BioSocial Health J 2026;3(3):118-123
doi:10.34172/bshj.211
https://biosocialhealthjournal.com

BioSocial
Health Journal

Perspective

When Trusted Authorities Disagree: A Perspective on Sacred-Clinical Discordance in Maternal Emergencies During Infectious Disease Outbreaks

Knowledge Denhere[1,2,3*], **Malizgani Mhango**[3,4]

[1]Department of Laboratory Medicine and Clinical Ethics Committee, The Rotunda Hospital, Dublin, Ireland
[2]School of Public Health, University of the Western Cape, Cape Town, South Africa
[3]Department of Laboratory Diagnostics and Investigative Sciences, College of Health Sciences, University of Zimbabwe, Harare, Zimbabwe
[4]National Centre for Epidemiology and Population Health, Australian National University, Canberra, Australia

***Corresponding Author:** Knowledge Denhere, Email: knowleydenhere@gmail.com

Abstract
Infectious disease outbreaks can disrupt maternity care while adding infection-prevention constraints to time-critical decisions. Community health workers and faith leaders are often engaged to sustain trust and service use, and evidence supports these partnerships. Less attention has been given to situations in which urgent clinical action, a woman's preferences, and a religious or spiritual practice cannot all be accommodated in full. We call this sacred-clinical discordance and propose a Maternal Emergency Concordance Framework for outbreak preparedness. The framework has five functions: anticipate predictable conflicts, define clinical and ethical boundaries, agree meaningful alternatives, rehearse high-risk scenarios, and create a rapid mediation and review pathway. The framework does not seek shared belief or unrestricted accommodation; its purpose is to reduce avoidable delay and conflict while protecting informed choice, infection-prevention requirements, and culturally meaningful care. We outline safeguards and research priorities for testing feasibility, acceptability, safety, and effects on referral and trust.
Keywords: Community health workers, Decision making, Disease outbreaks, Health promotion, Maternal health services, Religion

Received: August 3, 2026, **Revised**: August 23, 2026, **Accepted**: August 31, 2026, **ePublished**: October 1, 2026

Introduction

Infectious disease outbreaks can damage maternity care through pathways that extend well beyond infection itself. During the 2014-2016 West African Ebola epidemic, a systematic review of 12 studies found marked reductions in antenatal care and institutional childbirth; national analyses included in the review reported a 28% fall in institutional childbirth in Sierra Leone and a 32% fall in births attended by skilled health personnel in Liberia.[1] A broader systematic review of health-care utilization during the same epidemic found substantial disruption across essential services.[2] Fear of facilities, loss of staff, altered referral pathways, resource diversion, and infection-prevention measures can all make routine and emergency care harder to reach.

Obstetric emergencies are particularly sensitive to delay. The three-delays model remains useful here: harm may accumulate while a complication is recognized and a decision to seek care is made, while transport is arranged, and after arrival if appropriate treatment is not immediately available.[3] An outbreak can worsen each stage. It can also introduce a new layer of uncertainty when ordinary practices of touch, accompaniment, prayer, visitation, or ritual are restricted because of infection risk.

Community health workers (CHWs) and faith leaders are often asked to help maintain access and trust. Evidence supports this approach. In a cluster-randomized trial in Ethiopia, intervention facilities in which CHWs were paired with Ethiopian Orthodox priests recorded 14% more first antenatal-care visits and 26% more fourth visits than control facilities; facility deliveries were 10% higher than expected in the absence of the intervention.[4] A second Ethiopian cluster trial also found improved maternal-health service use after religious leaders were engaged in maternal-health education.[5] A 2026 quasi-experimental study in Bangladesh found that large-scale training of religious leaders was associated with improved maternal and child health knowledge, communication, and selected care-seeking behaviors.[6]

These studies support partnership, but offer little guidance for a harder situation: what should happen when the woman, the clinical team, and a locally important faith or spiritual authority do not favor the same immediate course of action? In a maternal emergency, this disagreement may have to be resolved within minutes. Outbreak preparedness has developed strong principles for community engagement, but the practical architecture for handling such discordance remains underdeveloped.

© 2026 The Authors. This is an open access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Plural Care and Outbreak Constraints

Pregnancy and childbirth often sit within plural systems of care. Qualitative research from Ethiopia, Haiti, and Zimbabwe has shown that communities may draw simultaneously on biomedical, religious, and traditional explanations of pre-eclampsia rather than treating them as mutually exclusive.[7] Women in Nigeria have likewise described good maternity care in terms that include safety, coordination, social sensitivity, and respect across a medically plural environment.[8] This literature is important because it shifts attention from whether people "believe" biomedicine to how several sources of meaning and advice are negotiated in practice.

Conflict is not hypothetical. A 2026 study from Ghana, drawing on in-depth interviews and focus groups with maternity staff, described maternal-fetal ethical dilemmas in which clinical decision-making was shaped by family involvement, religious influence, and women's treatment choices.[9] Such findings show that maternity care can become contested even outside an outbreak. Infection-control constraints can raise the stakes further by limiting who may enter a care space, how close they may come, what they may touch, or how urgently transfer must proceed. Religious factors also shape infection-prevention practice itself: a recent scoping review found that cleanliness rituals, dress requirements, and attitudes to alcohol-based hand rubs can act as either enablers or barriers to infection-prevention compliance across a range of settings and faith traditions.[10]

Work from Ebola responses also shows that faith engagement can change the acceptability of public-health measures. Religious actors contributed to communication, care, and community trust during the West African epidemic.[11] In Sierra Leone, exposure to messages from imams and pastors was associated with greater intention to accept safer alternatives to traditional burial and with other protective behaviors; later qualitative work described how religious leaders interpreted unfamiliar outbreak measures through existing relationships of trust.[12,13] The lesson is not that religious leaders should be recruited as extensions of the health system, but that practices carrying spiritual meaning can sometimes be adapted without losing it. Comparable arguments have been developed for Muslim-majority settings, where Islamic principles such as cleanliness (taharah) and the prevention of harm have been proposed as religiously resonant foundations for infection prevention rather than obstacles to it.[14]

Public-health scholarship has often described religion as either a facilitator of desirable behavior or a barrier to it, a framing that can obscure power and reduce complex traditions to their usefulness for biomedical goals.[15] The emerging concept of faith-concordant nursing care similarly emphasizes care that responds to patients' self-identified faith preferences rather than imposing or assuming spiritual needs.[16] The concern here is narrower: a time-critical maternal emergency in which clinically necessary action, outbreak-related infection-prevention requirements, and a woman's religious or spiritual preferences cannot initially be accommodated together. It therefore requires preparedness before the bedside encounter, not only negotiation once disagreement has arisen.

Sacred-Clinical Discordance

We use sacred-clinical discordance to describe that situation. The term refers to a conflict in action, not to a conflict between fixed camps. Its distinguishing feature is not the presence of religious belief itself, but a time-critical incompatibility among clinically necessary action, outbreak-specific safety constraints, and a spiritually meaningful preference. Health professionals do not hold a single worldview, faith communities are not homogeneous, and the woman may share, reject, or reinterpret the views of family or religious leaders. "Sacred" is used here for practices or obligations that the woman regards as religiously or spiritually significant. Cultural practices fall within the framework only when the woman herself regards them as carrying religious or spiritual significance in the decision at hand.

Consider a scenario in which a woman develops an acute obstetric complication and also meets local criteria for a suspected high-consequence infectious disease. Urgent referral is required, together with pathogen-specific precautions. She asks for a close-contact religious practice before transfer. The request may be compatible with the precautions, may be safely adapted, or may create a material transmission risk. She may later change her mind. Family members may disagree with her. A faith leader may be able to identify an alternative that preserves the practice's religious meaning. The apparent conflict may even disappear once the clinical restriction is explained accurately.

The question is not whether religion should yield to medicine or the reverse, but which elements are clinically necessary, which are ethically non-negotiable, which are adaptable, and who is entitled to decide. The woman's informed preferences and consent are the ethical starting point. They are not one interest to be balanced against two institutional authorities. Clinical teams remain responsible for evidence-based care and infection prevention. Faith leaders, where the woman wants their involvement, can advise on whether an adaptation remains meaningful within their tradition. The woman should be asked whom, if anyone, she regards as an appropriate faith adviser; a pre-designated institutional or community leader should not be presumed to represent her. If she does not want religious involvement, none should be introduced. No participant should be asked to exercise expertise they do not hold.

The Maternal Emergency Concordance Framework

The Maternal Emergency Concordance framework (MECF) is a conceptual preparedness model for resolving foreseeable discordance before an emergency forces improvised negotiation. Figure 1 links the preparedness functions to the emergency decision pathway and post-event review.

The framework was developed from the evidence and arguments reviewed here and has not yet been empirically tested in any setting. It prescribes neither universal religious accommodations nor universal infection-control rules, since both would be unsafe. The relevant precautions depend on the pathogen, mode of transmission, clinical condition, available infrastructure, and current national guidance. The MECF specifies a process that can be built into existing maternal-health, community-engagement, and outbreak-preparedness systems. Table 1 summarizes the five framework functions as operational preparedness questions and expected outputs.

Anticipate Predictable Conflicts

Preparedness teams should first identify situations in which urgent maternal care and locally important practices may compete for the same time, space, people, or physical contact. Mapping should involve women and women's groups, CHWs, maternity staff, infection-prevention specialists, emergency-response personnel, and locally recognized faith or spiritual leaders where relevant. Potential points of tension may include physical touch, accompaniment during transfer, bedside prayer, anointing, washing, modesty or gender preferences, handling of bodily

Table 1. Operational elements of the Maternal Emergency Concordance Framework

Framework function	Preparedness question	Expected output
Anticipate predictable conflicts	Where could urgent maternal care and locally important practices become incompatible?	A locally developed map of foreseeable conflict points and responsible contacts.
Define clinical and ethical boundaries	Which clinical or IPC requirements are essential, what can change, and what requires the woman's consent?	Documented non-negotiable safety and consent boundaries, with areas of operational flexibility.
Agree meaningful alternatives	Can the purpose of a practice be preserved in a safer form?	Pre-agreed, pathogen-appropriate alternatives developed with women, clinical/IPC teams, and relevant faith representatives.
Rehearse high-risk scenarios	Can the system resolve disagreement quickly without exceeding CHW roles?	Simulation-tested roles, escalation routes, and identified gaps in staffing, communication, or referral.
Create a rapid mediation and review pathway	How will unanticipated conflict be handled and what will be learned afterward?	Rapid mediation pathway plus review of delay, consent, IPC decisions, trust, and burden placed on frontline staff.

Abbreviations: CHW, community health worker; IPC, infection prevention and control.

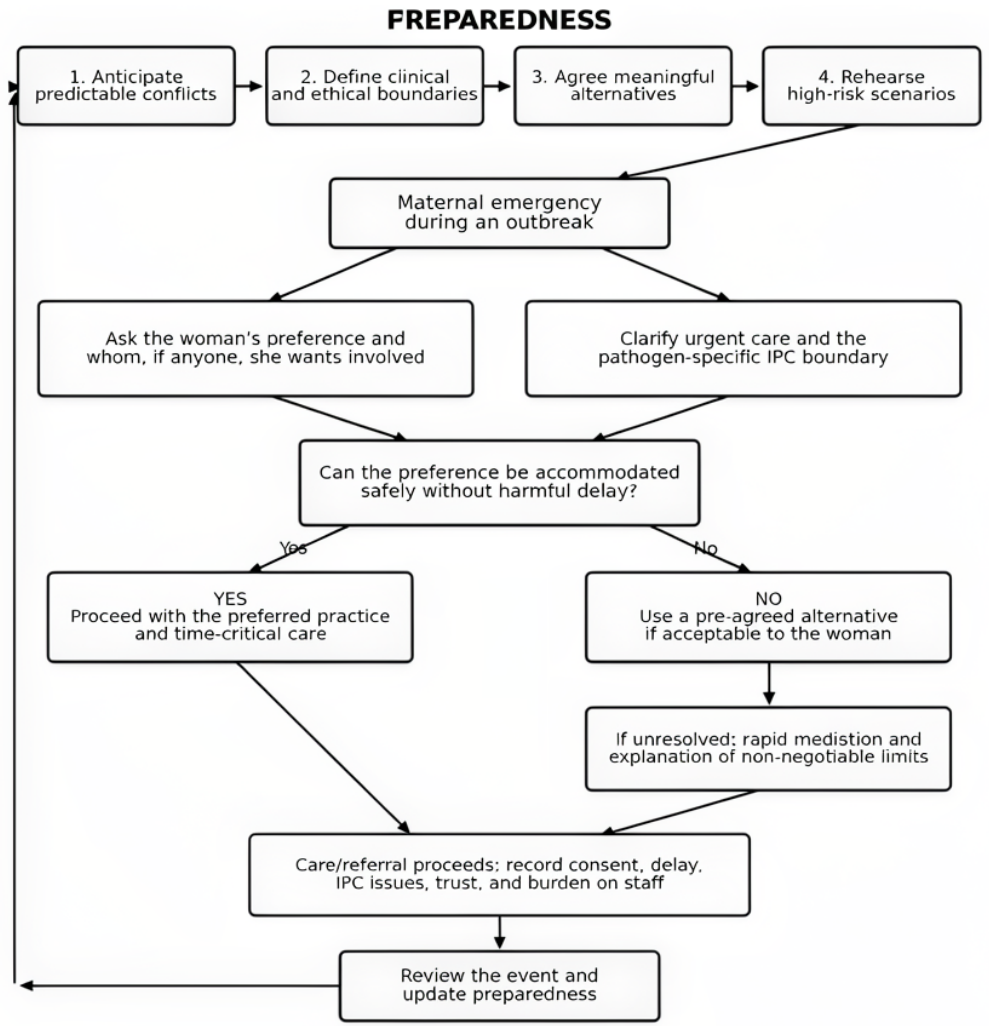


Figure 1. Maternal Emergency Concordance Framework: preparedness and emergency decision pathway

fluids, newborn rituals, isolation from family, and practices following maternal or perinatal death.

Mapping should identify decisions predictable enough to prepare for, not catalog "harmful beliefs." The same exercise may reveal restrictions created by health services that are poorly explained, inconsistently applied, or more rigid than the evidence requires.

Define Clinical and Ethical Boundaries

Clinical and ethical boundaries should be explicit before alternatives are negotiated. Infection-prevention teams should specify which measures are essential for the outbreak in question and where operational flexibility exists. Maternity teams should identify actions for which delay would create unacceptable clinical risk. These boundaries must be revisited as evidence and outbreak guidance change.

A woman's consent or refusal, where she has decision-making capacity, cannot be displaced by an agreement between clinicians, relatives, and religious leaders. Religious involvement should occur because she wants it, not because a community partner has been designated as an authority over her care. This is consistent with current WHO guidance on respectful maternal and newborn care, which places dignity, informed participation, and freedom from non-consensual care at the center of quality.[17] In an acute obstetric emergency, capacity assessment may need to be brief, decision-specific, and proportionate to the consequences of the decision. Pain, shock, medication, or rapidly changing physiology can make assessment difficult; where capacity is uncertain, clinicians should follow applicable emergency-care and legal standards rather than infer incapacity from disagreement alone. Where she lacks decision-making capacity, applicable legal and ethical standards for emergency treatment and surrogate decision-making continue to apply; the MECF does not alter those standards.

Agree Meaningful Alternatives

Where a conflict is foreseeable, meaningful alternatives can be agreed in advance. Ebola burial responses provide a useful precedent: engagement with faith leaders supported safer alternatives to traditional burial while retaining religious involvement in the response.[11,12] The principle can be carried into maternity care without copying the specific solutions used for funerals.

A prayer or blessing usually given in close contact, for example, may be possible at a safe distance if that remains religiously acceptable and consistent with pathogen-specific guidance. For a predominantly respiratory pathogen, adaptation may concern close indoor contact, respiratory protection, ventilation, or visitor numbers; for pathogens spread through direct contact with body fluids, touch, anointing, or shared ritual objects may require different limits. A ritual object may be handled differently to reduce cross-contact. Spiritual accompaniment may continue remotely when physical access must be restricted. If modesty or gender requirements are important, referral plans may address them where staffing permits. If a ritual would delay urgent transfer, clinicians and faith representatives can agree beforehand which elements can occur without delay and which can follow stabilization.

These adaptations depend on context. An adaptation that is meaningful in one tradition may be unacceptable in another, and a practice that is safe in one outbreak may be unsafe in the next. The local process of agreeing alternatives matters more than a standard list of substitutions.

Rehearse High-Risk Scenarios

Emergency exercises should test disagreement as well as logistics. Short scenarios can require CHWs, maternity staff, community representatives, and faith leaders to work through a case in which there is no immediately concordant option. The exercise should establish how the woman's wishes are elicited, who explains the clinical boundary, who can interpret the religious requirement, what alternatives have already been agreed, and how unresolved cases are escalated.

The exercise may expose practical weaknesses that ordinary training misses: no named Infection Prevention and Control (IPC) contact for a CHW, no rapid way to reach a suitable faith adviser, uncertainty about who can modify an operational procedure, or an escalation pathway slower than the obstetric emergency allows. CHWs are not being turned into clinicians, theologians, or ethicists; their role is to recognize the problem, communicate clearly, use agreed options, and obtain timely support.

Create a Rapid Mediation and Review Pathway

Unanticipated conflicts will still occur. Services therefore need a simple mediation and review pathway. During the emergency, the woman's preferences should be established wherever she has decision-making capacity; the clinical team should state the safety requirement and its rationale; and the religious or spiritual concern should be identified precisely rather than assumed. A pre-agreed alternative should be used where appropriate. If accommodation would create unacceptable harm, that boundary should be explained plainly and respectfully.

Difficult cases should then be reviewed alongside other preparedness events. Useful questions include whether referral was delayed, whether an IPC restriction was necessary and consistently applied, whether the woman was involved in the decision, whether an agreed alternative existed, and whether the encounter damaged trust or placed excessive responsibility on the CHW. Lessons should feed back into protocols, training, and future simulation.

Safeguards and Limits

Formal faith engagement can itself create harm if it strengthens dominant community actors at the expense of women, minority traditions, or people with no religious affiliation. Religious institutions may reproduce gender hierarchy or stigma; health institutions may reproduce paternalism and disrespect. Neither should be romanticized. Four safeguards are necessary. First, concordance is

not consensus at any cost: some requests will remain incompatible with safe care. Second, a woman's informed choice cannot be replaced by family or community agreement. Third, faith leaders should not be used simply to translate biomedical instructions into religious language; genuine co-design requires that health services also change where change is safe and justified. Fourth, the framework must not shift institutional responsibility onto CHWs. Negotiation training is of little value if referral transport, staffing, personal protective equipment, or emergency obstetric care are unavailable. In low-resource services, the framework should make those constraints explicit rather than imply options that are not available: teams can pre-identify feasible adaptations, realistic escalation contacts, and the safest available referral route. It cannot substitute for basic emergency obstetric capacity.

Use of the MECF should remain proportionate. It is most relevant to outbreaks in which infection-prevention requirements materially alter ordinary maternity care or social contact. It is not a reason to involve religious actors in every clinical decision. The evidence drawn on here comes largely from particular contexts, notably Ethiopian Orthodox communities and the West African Ebola response, so the framework's transferability to other regions, faith traditions, and pathogens should be treated as a hypothesis to be tested rather than assumed.

Research Priorities

The framework is not a validated intervention. Early research should establish whether sacred-clinical discordance occurs in recurrent forms, whether women and communities consider prospective discussion acceptable, and whether proposed adaptations remain both clinically safe and religiously meaningful. Participatory qualitative studies could map conflict scenarios across settings and faith traditions. Co-design studies could examine whether women, CHWs, clinicians, IPC specialists, and faith representatives can reliably distinguish adaptable practices from genuine safety boundaries. Simulation studies could measure time to an agreed plan, escalation frequency, IPC deviations, role clarity, and whether women's preferences are consistently elicited.

Pilot implementation should focus on proximal outcomes before maternal mortality. Relevant measures include time to referral, referral completion, reported involvement in decisions, perceived respect, trust, use of pre-agreed adaptations, CHW moral distress, and adverse infection-control events. Comparative implementation designs would be justified only after feasibility and safety have been demonstrated.

We hypothesize that maternal-health systems that identify, negotiate, and rehearse predictable sacred-clinical conflicts before an infectious disease outbreak will resolve those conflicts more quickly and with less avoidable loss of trust than systems relying on ad hoc negotiation, without increasing clinical or infection-control risk.

Biosocial and Health-Promotion Implications

The MECF addresses a biosocial preparedness problem: how clinical risk, spiritual meaning, community authority, gendered decision-making, and health-system constraints are negotiated before and during an emergency. Recent global-health scholarship has argued that the faith sector should be understood as a complex partner in health emergency preparedness rather than as a simple channel for risk communication.[18] The Ottawa Charter similarly places mediation between differing interests alongside advocacy and enabling as a core strategy of health promotion.[19] Health-promotion preparedness has since been described as a necessary component of crisis readiness rather than an optional activity once a crisis begins.[20]

Applied to maternal outbreak care, mediation means more than persuading communities to accept a predetermined instruction: it involves identifying where health-service requirements and community practices may collide, clarifying legitimate limits, and creating safer options with the people who will have to use them. That approach can strengthen community action while also making services more responsive to the social settings in which care is sought.

Conclusion

Partnership with CHWs and faith leaders can improve maternal-health communication and service use, but partnership alone does not prepare a system for disagreement. Maternal emergencies during infectious disease outbreaks can place clinical urgency, infection-prevention requirements, family expectations, and a woman's spiritual preferences into the same decision at the same time. The Maternal Emergency Concordance Framework treats these conflicts as foreseeable preparedness problems. It asks services and communities to identify likely points of tension, define clinical and ethical boundaries, agree meaningful alternatives, rehearse difficult cases, and review the conflicts that still occur. Its value will depend on empirical testing and on safeguards that keep the woman's choices central. Outbreak preparedness should therefore specify not only how trusted community and health actors will collaborate when their advice aligns, but also how they will proceed when it does not.

Acknowledgements

We acknowledge that during the preparation of this work, the authors used ChatGPT (OpenAI) for language editing and structural refinement. The authors reviewed and edited the output as needed and take full responsibility for the content of the manuscript.

Authors' Contribution

Conceptualization: Knowledge Denhere, Malizgani Mhango
Investigation: Knowledge Denhere
Methodology: Knowledge Denhere
Project administration: Knowledge Denhere
Visualization: Knowledge Denhere
Writing–original draft: Knowledge Denhere
Writing–review & editing: Knowledge Denhere, Malizgani Mhango

Competing Interests

The authors declare that they have no competing interests with regard

to the authorship and publication of this article.

Ethical Approval

Not applicable. This conceptual Perspective did not involve human participants, identifiable human data, human tissues, or animals; ethical approval and informed consent were therefore not required.

Funding

No specific funding was received for this work.

References

1. Kassa ZY, Scarf V, Fox D. The effect of Ebola virus disease on maternal health service utilisation and perinatal outcomes in West Africa: a systematic review. Reprod Health 2022;19(1):35. doi:10.1186/s12978-022-01343-8
2. Brolin Ribacke KJ, Saulnier DD, Eriksson A, von Schreeb J. Effects of the West Africa Ebola virus disease on health-care utilization - a systematic review. Front Public Health 2016;4:222. doi:10.3389/fpubh.2016.00222
3. Thaddeus S, Maine D. Too far to walk: maternal mortality in context. Soc Sci Med 1994;38(8):1091-110. doi:10.1016/0277-9536(94)90226-7
4. Guthrie BL, Tsegaye AT, Rankin KC, Walson JL, Alemie GA. Partnering faith leaders with community health workers increases utilization of antenatal care and facility delivery services in Ethiopia: a cluster randomized trial. J Glob Health 2021;11:04063. doi:10.7189/jogh.11.04063
5. Sadore AA, Kebede Y, Birhanu Z. Effectiveness of engaging religious leaders in maternal health education for improving maternal health service utilization in Ethiopia: cluster randomized controlled trial. Front Public Health 2024;12:1399472. doi:10.3389/fpubh.2024.1399472
6. Bari F, Rahman FN, Abdullah AS, Dalal K, Fazlur Rahman AK. Impacts of religious leader training on maternal and child health in underserved communities of Bangladesh. Front Reprod Health 2026;8:1764081. doi:10.3389/frph.2026.1764081
7. Robbins T, Hanlon C, Kelly AH, Gidiri MF, Musiyiwa M, Silverio SA, et al. Pills and prayers: a comparative qualitative study of community conceptualisations of pre-eclampsia and pluralistic care in Ethiopia, Haiti and Zimbabwe. BMC Pregnancy Childbirth 2021;21(1):716. doi:10.1186/s12884-021-04186-6
8. Izugbara CO, Wekesah F. What does quality maternity care mean in a context of medical pluralism? Perspectives of women in Nigeria. Health Policy Plan 2018;33(1):1-8. doi:10.1093/heapol/czx131
9. Haruna Z, Amoakoh-Coleman M. Exploring ethical dilemmas in the care of pregnant women in Ghana: a case of "maternal-foetal conflicts in a peri-urban hospital in Ghana". BMC Med Ethics 2026;27(1):25. doi:10.1186/s12910-025-01376-1
10. Mason M, Wakefield J, Sparke V, Basseal JM, Zimmerman PA. Religious influences on infection prevention and control practices in healthcare settings: a scoping review. Infect Dis Health 2025;30(3):234-47. doi:10.1016/j.idh.2025.02.004
11. Blevins JB, Jalloh MF, Robinson DA. Faith and global health practice in Ebola and HIV emergencies. Am J Public Health 2019;109(3):379-84. doi:10.2105/ajph.2018.304870
12. Lyons P, Winters M, Zeebari Z, Schmidt-Hellerau K, Sengeh P, Jalloh MB, et al. Engaging religious leaders to promote safe burial practices during the 2014-2016 Ebola virus disease outbreak, Sierra Leone. Bull World Health Organ 2021;99(4):271-9. doi:10.2471/blt.20.263202
13. Lyons P, Winters M, Jalloh MF, Nordenstedt H, Alvesson HM. Building confidence in crises - the roles of Sierra Leonean religious leaders' during the 2014-2016 Ebola outbreak. Glob Health Action 2025;18(1):2555046. doi:10.1080/16549716.2025.2555046
14. Irfan B, Khleif A, Badarneh J, Abutaqa J, Allam A, Kweis S, et al. Considering Islamic frameworks to infectious disease prevention. Open Forum Infect Dis 2025;12(10): ofaf011. doi:10.1093/ofid/ofaf011
15. Fuller TJ. Discourses of "religion" in public health research: constructing religious facilitators, barriers, and subjects of health as exercises of power. SSM Qual Res Health 2025;8:100618. doi:10.1016/j.ssmqr.2025.100618
16. Al-Hamad A, Yasin YM, Mahmoud Y, Osazin H. Faith-concordant nursing care: a concept analysis and insights for holistic nursing. J Holist Nurs 2026:8980101261458422. doi:10.1177/08980101261458422
17. World Health Organization (WHO). Compendium on Respectful Maternal and Newborn Care. Geneva: WHO; 2025. Available from: https://www.who.int/publications/i/item/9789240110939. Accessed August 16, 2026.
18. Hess S, Smith S, Umachandran S. Faith as a complex system: engaging with the faith sector for strengthened health emergency preparedness and response. Lancet Glob Health 2024;12(11): e1750-1. doi:10.1016/s2214-109x(24)00317-6
19. World Health Organization (WHO). Ottawa Charter for Health Promotion. Geneva: WHO; 1986. Available from: https://www.who.int/teams/health-promotion/enhanced-wellbeing/first-global-conference. Accessed August 16, 2026.
20. Levin-Zamir D, Sorensen K, Su TT, Sentell T, Rowlands G, Messer M, et al. Health promotion preparedness for health crises - a 'must' or 'nice to have'? Case studies and global lessons learned from the COVID-19 pandemic. Glob Health Promot 2021;28(2):27-37. doi:10.1177/1757975921998639