

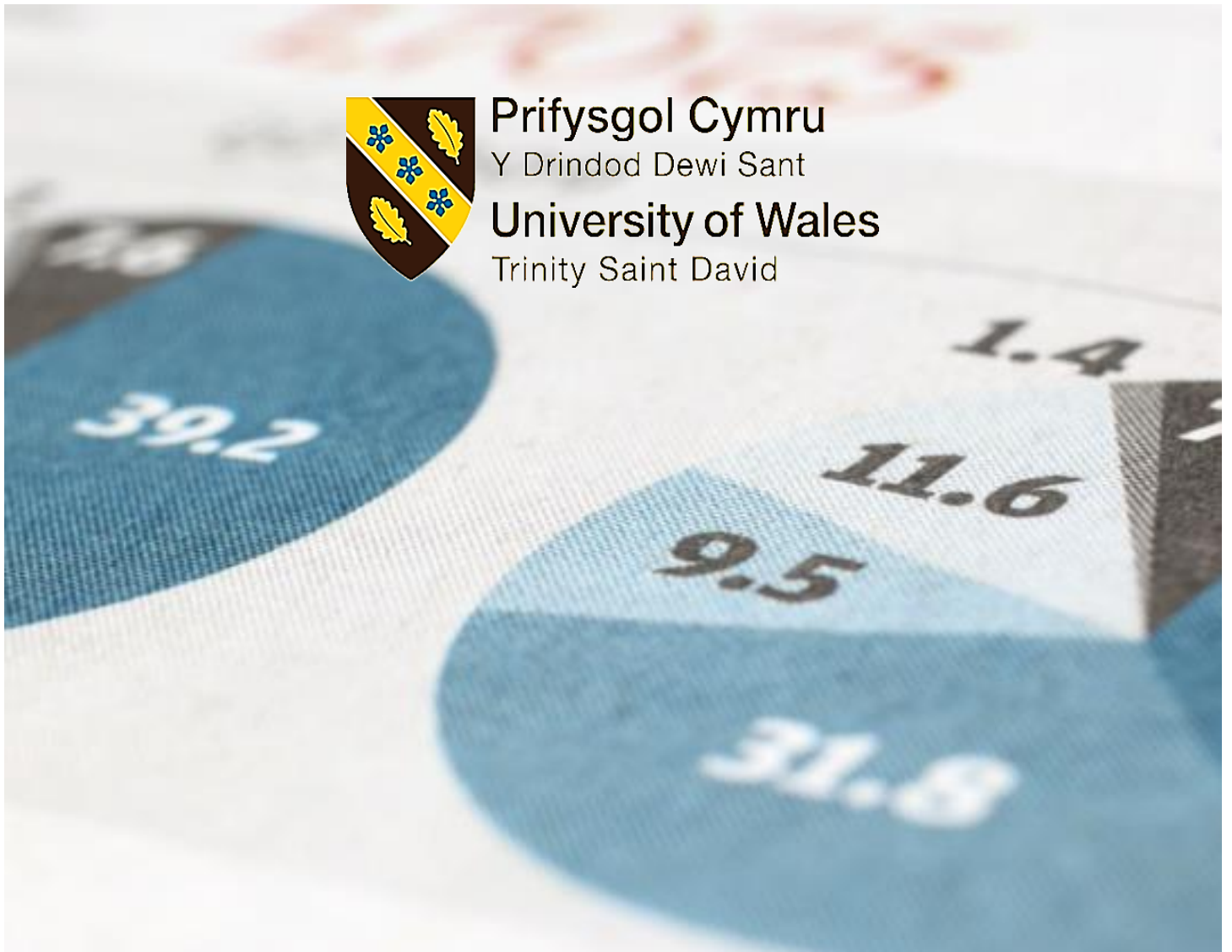


Prifysgol Cymru

Y Drindod Dewi Sant

University of Wales

Trinity Saint David



Programme:	MSc Public Health and Social Care in Practice
Module:	Quality Assurance and Service Improvement
Module Code:	LCHS7006
Lecturer	Dilhara Mampitiya
Assignment Title:	Service Improvement Report
Ms. Pragati Patel	
ID: 2522440	
Date of submission: 14/08/26	

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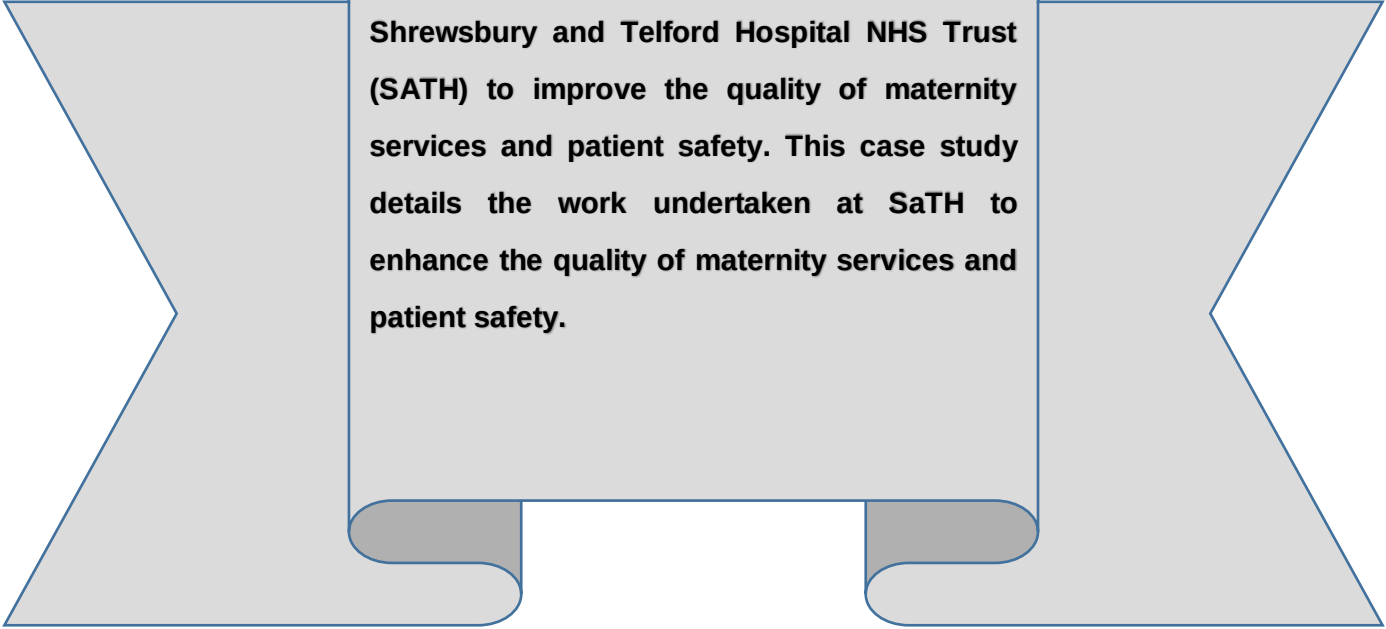
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LIST OF ABBREVIATION

SR. NO	ABBREVIATION	FULL FORM
1.	SaTH	Shrewsbury and Telford Hospital NHS Trust
2.	RCA	Root Cause Analysis
3.	PSIRF	Patient Safety Incident Response Framework
4.	NHS	National Health Services
5.	SWOT Analysis	Strengths, weakness, opportunities and threats
6.	PDSA	Plan Do Study Act Cycle
7.	WHO	World Health Organization
8.	NICE	National Institute for Health and Care Excellence
9.	CTG	Cardiotocography
10.	MDT	Multidisciplinary Team

SERVICE IMPROVEMENT REPORT



This case study explores the work of Shrewsbury and Telford Hospital NHS Trust (SATH) to improve the quality of maternity services and patient safety. This case study details the work undertaken at SaTH to enhance the quality of maternity services and patient safety.

1. INTRODUCTION

1.1 Background to the Quality Concern

Quality of care is the ability of health systems to help people and communities improve their health and health care needs (WHO, 2020). In health and social care, quality is about services providing safe, effective, timely, equitable, integrated and people-centred services consistently. Quality care is care that is likely to contribute to desired health outcomes and is evidence-based, and that meets the needs and preferences of users (WHO, 2025).



Figure 1:SaTH

This report focusses on maternity care at SaTH, the organisation that was part of the investigation by the Ockenden Review. The review was a response to concerns brought by families and extended to include more. It analysed 1,486 families and 1,592 clinical incidents. The majority of cases for care between 2000 and 2019, although the oldest reviewed case was in 1973 and the most recent in 2020 (Ockenden, 2022). It is essential to emphasis that the number in the final figure is different from the earlier figure of 1,862, because records were removed and cases where records and consent were not available were omitted from the earlier count (Ockenden, 2022; Vize, 2022).

Findings from the concerns on maternal and stillbirth care illustrate the significance of the concern. A total of 12 maternal deaths were reviewed, and nine of these were determined to have significant or major concerns in care. In **498 cases** of **stillbirth** reviewed, 26.3% were rated significant or major concerns in care, which, if managed appropriately, may or may not have achieved a different outcome. Of the **168 stillbirths** reviewed between 2011 and 2019, 40% had no investigation, and 32.9% of cases with sufficient information had suitable family

engagement in the investigation (Ockenden, 2022). The results show that governance, investigation, learning and patient involvement are not part of the quality issue only affecting single clinical decisions.



Figure 2: Ockenden

Monitoring and escalation are also a key part of this case because of the clinical standards. During Labour NICE recommends systematic reassessment of woman and unborn child, recording assessments, taking account of the full picture of the woman, and escalation if there is concern based on the fetal monitoring. It also demands that women are given information and included in decisions concerning the fetal monitoring (NICE, 2022). This means that issues with recognition, documentation, communication and escalation may not be considered a simple documentation error, but a process quality weakness. (NICE,2022)

The report will critically examine the quality concern and evidence-based opportunities for sustainable enhancement. Contributing factors are explored using fishbone analysis and 5 Whys; organisational structures are related to clinical processes and outcomes using Donabedian (1988); and weaknesses in safety barriers that could align are explored using Reason's Swiss Cheese Model (2000). SWOT analysis is a method of evaluating strategic capacity and restraints. Many recommendations focus on increasing accountability for leadership, psychological safety, competence of the workforce, communication, escalation and meaningful involvement of women and families. The main method of implementation is PDSA, although occasionally Lean is used for process mapping and Six Sigma is used for measurable variation (Taylor et al., 2014). It is argued that safer maternity care should be the result of improved systems and not on retraining individuals.

2. Body: Analyse the quality concern (MAIN BODY)

2.1 Overview of the Quality Problem

The Ockenden Review shows it was a consistent problem rather than one bad incident for the SaTH concern. It has been identified through its evidence, which comes from clinical concerns, inadequate investigation, lack of strengths in learning and a lack of listening to

women and families (Ockenden, 2022). The quality issue can thus be summarised as the inability to provide safe, evidence-based and woman-centred maternity care, which is linked to the shortcomings in governance, capability of the workforce, communication, clinical reliability, and organisational learning. This definition is better than the phrase “poor clinical practice” as it acknowledges a relationship between people, process and organisational conditions. WHO also views quality as multidimensional, whose three components—safety, effectiveness, and people-centredness must be taken into account (WHO, 2025).

2.2 Root Cause Analysis and Fishbone analysis

Fishbone analysis is a structured approach to identifying contributing factors, but does have this limitation that complex healthcare failures can be misrepresented as a series of mutually independent categories.

People and workforce: It is necessary to have the right staff, supervision and multi-disciplinary skills for maternity care. There are some links between staffing levels and certain patient safety outcomes, but the links are not straightforward and cannot be interpreted as causation of the SaTH failures due to understaffing alone (Mitchell et al., 2018). Also, the attitudes towards safety are important to outcomes, meaning that workforce capability is not just capacity to staff, but also capacity to perform professionally in safety. Improvement, here, is assumed to involve a combination of workforce planning and competency assurance, supervision and teamwork, instead of just more training time (Alanazi, Sim and Lapkin, 2022)

Leadership and governance: Ockenden found that there were failures relating to organisational responses, investigation and learning (Ockenden, 2022). The purpose of clinical governance is to link accountability, risk management, evidence-based practice and continuous improvement (Thomas, 2002). But governance structures don't necessarily work. Organisational culture and subcultures influence the meaning and actions of quality information (Davies, Nutley and Mannion, 2000, Mannion and Davies 2018). Also, safety data can be received without improvement because leaders do not push back, resourcing or measuring the impact of actions on practice.

Clinical processes: These include fetal assessment, CTG interpretation, documentation, handover and escalation. NICE recommends that CTG should be taken into account alongside maternal, fetal and labour factors and concerns should lead to the appropriate review and escalation (NICE, 2022). Donabedian provides some insight into its importance: Process quality is a link between available structures and outcomes. Even with policies and qualified staff, a service could deliver unsafe care if the processes for using policies and staff are not reliable (Donabedian, 1988).

communication and teamwork: The interdependent nature of maternity care means that decisions are made by professionals under time constraints and information needs to flow correctly between the professionals. Speaking up may be restricted by hierarchical

relationships, concerns about how people might react, and uncertainty about how speaking up will result in change (Okuyama, Wagner and Bijnen 2014). Team training can enhance knowledge, teamwork and performance Hughes et al. (2016); The benefits of team training for obstetric emergencies (but with varying effects for different interventions and outcomes) Marlow et al. (2017); and The value of communication training, therefore, is limited, but is not a replacement for staffing, governance or clear escalation systems.

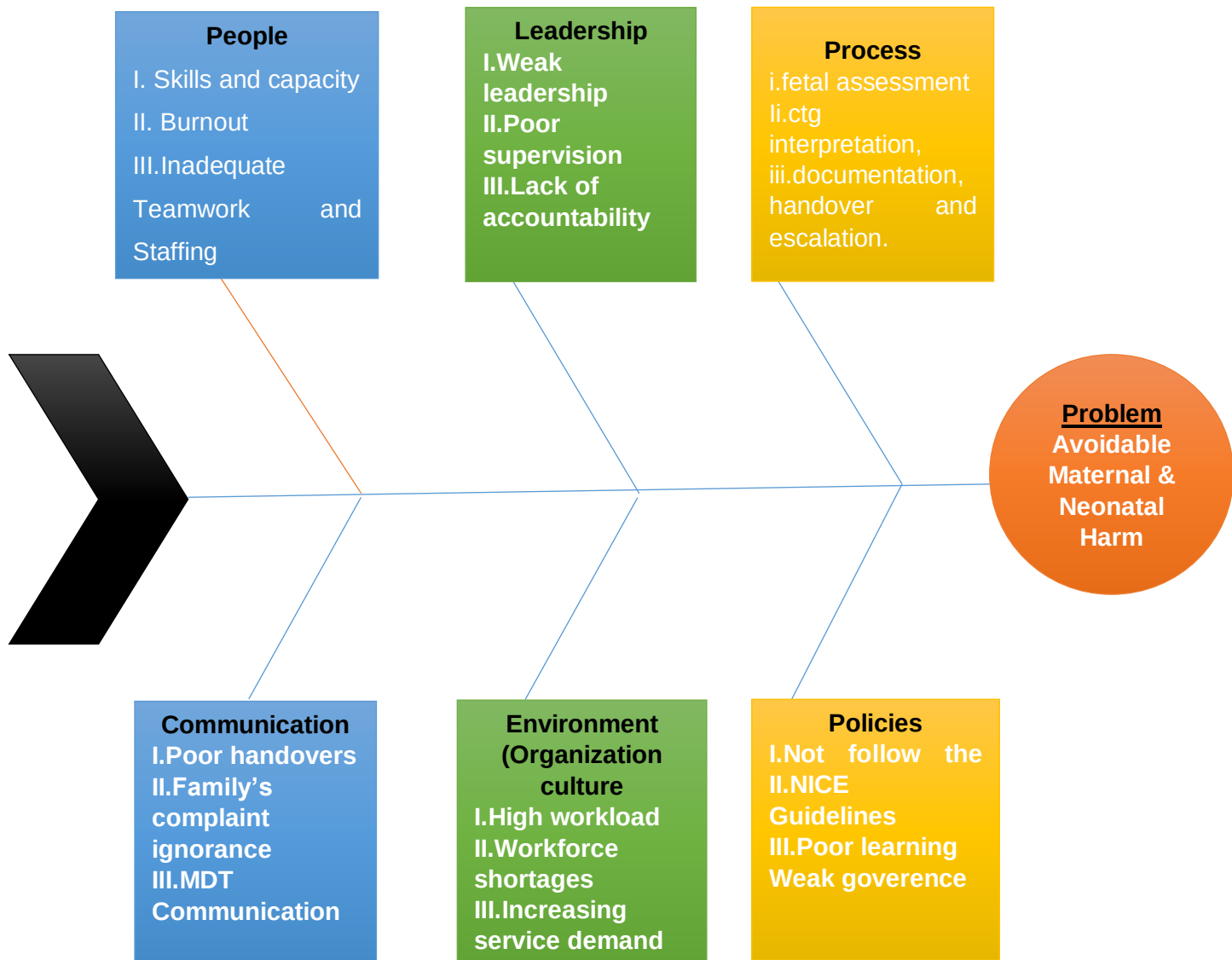


Figure 3: Application of fishbone diagram on Shrewbury Telford Maternity scandal

Another explanation has to do with **organisational culture** and psychological safety. The psychological safety and speaking up/voice behaviour influence that interventions can have an effect on these behaviours, but only under certain conditions (O'Donovan et al. 2020 and LaPlante et al. 2025). In a similar study, Morello et al. (2013) discovered that evidence in support of patient-safety-culture interventions is diverse. It is crucial to note that adding safety huddles or reporting campaigns isn't enough on its own to make it psychologically safe. Staff needs to ensure that concerns are addressed fairly and transparently by the leaders. A more

robust intervention is thus a blend of speaking up mechanisms, just culture, leadership accountability and feedback (Morello et al. 2013)

The last Fishbone category is reserved for **women and families**. There are issues with family engagement in investigations and requirements for information-sharing and supported decision-making regarding fetal monitoring (Ockenden, 2022; NICE, 2022; NICE, 2023). For patient and family involvement to help support safety, there needs to be organisational structures and commitment to meaningful involvement, (Giap and Park; 2021). Involving patients should therefore always be considered as a source of safety intelligence and not just as a form of hindsight consultation.

2.3 Five Whys Analysis

Five Whys can be used to take this analysis further, but may not be interpreted as evidence of one linear causal pathway.

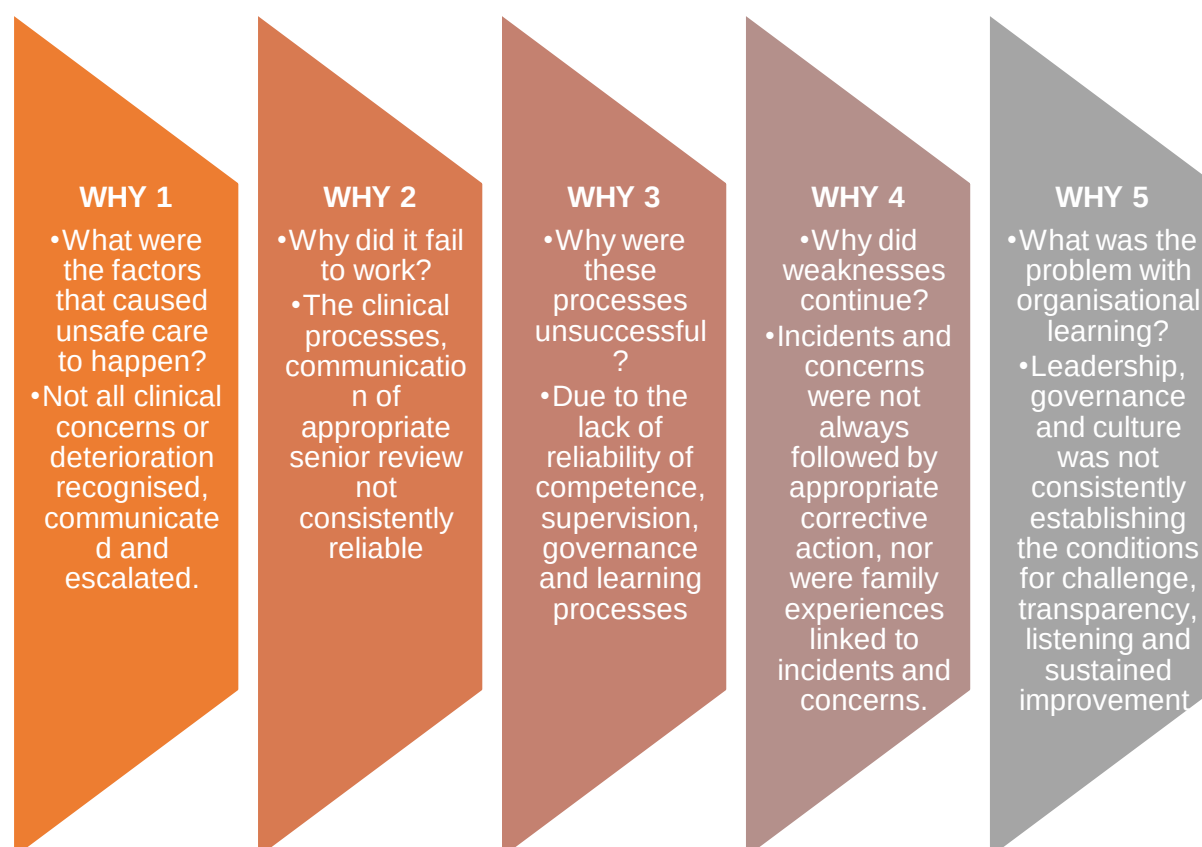


Figure 4: Application of 5 Why on SaTH maternity scandal

2.4 Donabedian's Structure-Process-Outcome Model

Donabedian's (1988) approach facilitates linkage of organisational factors to the delivery of care.

- i. Structure

Staffing, leadership, governance, training resources, information systems and accountability. These are required elements of safe care but do not prove effectiveness. A service can have policies and training programmes but the front line practice is not being implemented.

ii. Process

Process involves assessment, fetal monitoring, documentation of CTG, handover and escalation. NICE NG229 offers an up-to-date clinical standard for monitoring the foetus and stresses the need to interpret the foetal monitoring in conjunction with the broader clinical picture (NICE, 2022, updated 2026). Process measures are therefore of special value as they can detect when the reliability is beginning to decline without causing harm.

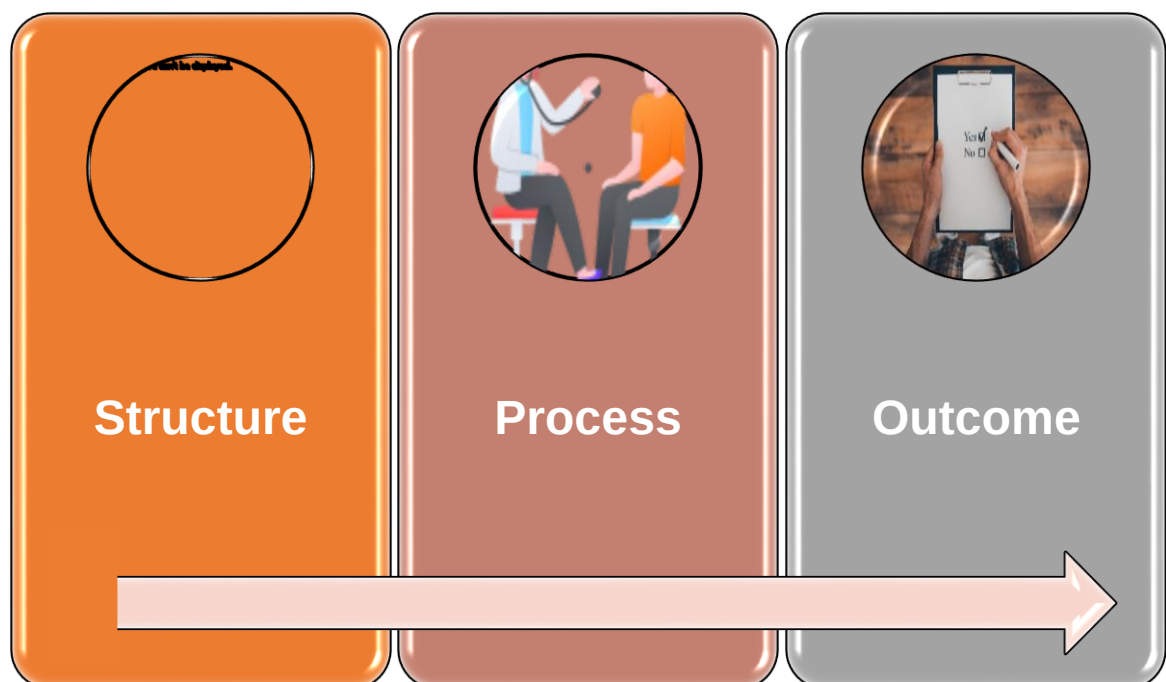


Figure 5: The Donabedian model

iii. Outcome

Outcome comprises of maternal and neonatal harm, serious incidents, complaint, patient experience, and evidence of learning in the organisation. Outcome measures still play an important role, but are not the only measure. The risks of serious harm are likely to be relatively low, but if they are reported more often, this may simply be due to better reporting rather than a worsening of clinical safety.

The drawback of Donabedian's approach is that sometimes the model can seem more linear than the real healthcare system. Structure and Process are influenced by Culture and Workload and Leadership. The model therefore will be most useful in conjunction with systems-thinking approaches.

2.5 Swiss Cheese Model

Accidents may be caused when there are flaws in multiple layers of defense. Layers in maternity care include national guidance, local governance, staffing, competency, clinical protocols, communication, escalation and organisational learning. One barrier may be sufficient to prevent harm, where several barriers are weak, or fail, then risk increases. This model is helpful in cases where explanations place the blame solely on the last practitioner (Reason; 2000).

The model is aligned with the PSIRF focus on 'learning and improving' after patient-safety incidents, as highlighted by NHS England (2022; 2026). However, a systems approach

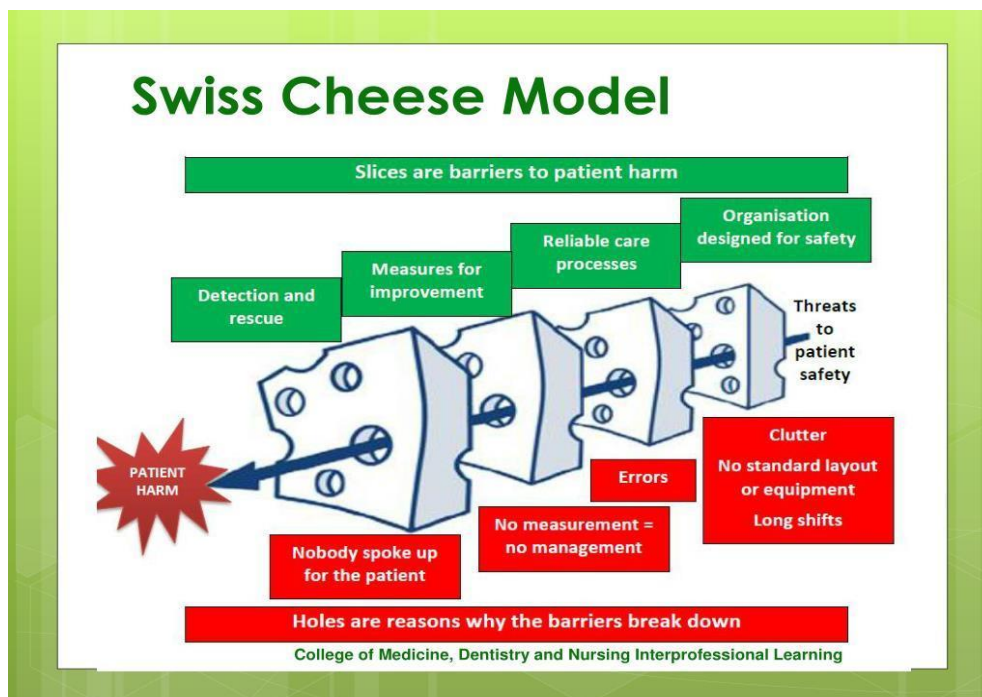


Figure 6: Swiss cheese model

should not take away from the professional accountability. Just culture is about proportionate responses and different kinds of behaviour being distinguished (Reason;2000). The model also fails to give any detail on how the method is to be implemented, which facilitates testing and measuring corrective actions using PDSA.

2.6 SWOT Analysis

SWOT analysis examines the internal strengths and weaknesses as well as external opportunities and threats. There are **strengths** in terms of access to NHS clinical knowledge, guidance, governance and a wealth of experience of Ockenden. NICE standards set measurable expectations to which practice can be judged (NICE, 2022). This use of a strength, such as formal governance, is meaningful, however, if it is used by leaders to identify and minimize risk.

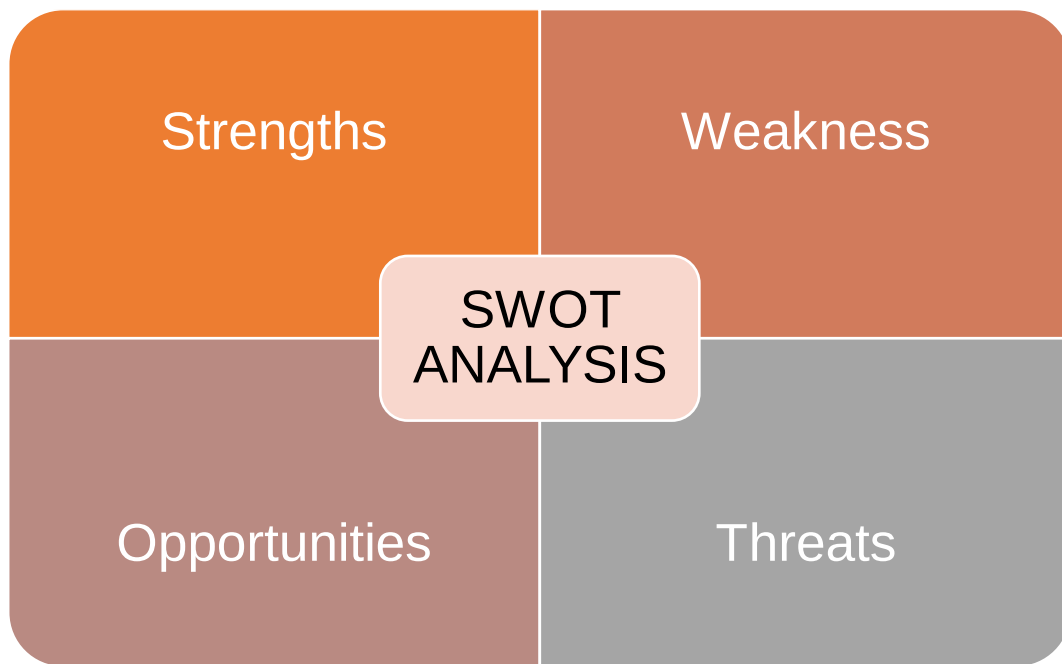


Figure 7: SWOT Analysis

The areas for **weaknesses** are found in historical issues on governance, communication, learning and culture, as well as the issues identified in the case evidence. These include **opportunities** for simulation, patient partnership, psychological-safety interventions, improving safety measurement and iterative improvement. **Challenges faced** (threats) are limited staffing levels, competing priorities, change fatigue and resistance. Braithwaite et al (2020) stress the importance of context and highlight the need to prioritise before bringing in many initiatives. A similar study by Wells et al. (2018) showed that the effectiveness of quality improvement collaboratives is variable. The Trust should have measurable priorities and hold people accountable.

2.7 Critical Synthesis

Both the frameworks are complementary and not substituted. Five Whys is used to explore the depth of the cause; Fishbone is used to identify categories of contributing factors; Donabedian establishes a connection between the structure, process and outcome; Swiss Cheese provides a description of interacting safety barriers; SWOT is used to assess organisational readiness and constraints. These collectively point to a quality issue isn't just a problem of individual error (Braithwaite et al.; 2020).

The analysis also reveals the shortcomings of a single solution to the problem. Weak governance can't be fixed through training, poor psychological safety can't be addressed with a policy and reporting of incidents without action by leadership is little value.

3. RECOMMENDATIONS AND IMPLEMENTATION STRATEGY

3.1 Support the strengthening of leadership, governance and accountability

The first suggestion is the creation of a maternity safety-governance programme that is accountable to an executive. Monthly review of serious incidents, complaints, staffing, competency, escalation, patient experience and patient improvement measures should be carried out via a multi-disciplinary maternity quality board. This acts as a mechanism for supporting governance and learning identified as a weakness by the Ockenden Review, and contributes to the NHS England PSIRF: recommendations for organisations to learn from patient safety incidents (Ockenden, 2022; NHS England, 2022). The board should adopt outcome based measures, process and balancing measures. Maternal and neonatal safety measures, CTG competency and compliance with escalation, and balancing measures such as staff workload could be used as outcome, process, or balancing measures. This is Donabedian's perspective that quality is measured by the relationship between healthcare structures, processes and outcomes (Donabedian, 1988).

3.2 Create a learning culture and develop psychological safety

The second is to enhance psychological safety and organizational learning. Staff should be able to have easy access to structures for raising concerns, to joining safety huddles and to feedback regarding actions taken. There is some evidence that interventions aimed at psychological safety and speaking-up behaviour may be helpful, but the effectiveness of these interventions is dependent on the organizational context and leadership of the intervention (O'Donovan et al., 2020; LaPlante et al., 2025). Overblaming can discourage reporting, while a completely no-blame approach can decrease accountability (Reason, 2000). PSIRF also aims to encourage learning and learning to improve rather than only pointing out individual blame (NHS England, 2022).

3.3 Ensure the competence of all staff and clinical practice

Competency-based assessment to be completed by relevant maternity staff in fetal monitoring, CTG interpretation, recognition of deterioration, escalation of care, documentation and emergency response and communication with other disciplines. NICE guidance is an appropriate benchmark as it advocates for systematic assessment, accurate documentation, appropriate CTG interpretation and escalation where concerns are raised (NICE, 2022; NICE, 2023). Practice and simulation – not training attendance – should be used to determine competence. Research on team training has shown potential benefits of team training on teamwork, knowledge and performance, and research on obstetric emergency training has revealed benefits on team functioning and selected patient outcomes (Brogaard et al., 2022). But training should not be the substitute for sufficient staffing, supervision and good governance (Donabedian, 1988).

3.4 Enhance communication and escalation

A standardised escalation pathway to be introduced for abnormal foetal monitoring/deterioration of maternal condition. Should include identification of triggers for escalation,

responsible personnel, response time, time for senior review, documentation requirements. At important transition moments, structured multidisciplinary handovers should be applied as well. This is to respond to the research that hierarchy, concern about negative reactions and uncertainty about organisational reactions may prevent staff from speaking up (Okuyama; 2014). The first step in the pathway should be PDSA. Measures should include escalation compliance, time from trigger to senior review and documentation completeness.

3.5 Strengthen engagement of patients/ families

A panel of patients, family members, clinicians, patient representatives, and managers should be represented on a maternity patient-safety panel. The panel should discuss patient experiences, complaints, patient safety issues, and suggested patient safety improvement actions. The Ockenden Review focused on listening to women and families and NICE suggests women access information and encourage their involvement in decision making on fetal monitoring (Ockenden, 2022; NICE, 2022). Patient involvement should thus be more than consultative – patient's priorities and evaluations should be included. There are indications that patient and family engagement can contribute to patient safety, if there are appropriate organisational arrangements in place (Giap and Park, 2021). These Patient Experience measures should therefore be included in a quality dashboard.

At this stage, the **PDSA cycle** is implemented and sustained.

The key implementation method is PDSA – testing and adapting interventions before they are implemented more broadly. Taylor et al. (2014) identified PDSA is a tool that is generally applied, but cycles are not always documented. In Plan, baseline and an improvement target should be set for escalation performance. In the Do phase, the new pathway should be implemented on a single clinical side. In the Study stage, the results obtained from the test should be contrasted to baseline performance and staff and patient feedback analysed. The intervention should be adopted, modified or discarded based on the evidence during Act. (Taylor et al., 2014).

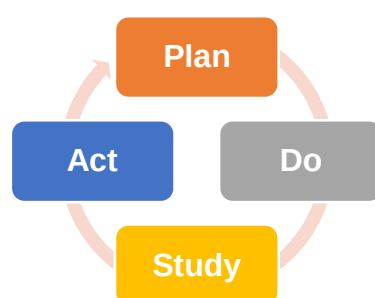


Figure 8: PDSA Cycle

The implementation should be spread over 12 months. Months 1-2 should provide governance, initiate baseline data collection and patient representatives. Competency assessment, psychological-safety interventions and the escalation pathway should be

introduced in months 3–4. All PDSA cycles and Multidisciplinary simulations should be repeated in months 5-8. Ideally, months 9-12 should scale up successful interventions and embed them into the normal governance process. Lean can point out inefficiencies and unnecessary delays and duplication.

Six Sigma can analyse the process variation that can be measured. Sustainability should be measured using monthly dashboards, quarterly governance reporting and an annual competency re-assessment. Ultimately, improvement should be measured through changes in safety, reliability and patient experience, not by the completion of activities. Leaders, staff engagement and patient involvement is, therefore, needed to ensure that improvement becomes part of the routine (Braithwaite et al., 2020; NHS England, 2019).

4. CONCLUSION

The analysis shows that the maternity quality issues at Shrewsbury and Telford Hospital NHS Trust were multifaceted. The Ockenden Review identified significant concerns involving maternal care, stillbirths, investigations, organisational learning and family involvement. The results show that the issues are not just clinical, but on several occasions multiple errors. Rather they were linked to the relationship between leadership, governance, workforce capacity, communication, clinical processes, and the culture and involvement of patients.

Using Fishbone analysis and 5 Whys, it was possible to come up with some possible contributing factors and consider how any of the weaknesses in clinical practice might link to wider organisational issues. These tools are considered to be aids to structured exploration and not evidence of causation, however. The Donabedian Model offered a wider evaluation by connecting the organisational structure, the management of care and the consequences of care received by patients, and the Swiss Cheese Model showed how failures in the numerous safety barriers could come together to create opportunities for harm. SWOT analysis also helped in the strategic consideration of strengths, weaknesses, opportunities and threats of the organisation.

The recommendations thus emphasize the accountability of leadership, psychological safety, skills of the workforce, communication, escalation, and meaningful engagement of women and families. There are interventions that can be tested and adapted using the PDSA method and then applied more broadly, and Lean and Six Sigma can help with process analysis and elimination of unnecessary variation.

In summary a culture that enables staff to raise concerns is supported by leaders who respond openly, there is active listening from patients and families, and evidence is converted to measurable improvements is essential for sustainable improvement in maternity. Using a systems-based analysis process in conjunction with a structured implementation and ongoing monitoring process may assist safer, more reliable, person-centred maternity services.

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