**Manual for High-Quality Decision-Making In Developing Maternal Deaths Prevention Recommendations In Both Developing and Developed Countries**

**Abstract**

Decision-making is a fundamental cognitive process central to human behaviour, organizational operations, and governance structures in maternal health programs. It entails choosing the most appropriate course of action among several alternatives based on evaluating goals, resources, and constraints. This manual delved into the stages, types, influencing factors, and challenges of decision-making to develop high-quality decisions and recommendations to save the lives of mothers. The aim of the manual was to equip health workers in maternity departments with decision making skills on top of the technical skills they have in patient management.

Key words: Decision-Making , Maternal Deaths, human behaviour, patient management

**Introduction**

The English dictionary defines a decision as a [choice](https://dictionary.cambridge.org/us/dictionary/english/choice) that you make about something after [thinking](https://dictionary.cambridge.org/us/dictionary/english/thinking) about several [possibilities](https://dictionary.cambridge.org/us/dictionary/english/possibility);[1] In health care provision decisions are made very frequently and at times promptly or even impulsively. Decisions in health care have very serious consequences that even include maternal deaths, injury, pain, psychological trauma and many more, including wastage of resources. Health workers must, therefore, make decisions that are high quality, accurate, and objective for better maternal health outcomes. Decisions are made in a very systematic way called the decision-making process [13,14].

A decision is the process of making a choice or selecting an option from a range of alternatives. It involves evaluating available information, weighing the potential consequences, and determining the most suitable course of action based on goals, preferences, or constraints. Decisions occur at various levels, from personal to organizational and societal contexts, and they play a fundamental role in shaping behaviour and outcomes.[2.3.4] Therefore, teams working in maternal health departments are encouraged to ensure they objectively scan their work environments [15,16]. This is important for better decisions and better recommendations or actions for better outcomes to be realised.

**The Decision-Making Process: A Comprehensive Exploration**

Decision-making is a fundamental cognitive process central to human behaviour, organizational operations, and governance structures. It entails choosing the most appropriate course of action among several alternatives based on evaluating goals, resources, and constraints. [4,5]

**Stages of the Decision-Making Process**

The decision-making process can generally be broken down into the following stages:

1. **Identification of the Problem or Opportunity:** The first step involves recognizing and defining the issue that requires a decision. Clarity at this stage is crucial as it sets the direction for subsequent actions.[2,6] A good example is a maternity ward manager notices an increase in maternal deaths. The problem is the number of the dying mothers. If there is a target, then the number above the target is the problem. There is a need for clear goals, in this case the goal is to reduce maternal deaths. In addition, there is a need to have a measurement system to assess performance that will show success. When the problem has been clearly defined, there will be more information on how to come up with evidence-based decisions to solve the problem.
2. **Gathering Relevant Information.** Decision makers collect data, insights, and evidence to understand the context and implications of the decision. This step ensures that the process is informed and objective. This will lead to high quality decisions and recommendations. It is crucial to ask questions like is there historical data on maternal deaths in the hospital and also previous efforts to solve the problem. Wide consultations from team members and other colleagues as well as research on maternal deaths is key. It is important to note that weak and false information will affect the strength and quality of decision.
3. **Identifying Alternatives** Various potential courses of action are outlined. Creativity and critical thinking play significant roles in generating feasible options. There must be robust brainstorming by the maternity staff where all members take part effectively.[2] Having limited choices is a wrong way of making decisions that impact people's lives . There is a need for the use of the decision making tree.
4. **Evaluation of Alternatives** Each alternative is assessed based on criteria such as feasibility, cost, benefits, and alignment with objectives. Choice must be made based on resources needed, policy, standards, ethics, and time and skills availability. For example in response to high maternal deaths , alternatives like increased staff training on quality patient care , improved technology, or revised policies might be considered. Pros and cons of each alternative is assessed, there is need for use of the Strengths Weaknesses Opportunity Threats (SWOT) analysis and decision matrix.
5. **Selection of the Best Alternative** The decision maker or maternity ward team must choose the most suitable option based on the evaluations. The next step is to make your final decision. Consider all of the information collected and how this decision may affect the mothers and each stakeholder.

Sometimes the right decision is not one of the alternatives, but a blend of a few different alternatives. Effective decision making involves creative problem solving and thinking out of the box, so don't limit you or your teams to clear-cut options [17,18].

One of the key values is to reject false trade-offs. Choosing just one decision can mean losing benefits in others. If you can, try and find options that go beyond just the alternatives presented.[6]

1. **Implementation of the Decision.**  After selecting an alternative, it must be executed effectively. This often requires resource allocation and communication with stakeholders.[2] Most teams hesitate to execute difficult decisions like cautioning other staff members or even misconduct charges. Such practices of fear lead to deaths of mothers and also failure to have some recommendations and decisions executed
2. **Review and Feedback.** The final step involves evaluating the outcomes of the decision to determine whether it achieved the desired objectives and identifying lessons for future decisions. Here robust indicator tracking like monitoring of patients in labour, maternal deaths is very critical. It is best practice to share successes with the team and encourage more commitment from the team. Teams are encouraged to look out for unintended consequences of the decision like its impact on the team.

**Types of Decision-Making**

**Programmed vs. Non-Programmed Decisions**

**Programmed Decisions**: Routine and repetitive decisions made based on established rules or procedures. These decisions include patient referral, decision for caesarean section, decision for discharge patient or to commence on a treatment regimen like eclampsia etc.

**Non-Programmed Decisions**: Complex, unstructured decisions requiring creative problem-solving.[3] These are adaptive challenge management and rely on the culture of the workplace and workers. There is a need for the teams to be well disciplined and adhere to ethical standards, compassion and best practices as they make decisions.

 **Group Decisions.** Decisions can be made by individuals or collaboratively in groups. Group decision making is the process of involving multiple people with different perspectives, skills, and experiences in making a collective choice or judgment. This can have several advantages, such as increasing the diversity of ideas by clinical and non-clinical staff and information, enhancing the acceptance and commitment of the stakeholders, and promoting learning and development. However, group decision making can also have some disadvantages, like consuming more time this may lead to delays that will lead to maternal deaths and resources, creating potential conflicts and disagreements, and causing groupthink and conformity. These can reduce the efficiency and agility of the decision making process, impair communication and cooperation among the group members, and undermine critical thinking and independent judgment.[7]

**Individual decisions**

Individual decision making is the process of relying on one person's knowledge, intuition, and judgment to make a choice or judgment. This process can have several advantages, such as saving time and resources and allowing flexibility and autonomy. However, individual decision making can also have some drawbacks. These include limiting the diversity of ideas and information, reducing the acceptance and commitment of stakeholders, and increasing the risk and responsibility for the decision maker. These factors can lead to narrow and biased solutions, hamper implementation and execution of the decision, and put more pressure and stress on the decision maker.[7] This type of decision relies on the personality and drive of the maternity employee, hence training is very important so that the staff is very competent to know what needs to be done on the patient to have desired outcome.

**Challenges in Decision-Making**

**Uncertainty** Decisions often involve incomplete information, making it difficult to predict outcomes with certainty. [6.7] To reduce uncertainty the maternity teams must ensure they gather as much high quality information as they can to mitigate the uncertainty. If information is not enough the quality of decisions and recommendations will be weak and of low quality hence poor maternal health outcomes.

**Conflicting Interests.** Conflict of interest in decision making occurs when an individual's personal interests, relationships, or external obligations interfere with their ability to make impartial and objective decisions. Such conflicts can compromise the fairness, transparency, and integrity of the decision-making process, often resulting in outcomes that prioritize personal gain over the collective or organizational good. [6,8,9] In many settings in developed countries where salaries are low and corruption high the chances of teams in maternity to make decisions that benefit them personally than the patient is high. A good example is when maternity staff are selling cotton wool, cord clamps, methylated spirit, medicines to mothers because the hospital does not have. The staff will not make effort to make a decision to order these items and patients suffer because the prices are usually high. Some interests will be professional, biased, etc.

**Emotional Influences.** Emotions play a critical role in decision-making, influencing choices and outcomes in ways both positive and negative. While traditionally perceived as a hindrance to rationality, modern research highlights that emotions can provide valuable insights by signalling priorities, guiding judgment, and shaping intuition.[10,11] The study revealed ways emotions impact decision-making, focusing on both their benefits and challenges. Emotions such as fear, anger, or excitement can cloud rational judgment.

**Positive Emotions.** Positive emotions such as happiness and excitement can broaden cognitive perspectives and encourage creativity. However, they can also lead to overconfidence, potentially resulting in impulsive decisions.[11] Impulsive decisions in a sensitive ward like maternity is very dangerous for patients. Hence there is need for emotional intelligence to separate emotions and judgement. A good theoretical example cane be an exited ward manager giving many junior staff off days because of excitement or shouting at employees unnecessarily because of anger.

**Negative Emotions** Negative emotions like fear, anger, and sadness can narrow focus, making individuals risk-averse or overly cautious. Fear of failure, for instance, might discourage innovative decisions, while anger may lead to reactive or retaliatory choices. A Research by Lerner et al. (2004) indicates that anger can heighten perceived control over uncertain situations, resulting in riskier decisions.[10] Reactive un-processed decisions may lead to poor recommendations, death of patients or waste of resources. Staff in maternity wards must ensure they avoid rushed decisions as this may lead to deaths.

**Emotional Biases and Heuristics** Emotional states can create biases, such as the "affect heuristic," where emotions act as shortcuts in evaluating decisions.[6,7] For instance, strong negative emotions about a medicine/equipment brand may cause a maternity staff member to reject it without objectively assessing their quality. This may lead to complications and even deaths. Emotional bias and heuristics may also be emanating from personal feelings like personality differences and secret relationships at work, difference in political/religion orientation, this leads to biased decisions that cost mothers their lives and also bad image for the system.

**Stress and Anxiety** High levels of stress or anxiety can impair decision making by reducing cognitive resources and hindering clear thinking. Chronic stress, in particular, may cause individuals to rely on habitual rather than deliberative responses.[7] This may be the case in low income countries were lack of resources, low salaries, and poor working conditions stress health workers and this may lead to avoidable maternal death

**Emotional Memory and Anticipation** Past emotional experiences influence how similar situations are approached in the future. Anticipated emotions, such as the desire to avoid regret or guilt, shape preferences and actions.[6,7] For example if previously a midwife decided to report a doctor who delayed coming manage a patient was insulted by the doctor, this nurse and all others who know what happened may be hesitant to make similar decision earing similar consequences [19,20].

**Conclusion**

The decision making process in maternal heal facilities is a multifaceted endeavour that requires careful consideration of alternatives, analysis of influencing factors, and evaluation of maternal health outcomes. Despite challenges such as uncertainty and cognitive biases, adopting structured frameworks, fostering collaboration, and enhancing critical thinking can lead to improved decisions. Whether in individual or organizational contexts, effective decision making is indispensable for achieving goals and driving progress.

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1.

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