

World Patient Safety Day

Goals 2021–2022

Safe maternal and newborn care



World patient safety day goals 2021-2022: safe maternal and newborn care

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World Patient Safety Day Goals

Introduction

World Patient Safety Day is observed on 17 September each year with the objectives of increasing public awareness and engagement, enhancing global understanding, and spurring global solidarity and action to promote patient safety. Each year a campaign is launched on a selected patient safety-related theme. The overall goal of World Patient Safety Day is to improve patient safety at the point of care.

To support this endeavour, World Patient Safety Day goals are proposed every year. The goals aim to achieve tangible and measurable improvements at the point of health service delivery.

This document does not represent new World Health Organization (WHO) clinical or operational guidance. All of the actions in this document are based on existing WHO guidance and are summarized here for ease of reference. They are suggested for consideration and adaptation locally by teams working on patient safety. The process and outcome measures presented are partially derived from WHO guidance and initiatives. They are also suggested for consideration and adaptation locally but are not necessarily part of WHO core sets of indicators. Each goal is accompanied by suggested actions based on existing WHO guidance, which could facilitate

improvement in the focused safety practice domain. Links to available WHO resources on the subject are provided with each goal.

These goals have been compiled by WHO Patient Safety Flagship in collaboration with the WHO Maternal, Newborn, Child and Adolescent Health department; WHO Sexual and Reproductive Health and Research department and World Patient Safety Day 2021 WHO Taskforce members.

Implementing and monitoring the goals

Given that health care facilities and organizations across the world have varied baselines and capacities to improve, it is not judicious to set targets from the global level. Based on where the facilities are starting their journey towards a specific goal, they can set their midterm and final targets.

Ministries of health and health care organizations are encouraged to incorporate these goals into ongoing service improvement programmes and drives. As a new set of goals are proposed each year, implementation teams at health care facilities are advised to institutionalize patient safety improvements achieved, and to take

on new goals as well as sustaining action on goals from the previous year.

The World Patient Safety Day goals 2021–2022 are aimed at making maternal and newborn care safer.

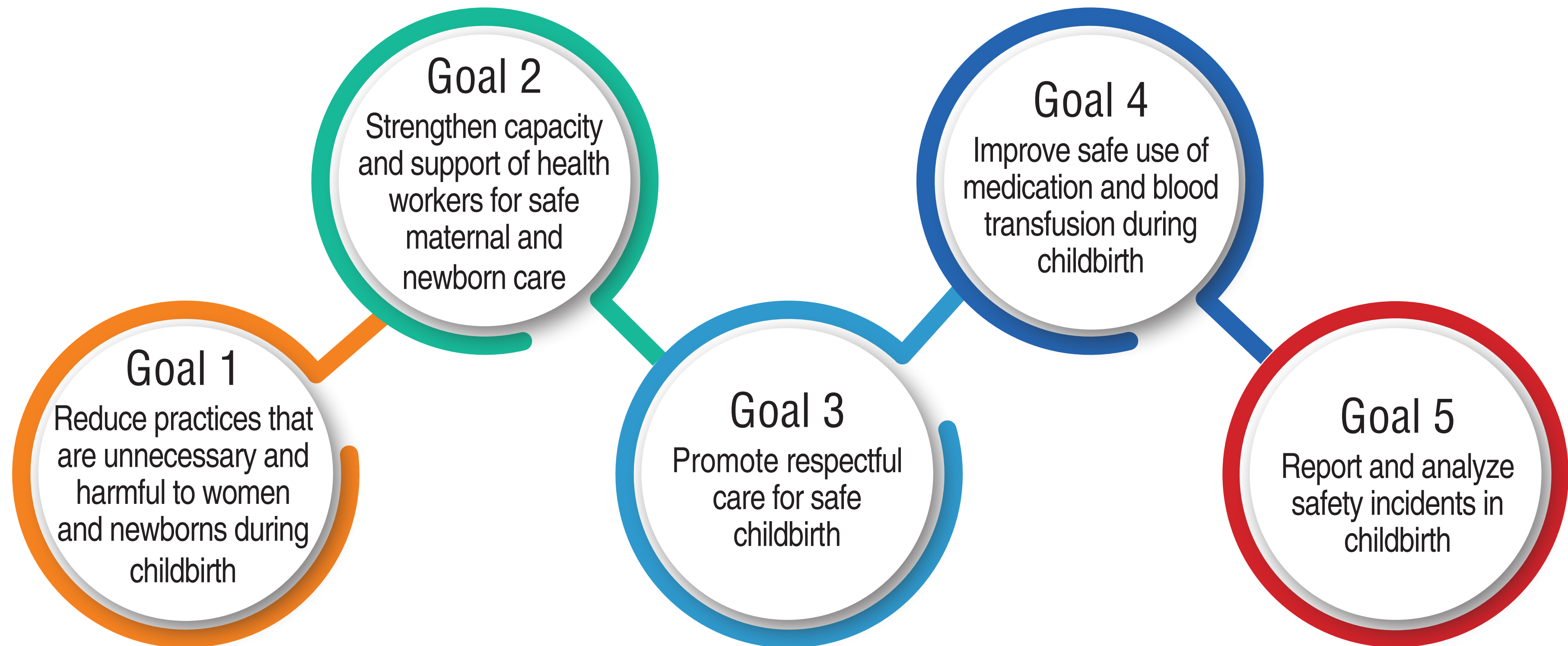
Approximately 810 women die every day from preventable causes related to pregnancy and childbirth. In addition, around 6700 newborns die every day, amounting to 47% of all under-5 deaths. Moreover, about 2 million babies are stillborn every year, with over 40% occurring during labour. Women and newborns are exposed to a significant burden of risks and harm due to unsafe care. The majority of stillbirths and maternal and newborn deaths are avoidable through the provision of safe and quality care by skilled health professionals working in supportive environments.

The set of five goals presented here provide recommended actions and outcome measures, as well as links to WHO resources, for key safety improvement areas during childbirth.

Let's continue the journey towards safe care!

WORLD PATIENT SAFETY DAY GOALS 2021–2022

Safe maternal and newborn care



Reduce practices that are unnecessary and harmful to women and newborns during childbirth

1. Rationale

More than three quarters of maternal deaths, over 40% of stillbirths and a quarter of neonatal deaths result from complications during labour and childbirth. While in some settings too few interventions are being provided too late to women in labour and their newborns, in other settings women and newborns are receiving too many interventions too soon.

A substantial proportion of healthy pregnant women undergo at least one clinical intervention during labour and childbirth, such as labour induction, oxytocin augmentation, caesarean section, operative vaginal birth or episiotomy, often without clear medical indications. In addition, women continue to be subjected to ineffective and potentially harmful routine interventions, such as clinical pelvimetry on admission, perineal shaving, enema, amniotomy, delivery of intravenous fluids or sustained uterine massage. Their newborns may be also subjected to early cord clamping, routine oral and nasal suction or separation from the mother at birth.

The World Health Organization (WHO) has published a consolidated set of recommendations on intrapartum care for a positive childbirth experience. In addition to establishing essential clinical and non-clinical practices that support a positive childbirth experience, the recommendations highlight unnecessary, non-evidence-based and potentially harmful intrapartum care practices that weaken women's autonomy, waste resources and reduce equity.



2. Suggested actions

a. Elimination of threats or hazards

- Build understanding of what constitutes normal or abnormal labour progress to avoid unnecessary and harmful practices during labour and childbirth.
- Implement behaviour change strategies aimed at health workers and other stakeholders where non-evidence-based intrapartum care practices are prevalent.
- Implement ongoing supervision and monitoring, with regular audit and review of outcomes related to unsafe and unnecessary practices in the labour ward.
- Do not distribute breast-milk substitutes or display commercial material regarding formula milk in the labour ward.

b. Environmental measures

- Ensure sufficient beds in the labour ward to support longer labour.
- Display indications and protocols for interventions, such as continuous fetal monitoring, episiotomy and caesarean section, in the labour ward.
- Display "dos and don'ts" in health care facilities to avoid unsafe and non-evidence-based practices.
- Ensure health care facilities fully comply with the International Code of Marketing of Breast-milk Substitutes.
- Display or provide information materials for women on what to expect during normal labour, stages of labour, when to go the health facility for labour assessments, and ineffective or unnecessary birthing practices that are no longer practised in the health facility.

c. Administrative measures

- Ensure that health facilities have written, up-to-date protocols on prevention of use of harmful practices and minimizing unnecessary interventions during labour and childbirth.
- Standardize labour monitoring tools, including a revised partograph.
- Provide practice-based training on restrictive episiotomy policies.
- Implement the Robson classification for assessing, monitoring and reducing unnecessary caesarean sections.

d. Work practice measures

- Do not use medical interventions to accelerate labour and birth (such as labour induction, oxytocin augmentation, amniotomy or caesarean section) before a cervical dilatation threshold of 5 cm is reached, provided fetal and maternal conditions are reassuring.
- Do not conduct routine clinical pelvimetry on admission in labour for healthy pregnant women.
- Do not conduct routine cardiotocography for the assessment of fetal well-being at admission and during labour in healthy pregnant women in spontaneous labour.

- Do not offer the following interventions routinely with the aim of preventing peripartum infections: perineal or pubic shaving, routine vaginal cleansing with chlorhexidine during labour, and routine antibiotic prophylaxis for women with uncomplicated vaginal birth or after episiotomy.
- Do not administer an enema for reducing the use of labour augmentation.
- Do not use antispasmodic agents and intravenous fluids for shortening the duration of labour.
- Do not routinely or liberally perform episiotomy in women undergoing spontaneous vaginal birth.
- Do not apply manual fundal pressure to facilitate childbirth during the second stage of labour.
- Do not provide sustained uterine massage as an intervention to prevent postpartum haemorrhage.
- Do not clamp the umbilical cord early (before one minute after birth).
- Do not perform suctioning of the mouth and nose in neonates born through clear amniotic fluid who start breathing on their own after birth.
- Do not routinely separate woman–newborn dyads after birth.

3. Barriers to implementation

- Lack of understanding of the value of reducing use of potentially harmful or unnecessary interventions among health workers.
- Resistance of health workers to change behaviours and de-implement clinical practices that are commonly practised but not recommended (such as manual fundal pressure and episiotomy).
- Lack of awareness of unnecessary interventions during labour and childbirth among women and their families.



4. Process and outcome measures

- Percentage of women with uncomplicated, spontaneous vaginal birth in whom episiotomy was performed.
- Percentage of women who received augmentation of labour (uterotonics) with no indication of delay in labour progress.
- Health care workers in the facility who receive in-service training and regular refresher sessions on harmful practices and unnecessary interventions at least once every 12 months.



5. Links to WHO resources

- WHO recommendations on intrapartum care for a positive childbirth experience:
<http://apps.who.int/iris/bitstream/handle/10665/260178/9789241550215-eng.pdf?sequence=1>
- WHO recommendations for augmentation of labour:
https://www.who.int/reproductivehealth/publications/maternal_perinatal_health/augmentation-labour/en/
- WHO recommendations for prevention and treatment of maternal peripartum infections:
https://www.who.int/reproductivehealth/publications/maternal_perinatal_health/peripartum-infections-guidelines/en/
- WHO recommendations for induction of labour:
https://www.who.int/reproductivehealth/publications/maternal_perinatal_health/9789241501156/en/

Strengthen capacity of and support for health workers for safe maternal and newborn care

1. Rationale

Health workers, including doctors, midwives and nurses, have a crucial role to play in the provision of safe and respectful care to prevent maternal and newborn mortality and stillbirth. However, health systems around the world face health worker shortages, especially of nurses and midwives, who provide most of the care for mothers and newborns. Moreover, there is inequitable distribution of health workers between and within countries, adding to the gap to reach the Sustainable Development Goal (SDG) targets on universal health coverage. Other health workers, including laboratory staff, cleaners and porters, also play an important role in ensuring safe maternal and newborn care.

Besides availability and accessibility, health workers need to be educated, skilled and empowered to provide safe and quality services. The scope of their competencies should be linked to local practice requirements and should consider the expectations of women and their families. Health workers need to be supported by a strong health system that provides adequate resources, ensures availability of basic commodities and infrastructure with due consideration of human factors (or ergonomics), and prioritizes their physical and mental health. Staff well-being, motivation and emotional support are prerequisites for respectful and compassionate care provision and for ensuring the safety of mothers and newborns.



2. Suggested actions

a. Elimination of threats or hazards

- Ensure sufficient workforce numbers and staff ratios. Calculate staffing on the basis of the workload using WHO planning tools, such as the Workload Indicators of Staff Need.
- Prioritize a no rotation policy for skilled and specialized health workers in neonatal units and promote non-rotation of non-specialized staff to neonatal units.
- Assess possible task-sharing and task-shifting opportunities and institutionalize them, as applicable.
- Consider giving authority to midwives and nurses (for example, through promotion to senior positions) and invest in the development of their leadership skills.
- Define appropriate employment contracts and career development pathways, including adequate remuneration packages to attract and retain skilled providers.
- Ensure appropriate and fair duration of deployments, working hours and rest breaks, and minimize the administrative burden on health workers.

- Introduce programmes and initiatives to improve occupational health and safety, including protective equipment, vaccinations and an inclusive working environment free from any type of violence, discrimination or harassment.
- Provide access to mental well-being and social support services for health workers, including advice on work-life balance and risk assessment and mitigation.
- Develop, promote and sustain a safety culture and a just culture in the workplace, and build systems that are transparent and uphold best practices for provision of safe and respectful care.

b. Environmental measures

- Build, fund and maintain the infrastructure for safe and dignified work environments, including reliable water, sanitation, hygiene and energy services and availability of essential supplies and basic commodities for provision of maternal and newborn care, including personal protective equipment and hand hygiene products.
- Periodically assess the workplace design and environment in relation to human factors (or ergonomics) and provide functioning and ergonomically designed equipment and workstations.
- Ensure adherence to minimum patient safety, infection prevention and control standards (with particular focus on personal protective equipment and hand hygiene products) and occupational safety standards (including physical safety).
- Develop a written policy setting out standards and codes of practice on safety, health and working conditions for the protection of health workers at the workplace.
- Incorporate human factors (or ergonomics) and infection prevention and control in the training programmes for all categories of health workers and facility staff.

c. Administrative measures

- Ensure that the skill mix of staff is aligned with their availability and the activities they can perform. Consider establishment of multidisciplinary teams.
- Establish clear, formal, written guidelines for any new responsibilities introduced into scopes of practice and job descriptions, with regular supportive supervision and mentoring to maintain safety.
- Establish safety and quality improvement teams and or committees at facility level to perform data reviews and to plan, execute and monitor safety and quality improvements.
- Build the capacities of health workers to continuously learn from the quality improvement process, applying lessons learned to enhance provision and experience of care.
- Provide pre-service/induction trainings and establish continuing professional and skill development programmes for health workers on provision of safe and quality maternal and newborn care, in line with up-to-date protocols and recommendations.

- Incorporate in the training programmes different safety-related aspects (for example, medication safety, surgical safety, blood safety, infection prevention and control, clinical handovers, and transitions of care) and non-technical skills (for example, leadership, teamwork and communication).
- Adopt a competency-based, interprofessional approach to training of health workers that is oriented towards development of outcome-related abilities and specifically focuses on the provided services.
- Ensure resilience and adaptability of health workers by building relevant competencies, especially for provision of services in emergency contexts, including in humanitarian, fragile and conflict-affected areas.
- Proactively engage health workers in the co-design of training programmes, planning of quality improvement initiatives, and environmental and occupational safety.
- Incorporate safe care requirements into internal appraisal systems and performance management of all staff.
- Adopt supportive supervision approaches and introduce coaching and mentorship programmes. Find an alternative option to standard supervisory approaches, such as self-managed continuous monitoring.

d. Work practice measures

- Ensure availability of written, up-to-date clinical guidelines and protocols and their utilization.
- Adopt and implement safety and quality improvement tools for maternal and newborn care, such as the WHO Safe Childbirth Checklist, the WHO Surgical Safety Checklist, and the WHO Labour Care Guide.
- Adopt and implement patient and health worker engagement and empowerment tools and resources, such as woman-held case notes, the 5 Moments for Hand Hygiene tool, and the 5 Moments for Medication Safety patient engagement tool.
- Provide health workers with point-of-care decision-making tools and job aids.

3. Barriers to implementation

- Lack of resources and infrastructure to provide maternal and newborn health services and to support a safe and dignified workspace.
- Lack of a competency-based and interprofessional approach to education and training.
- Low focus on the physical and mental health of health workers.
- Lack of understanding of human factors (or ergonomics).
- Lack of psychological safety and low motivation amongst health workers.
- Resistance of health workers to accepting concepts of a safety culture and a just culture.

4. Process and outcome measures

- Health care staff in the labour and childbirth areas of the maternity unit receive in-service training and regular refresher sessions at least once every 12 months in the identification and management of obstetric emergencies during labour and childbirth.
- The proportion of all staff at the health facility who reported being "highly satisfied" with their job.
- The proportion of women and their newborns in the health facility who were attended by a skilled birth attendant during and after childbirth.
- The proportion of staff at the health facility who were assessed at least once in the preceding 12 months.

5. Links to WHO resources

- Global Strategy on Human Resources for Health: Workforce 2030: <http://apps.who.int/iris/bitstream/handle/10665/250368/9789241511131-eng.pdf;jsessionid=53755A43E98269577958CBDA5EA0E58E?sequence=1>
- Global strategic directions for nursing and midwifery 2021–2025: <https://apps.who.int/iris/bitstream/handle/10665/344562/9789240033863-eng.pdf>
- WHO guideline on health workforce development, attraction, recruitment and retention in rural and remote areas: <https://www.who.int/publications/i/item/9789240024229>
- Human resource strategies to improve newborn care in health facilities in low- and middle-income countries: <https://www.who.int/publications/i/item/9789240015227>
- Workload Indicators of Staffing Need (WISN): user's manual: https://www.who.int/hrh/resources/WISN_Eng_UsersManual.pdf
- WHO patient safety curriculum guide: multi-professional edition: <https://www.who.int/publications/i/item/9789241501958>
- Optimizing health worker roles to improve access to key maternal and newborn health interventions through task shifting: <https://apps.who.int/iris/handle/10665/77764>
- Global Patient Safety Action Plan 2021–2030: <https://www.who.int/teams/integrated-health-services/patient-safety/policy/global-patient-safety-action-plan>
- Charter – Health worker safety: a priority for patient safety: https://www.who.int/docs/default-source/world-patient-safety-day/health-worker-safety-charter-wpsd-17-september-2020-3-1.pdf?sfvrsn=2cb6752d_2
- Standards for improving quality of maternal and newborn care in health facilities: <https://www.who.int/docs/default-source/mca-documents/advisory-groups/quality-of-care/standards-for-improving-quality-of-maternal-and-newborn-care-in-health-facilities.pdf>
- WHO and UNICEF. Water and Sanitation for Health Facility Improvement Tool (WASH FIT): <https://www.who.int/publications-detail-redirect/9789241511698>





1. Rationale

The notion of safe maternal and newborn care not only includes the prevention and reduction of risks, errors and physical harm during maternity care, but also encompasses protection from emotional and psychological harm. When women, parents and families experience disrespectful care, they may be less likely to use facility-based childbirth services in the future and may be more likely to have negative birth experiences and outcomes.

Respectful maternal and newborn care refers to care that maintains dignity, privacy and confidentiality, ensures freedom from harm and mistreatment, and enables informed choice and continuous support during labour, childbirth and the immediate postnatal period. Mistreatment of women and newborns during childbirth includes practices¹ that may make a labouring woman and her partner, parents and families feel dehumanized, disempowered or not in control of the birth process. Therefore, respectful care in maternity settings contributes to quality of care and human rights-based approaches by promoting equitable access to evidence-based care, providing protection from harm and improving experience of care.



2. Suggested actions

a. Elimination of threats or hazards

- Build a culture of respectful, culturally sensitive care in maternity settings.
- Implement behaviour change strategies aimed at health workers to promote respectful care.
- Implement ongoing supervision and monitoring, with regular audit and review of outcomes related to respectful care practices in maternity settings.

b. Environmental measures

Ensure an adequate physical environment to support respectful care in maternity care settings, including:

- Space and infrastructure to minimize separation of the mother and newborn from childbirth to discharge.
- Clean, appropriately lit, well ventilated labour, childbirth, and neonatal areas that are adequately equipped and maintained.

- Privacy measures such as private rooms or consistent use of curtains or partitions in shared areas.
- Continuous water and energy supply.
- Clean, functioning, accessible and appropriately illuminated (particularly at night) bathrooms for women to access during labour and after birth.
- Safe drinking water for women, labour companions or family support people.
- Hand hygiene stations with soap and clean towels and alcohol-based handrub.
- Sufficient bed capacity for the patient load.
- Facilities for labour companions, parents and families to use, including physical private space for the woman and her birth companion.

c. Administrative measures

- Ensure health facilities providing maternity and newborn services have written, up-to-date policies, guidelines and mechanisms to ensure safe and respectful care.
- Ensure health facilities providing maternity and newborn services have an up-to-date charter on the rights of women and newborns, in line with international conventions and national and other human rights laws, that is available and visibly displayed in all areas in which women and newborns are cared for during and after childbirth.
- Establish standardized informed consent forms and processes, including communicating results of any procedures or examinations to women and their partners, birth companions, parents and families.
- Establish easily accessible mechanism (such as a complaints box) for service users and providers to submit complaints to management.
- Provide regular (at least once every 12 months) practice-based training on safe and respectful care that meets the needs (social, cultural, linguistic) of women, newborns, parents and families accessing services, supported by pre-service training and orientation of new staff.
- Establish reliable identification mechanisms for all women and newborns in maternity settings, and promotion of birth registration within the prescribed time and legal identity for all newborns from birth.
- Establish accountability mechanisms for redress of women and newborns in the event of mistreatment, violation of privacy, confidentiality or consent, and inequitable care.
- Generate data related to respectful and disrespectful care practices, including through women's and parents' satisfaction surveys to inform decisions.

d. Work practice measures

- Treat all women, newborns, parents and families with dignity, respect and confidentiality, regardless of their race, ethnicity, disability, language or other status.
- Orient women, their partners, birth companions, parents and families on what to expect from the process of labour and childbirth and care options² to aid them to make informed shared decisions; respect their preferences for any suggested interventions and care of the woman and newborn.
- Allow mother–infant dyads to remain together, promote breastfeeding and skin-to-skin contact at all times, including the first hour after birth.
- Use effective, respectful, culturally sensitive, two-way communication techniques; speak respectfully, but also listen respectfully to women and their families.
- Recognize and respect the newborn's behaviour and cues and include them in care decisions.
- Provide care that is safe and based on evidence and recommendations. Do not persuade or force women, parents or families to receive unnecessary interventions or pay bribes to receive care.
- Ensure all stillborns and newborns who die are handled respectfully and parents and families are allowed to grieve in a culturally appropriate manner.

3. Barriers to implementation

- Lack of recognition of respectful care as a key component of safe, quality maternal and newborn care.
- Lack of awareness of respectful maternity care and tolerance of poor practices among women, families, health workers and system managers.
- Lack of standardized and routine reporting and analysis of non-physical harms resulting from disrespect and mistreatment during maternity care in incident information systems.
- Lack of resources and infrastructure to provide a reliable, respectful culture of care.



4. Process and outcome measures

- Proportion of women who gave birth in a health facility who wanted and had a companion of their choice during labour and childbirth.
- Proportion of procedures in a health facility that require written consent for which there is an associated record of the woman's or parent's consent.
- Proportion of women (or newborns, parents, families) who report being subjected to physical or verbal abuse³ at any time during labour, childbirth or the immediate postnatal period.
- Proportion of staff in facilities who received training on respectful care in the last 12 months.

5. Links to WHO resources

- WHO recommendations on intrapartum care for a positive childbirth experience:
<http://apps.who.int/iris/bitstream/handle/10665/260178/9789241550215-eng.pdf?sequence=1>
- The prevention and elimination of disrespect and abuse during facility-based childbirth: WHO statement:
http://apps.who.int/iris/bitstream/handle/10665/134588/WHO_RHR_14.23_eng.pdf?sequence=1
- Standards for improving maternal and newborn quality of care in health facilities:
<https://www.who.int/docs/default-source/mca-documents/advisory-groups/quality-of-care/standards-for-improving-quality-of-maternal-and-newborn-care-in-health-facilities.pdf>
- Standards for improving the quality of care for small and sick newborns in health facilities:
<https://www.who.int/publications/i/item/9789240010765>
- Quality of care for maternal and newborn health: a monitoring framework for network countries:
https://www.who.int/docs/default-source/mca-documents/qed-quality-of-care-for-maternal-and-newborn-health-a-monitoring-framework-for-network-countries.pdf?sfvrsn=19a9f7d0_1

3. Physical abuse includes being slapped, pinched or punched by a health worker or other facility staff. Verbal abuse includes being shouted at, screamed at, insulted, scolded or mocked by a health worker or other staff.

1. Such practices may include physical or verbal abuse, discrimination, non-consented examinations or procedures, lack of privacy, lack of supportive care, unnecessary separation of mothers and newborns, and neglect or being left unattended.

2. Including evidence, risk, and benefits of procedures, processes, and use or non-use of technologies during maternal and newborn care. Care options include available options for labour companionship, pain relief and mobility during labour and childbirth, and women's and newborn's rights to health and health care.

Improve safe use of medication and blood transfusion during childbirth



1. Rationale

Access to and safe use of essential medicines, and blood around the time of childbirth are key for the prevention and management of maternal and newborn complications, such as postpartum haemorrhage, eclampsia and sepsis. Reducing preventable harm related to the use of lifesaving medicines and blood transfusions is a global priority. High-risk (high-alert) medications, such as oxytocin, magnesium sulfate, parenteral opioids and aminoglycosides, are medications that bear a heightened risk of causing significant harm when they are used in error. Although mistakes may or may not be more common with these medications, the consequences of an error are clearly more serious. Medication errors in neonates, where doses may have to be calculated in relation to body weight or age, are a source of major concern.

The care environment may also contribute to error-provoking conditions, especially in overloaded and busy birthing units with inadequate resources.

2. Suggested actions

a. Elimination of threats or hazards

- Develop strategies to avoid confusion or misinterpretation caused by illegible handwriting of a medication order. Avoid the use of abbreviations. Use boldface and tall man lettering to reduce errors when ordering and prescribing a medication.
- Implement measures to reduce confusion due to use of look-alike or sound-alike names and packages, such as storing medicines with higher risk of errors in different locations and use of coloured labels.
- Ensure standardization of terminology, dosing regimens, limited concentrations (for magnesium sulfate and other concentrated electrolyte solutions), and units of measure. This is especially important for safe use of high-risk (high-alert) medications.
- Implement forcing functions to reduce the chance of errors during storing and administering medicines (for example, storing certain medicines outside the patient area and reserving verbal orders for exceptional situations only).
- Where available, explore technologies and methods such as electronic medical records, electronic prescribing systems and barcodes to streamline information exchange and improve prescription legibility.
- Map and mitigate work environment risk factors in the birthing unit that may lead to medication errors and unsafe transfusion practices such as understaffing, inadequate supervision, multitasking, fatigue and frequent interruptions.

b. Environmental measures

- Ensure appropriate cold chain and storage (2–8°C) for oxytocin. Ensure storage of blood and blood products in appropriate temperature-controlled conditions.
- Ensure availability of essential medicines and blood and blood products for labour and childbirth in sufficient quantities at all times, using robust inventory management processes such as keeping adequate buffer stocks.
- Ensure medications needed for administration are clearly labelled and organized in a way that reduces risk of error.
- Organize the work environment so that distractions and interruptions that may lead to error are minimized.

c. Administrative measures

- Proactively identify risks of medication-related harm and transfusion reactions, and how they can be minimized in your facility by actively monitoring women, fetuses and neonates for signs of adverse reactions, especially if high-risk (high-alert) medications are used (for example, monitor for uterine tachysystole or signs of magnesium toxicity).
- Provide practice-based training on medication identification, safe dosage, route and infusion rates, and adverse effects of commonly used medicines during labour, childbirth and after birth, including consideration of differences between adult and neonatal or paediatric dosage and route of administration of medications.
- Ensure availability of adequately trained staff, clear protocols, and the necessary equipment to manage complications related to use of medicines, blood and blood products, including rescue procedures in case of overdose or adverse event.
- Ensure that health care facilities providing opioid analgesia for pain relief have mechanisms in place to securely store opioids and register dispensing to reduce risk of abuse. Keep reversing agents such as naloxone in stock for reversing respiratory depression if necessary.
- Implement policies and protocols outlining the correct use of antibiotics as part of a facility's antibiotic stewardship programme.
- Implement protocols to ensure correct patient identification to prevent errors in medication administration, cross-matching and transfusion of blood.
- Keep up-to-date standardized operating procedures for taking blood samples for pre-transfusion testing and for administration of blood components to avoid incompatibility of blood.
- Ensure protocols for massive transfusion and emergency release blood and blood products are in place in all maternity units.

d. Work practice measures

- Ask for medication history and check with the patient if they have any allergies, for example allergy to antibiotics, lidocaine or other medicines.
- Record the name, dose and route of administration of any medication that is being administered to the woman or neonate during labour, childbirth or after birth (for example, 50 milligrams of pethidine, intramuscular).
- If available, and if there is more than one health worker performing newborn resuscitation, use pulse oximetry to determine the need for supplemental oxygen and to monitor the needed concentration of oxygen.
- Offer epidural anaesthesia, where available, at the lowest effective concentration of local anaesthetic to avoid complications.
- Apply infection prevention and control measures to ensure medications and transfusions are administered safely and do not lead to avoidable harm, including performing hand hygiene before any medication administration.
- Ensure safe injection practices and use of aseptic techniques when administering parenteral drugs and blood transfusion to the woman or the neonate.
- Before giving any intravenous infusion, check that the seal is not broken, the expiry date has not passed, and the solution is clear and free of visible particles.
- When prescribing, check the identity of the woman and neonate and ensure that the medicine is appropriate, the dose is suitable, and the route and duration are correct.
- Conduct a medication review that takes into consideration risk of drug–drug and drug–disease interactions.
- Avoid unnecessary interventions such as induction or augmentation with oxytocin, and unnecessary transfusions (for more details refer to goal 1).
- Test the woman's haemoglobin level, ABO blood grouping and RhD typing at admission to prevent patient harm.

3. Barriers to implementation

- Shortage of essential medicines and lack of access to safe blood at point of care.
- Lack of health information management systems designed to document and monitor recommended practices (for example, patient records, registers).
- Lack of human resources with the necessary expertise and skills to implement, supervise and support recommended practices.

4. Process and outcome measures

- Number and percentage of adverse drug events reported in maternity unit.
- Number and percentage of severe transfusion reactions reported in maternity unit.
- Percentage of staff members in the health facility who meet biosafety standards when administering parenteral drugs.

5. Links to WHO resources and further reading

- WHO recommendations: intrapartum care for a positive childbirth experience:
<http://apps.who.int/iris/bitstream/handle/10665/260178/9789241550215-eng.pdf?sequence=1>
- WHO recommendation on routes of oxytocin administration for the prevention of postpartum haemorrhage after vaginal birth:
<https://www.who.int/publications/i/item/9789240013926>
- WHO recommendations for prevention and treatment of maternal peripartum infections:
https://www.who.int/reproductivehealth/publications/maternal_perinatal_health/peripartum-infections-guidelines/en/
- WHO labour care guide: user's manual:
<https://www.who.int/publications/i/item/9789240017566>
- The clinical use of blood in medicine, obstetrics, paediatrics, surgery and anaesthesia, trauma and burns:
<https://apps.who.int/iris/handle/10665/42397>
- Managing complications in pregnancy and childbirth: a guide for midwives and doctors (second edition):
<https://apps.who.int/iris/bitstream/handle/10665/255760/9789241565493-eng.pdf>
- Antimicrobial stewardship programmes in health-care facilities in low- and middle-income countries:
<https://apps.who.int/iris/bitstream/handle/10665/329404/9789241515481-eng.pdf>





1. Rationale

Across the world, women and newborns may be exposed to avoidable harm during childbirth in health care facilities, and some die or suffer severe morbidity unnecessarily. Most of these losses are preventable with high-quality care, evidence-based interventions provided during pregnancy, labour and childbirth. Patient safety incident reporting and learning systems can provide critical insights into the causes of harm and remedial actions to prevent them in the future and include the following categories of incidents:

- near miss: an incident that did not reach the patient (for example, a unit of blood being connected to the wrong patient's intravenous line, but the error was detected before the transfusion started);
- no harm incident: one in which an event reached a patient, but no discernible harm resulted (for example, if the unit of blood was transfused, but was not incompatible);
- harmful incident: an incident that resulted in harm to a patient (for example, the wrong unit of blood was transfused, and the patient suffered serious harm or died from a haemolytic reaction).



Among different frameworks, Maternal and perinatal death surveillance and response (MPDSR) is a critical intervention to reduce avoidable deaths by gathering information on where and why these deaths occurred and understanding the underlying contributing causes and avoidable factors, and to implement changes within a continuous monitoring, evaluation and response cycle.

2. Suggested actions

a. Elimination of threats or hazards

- Protect health professionals from recrimination and reprisal by ensuring legal protection and the principles of anonymity and confidentiality during safety incident reporting.
- Prioritize the use of electronic systems for reporting safety incidents, including maternal and perinatal deaths, and wherever feasible, to reduce the lag between notification and follow-up action.
- Design/adopt comprehensive and user-friendly reporting formats to collect all required information efficiently.
- Where feasible, establish a telephone hotline or other urgent communication channel to enable staff to report serious incidents involving a real and present danger of early repetition of the serious harm.

b. Environmental measures

- Establish a culture of openness and transparency, underpinned by the principle of no blame and the use of de-identified data. Emphasize the benefits of and dispel misconceptions related to a no blame culture.
- Make all health workers fully aware of their responsibility to identify occurrences of harm as well as existing and potential risks. Ensure that stakeholders understand the purpose and principles of maternal and perinatal death surveillance and response and patient safety incident reporting and learning systems, particularly front-line health workers.
- Communicate the objectives and methods of maternal and perinatal death surveillance and response and patient safety incident reporting through targeted training and communications.
- Implement the International Classification of Diseases and coding of maternal and perinatal deaths and other patient safety incidents.
- Assign adequate resources and staff time to correctly identify, review, and take corrective action on deaths and other safety incidents.
- Establish that demonstrable improvement in safety is being consistently made and communicated within the organization or health system as a whole to sustain motivation and momentum.
- Establish a special strand of reporting for patients and family members. It is essential that this is widely publicized, and that patients and family members are encouraged to report incidents.

c. Administrative measures

- Set up a review committee who meets periodically at the health facility level to organize and oversee the process of safety incident reporting and learning, including maternal and perinatal deaths.
- Define the standard operating procedure for reporting maternal and perinatal deaths, near misses and other safety incidents.
- Implement clear policies and guidelines to ensure that data collection is timely, thorough and fit for purpose.
- Encourage review committees to actively seek testimony from outside the health profession, particularly including family and communities using verbal and social lines of communication.
- Ensure that the findings of death and any other safety incident reviews and recommendations for follow-up action are disseminated through period reports and communicated to front-line health workers in an efficient manner to prevent similar incidents from occurring.

d. Work practice measures

- Identify and notify all maternal and perinatal deaths within 24 hours or within 48 hours when a woman or newborn dies in the community.
- Ensure that all maternal and perinatal deaths or any other serious patient safety incidents are reviewed as soon as possible.
- Review all maternal and perinatal deaths for medical causes of death and any non-medical modifiable factors contributing to death.
- Provide counselling to staff involved in serious incidents and give support in the aftermath of the events that led to harm.
- Anonymize all reports of patient safety incidents in the reporting system prior to transmission to data storage (for example, in a database) so that no patient, staff member or other person can be identified.
- Establish a duty of candour towards any victim of harm. All patients whose care has involved a patient safety incident should receive (a) full disclosure of what went wrong; (b) an explanation of why it happened; (c) a full apology; (d) a description of the action being taken to prevent a recurrence (and an invitation to be involved in the implementation process); (e) the provision of practical and psychological support, including fair compensation; and (f) access to further treatment for the original condition and consequences of the harm.

3. Barriers to implementation

- Lack of a legal framework for reporting maternal and perinatal deaths and safety incidents.
- Blame culture and fear of disciplinary action or litigation in response to reporting safety incidents.
- Insufficient time, resources and expertise dedicated or committed to carrying out the analysis required, coupled with volume of data overload.
- Poor linkages between MPDSR audits and quality improvement processes at facility level
- Lack of linkages between health information and civil registration and vital statistics
- Taxonomies and classifications that do not enable aggregation of reports into categories that reliably highlight system weaknesses.



4. Process and outcome measures

- % of expected maternal/perinatal deaths notified to MPDSR system
- % of expected maternal/perinatal deaths reviewed by MPDSR steering committee
- % of recommendations implemented in last year, by level
- Number and percentage of near miss and other safety incidents that were notified and reviewed.



5. Links to WHO resources

- Patient safety incident reporting and learning systems: technical report and guidance:
<https://www.who.int/publications/i/item/9789240010338>
- World alliance for patient safety: WHO draft guidelines for adverse event reporting and learning systems: from information to action:
<https://www.who.int/publications/i/item/WHO-EIP-SPO-QPS-05.3>
- Maternal death surveillance and response: technical guidance information for action to prevent maternal death:
http://apps.who.int/iris/bitstream/handle/10665/87340/9789241506083_eng?sequence=1
- Time to respond: a report on the global implementation of maternal death surveillance and response:
<https://apps.who.int/iris/rest/bitstreams/1060455/retrieve>
- Making every baby count: audit and review of stillbirths and neonatal deaths:
<https://www.who.int/publications/i/item/9789241511223>
- Maternal and perinatal death surveillance and response: materials to support implementation



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