. The service provider properly prepares for the physical examination	The service provider does the following in the labor and delivery rooms:					
	Ensures privacy with a screen or curtain to separate the woman from others, at least during examination.					
	Explains to the woman and her companion what the provider is going to do and encourages them to ask questions.					
	Asks the woman to empty her bladder and clean perineum.					
	Helps the woman to climb onto bed or examination table.					
	Washes hands with running water and soap for 10– 15 seconds and dries with an individual clean towel or allows hands to air dry.					
	Score: All "Yes"=1 point; Any "No"=0 points					
4. The service provider properly conducts the physical examination	The service provider does the following:					
	Explains each step of the examination to the woman					
	Takes temperature					
	Takes pulse					
	Measures blood pressure					
	Determines respiratory rate					
	Measures symphysis fundal height					
	Determines fetal lie and presentation					
	Identifies descent (degree of engagement_ by abdominal palpation (from five to zero fingers above the pubis)					
	Evaluates uterine contractions (frequency and duration over a 10-minute period)					
	Auscultates fetal heart rate					
	Explains all findings to the woman and her companion					
Score: All "Yes"=1 point; Any "No"=0 points						
5. The service provider properly conducts a vaginal examination	The service provider does the following:					
	Explains to the woman what is going to be done					
	Washes hands with running water and soap for 10 – 15 seconds and dries with an individual clean towel or Allows hands to air dry					
	Puts sterile gloves on both hands					
	Cleanses the perineum with non-alcoholic antiseptic solution or boiled, warm water					
	Carefully inserts two fingers of the examining hand					
	Assesses cervical dilation, moulding, station of presenting part and position					
	Carefully withdraws fingers once the examination has concluded					
	Explains findings to the woman					

PERFORMANCE STANDARD	DEFINITION (VERIFICATION CRITERIA)	Trimester			External Assessment	
		1st	2nd	3rd	1st	2nd
	Gloves are removed and washes hands with running water and soap for 10 – 15 seconds and dries with an individual clean towel or allows hands to air dry					
	Records all information on the clinical records and partograph					
	Score: All "Yes"=1 point; Any "No"=0 points					
6. The service provider prepares and implementation plan according to the findings of the clinical history and the physical, obstetric and vaginal examination for providing care to the woman	The service provider does the following:					
	Ensures the woman has a companion during first stage of labor and birth.					
	Counsels the woman on the importance of:					
	Going to the bathroom often to empty her bladder.					
	Taking liquids and light foods whenever she needs to.					
	Walking and changing position according to desire and comfort.					
	Score: All "Yes"=1 point; Any "No"=0 points					
7. The service provider uses the Labour Care Guide (LCG) to monitor labor and make adjustments to the birth plan when the woman goes into active stage of labor (5 cm)	Starts documentation at active first stage \geq in LCG form of the woman in labor, the service provider does the following:					
	Assess and Records patient's information:					
	- Name					
	- Gravida, para					
	- Hospital number (if applicable)					
	- Date and time of admission					
	- Labour onset (≥ 5 cm)					
	- Active labour diagnosis date					
	- Time of ruptured membranes					
	- Risk factors (obstetrics, medical, social)					
	Assesses, Records, Check reference threshold and plan supportive care (Section 2)					
	- Companion					
	- Pain relief					
	- Oral fluids					
	- Posture					
	Assesses, Records, Check reference threshold and plan wellbeing of the baby (Section 3)					
	- Baseline FHR					
- FHR decelerations (every 30 min – 1 st stage, every 5 min 2 nd stage)						
- Amniotic fluids (every 4 hours – 1 st stage, every 2 nd stage)						
- Fetal position (every 4 hours – 1 st stage, every 2 nd stage)						
- Caput (every 4 hours – 1 st stage, every 2 nd stage)						
- Moulding (every 4 hours – 1 st stage, every 2 nd stage)						

PERFORMANCE STANDARD	DEFINITION (VERIFICATION CRITERIA)	Trimester			External Assessment	
		1st	2nd	3rd	1st	2nd
	Assesses, Records, Check reference threshold and plan wellbeing of the women/mother (Section 4)					
	- Pulse (every 4 hours)					
	- Systolic BP (every 4 hours)					
	- Diastolic BP (every 4 hours)					
	- Temperature (every 4 hours)					
	- Urine (protein and acetone) – ever void					
	Assesses, Records, Check reference threshold and plan for labour progress (Section 5)					
	- Contraction per 10 min (every 30 min- 1 st stag, every 15 min – 2 nd stage)					
	- Duration of contraction					
	- Cervix (every 4 hours 1 st stage)					
	- Decent (every 4 hr 1 st stage, every 30 min 2 nd stage)					
	Assesses, Records, for need of medicine (Section 6) every assessment at least every hour					
	- Oxytocin					
	- Medicine					
	- IV fluid					
	Records shared decision making for every assessment (Section 7)					
	- Assessment					
	- Shared finding and option for care					
	- Plan					
	Score: All "Yes"=1 point; Any "No"=0 points					
8. The IP practices during labor are performed according to standards	In the labor room, the service provider does the following:					
	Cleanses the vulva with an antiseptic solution or boiled water before performing vaginal examination.					
	Uses HLD or sterile gloves when performing vaginal examination or when in contact with bodily fluids.					
	Performs limited vaginal examination (e.g., every four hours, or as indicated).					
	Performs limited bladder catheterization					
	- Plain bladder catheterization is not routinely performed for normal delivery.					
	- Plain bladder catheterization is not performed as a routine for normal delivery.					
	Uses limited iv solution:					
	- taking fluids orally encouraged during labor.					
	- Use of iv solution is not routine during labor and delivery.					
	Shaving of the perineal area is not performed routinely.					
	Rupture of membranes is not performed routinely.					
Score: All "Yes"=1 point; Any "No"=0 points						
9. The service provider prepares	The service provider does the following (in the labor or delivery rooms):					

PERFORMANCE STANDARD	DEFINITION (VERIFICATION CRITERIA)	Trimester			External Assessment	
		1st	2nd	3rd	1st	2nd
to assist the birth	Has delivery pack and the following essential materials available and ready to assist the delivery:					
	- Sterile tray					
	- Two hemostats (clamps)					
	- One pair of scissors for cutting the cord					
	- One sponge holder					
	- One bowl to keep placenta					
	- Small bowl for boiled water					
	- one cord clamp or sterile tie					
	- Four clean or sterile towels: one to receive baby; one to dry the baby; one to place under the woman; one for active management.					
	- Sterile gauze to clean baby's mouth and nose					
	- one syringe with 10 IU of oxytocin					
	- two pairs of sterile gloves					
	Ambu bag and mask ready for use (neonatal)					
	Has one plastic container with lid for placenta					
	Has one plastic container for medical waste (gauze, etc.)					
	Has one sharps container (puncture-proof) at point of use to dispose of needles and syringes.					
	Has one leak-proof container to dispose of soiled linen					
	Keeps the place where the woman is located clean					
	attends the birth in the position selected by the woman					
	ensures the privacy of the woman:					
	– Separates the area with curtains, sheets or screens as appropriate.					
	– ensures that the fewest people possible are present during birth (the provider attending the birth and a family member/the individual chosen by the woman).					
	explains to the woman how to help herself and manage the bearing down process (when and how).					
	Puts on face shield or mask and goggles and caps					
	Puts on a clean plastic or rubber apron					
	Wears shoes that protect feet from blood spills, splashes or instruments.					
	Washes hands with running water and soap for 10– 15 seconds and dries with an individual clean towel or air dries.					
Puts sterile gloves on both hands						
Score: All "Yes"=1 point; Any "No"=0 points						
10. The service provider	The service provider does the following (in the labor or delivery rooms):					

PERFORMANCE STANDARD	DEFINITION (VERIFICATION CRITERIA)	Trimester			External Assessment	
		1st	2nd	3rd	1st	2nd
properly assists delivery of the head	Cleanses the vulva with boiled, warm water					
	Allows the woman to bear down when she feels the desire (does not force her to bear down when she does not feel the desire).					
	Performs an episiotomy only if necessary (breech, shoulder dystocia, forceps, vacuum, scarring from poorly healed third- or fourth-degree tears).					
	asks to bear down gently along with the contractions while the head is emerging.					
	Places the palm of one hand against the baby's head to keep it flexed and to prevent abrupt expulsion, places another hand on perineum with gauge for support.					
	Score: All "Yes"=1 point; Any "No"=0 points					
11. The service provider properly assists with the delivery of the body	The service provider does the following:					
	after the emergence of the head, asks the woman to stop bearing down.					
	cleans the baby's mouth and nose using sterile gauze.					
	Palpates to determine if cord around neck.					
	allows spontaneous external rotation without manipulation.					
	carefully takes the baby's head in both hands and applies downward traction until the anterior shoulder has emerged (no neck holding).					
	Guides the baby's head and chest upward until the posterior shoulder has emerged.					
	Holds the baby by the trunk and places the baby on a clean dry towel on the mother's abdomen.					
	Notes time of birth.					
	Dries baby vigorously and changes wet towel for a clean dry one to wrap the baby.					
	Removes gloves from both hands.					
	Delays clamping of the umbilical cord for 1-3 minutes.					
	clamps the umbilical cord and cuts using sterile scissors under gauze to prevent blood spurting.					
	if the baby is breathing normally, passes the baby to mother for skin-to-skin contact on chest.					
	if the baby does not begin breathing or is breathing with difficulty, initiates resuscitation.					
Score: All "Yes"=1 point; Any "No"=0 points						
12. The service provider properly performs active	The service provider does the following in the delivery room:					
	Palpates the mother's abdomen to rule out the presence of a second baby.					

PERFORMANCE STANDARD	DEFINITION (VERIFICATION CRITERIA)	Trimester			External Assessment	
		1st	2nd	3rd	1st	2nd
management of the third stage of labor	tells the woman that she will receive an injection and administers 10 IU of oxytocin IM.					
	Places the other hand on the woman's symphysis pubis (over a sterile towel).					
	Maintains firm traction on the cord and waits for the uterus to contract.					
	Upon contraction, applies firm and sustained downward traction on the cord with counter traction above the pubis to guard the uterus, until the placenta is expelled.					
	If this maneuver does not provide immediate results, stops applying traction, holding the cord and clamp until the next contraction.					
	Repeats controlled cord traction during contraction while simultaneously applying counter traction above pubis to guard uterus					
	With both hands, assists in the expulsion of the placenta by turning it over in the hands without applying traction twisting the membranes.					
	Gently massages the uterus with one hand on a sterile cloth over the abdomen until it contracts firmly.					
	Score: All "Yes"=1 point; Any "No"=0 points					
Immediate postpartum and newborn care						
13. The service provider adequately performs immediate postpartum care	The service provider does the following in the labor or delivery room:					
	checks to see whether the delivery of placenta is complete (maternal and fetal sides, plus membranes).					
	informs the woman what is going to be done before proceeding, then carefully examines the vagina and perineum.					
	Sutures tears, if necessary.					
	covers the perineum with a clean sanitary pad.					
	Makes sure that the woman is comfortable (clean, hydrated and warmly covered).					
	Score: All "Yes"=1 point; Any "No"=0 points					
14. The provider adequately performs immediate newborn care	The service provider does the following after birth:					
	cleans and dries newborn immediately using clean, soft and dry cloth and wraps with another clean, soft and dry cloth.					
	tells the mother to place newborn on her chest to keep the baby warm (skin-to-skin contact).					
	advises and supports mother for colostrum feeding within one hour of delivery.					
	After cutting cord, advises mother to keep the cord dry and clean.					

PERFORMANCE STANDARD	DEFINITION (VERIFICATION CRITERIA)	Trimester			External Assessment	
		1st	2nd	3rd	1st	2nd
	Advises mother to not bathe the child within 24 hours to prevent hypothermia.					
	Score: All "Yes"=1 point; Any "No"=0 points					
15. The service provider properly disposes of the used instruments and medical waste after assisting the birth	The service provider does the following (in labor or delivery room):					
	before removing gloves:					
	– Discards the placenta in a leak-proof container.					
	– Disposes of medical waste (gauze, etc.) in a plastic container.					
	– Puts the soiled linens in a leak-proof container.					
	– Places all reusable instruments in clean water (so that it does not dry).					
	– Disposes of needles and syringes in a puncture- proof container, without removing, recapping or breaking the needles.					
	Removes gloves after rinsing in clean waterer disposes in a leak- proof container.					
	washes hands with running water and soap for 10 – 15 seconds and dries with an individual clean towel or air dries.					
	Score: All "Yes"=1 point; Any "No"=0 points					
Immediate care provided to newborn and mother						
16. The provider performs a thorough physical examination of the baby	The service provider does the following:					
	washes hands thoroughly for 30 seconds with soap and water and dries them with a clean, dry cloth or allows them to air dry.					
	Places baby on a clean, warm surface under a good light, with the mother or family present.					
	weighs the baby and records temperature.					
	Determines respiratory rate by counting the number of breaths taken in a full minute.					
	checks color for pallor, jaundice and cyanosis.					
	examines head, eyes, face and mouth.					
	observes movements and posture, level of alertness and limbs.					
	examines chest, abdomen and umbilicus.					
PERFORMANCE STANDARD	DEFINITION (VERIFICATION CRITERIA)	Trimester			External Assessment	
		1st	2nd	3rd	1st	2nd
	Examines anus, reproductive organs.					
	Examines back and vertebra.					
	Informs mother of results of examination including any abnormalities.					
	Washes hands again.					
	Score: All "Yes"=1 point; Any "No"=0 points					
17. The service	The service provider does the following:					

PERFORMANCE STANDARD	DEFINITION (VERIFICATION CRITERIA)	Trimester			External Assessment	
		1st	2nd	3rd	1st	2nd
provider closely monitors the woman and newborn for at least six hours after the birth	Monitors the woman every 15 minutes in the first two hours checking for:					
	- Uterine contractions					
	- Vaginal bleeding					
	- Inflammation of perineum, checks for hematoma if stitched					
	- bladder distention					
	- BP					
	- Pulse					
	- Consciousness					
	- Baby's breathing, condition and breastfeeding					
	Monitors the woman every 30 minutes in the third hour, checking:					
	- Uterine contraction					
	- Vaginal bleeding					
	- Bladder distention					
	- BP					
	- Pulse					
	- Hydration					
	- Consciousness					
	- Baby's breathing, condition and breastfeeding					
	After 4 hours, monitors the woman and newborn every hour for the next three hours.					
	Assists the woman with breastfeeding.					
	Asks the woman if she has urinated and encourages her to urinate whenever she wishes.					
	Records the information on the woman's clinical record and reports any abnormalities.					
	Score: All "Yes"=1 point; Any "No"=0 points					

Comments

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MN 03: Normal Delivery and Immediate Newborn Care	Self-Assessment Score			External Assessment Score	
Total standards	17	17	17	17	17
total standards assessed					
total standards met					
Percent achievement	%	%	%	%	%

Annex 6: Action Plan Format

Intrapartum Care/ Labour Care Guide Action Plan

Name of hospital/ health institution: _____ Name of Province: _____

Name of local level: _____ Date: DD / MM / YYYY

S.N.	Activity and sub-activities	When (date)	Responsible person (name and position) or organization	Budget or Resource need (specify)	Remarks (implementation status)
		DD / MM / YYYY			
		DD / MM / YYYY			
		DD / MM / YYYY			
		DD / MM / YYYY			

Prepared by: Name

Signature

Recording form for labor care guide implementation program

a) Labor and Delivery Care Practices

Name of hospital/ health institution: _____ **Name of Province:** _____

Name of local level: _____ **Date:** MM / YYYY

SN	Labor Care Practices		Total	Remarks
	Number of total delivery (vaginal, complicated, Caesarean Section)	Vaginal- normal		
		Vaginal- complicated		
		Caesarean		
		Total		
	Number of women giving birth for whom LCG was used (in health institution wise)			
	Number of women giving birth in the health facility whose admission assessment included fetal heart assessment			
	Number of women with a birth companion of choice during labour			
	Proportion of women with a birth companion of choice during childbirth	Vaginal- normal		
		Vaginal- complicated		
		Caesarean		

Prepared by:
(Name and signature)
Date:

C) Reporting form for Labor Care Guide Implementation

Name of hospital/ health institution: _____ Name of Province: _____

Name of local level: _____ Date: MM / YYYY

SN	Labor Care Practices		Total (No)	Remarks
	Number of total delivery (vaginal, complicated, Caesarean Section).	Vaginal-normal		
		Vaginal-complicated		
		Caesarean		
		Total		
			Proportion	
	Proportion of women giving birth for whom LCG was used.			
	Proportion of women giving birth in the health facility whose admission assessment included fetal heart assessment.			
	Proportion of women with a birth companion of choice during labour.			
	Proportion of women with a birth companion of choice during childbirth.	Vaginal-normal		
		Vaginal-complicated		
		Caesarean		

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Date:

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