Newborn Health Implementation Framework

STANDARDS FOR NEWBORN HEALTH CARE SERVICES

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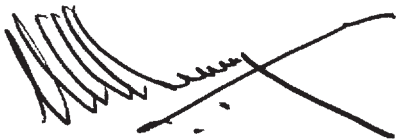
FOREWORD

Performance according to standards is the cornerstone of quality assurance in healthcare and reduction of unnecessary newborn mortality and disability. The 2008 Newborn Situation Analysis gave rise to the concern that a major barrier to the effective delivery of services was the lack of clear guidelines for newborn health care. In response, the Ministry of Health (MoH) spearheaded the development of guidelines and tools to address the main drivers of newborn morbidity and mortality in Uganda. Through the National Newborn Steering Committee, MoH coordinated collaboration, involving the UN agencies, other agencies and NGOs, leading academic experts, to define Service Standards for Newborn Health Care at the health facilities and Village Health Team level. The standards are part of the national Framework for implementing the Newborn Health, itself a component of the Child Survival Strategy (CSS) and Roadmap for Accelerating the Reduction in Maternal and Neonatal Mortality and Morbidity. These standards compliment the MoH existing quality of care Yellow Star Program.

As presented in this document "standards are an explicit statement of expected performance in newborn health care activities. They define, for both health care providers or managers and clients, expectations for what is needed to produce desired results in health care.

This document is to guide policy makers, managers, districts, health workers, communities, NGOs and all other stakeholders on how to implement newborn health services. I wish therefore to commend these implementation guidelines to all and it is my conviction that if they are implemented faithfully, the performance of the health sector will be transformed. In the spirit of continuous improvement, I would also like to invite all those who use these guidelines to let us know what can further be improved so that it can be included in future editions.



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ABBREVIATIONS

APGAR	-	Appearence, Pulse, Grimace, Activity, Respiration
ANC	-	Antenatal Clinic
BBA	-	Born Before Arrival
CME	-	Continuous Medical Education
CSS	-	Child Survival Strategy
ENBC	-	Essential Newborn Care
HIV	-	Human Immune Deficiency Virus
HMIS	-	Health Management Information System
ITN	-	Insecticide Treated Nets
I.V.	-	Intravenous
KMC	-	Kangaroo Mother Care
MoH	-	Ministry of Health
NG	-	Nasogastric tube
NGOs	-	Non-Governmental Organisations
N/S	-	Normal Saline
OPD	-	Out-patient Department
R/L	-	Ringer's Lactate
STI	-	Sexually Transmitted Infections
UNICEF	-	United Nations International Children's Fund
USAID	-	United States Agency for International Development
VHTs	-	Village Health Teams
WHO	-	World Health Organisation

PART 1. INTRODUCTION AND BACKGROUND

Definition of a Standard

Every practice or procedure in the medical facility should be governed by a standard from the treatment of life-threatening complications to cleaning the wards to respective patients' privacy. A standard is a written statement of the minimum expected service practice to be met if we are to ensure quality. A quality of care standard takes into consideration health system inputs or resources needed such as staff and drugs; processes or what is done such as medicine administration or health education, as well outcomes or results expected such as the recovery of patients. The Ministry of Health *Standards for Newborn Health Care Services* presents a number of recommendations for inputs, processes and outcomes related to Newborn Health care.

How these standards were developed:

The *Service Standards for Newborn Health* are a result of a consultative process, which involved reviewing existing clinical and non clinical guidelines including the MoH quality assurance standards under the Yellow Star Program, WHO guidelines, recent research evidence and expert opinions on newborn health. The process started with a sharing of experiences where important topics or problems were agreed upon, for defining standards. The standards are designed to address the three main drivers of mortality in newborns: infection, birth asphyxia and complications of low birth weight. Specific criteria were then selected to define each standard. Each operational definition is designed to be clear, represents elements of care that can be objectively measured and realistic enough given the available resources. The standards were pre-tested in the district to verify the applicability and feasibility of use.

The target audience for these standards

The Standards for Newborn Health care services should be of interest to:

- Program managers at national, district and facility levels;
- Health training institutions to enrich the newborn training curricula;
- NGOs, including private sector health organizations;
- Community organizations interested in improving maternal and neonatal health care practices;
- Village Health Teams providing maternal and newborn services at community level.

PART 2: QUALITY IMPROVEMENT USING STANDARDS

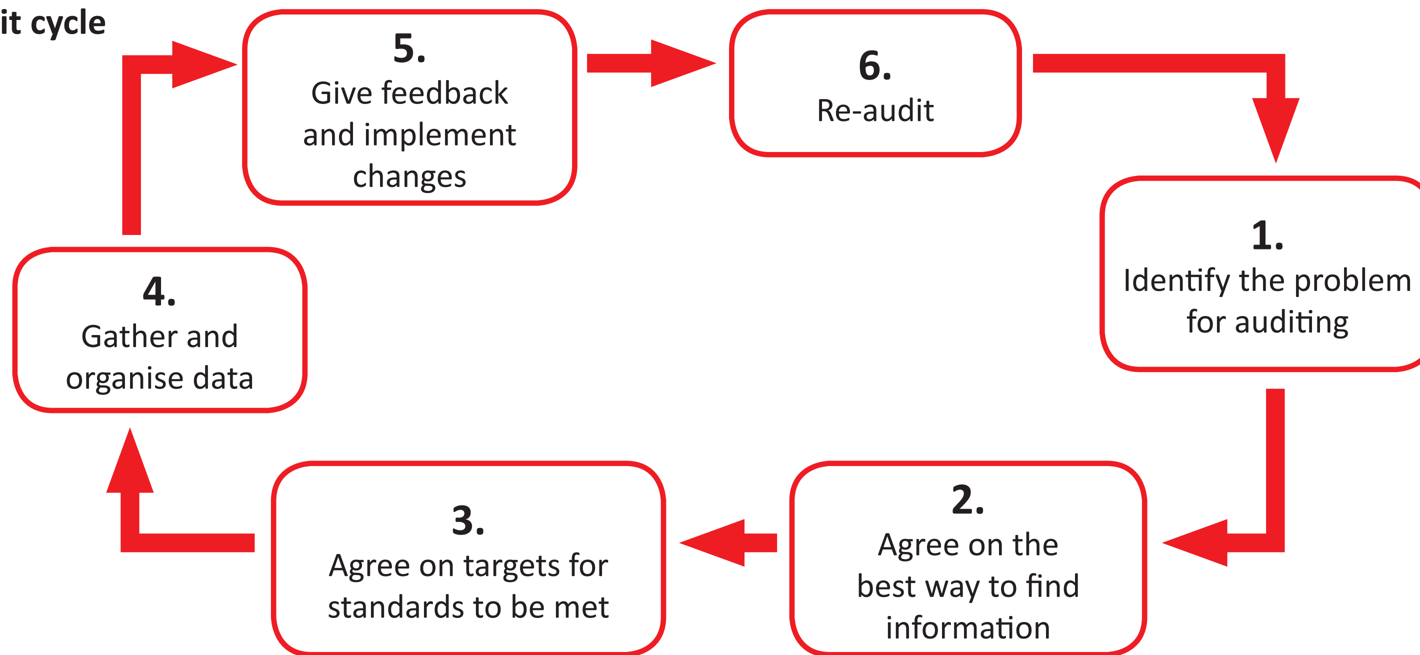
There are several approaches to improving quality in the health care system. One common approach entails audit evaluation and feedback. Audit seeks to improve patient care and outcomes through systematic review of care against set explicit criteria followed by implementation of change. For example checking whether staffs are following national treatment guidelines is one type of audit. But before answering the question whether the service provision follows procedures or achieves the standards set for it, a decision is required on what percentage should meet the acceptable standard of care. Where indicated, changes are implemented to an individual, team, or service level and further monitoring is used to confirm improvement in health care delivery. Audits can range from very simple and small to massive and complicated. It can be done by either insiders of an organization, or by an external group.

The Audit cycle

The process of audit is typically described as an "audit cycle" The audit cycle consists of several steps and each step of the process is described in the figure below. We describe each step of the six steps in detail below.

1. Problem identification
2. Agree on source of information on standards
3. Agree on targets to be met
4. Do assessment/gather data
5. Feedback and implement changes
6. Re-audit

The steps of the audit cycle



Step 1. Identifying the problem for auditing

There are many problems, which could warrant audit. The unit head, staff, supervisors or the patients themselves, can notice them. The right problem should be selected for audit so that by carrying out the audit you can have an impact on patient care. Prioritization according to how manageable it will be to audit and how important it is for quality improvement in your cycle is important. Common problems include those with serious outcomes, occur commonly, are preventable and those that re-occur. The MoH standards offer a good place to start from in selecting areas for auditing. Then you are ready for the next step of the audit cycle.

Step 2. Agree on targets for standards to be met

Specific criteria are used to decide or measure the extent, which each standard exists. The people planning an audit may want to agree on a related set of numerical standards or target percentages to be met. Ideally more than one person should do this ideally. For example a target of; 90% of health facilities having at least two clean delivery kits, can be set. This should take into consideration the capacity of the facility in terms of staff and other resources.

Step 3. Agree on the best way to get information

The MoH has suggested variable sources of information for auditing newborn health standards. Interviewing staff, observation, reviewing health records, client interviews and suggestion boxes are some of the methods suggested in the guideline, as means of verification of the information.

Step 4. Gather and organize the data

Collect information using a checklist. availed by the checklists by the MoH. Then organize the gathered information for reporting or fveddback. This may be in form of either explanations or graphical presentation or both. Propose changes for improving the quality and prepare to give feedback, and implement changes.

Step 5. Give feedback and implement changes

Compare findings of the audit with the set criteria and agreed targets.. The extent of deviation from the targets will guide the prioritization and implementation of changes. Prioritization and implementation of changes should ideally be done by team rather individuals at the health facility.

Step 6. Re-audit

The audit process is cyclic and continuous. After implementing the changes, there is need to assess the effectiveness of the changes made (evaluation) or even audit another set of standards. Therefore, a re-audit of the above steps should be considered.

PART 3: LIST OF NEWBORN STANDARDS

Overall the *Standards for Newborn Health Care Services* include the most relevant topics that need to be assessed for ensuring quality newborn health services. They are grouped in seven sections, standards for:

A. *Infrastructure and equipment: This concerns the availability and usage of basic newborn equipment, supplies and physical structures in the health facility.*

B. *Management systems: This involves assessing health unit activities and operations; implementing operations, conducting internal checks as regards operations and finally, reviewing your operations.*

C. *Infection prevention: It includes routine infection control measures that should be executed in all operational areas where care is provided*

D. *Information, Education and Communication: Information on basic essential newborn care should be passed onto mothers and caretakers in the simplest way possible by health care providers.*

E. *Clinical Services: This involves health care providers offering appropriate newborn care services within their means using the available resources*

F. *Client services: These are client focused services in the health unit ranging from general cleanliness of the unit, posters indicating available services, patient triage system and skilled health workers in essential newborn care among others.*

G. *Village Health Teams: Village Health Teams (VHTs) will provide basic community based newborn care alongside promotion of best care practices for newborn and their mothers in the communities.*

Standards for Newborn Health Services

A. INFRASTRUCTURE AND EQUIPMENT

#	STANDARD	OPERATIONAL DEFINITION	MEANS OF VERIFICATION
1.1	Health facility has infrastructure to cater for both high risk and normal babies	a. Resuscitation space/table in labour ward, theatre, postnatal ward and paediatric ward. b. Nursery space in close proximity to labour ward for isolating and stabilizing newborns including BBAs (Born Before Arrival) c. Beds assigned for Kangaroo Mother Care (KMC) beds on postnatal ward	Check for space in all operational areas
1.2	Health facility has equipment for managing high risk and normal babies in labour ward/ theatre, nursery, postnatal and paediatric ward	a. Newborn equipment: (1) Thermometer; (2) Infant Ambu bags and masks sizes 0 and 1; (3) C-section equipment; (4) baby weighing scale; (5) baby oro-pharyngeal airway. b. Checklist of basic newborn equipment.	Review inventory record for all mentioned items. Check for availability of checklist of basic equipment / pinned on the wall against physical items available.
1.3	Health facility has supplies for managing high risk and normal babies in labour ward/ theatre, nursery, postnatal and paediatric ward	a. Newborn supplies; (1) NG tubes gauge 4,5,6 (2) Canulas gauges 24, 22 (3) Baby syringes 1 and 2mls (4) Single use bulb syringe (5) Swabs (6) Gloves (7) Feeding cups for small babies b. Blood, Oxygen, I.V. Fluids –normal saline, ringer lactate, 50% & 5%, dextrose c. Checklist for basic newborn supplies.	Check supplies in all operational areas and correct specifications. Checklist of basic supplies pinned on wall against physical items available.
1.4	Health facility has pre-packed delivery kits	a. At least 2 delivery kits assembled and immediately accessible for use (it includes 2 clean drape, new blade to cut cord, 2 clean cord clamp and 2 pairs of gloves)	Check for delivery packs, contents and checklist pinned on wall against physical items available.

B. MANAGEMENT SYSTEMS

#	STANDARD	OPERATIONAL DEFINITION	MEANS OF VERIFICATION
2.1	Health facility maintains newborn records	a. ANC, birth and post natal registers b. Clinical/ patient case management notes (includes patient identification, birth weight and outcome) c. Partographs d. Discharge / referral forms e. Death certificate f. Perinatal death audit books g. Child health cards	Check for availability of all the records in the mentioned operational areas
2.2	Health facility maintains upto date and summarized appropriate information captured in all clinical records for newborn	a. Completed HMIS forms b. Specific neonatal information reported in all relevant records (Includes birth weight, APGAR score etc.) c. Twice a month peri /neonatal audit reports d. Treatment and Monitoring chart of the sick newborn.	Review copies of HMIS 105, registers and patient management notes for completion over the last 3 months. Number of peri/neonatal audits done in the last quarter
2.3	Essential medicines available in the facility	a. Medicines; (1) Ampicillin (2) Gentamycin (3) Multivitamins (4) Iron syrup (5) Vitamin K (6) Tetracycline Eye Ointment (7) I.V. Fluids (R/L, N/S, 50% & 5%, dextrose) (8) Oxygen b. Emergency drugs (1) Adrenalin (2) Phenobarbitone.	Check for availability of drugs using stock cards and physical stock over the last 3 months
2.4	Health workers using guidelines and protocols for managing a newborn	a. Protocols for: i. Essential Newborn Care (Clean Chain, Cord care, warm chain and breastfeeding) ii. Extra newborn care (Includes resuscitation and post resuscitation care, sick newborn, feeding and fluids, blood transfusion, KMC, skin care) iii. Postnatal cards b. Counselling materials on maternal and newborn care c. Policy on Hospital/health facility stay d. 80% of health workers managing newborns are trained in essential and extra newborn care. e. Quarterly CME program includes essential newborn care	Check for availability of all guidelines in all the mentioned areas and are easily accessible. Observe health workers managing newborn and resuscitating. Review training and CME reports over the last quarter.
2.5	Health facility carrying out KMC services on the post natal ward	a. 100% Health workers managing babies are skilled in KMC b. KMC beds in postnatal ward c. Designated space for KMC d. KMC wrappers for demonstrations	Observation of health worker doing KMC (includes demonstration) Check for availability of KMC bed and space on the postnatal ward

C. INFECTION PREVENTION

#	STANDARD	OPERATIONAL DEFINITION	MEANS OF VERIFICATION
3.1	Health facility provide adequate infection prevention and control in the area of hand washing	a. Soap and water at washing points in or near the examination room, labour ward, theatre, postnatal, nursery and paediatric wards. b. Hand washing with soap and water between examining babies, before and after procedures. E.g. cleaning cord. c. Hand washing with water and soap before feeding the baby and after removing faeces of the baby.	Observation of availability of water and soap at washing points. Observation of provider washing hands with soap and water.
3.2	Health unit has facilities for disinfection	a. Disinfection materials; (1) Sterilizer (2) Disinfectant (3) Clean packaging and storage in delivery, theatre, post delivery, paediatric and nursery rooms b. Appropriate processing of examination, delivery and theatre equipment and feeding utensils	Observation of a bucket with disinfectant prepared in those areas and functional sterilization mechanism.
3.3	Health workers following correct aseptic techniques	a. Health worker following aseptic procedures when: (1) performing a pelvic examination (2) Delivering (3) providing skin care pre-operatively, wound dressing and suture (5) Catheterising (6) Giving injections and IV fluids b. Staff safely disposing off sharp objects and needles in well-labelled containers and do not re-use disposed material.	Observation (or demonstration) of two specific aseptic procedures e.g. cord cleaning Check availability of safety boxes and waste bins in the health facilities

D. INFORMATION, EDUCATION AND COMMUNICATION/IPC

#	STANDARD	OPERATIONAL DEFINITION	MEANS OF VERIFICATION
4.1	Health Education talks given to clients at OPD, Antenatal clinics, postnatal ward and Family planning clinics.	a. Health facility conducts group health education sessions including: (1) HIV, (2) Danger signs, (3) Infant and young child feeding, (4) KMC, (5) Cord care, (6) Extra care for small babies, (7) Personal Hygiene.	Observation of Health education duty roster, health education materials and actual health education sessions
4.2	Health providers use simple translated material during client counselling / education.	a. Service providers use one of the following materials during client counselling / education sessions; (1) Posters (2) Child spacing methods (3) Brochures/Leaflets (5) Flipcharts.	Observation during provider / client interactions.

E. CLINICAL SERVICES

#	STANDARD	OPERATIONAL DEFINITION	MEANS OF VERIFICATION
5.1	Health workers giving technically appropriate maternal services	a. Screening for infection in ANC (HIV, STI, Malaria) b. Assessment for mothers weight, Blood Pressure and anaemia c. Monitoring labour with partograph d. 4 hourly Vaginal examination e. Medical pre-operative review for anticipated critical events (includes surgeon's review, anaesthesia team review and nursing team review).	Review of records and exist interviews of patients.
5.2	Health workers giving technically appropriate newborn inpatient services	a. Baby is assessed every 4 hourly for breathing, feeding, bleeding and warmth. b. Correct services according to the current newborn guidelines in the following areas: (1) Integrated Management of Newborn and Childhood Illnesses (2) Feeding and fluids management (3) Resuscitation (4) Examination and essential newborn care. c. Specialized services including: Phototherapy, Continuous Positive Airway Pressure, blood transfusion, postnatal care and caring for Low Birth Weight babies.	Observation of 1-2 cases in the mentioned areas.
5.3	Health workers are discharging newborns appropriately	a. Newborn stay with the mother in the health facility for a minimum of 24 hours b. Mother receives health education on clean Chain, Cord care, warm chain and breastfeeding c. Mothers informed on danger signs to watch out for at home d. Mother given postnatal appointments	Exit interviews with mothers at discharge

F. CLIENT SERVICES

#	STANDARD	OPERATIONAL DEFINITION	MEANS OF VERIFICATION
6.1	Cleanliness in the following areas in the health facilities; ANC, Labour ward, theatre, nursery, post natal ward	a. Cleaner is available on daily basis b. Delivery area is being cleaned after every delivery c. Labour ward is free of spillage; debris/trash, walls and ceiling are clean.	Observation of cleanliness of care areas
6.2	Health facility has a triage system for pregnant women and sick newborns?	a. Sick newborns and pregnant women with danger signs seen immediately. b. Checklist for identifying sick newborn present. c. Clients wait for one hour or less on arrival at the health facility	Observation of patient flow at registration / OPD. Patient / Client exit interview Observation of patient time of registration and admission at health facility
6.3	Health workers providing technically appropriate health education messages at ANC and at discharge	a. Checklist of key messages on birth preparedness and essential newborn care. b. Provider checks mother's understanding of the messages. c. Provider asks client to ask about her own health	Observation of pregnant women receiving counselling Exit interviews with mothers who have been discharged
6.4	Health facility has a plan for referring pregnant women	a. Criteria for referral exist b. Referral notes given to women	Exit interview with referred pregnant women Observation of criteria for referral pinned on the wall
6.5	Health facility has health workers skilled in goal oriented ANC, Essential Newborn Care (ENBC), partograph use and auditing	a. At least 2 skilled health workers trained in goal oriented ANC, ENBC and partograph use and auditing and are providing the service. b. Sick newborns and mothers are seen at least once a day by a doctor or clinical officer	Observation of duty roster showing 24/7 rotation shifts of skilled health workers, medical officers in charge of paediatric and nursery. Review of perinatal death audit reports
6.6	Health facility posts a list of available maternal and newborn services where clients can see them.	a. Poster with listed services in both English and local language displayed in the waiting areas where the clients can see. b. Reception area to guide patients to service points and suggestion box in the waiting area.	Observation of posters or notices in the waiting area showing where to go and a suggestion box
6.7	Health worker available at all times	a. Health provider available 24 hours a day, 7 days a week including skilled and non skilled. b. There is a functional duty room	Review the current duty roaster. Observation of functional duty room

G. VILLAGE HEALTH TEAMS

#	STANDARD	OPERATIONAL DEFINITION	MEANS OF VERIFICATION
7.1	Village Health Teams (VHTs) have been trained and have adequate capacity to provide newborn care	a. At least two VHTs per village trained to provide: 1) Essential newborn care includes warming baby, cord care, breast feeding and recognition of danger signs 2) Record keeping on births, deaths, post natal visits and referrals b. VHT supplied with village registers and mother baby care education materials	Interview VHT members, check availability of registers and up-to-date records, Education materials
7.2	Mothers and newborns receive care after delivery at appropriate intervals from trained Village Health Teams	a. Day 1 (first 24 hours after birth) b. Day 3 c. Day 7 d. Additional visit on day 5 and 10 for small babies	Interview mothers who have a baby up to two weeks. Review VHT registers for records on post natal care visits
7.3	Village Health Teams provide comprehensive care after delivery.	a. Check for danger signs and refer mothers and babies for special care when necessary including small babies. b. Counsel/support mothers on keeping baby warm including 1) drying 2) wrapping baby 3) skin to skin contact to maintain warmth 4) delay bathing for 24 hours and 5) Kangaroo care for small babies c. Counsel/support mothers on clean cord care including 1) keep cord dry and clean 2) put nothing on it d. Counsel/support mothers on 1) initiating breastfeeding within one hour 2) exclusive breastfeeding 3) chosen feeding method if mother is HIV+ e. Encourage 1) immunization 2) postnatal checks 3) ITN use 4) HIV testing f. Counsel/support mothers on child spacing g. Where applicable VHT are able to adequately resuscitate asphyxiated newborns	Interview mothers who have received a post natal visit in the last one month
7.4	Community is mobilized for awareness and readiness to handle complications of mother and newborn	a. Recognize danger signs in mother and baby b. Response by providing emergency transport schemes	Interview community members
7.5	Village Health Teams are linked to nearby health facilities	a. Health facility staff involved in training and/or supervising on a quarterly basis of Village Health Teams in their catchment areas. b. VHT records incorporated/linked to health facility HMIS data c. Quarterly VHT meetings held with health facility staff	Interview VHT and staff in the nearby health facility, review health facility records. Review VHT minutes/reports
7.6	Village health team keeping up to date newborn and mother records	Records on 1) Births and deaths 2) Post natal visit findings and 3)Referred cases	Review the last ten newborn cases recorded in the VHT registers

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