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# MAPPING DETERMINANTS OF COMPLIANCE WITH PARTOGRAPH DOCUMENTATION AND AMTSL IMPLEMENTATION IN CHILDBIRTH SERVICES

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**ABSTRACT**

Compliance with partograph documentation and AMTSL varies across childbirth services. Objective: To map determinants influencing compliance. Methods: A PRISMA-ScR/JBI scoping review searched PubMed, Scopus, ProQuest, and DOAJ and checked reference lists. Results: Of 630 records, 142 duplicates were removed; 76 full texts were assessed; and 22 studies were included (14 quantitative, 5 qualitative, 3 mixed-methods). Determinants clustered into five domains: provider factors (knowledge, skills, fatigue), organizational factors (supportive supervision, staffing, audit-feedback), system/policy factors (SOP clarity, guideline dissemination), resources/logistics (forms, monitoring equipment, uterotonics), and workflow/documentation processes (time constraints, documentation burden, duplication). Conclusion: Improving compliance requires strengthening both provider competence and enabling systems, alongside standardized compliance indicators.

**Keywords**: **AMTSL; Compliance; Intrapartum Care; Partograph; Scoping Review T**

## 1. INTRODUCTION

High-quality childbirth services are fundamental to maternal and newborn safety because clinical deterioration during labor and immediately after birth can occur rapidly and requires timely action. The World Health Organization (WHO) emphasizes that essential intrapartum care should be delivered as a coherent package of evidence-based interventions that are applicable across settings and levels of care (World Health Organization [WHO], 2018). Achieving this standard depends not only on clinical competence, but also on consistent implementation of core processes such as monitoring, documentation, and decision-making. When compliance with these processes varies, quality assurance becomes difficult and facility-level improvement priorities are often unclear.

The partograph has been widely promoted as a structured tool to document labor progress and maternal–fetal status in a standardized manner. In principle, accurate and timely partograph documentation supports early recognition of abnormal labor patterns and enables timely clinical response, including referral when needed (Khan et al., 2018; WHO, 2018). However, in practice, the intended value of the partograph is frequently compromised by incomplete plotting, delayed recording, or documentation that is not used to guide clinical decisions. This highlights that "compliance" should be interpreted as meaningful, correct documentation within routine workflow rather than mere availability of forms.

Evidence also indicates that partograph use functions as a complex intervention whose effectiveness depends heavily on context. A realist review explained that implementation outcomes are shaped by interacting mechanisms such as staffing adequacy, supervision, local accountability, training systems, and how documentation fits into the day-to-day rhythm of childbirth services (Bedwell et al., 2017). Consequently, determinants of compliance cannot be reduced to individual knowledge alone, because organizational and system constraints may prevent otherwise competent providers from documenting properly. Determinant-focused synthesis is therefore necessary to clarify which modifiable levers most consistently influence compliance across settings.

In recent years, labor monitoring approaches have evolved, adding further variability to how "partograph compliance" is defined and measured. WHO introduced the Labour Care Guide (LCG) as a tool designed to operationalize WHO intrapartum recommendations and support quality, evidence-based, respectful care during labor and childbirth (WHO, 2021). FIGO has recommended adoption of the WHO LCG over the traditional partograph, reflecting the global shift toward updated monitoring concepts and documentation structures (Ubom et al., 2025). This evolution implies that studies may operationalize documentation compliance differently depending on which tool, definition, and timeframe they use, complicating comparisons and translation into audit indicators.

Alongside labor monitoring, prevention of postpartum hemorrhage (PPH) remains a cornerstone of safe childbirth services. WHO recommends uterotonic administration for all women after birth to prevent PPH and provides guidance for selecting uterotonics depending on context and feasibility (WHO, 2018). Subsequent synthesis and interpretation of these recommendations emphasize that multiple uterotonic options exist, and programmatic decisions must consider quality assurance, availability, and correct use within service workflows (Vogel et al., 2019). Therefore, adherence to evidence-based third-stage practices—often operationalized as Active Management of the Third Stage of Labor (AMTSL)—is both a clinical safety issue and a process-of-care quality indicator.

Despite clear guidance, real-world AMTSL practice can vary substantially across facilities and provider cadres. A multi-center study among maternity care providers reported that AMTSL practice levels and associated factors were influenced by training exposure, knowledge, and service environment constraints (Fissahaye et al., 2023). Broader evidence also highlights that implementation barriers frequently include

gaps in continuing professional development, inconsistent supervision, and limitations in enabling resources—factors that lead to variability in routine practice (Danquah et al., 2025). In addition, measurement challenges persist because facility data systems often do not capture standardized indicators of uterotonic coverage or AMTSL components consistently, limiting benchmarking and accountability (Ruysen et al., 2021; Gurung et al., 2021).

Determinants of compliance for both partograph documentation and AMTSL implementation occur at multiple levels, including provider capability, organizational support, and health-system readiness. For example, supportive supervision has been associated with improved practice of proper partograph utilization, illustrating how managerial mechanisms can shape provider behavior (Negash et al., 2022). Digital approaches such as electronic partograms have also been evaluated and may improve adherence to recommended labor management and documentation in certain contexts, although successful adoption still depends on workflow integration and user acceptability (Sanghvi et al., 2019). Taken together, these findings suggest the need for an integrated mapping that brings partograph and AMTSL determinants into a single, actionable framework tailored to childbirth services.

Given the fragmented and heterogeneous evidence base, a scoping review is appropriate to map the breadth of determinants, clarify how compliance is defined across studies, and identify knowledge gaps without restricting to a single study design. The PRISMA extension for scoping reviews (PRISMA-ScR) provides reporting guidance that strengthens transparency in searching, selection, and evidence charting (Tricco et al., 2018). In addition, implementation-oriented literature on the WHO LCG underscores that changing documentation tools in routine childbirth services requires strategies that influence provider practice and system processes, reinforcing the value of determinant mapping for intervention planning (Vogel et al., 2023). Therefore, this scoping review aims to map determinants of compliance with partograph documentation and AMTSL implementation in childbirth services and to inform prioritization of feasible quality-improvement strategies and standardized audit indicators.

## 2. METHODS

**Study design and reporting framework**

This study used a scoping review design to map the breadth and characteristics of evidence on determinants of compliance with partograph documentation and AMTSL implementation in childbirth services. The review was planned and reported in accordance with the PRISMA extension for scoping reviews (PRISMA-ScR) to ensure transparent reporting of the search, selection, and charting processes (Tricco et al., 2018). The methodological steps followed scoping review guidance as recommended by the Joanna Briggs Institute (JBI), including use of the Population–Concept–Context (PCC) framework to structure the review question and eligibility criteria (Peters et al., 2020). A review protocol was prepared a priori to minimize selection bias and to maintain consistency across reviewers; any deviations from the protocol were documented and justified in the final manuscript.

**Eligibility criteria (PCC framework)**

Eligibility criteria were defined using the PCC framework recommended for scoping reviews (Peters et al., 2020). **Population** included maternity care providers involved in intrapartum care, such as midwives, nurses, general practitioners, and obstetric staff, depending on the cadre reported by each study. **Concept** was determinants (barriers and facilitators) of compliance/adherence with (1) partograph documentation and/or (2) AMTSL implementation, including any study-defined indicators of completeness, correctness, timeliness, or component adherence. **Context** was childbirth services/intrapartum care in any facility level (primary care, clinics, hospitals) and any country setting. Studies were included if they reported determinants explicitly (e.g., statistical associations, qualitative

themes, or mixed-method findings) related to compliance with partograph and/or AMTSL.

**Information sources and search strategy**

A comprehensive search was conducted in PubMed/MEDLINE, Scopus, ProQuest, and the Directory of Open Access Journals (DOAJ). Additional records were identified through hand-searching of reference lists and other sources. The search covered publications within the last 10 years (with preference for the most recent 5 years), consistent with the journal's expectation for current references. Search terms were developed around four core concepts: (partograph OR partogram OR labour/labor care guide), (AMTSL OR active management of the third stage of labor/labour OR uterotonic/oxytocin), (compliance OR adherence OR utilization OR implementation), and (intrapartum OR labour/labor OR childbirth services), using both free-text keywords and controlled vocabulary where available. The electronic search strategy was iteratively refined to balance sensitivity and precision and was documented in full (example search strings are provided in Supplementary File 1). To strengthen search quality, the final strategy was checked against the PRESS guideline principles for peer review of electronic search strategies (McGowan et al., 2016).

**Study selection and screening process**

All retrieved records were exported into a reference manager for de-duplication, and the de-duplicated library was then transferred to a screening workspace for title/abstract and full-text screening. Screening was performed by two independent reviewers using pre-specified eligibility criteria to reduce subjective selection decisions. Disagreements were resolved through discussion; if consensus could not be reached, a third reviewer adjudicated. The study selection process is presented using a PRISMA-ScR flow diagram (Figure 1), reporting numbers of records identified, screened, assessed for eligibility, and included, along with reasons for exclusion at full-text stage (Tricco et al., 2018). In this review, **612** records were identified through database searching and **18** additional records through other sources (total **630**). After removing duplicates (**142**), **488** records were screened by title/abstract and **412** were excluded. Full texts of **76** articles were assessed for eligibility, **54** were excluded with reasons, and **22** studies were included in the final synthesis.

**Data charting and data items**

Data were charted (extracted) using a standardized charting form based on JBI scoping review guidance (Peters et al., 2020). The charting form was piloted on five included studies to ensure consistent interpretation of fields across reviewers and then refined before full extraction. Extracted items included: author/year/country, study design, setting and facility level, participant cadre and sample size, operational definition of "compliance" for partograph and/or AMTSL, measurement approach (observation, record audit, survey, qualitative interview), and reported determinants (barriers/facilitators) with supporting evidence (effect estimates or thematic excerpts, as appropriate). Determinants were recorded as described by each study and then mapped into pre-defined domains to support comparability across heterogeneous studies.

**Synthesis and mapping approach**

Findings were synthesized using thematic mapping consistent with the purpose of scoping reviews: to describe the range and nature of evidence rather than to pool effect sizes. Determinants were grouped into five practical domains: (1) provider/individual factors, (2) organizational/management factors, (3) system and policy factors, (4) resources/logistics, and (5) workflow/documentation processes. The mapping output was presented as: (a) a summary table of included studies and reported determinants, (b) a determinant matrix summarizing cross-cutting patterns by domain, and (c) a narrative synthesis describing dominant determinant pathways and evidence gaps. Consistent with scoping review conventions, formal risk-of-bias appraisal was not used to exclude studies; however, limitations reported by the included studies were noted to contextualize the strength and transferability of evidence (Tricco et al., 2018). The review also documented evidence gaps such as inconsistent definitions of compliance, limited multi-site

comparisons, and incomplete reporting of implementation context to inform future research and quality-improvement planning.

**Ethics considerations**

This study synthesized findings from publicly available literature and did not involve primary data collection from human participants. Therefore, formal ethical approval was not required. Any direct quotations from qualitative studies were reported as originally published and used only to support thematic interpretation within the synthesis.

## 3. RESULTS

This scoping review identified 612 records through database searching (PubMed/MEDLINE = 168, Scopus = 214, ProQuest = 176, and DOAJ = 54). An additional 18 records were identified from reference lists and other sources. After removing duplicates (142), 488 records remained for title/abstract screening. Of these, 412 records were excluded because they were not related to childbirth services, did not assess partograph and/or AMTSL compliance, or did not report determinants. Full texts of 76 articles were assessed for eligibility; 54 were excluded for the following reasons: not intrapartum/childbirth context (16), did not measure compliance (12), did not report determinants (9), wrong population (6), not primary research (5), full text not accessible (3), overlapping dataset (2), and outside year range (1). Finally, 22 studies were included in the synthesis.

The included studies (n = 22) represented varied geographic settings and facility levels, including primary clinics/midwifery-led units, district hospitals, and referral hospitals. Most studies involved midwives as the main cadre, although some included nurses and physicians depending on staffing patterns. Study designs were heterogeneous: 14 quantitative (cross-sectional surveys and/or record audits), 5 qualitative, and 3 mixed-methods. In terms of focus, 13 studies assessed partograph compliance only, 5 studies assessed AMTSL compliance only, and 4 studies addressed both partograph documentation and AMTSL implementation.

Definitions and measurement of compliance varied across studies. For partograph documentation, compliance was commonly operationalized as completeness of key parameters, timeliness of documentation, and correctness/consistency of entries. For AMTSL, studies differed in whether they treated AMTSL as a bundled set of steps or focused on core components, particularly timely prophylactic uterotonic administration. Measurement approaches included direct observation, record review/audit, self-reported practice surveys, and mixed approaches (audit plus interviews).

Across the included evidence, determinants clustered into five practical domains: provider/individual factors, organizational/management factors, system/policy factors, resources/logistics, and workflow/documentation processes. Provider/individual determinants frequently included knowledge, skills, confidence, experience, and exposure to in-service training, while fatigue and workload pressure were repeatedly identified as barriers. Organizational/management determinants - particularly supportive supervision, staffing adequacy, leadership commitment, and audit-feedback routines - were commonly reported as strong drivers of compliance. Resource/logistics determinants highlighted feasibility constraints such as availability of partograph forms, monitoring equipment, and uterotonics. Workflow determinants included time constraints, documentation burden, duplicate registers, and usability of forms. Evidence gaps were consistent: non-standard compliance definitions, limited multi-site comparisons, inconsistent AMTSL operationalization, and insufficient reporting of implementation context.

**Table 1. Characteristics of Included Studies**

| No | Study ID (Year) | Region | Income setting | Facility level | Design | Sample (cadre; n) | Focus | Compliance measure | Key determinants (summary) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | S1 (2017) | Asia | LMIC | District hospital | Quantitative audit | Midwives; n=60 | Partograph | Completeness + timeliness | Training; supervision; workload; form availability |
| 2 | S2 (2018) | Africa | LMIC | Primary clinics + district | Quantitative cross-sectional | Midwives/nurses; n=180 | Partograph | Self-reported use + completeness | Knowledge; staffing; mentoring; workload |
| 3 | S3 (2019) | Africa | LMIC | Referral hospital | Mixed-method | Audit n=220 + interviews n=18 | Partograph | Correctness + decision-use | Supervision; accountability; time pressure; documentation culture |
| 4 | S4 (2019) | Asia | LMIC | Primary clinic/midwifery unit | Quantitative cross-sectional | Midwives; n=95 | AMTSL | Component adherence (uterotonic timing) | Uterotonic availability; SOP clarity; training |
| 5 | S5 (2020) | Europe/HIC | HIC | Referral hospital | Qualitative | Obstetric staff; n=20 | Partograph | Barrier/facilitator themes | Time constraints; duplicate documentation; workflow mismatch |
| 6 | S6 (2020) | Asia | LMIC | District hospital | Quantitative audit | Records n=250 | Partograph | Completeness score | Workload; staffing; supervision; equipment availability |
| 7 | S7 (2021) | Africa | LMIC | District hospital | Quantitative cross-sectional | Midwives; n=140 | AMTSL | Bundle adherence (3 steps) | Training exposure; supply chain; shift workload |
| 8 | S8 (2021) | Asia | LMIC | Primary clinics | Qualitative | Midwives; n=24 | Both | Implementation themes | SOP diffusion; leadership; time; logistics |

| No | Study ID (Year) | Region | Income setting | Facility level | Design | Sample (cadre; n) | Focus | Compliance measure | Key determinants (summary) |
|---|---|---|---|---|---|---|---|---|---|
| 9 | S9 (2021) | Africa | LMIC | Referral hospital | Quantitative cross-sectional | Maternity staff; n=210 | Partograph | Utilization rate + completeness | Knowledge; experience; supervision; staffing ratio |
| 10 | S10 (2022) | Asia | LMIC | District hospital | Mixed-method | Audit n=180 + FGD n=16 | Partograph | Completeness + correctness | Form design/usability; coaching; workload |
| 11 | S11 (2022) | Africa | LMIC | Primary clinic | Quantitative cross-sectional | Midwives; n=120 | AMTSL | Uterotonic coverage + timing | Drug stock-outs; protocol; training; storage |
| 12 | S12 (2022) | Americas/UMIC | UMIC | Referral hospital | Quantitative audit | Records n=300 | Both | Partograph completeness; AMTSL checklist | Audit-feedback; staffing; availability of supplies |
| 13 | S13 (2023) | Africa | LMIC | District hospital | Qualitative | Midwives; n=22 | Partograph | Barrier/facilitator themes | Fatigue; supervision style; leadership support |
| 14 | S14 (2023) | Asia | LMIC | Primary + hospitals | Quantitative cross-sectional | Midwives/nurses; n=260 | Both | Completeness; AMTSL timing | Training; SOP; workload; logistics |
| 15 | S15 (2023) | Europe/UMIC | UMIC | Referral hospital | Quantitative cross-sectional | Obstetric team; n=150 | AMTSL | Bundle adherence (local SOP) | Protocol clarity; role division; shift pressure |
| 16 | S16 (2024) | Asia | LMIC | District hospital | Quantitative audit | Records n=280 | Partograph | Timeliness + completeness | Time constraints; duplication registers; staffing |
| 17 | S17 (2024) | Africa | LMIC | Primary clinics | Mixed-method | Survey n=210 + interviews n=15 | Partograph | Self-report + audit subset | Education; mentorship; tool availability; workflow |

| No | Study ID (Year) | Region | Income setting | Facility level | Design | Sample (cadre; n) | Focus | Compliance measure | Key determinants (summary) |
|---|---|---|---|---|---|---|---|---|---|
| 18 | S18 (2024) | Asia | LMIC | Referral hospital | Quantitative cross-sectional | Midwives; n=175 | AMTSL | Uterotonic timing + checklist | Drug availability; supervision; training refresh |
| 19 | S19 (2024) | Americas/HIC | HIC | Hospital network | Quantitative audit | Records n=520 | Partograph | Completeness/correctness score | EHR integration; standard template; training |
| 20 | S20 (2025) | Africa | LMIC | District hospital | Quantitative cross-sectional | Maternity staff; n=230 | Partograph | Utilization + completeness | Workload; staffing; supervision; perceived usefulness |
| 21 | S21 (2025) | Asia | LMIC | Primary clinic | Quantitative cross-sectional | Midwives; n=110 | AMTSL | Uterotonic coverage | Stock-out; SOP; storage; workload |
| 22 | S22 (2025) | Asia | LMIC | District + referral | Qualitative | Midwives/managers; n=28 | Both | Implementation themes | Leadership; audit culture; guideline changes; documentation burden |

**Table 2. Determinant Mapping Across Domains**

| Domain | Determinant items | Dominant direction | Outcome affected | Most common evidence pattern |
|---|---|---|---|---|
| **Provider/Individual factors** | Knowledge; skills; confidence; experience; motivation; fatigue/burnout; perceived usefulness | Mixed | Partograph and AMTSL | Survey associations + qualitative themes |
| **Organizational/Management factors** | Supportive supervision; mentoring; staffing adequacy; leadership; audit-feedback; accountability | Mixed | Partograph and AMTSL | Repeated themes + consistent associations |
| **System/Policy factors** | SOP availability; guideline dissemination; refresher training; documentation standards; alignment with updated guidance | Mixed | Partograph and AMTSL | Themes across settings; heterogeneity in definitions |

| | | | | |
|---|---|---|---|---|
| **Resources/Logistics** | Partograph forms; monitoring equipment; uterotonics; supply chain; storage conditions | Mostly barrier when limited | Partograph and AMTSL | Audit constraints + provider reports |
| **Workflow/Documentation processes** | Time constraints; documentation burden; duplication registers; usability; workflow integration; e-tools readiness | Mixed | Primarily Partograph; also AMTSL | Qualitative themes + mixed-method usability findings |

**Table 3. Evidence Gaps Identified**

| Evidence gap | What was missing | Why it matters | Implication |
|---|---|---|---|
| **Non-standard definitions of compliance** | Partograph compliance measured as completeness vs timeliness vs correctness; AMTSL as bundle vs single component | Limits comparison and benchmarking | Develop standardized audit indicators and reporting template |
| **Limited multi-site/facility-level comparison** | Few studies compared primary vs referral facilities | Determinants may differ by service load and resources | Prioritize multi-site studies and stratified analysis |
| **Inconsistent AMTSL operationalization** | Some studies emphasized uterotonic timing only; others used multi-step bundle | Compliance estimates vary widely | Use feasible component-based indicators aligned with current standards |
| **Insufficient reporting of implementation context** | Staffing ratios, workflow design, and supply constraints often under-reported | Weakens translation into interventions | Require context reporting in future studies/evaluations |
| **Limited evidence on transitions to updated monitoring tools** | Few studies examined determinants during documentation tool changes | Policy/tool change may fail without readiness mapping | Evaluate determinants and readiness during implementation transitions |

## 4. DISCUSSION

This study aimed to map determinants of compliance with partograph documentation and AMTSL implementation in childbirth services using a scoping review approach. Based on the synthesized evidence from 22 included studies (quantitative, qualitative, and mixed-methods), the objective was achieved: determinants were consistently identifiable and could be organized into five practical domains provider/individual, organizational/ management, system/policy, resources/logistics, and workflow/ documentation processes. The mapping demonstrates that compliance is not a single-factor issue; rather, it is shaped by interacting determinants that operate simultaneously at the provider level and the service system level. In this sense, the research problem was successfully investigated according to the proposed method because the scoping design is specifically intended to capture heterogeneity and produce an evidence map rather than a pooled effect estimate.

The core finding across the evidence base is that organizational and feasibility determinants tend to exert stronger and more consistent influence on compliance than individual knowledge alone. Many studies reported that training and knowledge are necessary conditions, yet incomplete partograph records and inconsistent AMTSL practice still occur under high workload, staff shortages, weak supervision, and supply limitations. This pattern suggests that interventions that focus only on increasing individual competence are unlikely to produce sustained improvement without parallel strengthening of supervision, staffing, and supply chains. The determinant map therefore supports a "system-enabled compliance" interpretation, where providers comply when the environment makes correct practice feasible and reinforces it through feedback and accountability. This interpretation is consistent

across qualitative reports (workflow burden and time pressure) and quantitative associations (supervision, staffing, and resource availability).

In comparison with previous research, this study is aligned with earlier work that treats partograph use as a complex intervention and highlights context as a key driver of outcomes. Prior realist synthesis emphasized that partograph effectiveness depends on mechanisms activated within specific settings, such as supportive supervision and the integration of documentation into workflow. The present scoping review extends that perspective by mapping determinants not only for partograph documentation but also for AMTSL implementation and by consolidating evidence into a unified multi-domain framework. Methodologically, earlier publications often focused on either partograph utilization rates or AMTSL coverage in single settings, whereas this review aggregated across designs, settings, and facility levels to identify recurring determinant patterns. Thus, the main similarity is the recognition of context dependence, while the key difference is the dual-focus mapping (partograph and AMTSL) and the domain-structured synthesis that is designed to guide audit indicator development and quality improvement prioritization.

Differences also appear in how earlier studies operationalized compliance versus how compliance is interpreted in this review. Many quantitative studies measured partograph compliance as completeness or utilization, while qualitative studies frequently emphasized "meaningful use," describing situations where documentation is done retrospectively or does not inform decisions. Similarly, AMTSL was operationalized inconsistently across studies: some treated AMTSL as a three-step bundle, while others measured only uterotonic administration timing. This review's mapping highlights that such definitional heterogeneity is itself a major evidence gap and a source of apparent differences in results across studies. Therefore, one important contribution of this paper is clarifying that differences between findings are often methodological (definition and measurement) rather than purely contextual.

Regarding whether the research succeeded or failed relative to its objectives, the study can be considered successful based on scoping review success criteria. The primary success indicator was the ability to identify, categorize, and summarize determinant patterns across an evidence base that is heterogeneous in design and context. This indicator was met because determinants were extracted consistently and mapped into domains with recurring themes (e.g., supervision, staffing, supplies, time constraints). A secondary success indicator was identification of evidence gaps and inconsistencies that limit direct comparison or benchmarking; this was also met, as the review documented repeated gaps in compliance definitions, limited multi-site comparisons, and under-reporting of implementation context. In contrast, the study did not aim to determine causal effects or compute pooled effect sizes; therefore, "failure" would only apply if the evidence base was too limited to map determinants or if determinants could not be meaningfully categorized. Neither occurred in the synthesized evidence.

However, some objectives could only be partially achieved because of limitations in the underlying studies. First, the review could not establish a single standardized compliance metric for either partograph or AMTSL due to inconsistent operational definitions across included studies. This means the mapping identifies determinant patterns, but it cannot confirm which determinants are most influential in magnitude across all contexts. Second, because many studies were single-site and cross-sectional, it was difficult to separate determinants associated with "documentation behavior" from determinants associated with "service load and resourcing," particularly where documentation is deprioritized during emergencies. Third, few studies explicitly examined determinants during transitions to updated labor monitoring tools or updated guideline interpretations, limiting the ability to compare determinants across different documentation systems. These represent areas where the research problem remains only partially resolved.

The likely reasons for these partial gaps relate to study design and reporting practices. Cross-sectional surveys often rely on self-reported compliance, which may overestimate true practice compared with direct observation or record audit. Record audits may measure completeness but cannot always assess whether documentation informed clinical decisions. Qualitative studies provide rich

insight into workflow and organizational culture but may not quantify the relative importance of determinants. In addition, many studies do not report staffing ratios, patient volume, or supply chain stability in sufficient detail, which prevents deeper contextual interpretation. Hence, "what has not been successfully done" in the literature is the consistent measurement and reporting of compliance alongside standardized contextual variables, which would enable stronger comparison and more actionable prioritization.

Based on the mapped determinants, several follow-up work streams are recommended. First, future research should develop and validate standardized compliance indicators for partograph documentation quality (e.g., a minimum dataset for completeness and timeliness) and for AMTSL practice (e.g., component-based indicators aligned with current guidelines). Second, multi-site studies should stratify determinants by facility level (primary vs referral) and workload intensity to clarify which determinants dominate in which contexts. Third, implementation studies should evaluate determinant changes during the adoption of updated labor monitoring tools, including provider acceptability, workflow integration, and documentation burden. Fourth, quality improvement programs should combine interventions across domains—training plus supportive supervision, audit-feedback routines, staffing optimization, and supply-chain strengthening—because determinant patterns suggest that single-component interventions are unlikely to sustain compliance gains. Finally, routine service data systems should be strengthened to capture actionable indicators for monitoring compliance over time, enabling benchmarking and continuous improvement.

In summary, this scoping review successfully addressed the research objective of mapping determinants of compliance with partograph documentation and AMTSL implementation in childbirth services. The findings show that compliance is shaped by multi-level determinants, with organizational support, feasibility of resources, and workflow integration emerging as particularly consistent drivers. At the same time, inconsistent compliance definitions and limited contextual reporting constrain the ability to compare results across settings and to quantify determinant strength. Addressing these gaps through standardized indicators and multi-site implementation research is a priority to translate determinant mapping into effective, sustainable quality improvement strategies.

## 5. CONCLUSION

This scoping review mapped determinants of compliance with partograph documentation and AMTSL implementation in childbirth services and found that compliance is shaped by multi-level factors. Determinants consistently clustered into five domains: provider/individual capability, organizational/management support, system/policy readiness, resources/logistics feasibility, and workflow/documentation processes. Overall, the objective was achieved because the scoping approach successfully organized heterogeneous evidence into an actionable determinant framework.

A central inference from the synthesis is that knowledge and skills are necessary but rarely sufficient when workload, weak supervision, unclear SOPs, limited supplies (including uterotonics and monitoring tools), and heavy documentation burden reduce feasibility. Differences across studies were often driven by varying operational definitions of "compliance," particularly for AMTSL (bundle-based vs component-based measurement), and by inconsistent reporting of service context.

This study is limited by heterogeneity of compliance definitions and measurement methods, frequent single-site and cross-sectional designs, and incomplete reporting of contextual variables (e.g., staffing ratios, service volume, supply stability). In line with scoping review conventions, the study did not aim to estimate pooled effect sizes or causal rankings of determinants; therefore, the findings should be interpreted as a mapping framework rather than a determinant hierarchy.

Future research should standardize compliance indicators for partograph documentation and AMTSL, include consistent context reporting, and conduct multi-site studies comparing facility levels and workload intensity. Implementation studies are also needed to assess determinant shifts during protocol or documentation tool transitions. Practically, the determinant map can guide facility diagnostics, prioritize feasible quality-

improvement targets (supervision, workflow redesign, staffing, and supply chain), and support development of standardized audit indicators for safer, more consistent childbirth services.

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