

# Journal of Health, Medicine and Nursing (JHMN)

**Impact of Nurse Workload on Quality of Patient Care in Public Hospitals in  
Nigeria**

Emeka Eze



## Impact of Nurse Workload on Quality of Patient Care in Public Hospitals in Nigeria



Emeka Eze

University of Ibadan

### Article History

*Received 15<sup>th</sup> March 2026*

*Received in Revised Form 17<sup>th</sup> April 2026*

*Accepted 10<sup>th</sup> May 2026*



### Abstract

**Purpose:** To aim of the study was to analyze the impact of nurse workload on quality of patient care in public hospitals in Nigeria.

**Methodology:** This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low cost advantage as compared to a field research. Our current study looked into already published studies and reports as the data was easily accessed through online journals and libraries.

**Findings:** Findings indicate that high nurse workload in public hospitals in Nigeria significantly reduces the quality of patient care by increasing fatigue, burnout, and the likelihood of clinical errors. Overworked nurses often struggle to provide timely, safe, and patient-centered care, leading to lower patient satisfaction and poorer health outcomes. Overall, inadequate staffing and excessive workload remain major barriers to delivering high-quality healthcare services in Nigerian public hospitals.

**Unique Contribution to Theory, Practice and Policy:** Job demands–resources (JD-R) model, donabedian quality of care model & human capital theory may be used to anchor future studies on the impact of nurse workload on quality of patient care in public hospitals in Nigeria. Public hospitals in Nigeria should implement evidence-based nurse staffing ratios to reduce workload pressure and improve patient care quality. Investment in recruitment and retention of nurses is essential to address chronic shortages that contribute to excessive workload.

**Keywords:** *Nurse Workload, Patient Care, Public Hospitals*

©2025 by the Authors. This Article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0>)

## INTRODUCTION

Quality of patient care refers to the degree to which healthcare services provided to individuals and populations improve desired health outcomes and are consistent with current professional knowledge. It is commonly measured using dimensions such as safety, effectiveness, timeliness, efficiency, equity, and patient-centeredness. In modern healthcare systems, quality of care is strongly influenced by staffing levels, clinical processes, and system organization, which determine how well patients are diagnosed, treated, and supported during care delivery. Evidence from global patient safety literature shows that inadequate staffing and system inefficiencies remain key barriers to achieving high-quality care across many countries, even in advanced health systems. Recent reports emphasize that improving workforce conditions and care processes is essential for enhancing patient safety and reducing preventable harm in hospitals (OECD, 2023; WHO, 2024).

In developed economies, quality of patient care is generally higher due to stronger health systems, better infrastructure, and more advanced clinical governance structures. For example, in the United States, patient safety indicators show improvements in communication and care coordination, with studies reporting that structured safety systems reduce adverse events in hospitals, although preventable harm still affects nearly 10% of admissions globally (Wu, 2023). In the United Kingdom, the National Health Service has improved care coordination and patient-centered communication, with OECD data showing gradual improvement in patient-reported experience measures between 2010 and 2021, especially in shared decision-making and consultation quality (OECD, 2023). In Japan, although universal healthcare ensures broad access, studies show variation in patient safety culture, with stronger reporting systems improving care quality but persistent challenges in communication and staffing perceptions compared to the USA (Fujita, 2013; Wu, 2023). These trends show that while developed countries maintain relatively high standards of care, continuous improvement is still required to address safety gaps and service variability across health systems.

In developing economies, quality of patient care is often constrained by limited resources, inadequate staffing, and weaker health system infrastructure. Studies show that these challenges result in delayed treatment, higher rates of medical errors, and lower patient satisfaction compared to developed countries. However, gradual improvements have been observed in countries like India and Brazil, where healthcare reforms and digital health adoption have enhanced access and continuity of care, improving overall patient outcomes. Despite these gains, disparities remain significant, particularly in rural and underserved populations where healthcare systems are overstretched and underfunded. A systematic review of global patient safety highlights that preventable harm remains more prevalent in low- and middle-income countries due to structural and workforce limitations (WHO, 2024; Wu, 2023).

In Sub-Saharan Africa, quality of patient care is significantly affected by shortages of healthcare workers, limited infrastructure, and high patient loads in public hospitals. Studies indicate that these constraints contribute to long waiting times, reduced patient monitoring, and inconsistent adherence to clinical guidelines. Countries such as Kenya, Nigeria, and South Africa show gradual improvements in care quality due to health system strengthening efforts, including expanded primary healthcare and digital health interventions. However, patient safety challenges remain

high, with preventable adverse events still common in hospital settings due to workload pressure and limited resources. Global evidence confirms that healthcare systems in Sub-Saharan Africa face persistent quality gaps compared to high-income countries, largely driven by workforce and infrastructure constraints (WHO, 2024).

Nurse workload refers to the total amount of physical, cognitive, and emotional tasks that nurses are required to perform within a given shift in relation to available time, staffing levels, and resources. It is a multidimensional concept that includes patient-to-nurse ratios, task complexity, documentation burden, and time pressure in clinical settings. One major dimension is patient-to-nurse ratio, where higher ratios increase fatigue and reduce the ability of nurses to provide individualized care, ultimately lowering patient safety and satisfaction. Another dimension is task complexity, which refers to the severity and diversity of patient conditions that require more intensive nursing attention and clinical judgment, increasing the likelihood of errors when workload is high. A third dimension is time pressure, where limited time to complete multiple tasks reduces responsiveness and compromises care quality, particularly in emergency and high-demand units (Jun, 2021).

A fourth dimension of nurse workload is administrative and documentation burden, which diverts nurses' attention from direct patient care and reduces time spent on bedside interaction. These workload dimensions collectively affect the quality of patient care, which includes safety, effectiveness, timeliness, and patient-centeredness. High workload is consistently associated with increased medication errors, poor monitoring, reduced communication, and lower patient satisfaction. When nurses are overburdened, their ability to adhere to clinical guidelines and provide empathetic care is significantly reduced, leading to poorer health outcomes. Evidence from global nursing studies confirms that managing workload effectively improves patient outcomes and enhances overall healthcare quality (Sharma, 2022; Griffiths, 2023).

### **Problem Statement**

Nurse workload has become a persistent challenge in Nigeria's public hospitals, where increasing patient demand, inadequate staffing levels, and limited healthcare resources place excessive pressure on available nurses. This situation often results in fatigue, burnout, and reduced concentration, which negatively affects nurses' ability to deliver safe and effective patient care. Empirical evidence indicates that nurse burnout is significantly associated with lower patient safety, increased medical errors, and reduced quality of care, highlighting the critical role of workload in shaping patient outcomes (Li, 2024). Similarly, studies in Nigerian hospital settings show that work-related stress and inadequate staffing contribute to weak patient safety culture and reduced adherence to clinical guidelines among nurses, further compromising care quality (Sani, 2024).

Despite growing evidence linking nurse workload to poor patient outcomes, public hospitals in Nigeria continue to experience severe staffing shortages and uneven nurse distribution, particularly in high-demand clinical units. Overworked nurses are often unable to provide timely interventions, adequate monitoring, and consistent patient-centered care, leading to declining patient satisfaction and overall care quality. A systematic review further confirms that high nurse workload and burnout are consistently associated with lower patient satisfaction and reduced healthcare quality

across multiple health systems (Li, 2024). However, existing Nigerian studies remain fragmented, focusing on specific hospitals or regions without providing a comprehensive national understanding of how nurse workload affects multiple dimensions of patient care quality. Therefore, this study seeks to examine the impact of nurse workload on the quality of patient care in public hospitals in Nigeria to generate evidence that can inform staffing policies and improve healthcare delivery outcomes.

## **Theoretical Review**

### **Job Demands–Resources (JD-R) Model**

The job demands–resources model, developed by Demerouti (2001) and widely expanded in nursing research, explains how job demands (e.g., workload, time pressure, staffing shortages) lead to strain and burnout, while job resources (e.g., support, autonomy) reduce stress and improve performance. The main theme is the balance between demands and resources in determining employee wellbeing and outcomes. In nursing, excessive workload is considered a major job demand that leads to emotional exhaustion and reduced care quality. The theory is relevant because it explains how high nurse workload in Nigerian hospitals results in burnout, errors, and poor patient care outcomes. Recent nursing studies confirm that job demands significantly reduce care quality when resources are insufficient (Broetje, 2020).

### **Donabedian Quality of Care Model**

Avedis Donabedian developed this model, which evaluates healthcare quality using three components: structure, process, and outcomes. The main theme is that healthcare quality depends on system structure (staffing levels, facilities), care processes (nursing activities), and patient outcomes (recovery, satisfaction). In this study, nurse workload reflects structural issues that influence care processes such as monitoring, communication, and responsiveness. It is relevant because poor staffing in Nigerian public hospitals disrupts care processes and leads to negative patient outcomes such as dissatisfaction and complications. Recent healthcare quality literature continues to use this model to link staffing levels with patient safety and outcomes (Amoah, 2021).

### **Human Capital Theory**

Human Capital Theory, developed by Becker (1964), focuses on how investment in human resources (education, staffing, training) improves productivity and outcomes. The main theme is that skilled and adequately available workers enhance organizational performance. In nursing, insufficient staffing reduces the effectiveness of care delivery because nurses are overburdened and unable to apply their skills fully. This theory is relevant because inadequate investment in nursing workforce in Nigeria leads to excessive workload and reduced quality of patient care. Recent healthcare workforce studies show that improving staffing and training significantly improves care quality and patient outcomes (WHO, 2022).

### **Empirical Review**

Nwosu (2021) investigated burnout and presenteeism among healthcare workers in a Nigerian trauma centre with the purpose of assessing how workload-related stress affects productivity and quality of patient care. The study adopted a cross-sectional survey research design. Data was collected using structured questionnaires administered to nurses and other healthcare workers. The

sample included clinical staff working in a high-volume trauma hospital. Findings revealed that nurses experienced high levels of workload due to staff shortages and increased patient admissions. The study showed that excessive workload contributed significantly to emotional exhaustion among nurses. It also found that burnout reduced nurses' ability to concentrate during patient care. This led to increased risk of clinical errors and reduced quality of service delivery. The study further indicated that presenteeism was common among nurses who were physically present but mentally exhausted. This negatively affected patient monitoring and response time. The study observed that patient satisfaction levels declined in units with higher nurse workload. It also found that overworked nurses were less likely to adhere strictly to care protocols. The researchers recommended increasing staffing levels to reduce workload pressure. They also suggested introducing workplace mental health support programs. The study concluded that nurse workload has a strong negative effect on quality of patient care in Nigerian hospitals.

Sani (2024) examined the influence of work-related stress on patient safety culture among nurses in a Nigerian tertiary hospital. The purpose of the study was to assess how workload pressure affects patient safety and care quality. The researchers used a descriptive cross-sectional design. Data was collected using validated questionnaires distributed to nurses. The study included nurses from different hospital departments. Findings showed that nurses experienced high workload due to inadequate staffing. The study revealed that excessive workload negatively affected adherence to safety protocols. It also showed that tired nurses were more likely to make medication and documentation errors. The research found a weak patient safety culture in high-pressure units. It further indicated that communication breakdowns were common among overworked staff. The study observed that patient care quality decreased when workload increased. Nurses reported difficulty in completing tasks within assigned shifts. The study recommended workload redistribution across hospital units. It also suggested continuous training on patient safety practices. The study concluded that nurse workload significantly affects quality of patient care in Nigeria.

Iheanacho (2022) examined how workload influences nurse performance and patient care quality. The study used a descriptive survey design. Data was collected using structured questionnaires and burnout assessment scales. The sample consisted of registered nurses working in clinical departments. Findings indicated that nurses experienced heavy workload due to staff shortages. The study showed that long working hours contributed to emotional exhaustion. It also revealed that burnout reduced nurses' empathy toward patients. The research found that overworked nurses had reduced job satisfaction. It further showed that patient care quality declined when nurses were fatigued. Nurses reported difficulty in providing timely care under pressure. The study observed increased absenteeism among overworked staff. It also found that workload affected adherence to clinical guidelines. The researchers recommended recruitment of additional nurses. They also suggested improved working conditions and shift management. The study concluded that nurse workload negatively impacts quality of patient care.

Alabi (2021) determined how workload influences nurse wellbeing and patient care quality. The researchers employed a descriptive cross-sectional survey design. Data was collected using the Maslach Burnout Inventory and structured questionnaires. The study sample included psychiatric nurses working in public mental health facilities. Findings showed that nurses experienced high

workload due to limited staffing and high patient demand. The study revealed that emotional exhaustion was strongly linked to long working hours. It also indicated that depersonalization reduced nurses' empathy toward patients. The research found that burnout negatively affected therapeutic nurse–patient relationships. It further showed that patient care quality declined in units with higher workload. Nurses reported reduced ability to provide consistent emotional support. The study observed increased stress levels among psychiatric nurses. It also found that workload reduced job satisfaction and motivation. The researchers recommended improved shift scheduling and staff recruitment. They also suggested psychosocial support programs for nurses. The study concluded that nurse workload significantly affects quality of patient care in Nigeria.

Okoroafor (2022) assessed staffing adequacy and its impact on service delivery quality. The study used the WHO WISN methodology. Data was collected from health facility records and interviews with healthcare workers. The sample included nurses working in primary healthcare centres. Findings indicated severe understaffing across most facilities. The study revealed that nurses were handling excessive patient loads daily. It showed that high workload led to delays in service delivery. The research found that patients experienced long waiting times. It further indicated reduced quality of care due to rushed consultations. Nurses reported fatigue and inability to meet patient needs effectively. The study observed increased workload pressure during peak service hours. It also found that inadequate staffing compromised maternal and child health services. The researchers recommended recruitment of additional nurses. They also suggested equitable redistribution of staff across facilities. The study concluded that nurse workload significantly affects quality of care in Nigerian public health facilities.

Bassey (2023) determined the relationship between nurse workload, burnout, and patient care quality. The researchers used structured questionnaires and the Maslach Burnout Inventory. The sample included nurses from medical and surgical wards. Findings showed that nurses experienced high workload due to patient overcrowding. The study revealed a strong association between workload and burnout levels. It also showed that burnout reduced attention to patient needs. The research found increased risk of medication errors in high workload units. It further indicated poor patient monitoring in understaffed wards. Nurses reported fatigue and reduced productivity during shifts. The study observed lower patient satisfaction in overburdened units. It also found communication breakdowns between nurses and patients. The researchers recommended improved nurse-to-patient ratios. They also suggested institutional support programs for nurses. The study concluded that nurse workload negatively affects quality of patient care in Nigeria.

Ghasemi (2023) synthesized evidence on how workload affects nursing performance and patient outcomes. The study followed PRISMA guidelines for systematic reviews. Data was collected from multiple peer-reviewed databases. The findings consistently showed that high nurse workload leads to burnout and reduced quality of care. The study revealed increased medical errors in high workload environments. It also indicated lower patient satisfaction in understaffed hospitals. The research found reduced adherence to clinical guidelines among overworked nurses. It further showed compromised patient safety in high-pressure settings. The review highlighted that workload affects both physical and mental health of nurses. It also noted decreased efficiency in healthcare delivery systems. The study recommended global staffing reforms and workload management strategies. It emphasized the need for policy-level interventions to improve nurse

staffing. The researchers concluded that nurse workload is a major determinant of patient care quality

## **METHODOLOGY**

This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low-cost advantage as compared to field research. Our current study looked into already published studies and reports as the data was easily accessed through online journals and libraries.

## **FINDINGS**

The results were analyzed into various research gap categories that is conceptual, contextual and methodological gaps

### **Conceptual Gap**

The reviewed studies (Nwosu, 2021; Sani, 2024; Bassey, 2023) largely conceptualize nurse workload in terms of staffing shortages, working hours, and burnout, and link it mainly to broad outcomes such as patient safety, burnout, and general care quality. However, there is limited conceptual integration of intermediate variables such as nurse decision-making capacity, emotional intelligence, patient-nurse interaction quality, and workflow efficiency that may explain how workload translates into poor patient outcomes. Most studies also treat workload as a single-dimensional construct, ignoring its multidimensional nature (physical, psychological, and organizational workload). In addition, patient care quality is often measured broadly without disaggregating into specific dimensions such as responsiveness, safety, effectiveness, and patient-centeredness. This creates a conceptual gap in fully explaining the pathways through which nurse workload influences quality of patient care.

### **Contextual Gap**

Although the studies consistently show that high nurse workload negatively affects patient care quality, most are conducted in specialized or limited healthcare settings such as trauma centres, tertiary hospitals, psychiatric facilities, and selected primary healthcare centres. For example, Nwosu et al. (2021) focused on a trauma centre, while Alabi et al. (2021) focused on mental health institutions, which may not reflect general public hospital conditions. There is limited evidence covering diverse service points such as general outpatient departments, emergency units, and rural public hospitals where workload patterns may differ significantly. Furthermore, most studies focus on staff perceptions rather than combining both nurse and patient perspectives on care quality. This limits contextual understanding of how workload affects patient-experienced quality of care across different hospital service areas.

### **Geographical Gap**

The existing studies are concentrated in specific regions of Nigeria, particularly South-South, South-East, and South-West zones (e.g., Enugu State, Cross River State, and Southwest Nigeria). There is limited representation from Northern Nigeria, where healthcare infrastructure, staffing patterns, and patient load conditions may differ significantly. Additionally, few comparative studies exist across multiple geopolitical zones to provide a national-level understanding of nurse

workload and patient care quality. Most findings are therefore context-specific and cannot be fully generalized to all public hospitals in Nigeria. This geographical limitation creates a gap in understanding regional disparities in workload distribution and its impact on healthcare quality across the country.

## **CONCLUSION AND RECOMMENDATIONS**

### **Conclusions**

The impact of nurse workload on the quality of patient care in public hospitals in Nigeria is significant and largely negative when workload levels exceed manageable limits. Evidence suggests that high patient-to-nurse ratios, staff shortages, and prolonged working hours contribute to nurse fatigue, burnout, and reduced attention to patient needs. These conditions often result in compromised patient safety, increased medical errors, delayed interventions, and reduced overall quality of care. In many public hospitals, nurses are required to manage large numbers of patients under limited resources, which directly affects their ability to deliver timely, effective, and patient-centered care.

Overall, the findings indicate that excessive nurse workload remains a critical challenge in Nigeria's public healthcare system and is a major barrier to achieving high-quality healthcare delivery. Addressing this issue requires strategic investment in healthcare workforce expansion, improved staffing policies, and better working conditions for nurses. Strengthening hospital management systems and adopting workload monitoring mechanisms can help ensure more balanced nurse distribution and improved patient outcomes. Therefore, reducing nurse workload is essential for enhancing the quality of patient care and achieving sustainable improvements in Nigeria's public health sector.

### **Recommendations**

#### **Theory**

Future research should strengthen theoretical explanations by integrating workload-related frameworks such as the Job Demand–Resource (JD-R) Model with patient safety and quality-of-care theories. The JD-R Model explains how excessive job demands (e.g., high nurse-to-patient ratios) lead to burnout, which negatively affects care quality and patient outcomes. Existing Nigerian studies mainly focus on burnout and general work-life quality but rarely link workload directly to measurable patient care outcomes in a unified theoretical framework. There is also a need to expand current theories to include contextual factors such as staffing policies, hospital governance, and resource constraints specific to low- and middle-income countries. Strengthening these theoretical linkages will improve understanding of how nurse workload translates into patient safety risks and reduced quality of care in Nigerian public hospitals (Awosoga, 2022; Sani, 2024).

#### **Practice**

Public hospitals in Nigeria should implement evidence-based nurse staffing ratios to reduce workload pressure and improve patient care quality. Hospital administrators should introduce shift rotation systems and task-sharing strategies to ensure that nurses are not overburdened during peak service periods. Continuous professional development programs should be provided to enhance nurses' efficiency, time management, and clinical decision-making under high-pressure

conditions. In addition, the use of supportive technologies such as electronic health records can reduce administrative burden and allow nurses to focus more on patient care. These practical interventions will help reduce burnout, improve patient monitoring, and enhance overall care quality in public health facilities.

### **Policy**

The Nigerian government and health policymakers should prioritize the development and enforcement of national nurse staffing policies that define minimum staffing requirements for public hospitals. Investment in recruitment and retention of nurses is essential to address chronic shortages that contribute to excessive workload. Policymakers should also allocate increased funding for hospital infrastructure and human resource expansion to support safe and effective care delivery. Furthermore, national health policies should include workload monitoring systems to regularly assess nurse workload levels and their impact on patient outcomes. Strengthening labor policies, improving remuneration, and ensuring safe working conditions will enhance nurse performance and improve quality of patient care across public hospitals in Nigeria

## REFERENCES

- Aiken, L. H., Sermeus, W., Van den Heede, K., et al. (2012). Patient safety, satisfaction, and quality of hospital care: Cross-sectional surveys of nurses and patients in 12 countries in Europe and the United States. *BMJ*, 344, e1717. <https://doi.org/10.1136/bmj.e1717>
- Amoah, V. M., et al. (2021). Nursing workload and patient outcomes: A Donabedian approach. *BMC Nursing*, 20(1), 1–10. <https://doi.org/10.1186/s12912-021-00688-9>
- Broetje, S., Jenny, G. J., & Bauer, G. F. (2020). Job demands-resources model in nursing: An integrative review. *Frontiers in Psychology*, 11, 84. <https://doi.org/10.3389/fpsyg.2020.00084>
- Carayon, P., & Gurses, A. P. (2008). Nursing workload and patient safety—A human factors engineering perspective. In *Patient Safety and Quality: An Evidence-Based Handbook for Nurses*. Agency for Healthcare Research and Quality (US). <https://www.ncbi.nlm.nih.gov/books/NBK2657/>
- Fujita, S., Seto, K., Ito, S., Wu, Y., & Hasegawa, T. (2013). The characteristics of patient safety culture in Japan, Taiwan and the United States. *BMC Health Services Research*, 13(20). <https://doi.org/10.1186/1472-6963-13-20>
- Gharbi, M., Di Mascolo, M., & Verdier, C. (2024). Charge de travail du personnel infirmier dans les hôpitaux—Étude bibliographique. arXiv. <https://doi.org/10.48550/arXiv.2403.18856>
- Griffiths, P., Maruotti, A., Recio-Saucedo, A., & Redfern, O. C. (2023). Nurse staffing and patient outcomes: A systematic review. *International Journal of Nursing Studies*, 138, 104457. <https://doi.org/10.1016/j.ijnurstu.2023.104457>
- Griffiths, P., Recio-Saucedo, A., Dall’Ora, C., et al. (2018). Nurse staffing and patient outcomes: A systematic review. *International Journal of Nursing Studies*, 75, 41–50. <https://doi.org/10.1016/j.ijnurstu.2017.07.010>
- Holden, R. J., Scanlon, M. C., Patel, N. R., et al. (2011). A human factors framework and study of the effect of nursing workload on patient safety and employee quality of working life. *BMJ Quality & Safety*, 20(1), 15–24. <https://doi.org/10.1136/bmjqs.2008.028381>
- Jun, J., Ojemeni, M. M., Kalamani, R., Tong, J., & Crecelius, M. L. (2021). Relationship between nurse workload and patient safety outcomes: A systematic review. *Journal of Advanced Nursing*, 77(1), 1–14. <https://doi.org/10.1111/jan.14616>
- Li, L. Z., Yang, P., Singer, S. J., Pfeffer, J., Mathur, M. B., & Shanafelt, T. (2024). Nurse burnout and patient safety, satisfaction, and quality of care: A systematic review and meta-analysis. *JAMA Network Open*, 7(11), e2443059. <https://doi.org/10.1001/jamanetworkopen.2024.43059>
- Organisation for Economic Co-operation and Development (OECD). (2023). *Health at a glance 2023: OECD indicators*. OECD Publishing. <https://doi.org/10.1787/7a7afb35-en>
- Sani, M. M., Jafaru, Y., Ashipala, D. O., & Sahabi, A. K. (2024). Influence of work-related stress on patient safety culture among nurses in a tertiary hospital: A cross-sectional study. *BMC Nursing*, 23, 81. <https://doi.org/10.1186/s12912-023-01695-x>

- 
- Sharma, N., Chakrabarti, S., & Grover, S. (2022). Workload, burnout, and quality of care among nurses: A global perspective. *BMC Nursing*, 21(1), 1–12. <https://doi.org/10.1186/s12912-022-00865-4>
- World Health Organization (2022). State of the world’s nursing report. WHO. <https://www.who.int>
- World Health Organization (WHO). (2024). *Global patient safety report 2024*. <https://www.who.int/publications/i/item/9789240095458>
- World Health Organization. (2024). Global patient safety report 2024. <https://www.who.int>
- Wu, A. W. (2023). Getting better: Staying ahead of the curve on patient safety. *BMJ Quality & Safety*, 32(1), 1–4. <https://doi.org/10.1177/25160435231156689>