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Implementing Audit and Feedback in Italian healthcare organisations: preliminary findings from a sitographic scan

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Introduction

Extensive evidence from both primary and secondary care settings reveals a persistent discrepancy between the healthcare received by patients and the standards of recommended practice. This challenge is particularly evident in Italy, where there is a significant variability in health processes and outcomes among different healthcare facilities. Consequently, there has been a growing interest in the implementation of Audit and Feedback (A&F), which can be defined as “any summary of clinical performance of healthcare over a specified period of time, aimed at providing information to health professionals to allow them to assess and adjust their performance”. This approach relies on the fundamental assumption that health professionals, when provided with structured, objective information about their clinical performance, are empowered to identify areas for enhancement, thereby leading to an improvement in the quality and safety of care.

Nevertheless, the efficacy of A&F is not absolute. A Cochrane review concluded that such mechanisms typically yield small to moderate improvements in professional adherence to best practices, with an average absolute improvement of 4.3%. The impact of A&F is highly contingent on its design and delivery. Indeed, it has shown to be most effective when feedback is communicated both verbally and in writing by a respected senior colleague, is provided frequently, and is accompanied by explicit targets and actionable improvement plans.

A significant constraint of traditional A&F processes is their predominant reliance on clinical and administrative data, which, while essential, often fail to capture the patient's perspective. In order to develop a more holistic and comprehensive evaluation framework, it is crucial to integrate Patient-Reported Outcome Measures (PROMs) and Patient-Reported Experience Measures (PREMs). These instruments offer valuable, complementary insights into the patient’s journey, by assessing dimensions such as communication, respect, and self-perceived health status that are otherwise overlooked. The incorporation of the patient’s voice within healthcare organisations has proven to facilitate the acquisition of a more accurate and multifaceted understanding of their performance.

Despite the documented benefits, the systematic integration of A&F, particularly when combined with patient-reported measures, remains underdeveloped within the Italian healthcare landscape. Unlike countries with a longer history of these practices, such as the UK and the Netherlands, Italy lacks a unified national framework, resulting in a fragmented and inconsistent implementation across its regions. Such discrepancy is exacerbated by several challenges, including the reluctance of some healthcare professionals to embrace patient-reported data and concerns regarding its methodological robustness. The existence of this gap constitutes the primary rationale for the present research.

The objective of the current analysis is to conduct a comprehensive study of the actual state of clinical-organisational A&F practices within the Italian healthcare system. This objective will be accomplished through a sitographic scan, which will aid in mapping existing A&F initiatives across all Italian regions by reviewing publicly available institutional documents to identify trends, regulatory frameworks, and disparities. Such step represents a preliminary phase of a national-level research on the topic, which is to be undertaken subsequently. Furthermore, a comprehensive case study of Gemelli Isola Hospital in Rome will be presented. This will serve as a practical example of how a private accredited hospital is innovating its quality monitoring processes by integrating multiple channels of patients' feedback to drive tangible improvements in care. Ultimately, this research seeks to offer evidence-based insights that will contribute to the refinement and optimisation of A&F procedures in Italy.

The present dissertation is organised into three chapters. The first will be dedicated to an extensive literature review on A&F, PREMs and PROMs, by reporting existing evidence on these matters and concrete examples of application. The second chapter will provide a detailed discussion of the methodology and rationale underpinning the sitographic analysis and the new patients' satisfaction and perceived quality monitoring system in Gemelli Isola Hospital. Ultimately, the final section of the document will focus on the results of the sitographic scan and on the manner in which data in Gemelli Isola Hospital are used to improve the quality of services offered within the facility.

1. Audit and Feedback (A&F) and Patient-Reported Measures: a theoretical framework

1.1 Introduction to A&F

1.1.1 A&F

Extensive evidence highlights a discrepancy between the healthcare received by patients and the recommended practices in both primary and secondary care. Specifically, in Italy there is clear evidence of wide variability among health facilities in health processes and outcomes. This has led to a growing interest in the use of A&F for health professionals, who might struggle while attempting to accurately assess their own performance (1). Indeed, the use of performance measurement tools, including A&F mechanisms, has increased in healthcare settings to support external accountability, aiming to improve providers' performance and controlling costs (2). A&F processes in healthcare can be defined as "any summary of clinical performance of healthcare over a specified period of time, aimed at providing information to health professionals to allow them to assess and adjust their performance" (3) (4).

The goal of A&F strategies is to encourage professionals to change their clinical practices when the achieved results deviate from desired outcomes. For instance, the ASPIRE (Action to Support Practice Implement Research Evidence) project in the UK provided concrete evidence of effectiveness in managing high-burden disease through recommendations also based on A&F tools (5). Specifically, an audit is a systematic review of professional performance based on explicit criteria or standards, which is then fed back to professionals in a structured manner. The underlying assumption is that those who receive such information will shift their attention to areas needing improvement, meaning that the quality and safety of healthcare services might be enhanced if health professionals are given information about their clinical performance (6).

There are several types of A&F mechanisms and can be applied to any area within the healthcare field, such as preventive or chronic care: an audit may, for instance, focus on prescriptions for specific health problems, preventive tasks, or communication skills. The aspects of performance being audited depend on the objective and the available information: different domains of quality can be assessed, such as effectiveness, safety, patient-centredness, timeliness and/or efficiency. In some cases, patient surveys are used to add indicators of patient-centredness to measurement systems (6).

Audits, generally, aid in evaluating both individual health professionals' performance and that of teams, departments, hospitals, or territorial areas. Most audit processes measure adherence to recommendations and can be conducted at local, regional, and national levels. There are two main categories of data used: either already available information, such as administrative databases, or purposefully collected one from medical records and direct observations (6).

A&F initiatives can be internal or external. In the first case, they are conducted by individual or local groups of practitioners for their own practice. When external, instead, professional bodies, research groups or government structures are engaged. In either scenario, the indicators measured can be determined by outside sources (i.e. top-down approach) or by the feedback recipients (i.e. bottom-up approach) (4). Ultimately, indicators may be a combination of both (7). The choice of approach depends on the purpose of the analysis.

A clinical audit typically focuses on whether care is being delivered in the right way. It can cover the assessment of 1) the structure of care (e.g. resources, such as the presence of a dedicated stroke unit), 2) the process of care (e.g. waiting times in clinics), and 3) the outcome of care (e.g. blood pressure levels in response to a specific therapy). Moreover, an audit should be transparent and not confrontational or judgemental. The indicators must assess elements that feedback recipients feel capable of improving and expect to achieve, otherwise co-interventions may be needed for the feedback to achieve its desired results (8). It is important to note that medical records may not always be available to extract the evidence needed, and there might be issues related to validity and reliability (9). In some cases, clinical vignettes or case reports have represented a more valid source of information, compared to records, about practice behaviour (10). In other cases, the use of patient-reported experience or outcome measures has been a promising approach, but only to the extent to which measures were validated and considered actionable (11).

Switching to the feedback component, it can be delivered in different ways, categorised by source (e.g. investigators, senior colleagues), recipients (e.g. individuals, groups), formats (e.g. verbal, in written form), frequency, duration and content (e.g. information about patients, adherence to guidelines or comparison to peers) (4) (6). Such reports are often combined with other quality initiatives, including accreditation or financial incentives. Performance data can also be made publicly available in order to allow an informed patient choice, although in most cases feedback is confidential. Additionally, feedback should comprise a comparison with achievable, and at the same time challenging, benchmarks (12).

1.1.2 Examples of concrete application of A&F

Some examples of the implementation of A&F mechanisms in Europe are worth discussing in this context. Specifically, the UK and the Netherlands have the longest history of using A&F among all European countries. In the UK, the Quality and Outcomes Framework (QOF), a national government-driven programme introduced in 2004, aims to improve the quality of general practice. It currently encompasses 138 indicators covering both administrative and clinical aspects of general practice. The salaries of the clinicians involved can increase by up to 25% when targets are met. Although the cost was higher than anticipated, the initiative has been successful. This case shows how increased funding can be linked to quality improvement programmes. In the Netherlands, instead, Dutch medical scientific organisations introduced a peer-review programme in the late 1980s, known as *Visitatie*, which includes a highly standardised on-site visit every 3–5 years. An updated version of *Visitatie* incorporates a software that supports a “professional quality profile”, allowing for detailed viewing of specialist care facilities. This initiative is driven by the Dutch Institute for Quality in Health Care to reassure the government, the public, and the insurers of the quality of specialist care. Therefore, *Visitatie* serves as straightforward evidence of how health professionals can use A&F as a tool for quality improvement. Another notable example is provided by Germany, where a national mandatory benchmarking project for all hospitals was implemented in 2001, including 26 areas of measurement. In 2007, public disclosure of data was introduced, providing a moderate stimulus for quality-improvement activities (4) (6). An additional case to mention is Italy, where the Emilia-Romagna region mandates general practitioner collaboration in Primary Care Teams, by using quality reports to drive improvement. Furthermore, the EU Commission has issued clinical audit guidelines for radiological practices at a European level, although their application varies from country to country (6).

1.1.3 Findings from the literature regarding the effectiveness of using A&F

Having said this, a question that could naturally arise is whether A&F processes allow to achieve, in the end, their main goal of improving healthcare services’ quality. There is existing evidence on the topic that could be mentioned in this regard. First, a Cochrane systematic review (3), which analysed 140 studies, assessed that such mechanism is a widely used quality improvement strategy, particularly among physicians, with a small to moderate impact on professional compliance with guidelines. It concluded that A&F leads to an absolute improvement of 4.3% in the adherence to evidence-based clinical practice recommendations. However, this result depends on several factors, among which the activity's design: A&F activities have been shown to be more effective when delivered both verbally and in writing, by a respected senior colleague, with frequent feedback, explicit targets, and action plans. Moreover, simpler behavioural changes, such as prescribing patterns, tend to respond better to A&F compared to complex clinical decisions. Instead, feedback is generally ineffective when perceived as punitive, according to the study. Such perspective aligns with *feedback intervention theory*, which emphasises the importance of task-focused and constructive feedback (13) (14).

Another successful case of A&F implementation is the national audit of stroke in the United Kingdom (excluding Scotland), which has improved quality of care for stroke patients across all three countries (15). By 2006, 73% of participating hospitals had a stroke unit, with 46% of them meeting all five organisational characteristics (16). In addition to this, over time the proportion of patients receiving timely thrombolysis within the recommended treatment window also increased from 1.8% in 2006 to 11.5% in 2010 (17).

A systematic review conducted by van der Veer et al., which aimed to determine whether feedback from medical registries to healthcare professionals affected the quality of care, concluded that feedback more often positively impacts process-of-care measures than outcome-of-care measures. Out of 22 analytic studies, 4 found a positive impact on all outcome measures, 8 registered a mix of positive effects and no effects, and 10 did not report any effects. Among the most influencing factors on the effectiveness of feedback are trust in data quality, motivation of the recipients and organisational factors (18).

Similarly, results from a review conducted by Grimshaw et al. assessed that providing healthcare professionals with observations about their performance through A&F may help improve their practice. Nonetheless, the impact of the trials included in the examination varied considerably: when effective, it was mainly small to moderate, and the relative effectiveness was likely to be greater when baseline adherence to recommended practice was low, and feedback was delivered more intensively (19).

In Italy, as part of the EASY-NET project, the Work Package 1 (WP1) Lazio Emergency conducted an experimental A&F intervention to improve the appropriateness and timeliness of emergency interventions for patients with acute myocardial infarction (AMI) and ischemic stroke. Prior to delving into the results emerged from such study, it is worth providing a brief description of the EASY-NET project. It started on 15 April 2019, with financial support from the Ministry of Health and co-funding from six out of the seven participating regions (Lazio, Friuli Venezia Giulia, Piedmont, Emilia Romagna, Lombardy, Calabria, Sicily). All of them have their own designated work package (WP), with the Department of Epidemiology (DEP) of Lazio's Regional Healthcare Service playing a coordinating role. The EASY-NET project has multiple aims. In the first place, evaluating the effectiveness of A&F interventions in improving professional healthcare practices and health outcomes in patients in different settings, by employing both quantitative and qualitative methodologies. Moreover, an examination of the factors that may explain variations in A&F impact is required, together with the identification of facilitators or barriers at the patient, provider, organisational and system levels. Finally, the study aims to assess the impact of A&F strategies in reducing avoidable differences in access to effective health interventions among socio-economically disadvantaged populations (20). Specifically, participating regions benefit from sharing methodologies and results. Each implements an experimental study design in a specific area of interest. The project ultimately generates new knowledge on mechanisms to increase the efficacy of A&F, leading to tangible benefits for the Italian National Health Service. These include insights into when and where to prioritise A&F interventions, how to optimise their results, and how to improve access to higher quality care for citizens (21). The study, published in 2024, revealed quite heterogeneous findings, mostly due to limitations such as a short post-intervention period, discrepancies in COVID-19 care in 2021, and independent quality initiatives in some hospitals. Additionally, the initiative only targeted in-hospital processes, instead of broader network functions, which might have influenced the outcomes. Despite inconclusive quantitative results, the project highlighted several qualitative benefits, such as fostering collaboration among professionals and improving information quality. Regular audits led to increased understanding of data discrepancies and provided opportunities for feedback and peer discussions, which enhanced motivation. The study also underscored the importance of involving participants while designing audit materials, resulting in sustained engagement beyond the research period. The intervention showed potential for improving the effectiveness of emergency care networks and encouraged a more network-centred approach, suggesting the need for future work on comprehensive network-level evaluation (22).

1.1.4 The A&F cycle

At this point, let's dive deeper into how A&F is typically implemented. It can be represented as a cyclical model consisting of five steps (23): 1) preparing for audit 2) selecting criteria 3) measuring performance 4) making improvements and 5) sustaining improvements. However, it is not guaranteed that this process will automatically result in quality enhancements, as its success depends on several factors. There are many theories attempting to explain how A&F leads to changes, suggesting that it might influence professionals, the social setting, or the organisational and economic context (24). Alternatively, A&F may impact recipients' beliefs about current practice, which will subsequently result in changes in clinical practice. In addition, A&F may impact perceived social norms and direct attention to a specific set of tasks or subgoals (3).

Multiple sources provide guidance for the design of A&F schemes. For instance, Ivers et al. made recommendations based on findings from the Cochrane review and the experience of a range of experts working in A&F who gathered at a meeting in 2012 (25) (26). Brehaut et al. summarised these recommendations and added evidence from several interviews with specialists from different fields (27). Finally, McNamara prepared a report for the Agency for Healthcare Research and Quality in the United States that embodies all the above, together with the experience of those who have implemented A&F strategies (28).

As mentioned previously, the first step of an A&F process consists in identifying the issue and the local resources needed to address it. The topic should be a priority for the organisation and perceived as such by the feedback recipients. In addition, the audit should take into account care areas where effective and appropriate practices are well-defined (6). It may be useful to consider the views of all healthcare professionals involved in patient care, since the clinical team plays a significant role in prioritising clinical topics (23) and, therefore, in increasing the audit's relevance.

The second step is represented by the selection of audit criteria, which are explicit statements defining an outcome to be measured. They should be related to important aspects of care and based on the best available evidence. This process will ensure that the evidence collected is precise. However, for the criterion to be useful, it is necessary to define the standard, meaning the level of care to be achieved for each criterion, usually expressed as a percentage. This standard needs to be realistic in relation to the given context (23).

After this, the measurement of performance levels should follow, which entails data collection and comparing performance with the selected criteria. Information may come from computerised information systems, but it might be necessary to collect it manually. While clinical records are frequently used as a primary source, they may be incomplete: collecting information from multiple sources can help in overcoming this problem. The elements found in this phase should then be compared with criteria and standards to assess the degree to which they were met. If this does not happen, it is important to identify the underlying causes. The standard to be achieved depends on the context: in life-threatening situations, for instance, the level required might be 100%, but in other cases a lower threshold may be sufficient. In any case, it is essential to be realistic, meaning that if the trust cannot possibly meet a certain ideal standard, it is better to aim for an optimum one (23).

Finally, in the last step of the cycle, changes are implemented based on the audit results, after having discussed them with the rest of the team. Recommendations for change should be incorporated into an action plan, also specifying who is responsible for each task and the timeline of completion. However, it is crucial to sustain these changes and verify whether they have had a tangible impact on the organisation or not. To this end, the audit cycle needs to be repeated more than once (23).

1.1.5 Factors facilitating an effective implementation of A&F

According to evidence from a review (29) and an opinion piece (30), two elements are particularly effective when conducting an audit. Firstly, the trust board must consider it a priority and therefore encourage and support it. Secondly, there must be a structured programme, in which a central clinical audit office coordinates all the activities involved and brings together the results for the trust. Additionally, an audit should ideally be multidisciplinary and engage patients as part of the process.

It has been demonstrated that several other factors can contribute to the enhancement of the effectiveness of feedback. These feature the construction of the strategy through social interaction, the recommendation of specific actions that align with established goals and priorities, the provision of multiple instances of feedback, the selection of comparators that have the capacity to reinforce the desired behavioural change, and the provision of brief and actionable messages (27). Moreover, feedback is likely to be more impactful when presented both verbally and in written form rather than choosing only one modality. It has also proven to be more effective when the source, such as the person delivering the feedback, is a respected colleague, as opposed to unknown investigators (31).

In general, the implementation of A&F processes requires a supportive organisational context, characterised by a constructive approach to continuous quality improvement (13). It is essential to acknowledge that multiple structural factors may influence the likelihood of clinical audits improving care, such as staffing levels, staffing morale, and knowledge levels. Finally, the recipients must possess specific skills and resources to analyse and interpret audited evidence properly, as well as the capacity to act upon it (6).

Literature identifies some crucial facilitating elements in enhancing clinical audit, including a motivated and skilled workforce and local ownership (32) (33), together with prioritising audit within organisations, ensuring timely and systematic feedback, and engaging healthcare professionals (34) (35) (23). In addition, a comprehensive quality assessment, active patients' participation, and efficient information systems are all key components (36) (37).

It is worth pointing out, however, that each element of an A&F strategy is rarely optimally designed. Consequently, it is useful to consider the individual factors as "levers" to be manipulated while operating within the constraints of a specific setting. For instance, in those situations where the delivery of feedback cannot be repeated in a reasonable timeframe due to specific circumstances, extra attention should be paid to other aspects of the intervention, such as the source of the feedback. Furthermore, the implementation of co-interventions aimed at overcoming identified barriers and boosting facilitators may help in cases where feedback alone appears ineffective in achieving the desired results (6) (38).

Existing literature on the subject suggests, as highlighted throughout the paragraph, that there is a certain degree of conflicting evidence regarding the efficacy of A&F processes, due to the presence of multiple barriers that hinder their successful implementation. Among the most frequent hindering factors are organisational weaknesses, inadequate clinical decision-making, and insufficient expertise (39) (40). Additionally, inaccurate data, bureaucratic inefficiencies, and a lack of awareness among healthcare professionals regarding the benefits of audit can further undermine the adoption of A&F mechanisms (35) (41). Despite these challenges, A&F remains an essential component of clinical governance, playing a crucial role in ensuring that patients receive high-quality care. Indeed, without systematic measurement of clinical practice and patients' outcomes, identifying areas for improvement becomes nearly impossible (42).

Moreover, performing audits may help doctors learn and understand more about healthcare processes in a particular field (23). This, in turn, allows them to actively contribute to the development and refinements of clinical protocols. The EASY-NET project in Italy, as well as the experience of Tuscany, provide a valuable example of how A&F can serve as an effective tool for implementing improvements in healthcare services, but only if properly integrated with governance mechanisms and if healthcare professionals are actively involved (43) (22). Without a doubt, combining A&F mechanisms with broader quality improvement initiatives, such as professional training and patients' engagement, can strengthen their impact.

1.2 Patient-Reported Experience Measures (PREMs) and Patient-Reported Outcome Measures (PROMs)

1.2.1 Definition and context of use of PREMs and PROMs

In the context of performance management systems, more attention has been given to patients' perspective, which has recently become central to health system performance measurement and quality improvement. Over the years, patients' experience has emerged as a crucial element in strengthening health systems, leading to increased efforts to measure it. Such change is in line with the evolution of the concept of healthcare performance towards the so called "value-based healthcare": this approach focuses on patients' needs and relies on the assumption that technical, allocative, personal, and societal dimensions are key components to be measured and evaluated to achieve effective and high-quality care, along with quality standards and an equitable distribution of resources among groups. From a value-based healthcare perspective, the primary goal of healthcare systems is to maximise health benefits and outcomes for patients by improving the experience of care. This requires considering what patients, citizens, and society value in terms of experience, satisfaction, preferences, and self-reported outcomes. In this context, patients are seen as experts on their condition and sufficiently qualified to provide information on how they perceive various dimensions of their interactions with healthcare providers: only patients themselves can say if they felt treated with respect, or whether information was communicated to them clearly. Taking their feedback into account is, therefore, essential to improve the quality of care. To incorporate patients' perspective into performance management systems, patient-reported outcome measures (PROMs) and patient-reported experience measures (PREMs) are the most common validated tools adopted today. These have been in use since the mid-1900s and provide standardised evaluation of patients' outcomes and experience (44) (45) (46).

Specifically, PREMs are survey tools designed to assess patients' experiences with the care they received. It is important to emphasise that, although PREMs are distinct from satisfaction surveys, they often include elements aimed at capturing the overall patients' experience. For instance, rather than simply evaluating whether patients were satisfied with the information provided, they might seek to determine when and how the communication took place during the care pathway. In this way, the influence of patients' expectations on survey responses can be mitigated, allowing for objective insights. In fact, PREMs aim to record what occurred to a patient from their perspective, without focusing exclusively on their subjective evaluation. They are structured around dimensions that are recognised as relevant to patients or to the delivery of patient-centred care. There is currently a wide range of such surveys available and in use. Some are administered across different healthcare settings and population groups, while others are targeted to specific services or aspects of care. They may also be undertaken by individual providers or as part of national programmes. Indeed, many national governments have already launched or expanded initiatives to collect and report patient experience data, and efforts are underway to standardise and improve their use through programmes such as the Organisation for Economic Cooperation and Development Patient-Reported Indicators Surveys programme (OECD PaRIS) (45).

On the other hand, patient-reported outcome measures (PROMs) play an essential role in informing patients, caregivers, managers, and the public about the extent to which healthcare goals are being met, by providing an insight into patients' perception of their health, symptoms, and well-being. The introduction of PROMs into healthcare settings does not aim to replace existing outcome measures, but rather to complement them, by making health outcome measurement more comprehensive and patient-centred. While the use of PROMs in clinical studies is well established, a number of challenges persists in other fields of application, as will be discussed further in the paragraph. There are several international initiatives that have facilitated the integration of routine PROMs measurement in health systems, including the International Consortium for Health Outcomes Measurement (ICHOM) and the Patient-Reported Indicator Surveys (PaRIS) by the OECD. In national contexts, Sweden can be recognised as a pioneer in the field, having introduced PROMs measurement in orthopaedics registries, with currently 90% of its national quality registers routinely collecting PROMs data. In this setting, the EQ-5D is the most widely used measure. A similar course of action has been pursued in Canada, where the Canadian Institute of Health Information (CIHI) has launched various national programmes, with a particular emphasis on specific areas such as hip and knee arthroplasty, renal care, and mental health. In addition to this, several provinces have established their own initiatives to incorporate PROMs into their routine outcome measurement processes, as it happens in Alberta, where the EQ-5D measure is now an integral component of both routine outcome measurement processes and the electronic medical record. In this way, each patient accessing the system can complete a PROM (47).

These self-reporting measures contribute to clinical practice in multiple ways. In the first place, they support communication between patients and care providers, by guiding diagnosis and facilitating the management and monitoring of health conditions. PROMs aid in achieving such objective by allowing patients to further describe their symptoms and, at the same time, standardising interprofessional communication regarding health outcomes. Meanwhile, PREMs assist in identifying deficiencies within clinical or healthcare organisations, consequently driving improvements in patients' experience of care (48). Furthermore, PROMs and PREMs are used to benchmark services and care providers, thereby fostering competition across service providers and enabling informed patient choice regarding their care options (46).

1.2.2 Concrete examples of implementation of PREMs and PROMs

Despite recent examples of patients' perspective being integrated into performance systems, most of these generally lack measures able to capture the different dimensions influencing healthcare performance. At the moment, there is significant variation in the global utilisation of PROMs and PREMs to support health system performance measurement, which in turn limits opportunities for cross-country comparisons. Despite the benefits associated with PROMs and PREMs use, their implementation in routine care remains low due to multiple barriers at different levels. These encompass patients' difficulties in using electronic tools, time constraints faced by healthcare professionals and inadequate information technology infrastructure for data collection and analysis. Nevertheless, there are several cases of successful implementation that are worth mentioning (48).

A study analysed the integration of patient-reported metrics into performance measurement systems. The research focused on the multidimensional performance evaluation system of Tuscany's healthcare system in Italy. First of all, findings indicated that PREMs tend to be more frequently accepted compared to PROMs, as they mainly address care processes rather than clinical outcomes. As a matter of fact, healthcare professionals perceive experience measures as tools influencing organisational models and workflows and less their core mission of treating diseases and saving lives. However, this does not solve the issues inherent in PREMs implementation, particularly concerning the credibility of methodological robustness: the successful adoption of PREMs is strictly linked to professionals’ trust in the scientific validity of this approach. Nonetheless, international use of experience measures in performance evaluation and management systems has facilitated their integration, and systematic benchmarking combined with public disclosure of multidimensional performance data has contributed to service improvements when aligned with regional governance mechanisms. In contrast, PROMs face greater resistance due to both technical and methodological concerns: one of the main reasons is scepticism among some professionals about patients' ability to accurately report their health status and quality of life. Furthermore, certain dimensions assessed through PROMs capture medium to long-term healthcare impacts, making it difficult to attribute responsibility within complex, multi-professional, and multi-setting care pathways. For short-term aspects of service delivery, instead, attribution is generally easier, which explains why PROMs have been easily incorporated into the Tuscan performance evaluation system. Another critical factor to account for relates to practitioners' cultural perceptions: patients’ experience measures are often considered secondary to their core mission and ethical responsibilities. As a result, lower performance on PREMs indicators is perceived as less significant, implying a limited perspective on patient-centred care. The review emphasises the necessity of healthcare professionals' involvement in every phase of the implementation process to facilitate the adoption of patient-reported indicators. Continuous training for both practitioners and managers also plays an essential role in this context. The efforts to be made require a structured process made of collaboration, discussion, and consensus-building. While methodological concerns may persist, excluding patient-reported indicators due to the challenges explained above risks limiting evaluation to easily measurable aspects rather than those that provide the most valuable insights (43).

Recent initiatives have been undertaken in Italy, where Tuscany and Veneto regions implemented an innovative approach to the collection and reporting of patients’ experience. Unlike traditional survey methodologies, this system provides real-time feedback up to the ward level utilising a web-based PREMs administration framework. Allowing such large-scale data collection leads to several advantages. First, this real-time reporting system addresses major barriers to PREMs implementation, such as delays in data registration and issues related to their aggregation. Moreover, information derived from PREMs supports trend monitoring and benchmarking, by comparing the performance of healthcare organisations across different wards, hospitals, and territorial areas. The feedback system provides then actionable insights, helping organisations in identifying best practices and addressing areas for improvement in patients' experience. A distinctive feature of this model is the integration of narrative feedback, which combines qualitative information with quantitative findings: clinicians often consider patients' stories more insightful than numerical scores, as they highlight crucial aspects of care, such as compassion and humanity, which would be harder to grasp in closed-ended questions. Additionally, PREMs offer patients the opportunity to acknowledge healthcare workers' contributions, serving, in this way, as a motivational tool for professionals. Such aspect is particularly relevant in Tuscany and Veneto regions, where healthcare professionals have repeatedly expressed a need for greater recognition of their work. For this reason, a pivotal aspect of this initiative consists in shifting the focus from exclusively identifying shortcomings to also reinforcing positive behaviours. Furthermore, the integration of PREMs within a broader performance evaluation system, which includes public disclosure, has positively impacted healthcare professionals' behaviour, as real-time data encouraged immediate quality improvement actions (49).

Similar national-level initiatives have been implemented in other countries. In England, for instance, the first PROMs programme was introduced in 2009. Currently, PROMs related to hip and knee replacement are administered pre- and post-operatively by all NHS-funded services, to assess improvements or deteriorations in patients' conditions six months after surgery. The information collected is publicly reported on NHS Digital on an annual basis and made available to registered providers on a monthly basis. Additionally, inputs from PROMs inform the National Tariff Payment System, according to a value-based payment scheme that links bonus payments to providers to performance thresholds. The NHS England PREM programme, instead, started in 1998 with the General Practice Patient Survey (GPPS). Several PREMs have been nationally implemented since, with the most recent being the Friends and Family Test (FFT), which is now applied to all NHS services. PREM data has also been used in value-based payment programmes in the UK, starting with the Quality and Outcomes Framework (QOF) for primary care providers and, more recently, the Commissioning for Quality and Innovation (CQUIN) payment framework for acute care services. Additionally, it has contributed to the development of generic adult and mental health patient experience National Institute for Health and Care Excellence (NICE) clinical guidelines and quality standards (46).

The United States was the first country to introduce nationally mandated patient-reported measures, beginning with the Consumer Assessment of Healthcare Providers and Systems (CAHPS) Health Plan Survey in 1997, immediately followed by the Medicare Health Outcomes Survey (HOS) in 1998. After this, in 2010, the Patient Protection and Affordable Care Act required the Centres for Medicare and Medicaid Services (CMS) to adopt several public reporting and payment programmes based on the evidence collected from the Consumer Assessment of Healthcare Providers and Services (CAHPS) PREMs. Since its launch in 1995, CAHPS measures have been used to support health plan accreditation, consumer choice of providers and services, and to inform value-based payment programmes. Participation in CAHPS surveys is mandatory for all CMS healthcare services and providers, but private health insurers are allowed to take part in the programme if they so wish. In addition to this, the Medicare Health Outcome Survey (HOS), which is the first PROM used in Medicare managed care, has been incorporated as a quality indicator in Medicare Advantage Quality Bonus Payments since 2012. Transparent public reporting of quality data in the US healthcare system drives competition among service and plan providers, thereby supporting quality-informed consumer choice (46).

Also Australia integrated few PREMs and PROMs programmes into its health system performance framework. Specifically, two national patient-reported measure programmes are currently in place. The Patient Experiences Survey programme, implemented in 2009 by the Australian Bureau of Statistics (ABS), reports information on access and barriers to healthcare services, as well as the experiences of these services, on an annual basis. Moreover, the Australian Commission on Safety and Quality in Health Care (ACSQHC) works to promote the use of patient-reported measures by acknowledging their importance in quality national standards and publishing reports and resources to encourage their adoption in service delivery. International organisations such as the Organisation for Economic Cooperation and Development (OECD) and the International Consortium for Health Outcomes Measurement (ICHOM) participate in supporting the development, standardisation, and global adoption of PROMs for international monitoring. In 2017, the ACSQHC introduced the Australian Hospital Patient Experience Question Set (AHPEQS), with the aim of encouraging all Australian hospitals to adopt it. Furthermore, numerous Australian state and territory-based surveying programmes have been developed in Australia. Nonetheless, there is a lack of performance measurement coordination between states, as each one, and even health services within states, has different priorities. The absence of a uniform mandate for data collection hinders the efforts to overcome these challenges, thus complicating the process of creating a national benchmarking and evaluation system across Australia (46).

1.2.3 Facilitating and hindering factors for an effective implementation of PREMs and PROMSs

In this regard, Bull C. et al. proposed several recommendations. Firstly, countries such as Australia, which are working to develop PROMs and PREMs programmes, should mandate nationally consistent measures and survey initiatives to facilitate reliable benchmarking and quality improvement actions at a national level. Secondly, the identification and implementation of standardised PROMs and PREMs items is imperative to enable cross-country health systems comparisons and benchmarking. This would ensure that all health systems worldwide are striving towards common value-based healthcare goals and would also allow them to learn from one another's experiences. Thirdly, consideration should be given to the potential of PROMs and PREMs data to form the basis of value-based funding programmes within public healthcare sectors, thereby transitioning from traditional fee-for-service and activity-based funding schemes (46).

In addition to the points previously discussed, an environmental scan conducted by Lowry V. et al. identified barriers to the implementation of PREMs and PROMs in Quebec, some of which have been already mentioned. Primarily, a significant issue is the limited awareness among healthcare professionals and patient organisations about validated PROMs and PREMs. As a consequence, clinicians often rely on verbal exchanges or non-validated tools. Additionally, patients often lack comprehension of the purpose of these instruments, leading to low responsiveness levels. Another challenge consists in the restricted access to continuous professional development programmes focused on these measurement tools, which leaves professionals without the necessary training to analyse and act upon PROMs and PREMs inputs effectively. However, the same study also outlined facilitators and recommendations for the successful PREMs and PROMs. To begin with, incorporating such tools would ensure reliability and accuracy in assessing patients' outcomes and experiences, thanks to their standardised structure. Undoubtedly, integrating PROMs and PREMs training into healthcare curricula and professional development programmes at an early stage can foster their adoption. Furthermore, the implementation of national policies mandating the use of PROMs and PREMs would assist in ensuring their widespread adoption and integration into healthcare systems.

Finally, clear communication regarding the benefits of PROMs and PREMs has the potential to encourage greater patients' participation and engagement (48).

Muller stated that the most effective performance evaluation systems are those linked to the deontological mission of clinicians. He wrote that "when we dig more deeply, we find that the metrics matter because of the way they are embedded into a larger institutional culture" (50). Given this, in order to drive meaningful, positive change, performance evaluation systems should be incorporated into the deontology of professionals, together with performance metrics serving as a means to support intrinsic motivation. Using PROMs as indicators for such purpose, as opposed to their exclusive use as tools for quality improvement, implies shifting from an individual-patient approach to population-based and value-based healthcare ones. To put such a transition into place, healthcare systems must integrate these perspectives and the multi-stakeholder view into the institutional culture of professionals. It is essential that PROMs are interpreted in a wider sense beyond their traditional use in clinical and cost-effectiveness contexts. To this end, practitioners should acknowledge that PROMs contribute not only to the creation of personal value but also to allocative and social value (44).

1.2.4 Conclusions

Despite the relatively limited experiences available, initiatives such as those implemented in Tuscany and Veneto, as well as national programmes in the UK, Canada, and Sweden, represent a solid step towards valuing the role of citizens in assessing and managing healthcare performance. These programmes show how the systematic collection and reporting of PROMs and PREMs can improve the responsiveness of healthcare systems to patients' needs, fostering a patient-centred approach to care. However, several challenges persist in terms of including these indicators in performance management frameworks. As discussed, the successful implementation of PROMs and PREMs is contingent on a number of factors, including the degree of trust among professionals in the methodological robustness of the measures, the perceived relevance of these to clinical practice, and the presence of governance mechanisms that facilitate their use for continuous quality improvement. For instance, while the NHS in England has integrated PROMs into value-based payment models, challenges remain in ensuring their consistent adoption across all services. Similarly, in Canada PROMs initiatives have been implemented at both national and provincial levels, yet their integration into routine clinical practice is still inconsistent. Beyond technical considerations, incorporating patient-reported indicators into performance evaluation systems requires a broader cultural change: as asserted by Muller, the most effective performance measurement systems are those aligned with the professional values of clinicians (50). When properly integrated, PROMs and PREMs can serve not only as tools for quality assessment but also as mechanisms to reinforce professional motivation and accountability (51). The Swedish experience, where PROMs have been embedded within national quality registries and electronic medical records, demonstrates their efficacy in supporting clinical decision-making and benchmarking without being perceived as mere bureaucratic obligations. The cases of Tuscany, Veneto, the UK, Canada, and Sweden are proof of how PROMs and PREMs, when systematically implemented, have the capacity to transform healthcare evaluation from a purely administrative process into a driver of continuous quality improvement and patient-centred care.

1.3 Integration of PREMs and PROMs into A&F: evidence, gaps and research objectives

The integration of A&F with Patient-Reported Experience Measures (PREMs) and Patient-Reported Outcome Measures (PROMs) represents a significant evolution in healthcare quality improvement. As previously discussed, A&F has been recognised as a valuable tool to improve clinical performance by providing structured feedback in adherence to guidelines and standards. Nevertheless, the traditional approach relies mainly on clinical and administrative data, which, while indispensable, may not fully reflect patients' perspectives. In this context, PREMs and PROMs become crucial components, as they provide complementary insights into patients' experience and outcomes, thereby facilitating more comprehensive performance assessment (44).

The benefits of this integration are well-documented in the literature. A Cochrane review by Ivers et al. highlighted that A&F can lead to small to moderate improvements in professional practice, particularly when feedback is delivered in a constructive and actionable manner. However, the review noted that this process's effectiveness can be enhanced when combined with other quality improvement strategies, such as patient-reported measures (3). Furthermore, Boyce, Browne, and Greenhalgh emphasised that Patient Reported Experience Measures (PREMs) and Patient Reported Experience Measures (PROMs) provide valuable insights into aspects of care that are often overlooked in traditional A&F processes, such as patients' satisfaction, communication, and the overall experience of care. Consequently, the integration of these measures allows healthcare providers to obtain a more accurate understanding of their performance and identify areas for improvement that may not be evident when analysing clinical findings alone (11).

Despite these benefits, this process remains limited, particularly within the Italian healthcare context. A significant challenge in this regard is the reluctance of healthcare professionals to adopt patient-reported measures, which they often perceive as secondary to their primary objective of treating diseases. This resistance is further strengthened by concerns about the methodological robustness of PREMs and PROMs, particularly in complex, multi-professional care settings. For instance, De Rosis et al. found that healthcare professionals in Tuscany were more accepting of PREMs than PROMs, since the former are primarily linked to care processes rather than clinical outcomes. Nevertheless, PREMs also face challenges in terms of credibility and methodological validity, which can hinder their adoption in A&F processes (43).

A further significant barrier is related to the lack of standardised frameworks for integrating PREMs and PROMs into A&F practices. While some regions, such as Tuscany and Veneto, have developed innovative approaches to address this, a unified national framework has yet to be established in Italy (44). The absence of a uniform national framework results in inconsistencies in the collection, analysis, and interpretation of patient-reported data, which in turn limits the potential for cross-regional comparisons and benchmarking. As Bull et al. emphasised, the development of standardised measures and survey programmes is essential to support reliable benchmarking and quality improvement initiatives at a national level (46). Without this, the integration of PREMs and PROMs into the A&F framework risks remaining fragmented and inconsistent.

It should be noted that challenges inherent in the collection and analysis of data are also highlighted as a substantial obstacle to the effective implementation of this process (52) (48). Numerous healthcare systems in Italy face several difficulties, including incomplete medical records, a lack of standardised data collection tools, and limited access to electronic health records (53). These factors have the potential to negatively impact the quality of the information used for A&F. Moreover, the analysis of patient-reported data frequently requires specialised skills and resources, which may not be readily available in all healthcare settings (52). In their study, Lowry et al. identified numerous problems in the implementation of PREMs and PROMs in Quebec, including limited awareness among healthcare professionals, difficulties in using electronic tools, and inadequate information technology infrastructure (48). It is reasonable to hypothesise that these factors would be relevant in the Italian context, and that it would therefore be necessary to implement improved data collection methods and the integration of more robust sources to achieve greater accuracy and validity of A&F.

Regardless of these challenges, there are a number of examples of effective integration of data related to patients’ experience and PROMs into A&F procedures globally. For instance, the National Health Service (NHS) in the United Kingdom has successfully implemented such practices, particularly in the context of hip and knee replacement surgeries. The NHS collects PROMs data pre- and post-surgery to assess patients’ outcomes, which are then used to inform clinical practice and performance evaluations (54) (55). A similar approach has been adopted in Italy by the EASY-NET project, which demonstrated the efficacy of combining regular audits and feedback mechanisms with patient-reported type of information to enhance collaboration among healthcare professionals and improve data quality (22). These cases underscore the potential of combining A&F with patient-reported measures to improve healthcare quality and patients’ satisfaction.

1.4 Conclusions

In consideration of the observations above, the primary objective of this research is to conduct a comprehensive review of the current state of A&F practices across the different Italian regions. The assessment will be conducted through a detailed sitographic analysis, in order to map out existing A&F initiatives, identify methodologies and tools employed, and evaluate their effectiveness in improving the quality of healthcare. By addressing specific gaps in the existing literature, the present study seeks to provide a more detailed and precise understanding of the strengths and limitations of these mechanisms. It is essential to underscore that this phase constitutes a preliminary step to a national-level project that will subsequently be conducted.

Additionally, the study will include a concrete example of an accredited private hospital in Italy, Gemelli Isola (Rome), which is currently innovating its patients’ satisfaction and perceived quality monitoring processes. The analysis will have several aims. Firstly, it will assess how findings are used to inform quality improvement efforts. Secondly, it will examine the challenges and benefits of taking into account patients’ perspective. The third and final purpose consists in providing a comprehensive overview of the quality monitoring processes in the context of such healthcare facility. Specifically, the case will serve as a practical example to illustrate the potential benefits and challenges of implementing patients’ perspective within quality improvement frameworks.

To conclude, the ultimate objective of the research is to offer evidence-based insights that can contribute to the ongoing efforts of refining and optimising the use of A&F procedures within the Italian healthcare system.

2. Methodology

2.1 Introduction to the methodology

The following chapter aims to describe in detail the methodological approach adopted in this study. As briefly outlined in the final part of the previous section, the main goal is to explore the *status quo* of A&F practices in Italian healthcare organisations through a mixed-methods approach.

The initial phase will focus on a sitographic scan concerning the implementation of A&F strategies in the Italian healthcare context, via a systematic review of publicly available policy documents, reports, guidelines, and institutional websites. This step is instrumental in identifying trends, gaps, and best practices in the Italian healthcare system, both at regional and organisational levels. The findings will provide a comprehensive picture of the situation, which is crucial for the next stages of the research, when a structured national-level questionnaire on the matter will be implemented.

In parallel, an in-depth case study analysis of Gemelli Isola, an accredited private hospital in Italy that is actively innovating the field of quality monitoring, will be covered. This example will examine the hospital's introduction and use of several tools and methodologies to measure and improve patients' experience. This section will lead to valuable insights into how information deriving from such instruments and patients' perspective can effectively be incorporated into clinical and organisational practices to improve quality of care.

The current chapter is structured as follows: section 2.2 deals with the study design, explaining in more detail the description and rationale behind the choice of such an approach. Finally, the last part describes the data collection processes, including the tools used in the sitographic analysis and at Gemelli Isola hospital. This will inevitably lead to a discussion regarding the target population and the sample considered, as these are strictly correlated with the methods adopted.

2.2 Study design

First and foremost, the present investigation is designed as an exploratory, descriptive, and qualitative research project, integrating an empirical case study.

Exploratory research consists in a preliminary analysis of an unfamiliar problem about which the investigator has little or no knowledge and is characterised by flexibility. When a problem is broad and lacks specificity, exploratory research is employed as a beginning step, as it represents a valid tool for understanding what is happening and seeking new knowledge. Typically, this type of study involves a range of different methodologies, including literature reviews, surveys, focus groups and case studies (56). The exploratory nature of this investigation stems from the relatively limited evidence available on the subject, particularly within the Italian context. While A&F processes, PREMs, and PROMs are well-established concepts in the international literature, their integration remains understudied in Italy, with few examples of systematic implementation such as those of Veneto and Tuscany regions. The present work aims to address this lacuna by assessing how these tools are concretely combined and put into practice to improve health care quality and its monitoring. To this end, the project involves the active collection of data via a sitographic analysis. The current dissertation is not confined to a mere discussion of existing information about the topic, as it rather encompasses the gathering of new evidence and attempts to provide additional knowledge in this regard.

Qualitative research is an investigative approach that deepens understanding of real-world problems. It is concerned with understanding the underlying reasons and processes, as opposed to merely collecting data to determine the magnitude or frequency of a phenomenon. It could be structured as a standalone study, relying exclusively on qualitative data, or as part of a mixed-methods design that combines qualitative and quantitative information. One of the strengths of a qualitative inquiry relies on its ability to explain complex processes and patterns of human behaviour that can be difficult to quantify. Having said this, while qualitative and quantitative approaches are different, it is important to note that they are not inherently opposites or mutually exclusive. For instance, the qualitative aspects can help expand the comprehension of results obtained from quantitative analysis (57).

Descriptive research can be defined as a study of status and is widely used in education, nutrition, epidemiology, and the behavioural sciences. This methodological approach is intended to describe behaviours, situations, events, and outcomes in detail, without deepening theoretical frameworks or cause-and-effect relationships. It can be conducted through various means, including observation, case studies, and surveys, and it generates both qualitative and quantitative data (58) (59). The descriptive component of present investigation is reflected in the comprehensive literature review presented in the first chapter, which offers a detailed overview of the theoretical background surrounding A&F, PREMs, and PROMs. This aspect is further enriched by the inclusion of the Gemelli Isola hospital case, as it enables an in-depth examination of the integration of patient perspective and quality improvement in a real-world setting, providing concrete examples of both successes and challenges faced during the implementation process.

The study is characterised by a dual approach to data collection, incorporating both primary and secondary sources. The first concerns information gathered directly by researchers for a specific purpose or project. It is often collected through several methods such as experiments, surveys, interviews, and direct observations, with the objective of ensuring that the evidence is tailored to address the specific questions shaping the research (60) (61). Secondary data, by contrast, pertains to information that has been previously collected by someone other than the user for some other purpose. Examples of this category include raw data (e.g. information extracted from organisations' databases, websites, or newspapers), compiled data (e.g. government publications, books, journals, and reports) and data from survey strategies (e.g. census data, continuous and regular surveys and ad hoc surveys) (62). In this case, primary data results from the implementation of the previously mentioned sitographic analysis and the case study. The former consists in the systematic collection and interpretation of information directly sought from various sources, such as institutional websites, reports, and other relevant documents. The inclusion of Gemelli Isola Hospital, meanwhile, provides findings that assist in the development of a practical perspective on the difficulties and opportunities associated with the introduction of new quality measurement tools within an existing hospital setting. On the other hand, secondary data refer to the extensive literature review conducted in the first chapter, which comprises academic articles, institutional reports, and policy documents, outlining a theoretical foundation and the gaps addressed.

In conclusion, this research combines exploratory, qualitative, and descriptive methodologies, using both primary and secondary data to address the evidence gap on A&F, in the Italian healthcare context. The sitographic analysis and the case study of Gemelli Isola Hospital offer practical insights into the implementation of these tools, while the literature review provides a solid theoretical base. The integration of these approaches aids in further understanding ways to improve healthcare services' quality and patient-centred care in Italy.

2.3 Population, sample and data collection

This section delineates the population and sample under investigation, in addition to describing the data collection methods employed throughout the analysis. These methodologies ensure both transparency and rigour in the research process.

2.3.1 Sitographic analysis

In accordance with the dissertation's objective to analyse the state of the art of A&F activities' implementation in Italian regions, the sitographic scan began with a thorough research of all healthcare organisations in Italian regions adopting A&F approach. This phase took into consideration both hospital and territorial structures. Specifically, at a hospital level, the institutions included consisted of Hospital Trusts, University Hospital Trusts, Scientific Institutes for Research, Hospitalisation and Healthcare (IRCCS), Local Social and Health Agencies and Polyclinics. With regard to the territorial structures, the investigation covered Local Health Authorities (LHAs), Health Protection Agencies, Provincial Health Services Agencies, Public Social Services Agencies, Integrated Healthcare Agencies, Local Health and Social Care Units. By including such a wide spectrum of organisational types and all Italian regions from north to south, the study ensured a representative sample that reflects the national picture of A&F practices in day-to-day activities within healthcare organisations. The analysis was conducted on two distinct levels: the structural one, focusing on individual healthcare organisations, and the regional level, considering broader regulatory and programmatic frameworks. In the initial case, the primary task consisted in establishing whether each healthcare organisation had units specifically dedicated to A&F activities. This meant paying particular attention to the explicit mention of the term "audit" in the names of these departments. This information was carefully gathered through a meticulous review of publicly available resources, including policy documents, reports, guidelines, and institutional websites. At the regional level, on the other hand, the investigation assessed the integration of A&F mechanisms through specific laws or regulations. In instances where such legal frameworks were identified, a further evaluation was conducted to determine whether their implementation was mandatory or voluntary, and if it applied to specific areas of care. Furthermore, the analysis explored the presence of A&F programmes coordinated and managed by regional entities, such as the P.Re.Val.E. initiative, which operates under DEP Lazio. The systematic, dual-level approach adopted resulted in a comprehensive overview of the current state of A&F practices in Italy, providing valuable insights into their adoption and regulation within the Italian health care system.

2.3.2 Gemelli Isola Hospital

Switching to Gemelli Isola hospital, there are several tools employed to monitor perceived quality and patients' satisfaction. The instruments in use consist of data gathered through ambulatory totems, Google reviews, the Hospital's Public Relations Office (URP) and SMS questionnaires targeted at parturient women, fee-paying patients, and in-patients. Prior to a detailed description of each, it is worth delving into the rationale behind the organisational structure of this hospital, to further understand what will be addressed next. Currently, there are six so-called "Centres of Excellence" and two Departments. The units of which they are composed share similar characteristics in terms of health conditions they address.

Moving to the quality monitoring system, ambulatory totems are strategically positioned across various outpatient units within the hospital. They serve as a core means to gather real-time feedback from patients about their experience. The target population is represented by all patients who visit these units and choose to register their opinion. The feedback mechanisms of such totems use an intuitive rating system consisting of five emoticons, denoting extremely negative, negative, neutral, positive, and incredibly positive levels of satisfaction. This allows patients to share their perceptions following a service interaction. In certain cases, the system extends beyond this initial rating: patients can identify the operational unit (UUOO) where they received care, choose the area they are evaluating among the measured Key Performance Indicators (KPIs) (professionalism of the staff, cordiality of the staff, reception, waiting time and punctuality, and take-over time) and, in some instances, attach optional text comments to further refine their feedback. Responses are then processed to produce automated comprehensive weekly reports for each UUOO, offering a detailed perspective on patients' satisfaction. The content of these encompasses the analysis of textual comments, where provided; the hourly and daily distribution of feedback, differentiating between positive and negative responses to identify temporal patterns; the disaggregation of feedback across satisfaction categories for each care-related question and the number of respondents per category. For all questions, the number of positive and negative feedback is recorded, and where specified, the distribution by unit is also detailed. On a monthly basis, the system automatically generates aggregated reports for each Centre of Excellence and Department, as well as individual UUOOs. This facilitates a deeper evaluation of performance trends. Personnel responsible for monitoring these aspects are given direct access to dedicated platforms providing this information, allowing them to perform advanced analyses. These include the evaluation of the distribution of ratings over a defined time period for any UUOO, Centre of Excellence or Department, the identification of underperforming areas, and the examination of totem usage rates to measure patients' engagement. The integration of quantitative metrics, consisting of emoticon ratings, with qualitative insights, through open-ended questions, combined with multi-level reporting, positions ambulatory totems as a robust mechanism for ongoing quality monitoring and patient-centric enhancement within the hospital setting.

Secondly, a critical component of the hospital's quality monitoring framework involves Joint Commission International (JCI) standards-based questionnaires, predominantly featuring multiple-choice questions, administered to three distinct patient cohorts: ambulatory NHS patients, social-private scheme patients, and in-patients. The goal is to ensure that the hospital is aligned with the JCI standards regarding the quality of care delivered in specific domains. Ambulatory NHS patients refer to outpatients who visit the hospital for consultations, diagnostic tests, or minor procedures without requiring overnight admission, accessing care through Italy's National Health Service (SSN), which provides publicly funded healthcare pathways. In contrast, social-private scheme patients are those with supplementary private insurance or social scheme coverage, a category that potentially has access to enhanced services or reduced waiting times. Meanwhile, the term "in-patients" denotes individuals formally admitted to a hospital or healthcare facility, typically requiring at least one overnight stay for ongoing treatment, monitoring, and care. These patients benefit from continuous medical supervision and a higher level of support, including specialised diagnostic and therapeutic services, tailored to their complex or acute health conditions over an extended period.

The organisation of these surveys into specific sections, each targeting a distinct dimension of patients' experience, is intended to ensure alignment with the JCI standards, which consist in international benchmarks for care quality and operational efficiency. The design of the questions is guided by three main standards:

- PCC.02.02 (Standard group: Patient-Centred Care, Subgroup: Patient Experience), which states that "the hospital evaluates data on patient experience" to improve the quality of care (63).

- ACC.02.00 (Standard group: Access to Care and Continuity of Care, Subgroup: Patient Flow), that addresses the hospital's patient flow, which should be managed through a specific "process" including the admission and care for inpatients and outpatients (63).
- GLD.03.01 (Standard group: Governance, Leadership, and Direction, Subgroup: Hospital Leadership's Responsibilities), which is related to the hospital's leadership ability to identify, plan, and communicate "the types of clinical services needed to meet the needs of the patients served by the hospital" (63).

The questionnaire is composed of six distinct parts for patients receiving care under the NHS and social-private schemes. The following themes are covered: "Admission and Payment", "Assistance and Care", "General", "Hospital and Outpatient", "Personnel", and "Appointment Booking". Each evaluates specific elements of outpatients' experience, with the majority linked to corresponding JCI standards.

- The "Admission and Payment" section assesses waiting times for admission experienced by patients, their satisfaction with the available payment methods and arrangements, and the efficiency and availability of administrative staff. This is consistent with the requirements included in standard ACC.02.00 (Standard group: Access to Care and Continuity of Care, Subgroup: Patient Flow), which refers to the hospital's "structured process" employed to manage patients' flow, with the ultimate purpose of ensuring efficiency in patients' intake and resource allocation (63).
- The part on "Assistance and Care" is concerned with the evaluation of the time's appropriateness dedicated to healthcare services, respect for patients' privacy, the extent to which patients are involved in decision-making regarding their care and treatment, and whether they felt treated with dignity and respect. These themes are aligned with standard IPSG.02 (Standard group: International Goals for Patients' Safety, Subgroup: Improve Communications' Efficacy), stating that the hospital adopts a "systematic process" to communicate "critical diagnostic test results to clinicians". In this matter, Measurable Element (EM) 2 adds that "a formalised procedure is implemented" in order to outline the manner in which "critical test outcomes" will be communicated, along with their "expected timeframes", leading to improved clinical decision-making efficiency (63).
- The "General" subsection focuses on non-specific questions, such as whether patients would recommend the healthcare facility to others.

- The “Hospital and Outpatient” domain investigates aspects related to the adherence to scheduled service times, the efficacy of hospital signage for navigation, and the cleanliness of restrooms and shared areas.
- The “Personnel” component pertains to the degree of clarity, comprehensiveness, and usefulness of the information provided by medical and nursing staff. It is linked to standard ACC.03.01 (Standard group: Access to Care and Continuity of Care, Subgroup: Continuity of Healthcare and Services), which refers to the designation of “a qualified professional” to monitor “the patient’s care pathway”, with the goal of ensuring that all healthcare services are delivered by “competent staff” (63).
- The “Appointment Booking” section aims to examine waiting times for admission and the scheduling process’s efficiency. It is aligned with the content of standard ACC.01.02 (Standard group: Access to Care and Continuity of Care, Subgroup: Patient’s Acceptance and Taking Charge), asserting that “the hospital evaluates the clinical needs of patients”, making sure that they are promptly notified with any delays in accessing services to promote “transparency and patient-centred care” (63).

For what regards in-patients, the questionnaire is structured into eight sections: “Access to the Policlinic”, “Assistance and Care”, “Discharge”, “General”, “Nurses”, “Waiting List or Extended Access”, “Doctors”, and “Hospital and Ward”. Such areas comprehensively assess the inpatient experience, and most are tied to specific JCI standards.

The part named “Access to the Policlinic” seeks to identify the reason for patients’ admission, by asking whether their hospitalisation was planned or occurred due to an emergency. It is linked to multiple standards from the JCI “Access to Care and Continuity of Care” standards’ group:

- ACC.01.00 (Subgroup: Patient’s Acceptance and Taking Charge), which deals with the “screening” that patients requiring hospital admission are subjected to, so that “their healthcare needs align with the hospital’s mission, resources, and services” (63).
- ACC.01.01 (Subgroup: Patient’s Acceptance and Taking Charge), that refers to the theme of prioritisation of “individuals in emergency or urgent situations, or those with immediate care requirements” (63).
- ACC.02.00 (Subgroup: Patient Flow), which states that “the hospital maintains a system to regulate patient flow”, including processes “for admitting and managing care” of both inpatient and outpatient individuals. Moreover, Measurable Element EM2

describes the admission procedure established by the hospital as "applicable regardless of the patient’s referral source or mode of arrival”, resulting in a mechanism that enables the acceptance of also those not in need of hospitalisation. Ultimately, Measurable Element EM4 adds that the procedures employed to manage patient flow “are evaluated for effectiveness” (63).

The “Assistance and Care” component analyses patients’ interactions with healthcare personnel during their stay, evaluating the extent of emotional support provided, instances of conflicting information from staff, the effectiveness of pain management, and the timeliness of assistance when needed. Such aspects are related to several standards:

- PCC.01.02 (Standard group: Patient-Centred Care, Subgroup: Patients’ and Their Families’ Rights), which pertains to the hospital’s ability to guarantee patients’ “rights to privacy, confidentiality, and access to clinical records” (63).
- AOP.01.01 (Standard group: Patient’s Assessment, Subgroup: Patient’s Assessment), asserting that the evaluation of each patient entering the hospital encompasses “a medical history and an assessment of their physical, psychological, cultural/spiritual, social, and economic requirements” (63).
- ACC.04.01 (Standard group: Access to Care and Continuity of Care, Subgroup: Discharge and Follow-Up), which is linked to the hospital’s discharge procedures, which include informing patients’ and their families “about ongoing care needs or the continuation of treatments and services”. Additionally, Measurable Element EM3 specifies that patients and their families are also provided with “education on pain management” (63).
- AOP.01.04 (Standard group: Patient’s Assessment, Subgroup: Patient’s Assessment), which affirms that “all patients undergo screening for pain”, followed by a pain assessment if needed (63).

The area named “Discharge” focuses on patients’ experience at the conclusion of their hospitalisation, assessing the occurrence of delayed discharge, the underlying causes of such delays, and the consideration given to patients’ families’ circumstances by hospital personnel during the discharge planning process. It pertains to the following standards:

- ACC.04.00 (Standard group: Access to Care and Continuity of Care, Subgroup: Discharge and Follow-Up), whose content deals with the hospital’s process for planning discharge. Moreover, Measurable Element EM5 adds that "the patient, their family where relevant, and healthcare personnel" involved in the patient's care pathway take part in the discharge planning process (63).

- PCC.04.00 (Standard group: Patient-Centred Care, Subgroup: Patient and Family Education), which refers to the health education and therapeutic programme delivered by the hospital that should be with "the care, treatments, and services provided" and "customised to the needs" of patients (63).

The subsection entitled "General" addresses broader aspects of users' experience, including whether they felt treated with respect and dignity throughout their stay. One of the standards measured through such questions is PCC.02.03 (Standard group: Patient-Centred Care, Subgroup: Patient Experience), which affirms that patients and their families are informed by the hospital about "their right to file complaints and to be notified of any errors that occur during the care process" as well as the hospital's procedure to deal with such issues (63).

The "Nurses" part specifically examines interactions with nursing staff, analysing the clarity and comprehensiveness of the information that patients receive from nurses.

The "Waiting List or Extended Access" component is concerned with the pre-admission phase, gathering opinions on aspects such as the length of the waiting list prior to hospitalisation to determine scheduling's efficiency.

The domain named "Doctors" focuses on physician-related experiences, investigating the degree to which patients were consistently informed about care and treatment decisions, received understandable answers to their questions from doctors, and knew which doctor was primarily responsible for their care. It is linked to multiple standards:

- ACC.03.00 (Standard group: Access to Care and Continuity of Care, Subgroup: Quality of Care and Services), which refers to the "continuity of healthcare services" offered and the "coordination among healthcare professionals", both guaranteed by the hospital (63).
- PCC.02.01 (Standard group: Patient-Centred Care, Subgroup: Patient Experience), specifically with regard to Measurable Element EM1 stating that the hospital delineates "its position on withholding cardiopulmonary resuscitation services" and "forgoing or discontinuing life-sustaining measures". Furthermore, EM2 adds that "the hospital's

position aligns with the cultural and religious values of its patient population" along with complying "with applicable laws and regulations" (63).

- ASC.04.01 (Standard group: Anaesthesia and Surgical Care, Subgroup: Surgery), which deals with the discussion of "risks, benefits, and alternatives" with patients and their families or representatives (63).
- The previously mentioned PCC.04.00 (Standard group: Patient-Centred Care, Subgroup: Patient and Family Education) (63).
- ACC.02.01 (Standard group: Access to Care and Continuity of Care, Subgroup: Patient Flow), which pertains to the education and guidance given to patients and their families "about the care area, information on proposed treatments, expected treatment outcomes and any potential costs borne by the patient" (63). (64)

The "Hospital and Ward" area is concerned with the analysis of the physical environment and support services, such as the quality of meals provided during the stay, the cleanliness of the room, bathroom, and overall unit, and the adequacy of assistance received by patients with eating and personal hygiene.

Additionally, both questionnaires offer the possibility to provide open-text feedback, allowing patients to further elaborate on their experiences, enriching the quantitative data with qualitative insights.

Along with these tools, another valuable channel employed in the assessment of patients' satisfaction and in quality monitoring is represented by the hospital's Public Relations Office (URP), which is responsible for compiling a pre-structured file aimed at providing specific information. The document includes an initial section dedicated to identifying the kind of report. This part captures details such as the year, month, and method of reporting, which could consist in email, telephone, certified email, or the physical URP desk located within the hospital. Following this, the reporter's personal information is recorded, including their first name, surname, and the type of patient they represent, such as those attending the emergency department, outpatients, or other relevant categories. The subsequent part of the file is dedicated to the content of the report itself. Here, the operational unit and the Centre of Excellence or Department involved are specified. Additionally, the nature of the report is classified into specific categories, including complaint, request for assistance, an information request, or an expression of praise. In instances of complaint, further elaboration is provided, and generally for all reports the specific details of the issue or feedback are documented. The next major section identifies the recipient responsible for addressing and managing the report, which may be the Medical Directorate, General Directorate or other Directorates within the hospital. Finally, in each case, the competent direction is explicitly delineated to ensure that the information is channelled through the most effective and efficient pathways possible.

Regarding the analysis of the reviews posted on the hospital’s Google account, these are systematically evaluated by the team responsible for monitoring patients’ satisfaction and perceived quality. A more comprehensive explanation of this analytical process will be provided in the subsequent chapter.

In conclusion, the final component analysed in the current section are the SMS surveys administered to pregnant women and fee-paying patients. In the first case, the survey is addressed to women who have recently given birth in Gemelli Isola Hospital. This instrument represents an essential component of the patients’ satisfaction monitoring system and is designed to capture feedback across the entire maternity care journey. Consequently, it offers meaningful insights into the quality of care at each stage. The survey comprehensively covers the phases between the arrival at the hospital and the discharge, ensuring that feedback is gathered for both clinical and interpersonal aspects of care. This is accomplished through open-ended and multiple-choice questions, with the option to add open-ended comments. In the first place, the assessment concerns the assistance provided in the welcoming stage, for instance, in the emergency department and upon admission to the maternity ward. For those undergoing labour, the questions evaluate the quality of care during this critical phase, while for scheduled caesarean sections the focus is on the pre-delivery assistance. A detailed investigation is conducted into the delivery moment itself, with particular emphasis on the support and medical attention received in the delivery room and the effectiveness of pain management strategies. Postpartum, the questionnaire explores the medical attention provided immediately after giving birth and throughout the hospital stay in the maternity ward, including the management of postnatal pain through pharmacological interventions within the first 24 hours and thereafter. Along with this, the survey acknowledges the crucial role of family support by dedicating a distinct section to the assessment of facilities and accommodations provided for the partner or for relatives during the post-delivery period, measuring their satisfaction with these arrangements. Finally, the patient's overall impressions and perceptions of professionalism are documented, encompassing their satisfaction concerning the assistance received throughout their maternity experience.

The survey also provides targeted feedback on the expectations and experiences of fee-paying patients, i.e. those who pay directly for the healthcare services they are offered. The questionnaire has been structured to evaluate distinct stages of the patient journey, from the initial booking to post-visit activities. The employment of a combination of multiple-choice and open-ended questions in most sections ensures a balance between quantitative data for performance tracking and qualitative insights for deeper understanding. The questionnaire is organised into six distinct parts. The first one focuses on the booking process, delving into the method used by patients and their perception of its simplicity or complexity. The subsequent section explores the financial transaction's stage by seeking to analyse whether the payment process was straightforward or challenging, with space for free text elaboration to provide context to patients' responses. The next part examines the experience of patients prior to their appointment, with a particular attention on the interactions that occur during that moment. Here, the areas covered include the staff's courtesy, the entity of the waiting time before the visit, and the adequacy of the facilities available in the waiting room. The section pertaining to the visit with the doctor is essential to further assess patients' clinical experience. It aims to record the level of satisfaction with the information given about the treatment and the extent to which patients felt involved in decisions concerning their care. Following the visit, the focus shifts to post-visit impressions, with the objective of assessing satisfaction with the cleanliness of the hospital as well as the adequacy of information provided about potential side effects or warning signs related to the treatment. The final section of the questionnaire is dedicated to the sources of information used by patients and the loyalty incentives that have motivated their choice of care provider. This is imperative for understanding the factors influencing the loyalty of fee-paying patients.

It is important to note that all SMS-based surveys mentioned are administered to patients who have both consented to the provision of their contact information to the hospital for the purpose of receiving such text messages and chosen to answer the questions.

The selection of monitoring tools to assess perceived quality of care and patients' satisfaction in the hospital was a deliberate process shaped by the institution's unique context and strategic priorities. As a matter of fact, it is worth mentioning that prior to the establishment of the Patient Reception and Organisational Innovation Directorate there was no pre-existing surveillance framework in this regard. Consequently, the selection of instruments was based on criteria that balanced immediate operational needs with long-term organisational goals. The primary factor driving this decision is represented by timeliness, as the hospital required a system capable of collecting information in a short timeframe to quickly generate actionable insights which were non-existent up to that moment. In this respect, the ambulatory totems proved to be a suitable option. In contrast to the use of alternatives such as SMS-based surveys, which rely on patients' feedback at a later time, or Business Intelligence systems, whose implementation often requires extensive set-up and complex integration periods, the totems ensured an immediate feedback mechanism. Such aspect enabled the hospital to rapidly identify and address issues, making these items a more pragmatic alternative compared to less direct methods.

The hospital's commitment to integrating these tools into a broader, multi-channel ecosystem was equally important in the decision-making process. This second criterion stemmed from the awareness that relying on a single instrument might result in an incomplete or limited perspective on patients' satisfaction and care quality. Employing multiple solutions is intended to capture a more comprehensive dataset, reflecting the multifaceted nature of the patient journey. For instance, the totems provide rapid feedback on specific topics such as waiting times in the ambulatory area. However, when this data is analysed in combination with other sources, the hospital is able to gain a more robust understanding of underlying trends. This multi-method logic not only expanded the range of data collected but also strengthened the reliability of the findings.

Within the ambulatory care setting, the monitoring framework has been divided into five areas, corresponding to the key performance indicators (KPIs) established for 2025. These metrics align with those measured by the totems, covering the domains of staff professionalism, staff cordiality, reception, waiting time and punctuality, and take-over time.

In the context of specialised areas such as gynaecology and solvent outpatients, the hospital recognised the necessity for more customised tools to capture aspects of patients' experience that totems or JCI standards-based questionnaires could not properly grasp. Consequently, ad-hoc surveys were adopted in order to deepen specific elements of the quality of assistance that would have otherwise risked going unnoticed. For instance, recent innovations implemented in the reception area, such as the expansion of booking channels, required an evaluation that went beyond the parameters measured by totems or JCI-standards based surveys. This approach allowed the hospital to incorporate targeted inquiries concerning these topics, thereby providing direct access to patients' perspective regarding their effectiveness. Similarly, in the field of gynaecology, questions were meticulously designed to explore the entire maternity pathway, from pre-delivery preparations to postpartum care, reflecting the hospital's recent efforts to strengthen its obstetrics department. Indeed, Gemelli Isola Hospital is historically well known for quality of care it provides to expectant mothers.

All the tools described above compute parameters to quantify patients' satisfaction and additional metrics to evaluate quality of care. This purpose is achieved through the use of different methodologies. For instance, the ambulatory totems generate a satisfaction index based on the weighted average of the emoticon ratings. Such aspect is taken into account when preparing monitoring reports, in order to communicate pertinent information to promote quality improvement, as will be further described in the next chapter. (65)

3. Implementation and results

The following chapter is dedicated to the presentation of the results derived from the sitographic analysis and the implementation of the new patients' satisfaction monitoring system in Gemelli Isola hospital.

Specifically, the initial subsection will focus on the sitographic analysis and has been organised into three parts: Northern-Italy, Central-Italy, and Southern-Italy. For each segment, the findings are detailed in summary tables that report the number of healthcare structures using A&F for each region at both territorial and hospital level. In order to provide context, these values are expressed as percentages of the total number of territorial and hospital-level healthcare facilities across Italy. In addition, every table includes a column indicating the number of organisations that explicitly reference "Audit" in the units' nomenclature. Furthermore, all sections are provided with a geographical representation of the structures mentioned above to illustrate their physical distribution.

A discussion will follow to analyse the findings, highlighting the emerging patterns and variations also compared to the initial expectations. Along with this, a paragraph will explore the A&F programmes identified that are coordinated by regional entities and the integration of such mechanisms into specific laws or regulations.

The subsequent section will be dedicated to Gemelli Isola Hospital, delineating how information processed from the new monitoring system is used to implement changes in the quality of services delivered, delving into the practical application of the data collected.

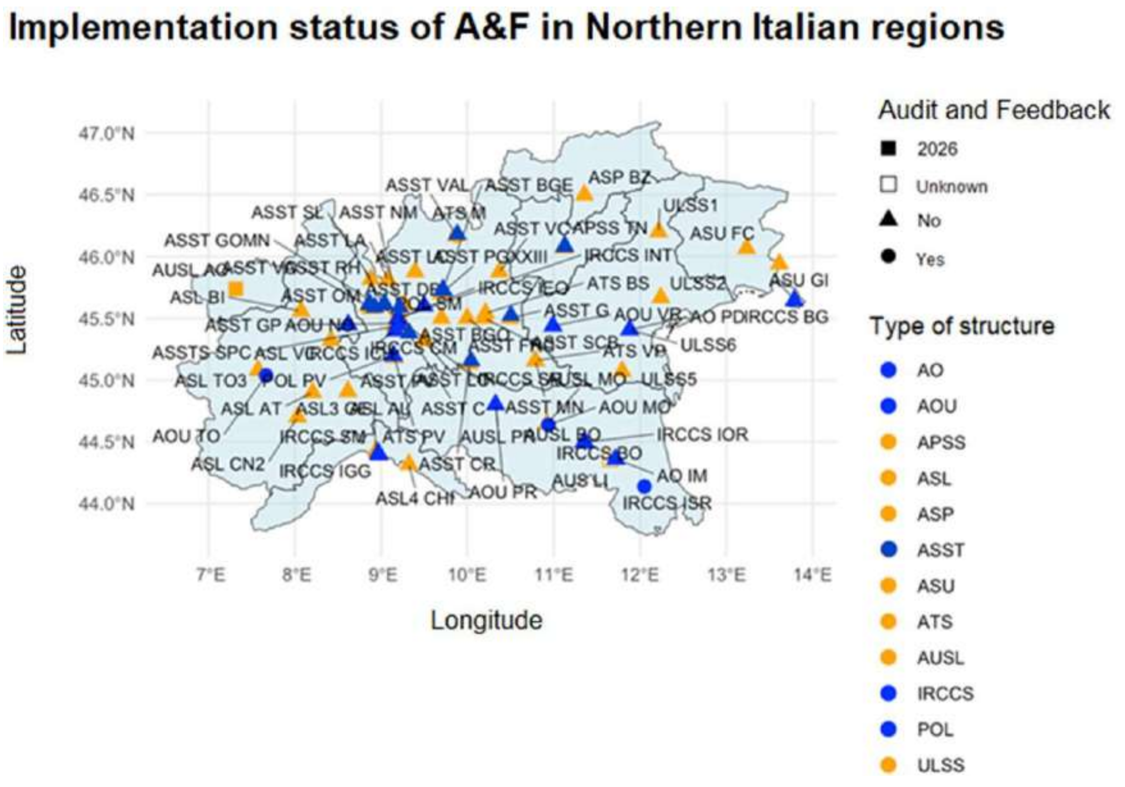
Ultimately, the limitations of the present study will be examined and discussed.

3.1 Findings from the sitographic analysis

	Number of healthcare organisations in Italy
Territorial-level structures	1806
Hospital-level structures	1390
Total	**3196**

3.1.1 Northern-Italy

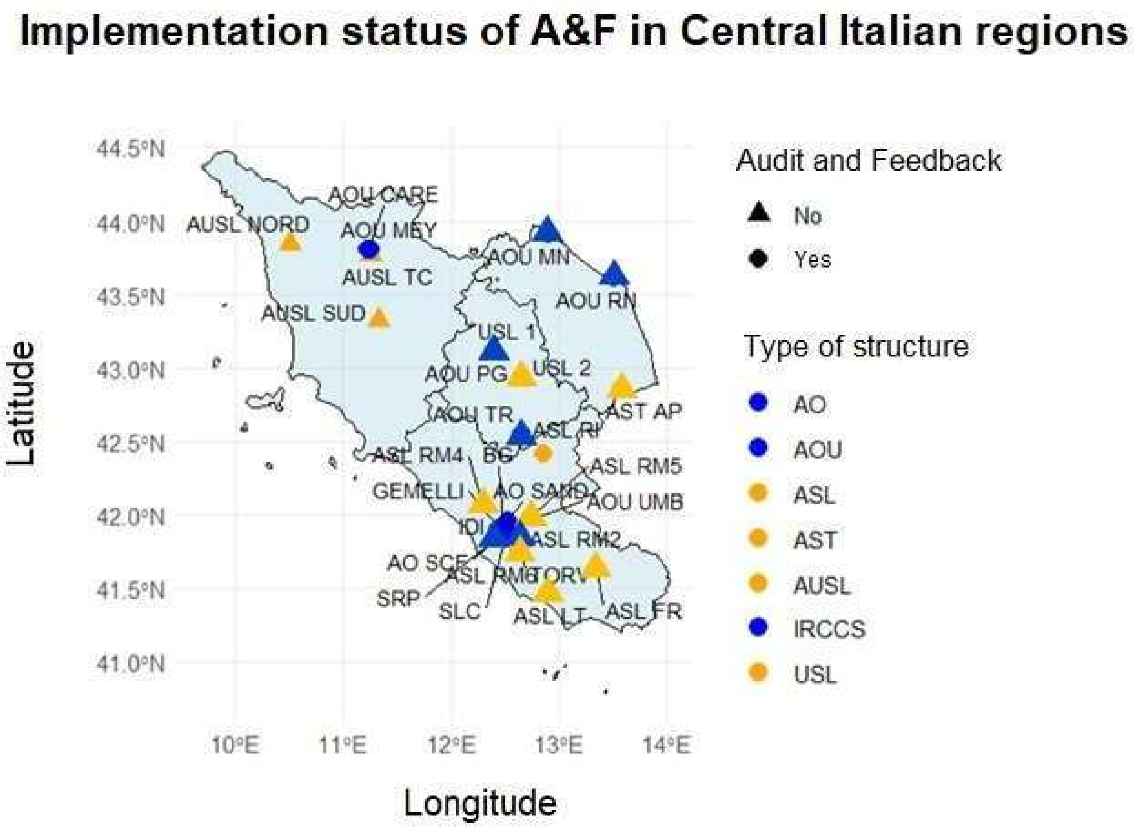
	Territorial-level structures	**Hospital-level structures**	**Explicit mention of A&F**	**Total**
Piedmont	6 (0,33%)	2 (0,14%)	0	**8 (0,25%)**
Aosta Valley	0	0	0	**0**
Trentino-Alto Adige	2 (0,11%)	0	0	**2 (0,063%)**
Friuli-Venezia Giulia	1 (0,055%)	2 (0,14%)	0	**3 (0,094%)**
Liguria	2 (0,11%)	2 (0,14%)	0	**4 (0,13%)**
Veneto	4 (0,22%)	2 (0,14%)	0	**6 (0,2%)**
Emilia-Romagna	4 (0,22%)	6 (0,43%)	0	**10 (0,31%)**
Lombardy	3 (0,2%)	31 (2,23%)	2	**34 (1,1%)**



Implementation status of A&F in Northern Italian regions

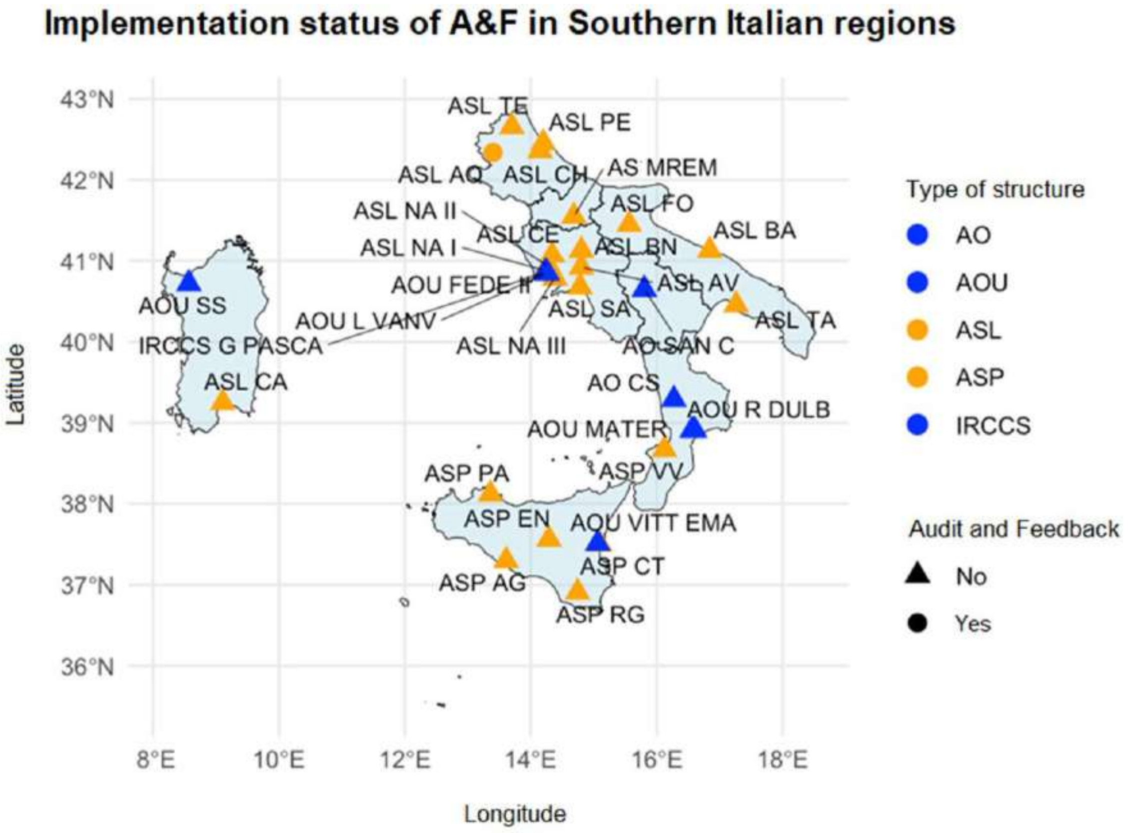
3.1.2 Central-Italy

	Territorial-level structures	**Hospital-level structures**	**Explicit mention of A&F**	**Total**
Tuscany	4 (0,22%)	1 (0,072%)	1	**5 (0,16%)**
Marche	1 (0,055%)	2 (0,14%)	0	**3 (0,094%)**
Umbria	2 (0,11%)	2 (0,14%)	0	**4 (0,13%)**
Lazio	7 (0,39%)	9 (0,65%)	2	**16 (0,5%)**


Implementation status of A&F in Central Italian regions

3.1.3 Southern-Italy

	Territorial-level structures	Hospital-level structures	Explicit mention of A&F	Total
Basilicata	0	1 (0,072%)	0	**1 (0,031%)**
Molise	1 (0,055%)	0	0	**1 (0,031%)**
Sardinia	1 (0,055%)	1 (0,072%)	0	**2 (0,063%)**
Abruzzo	4 (0,22%)	0	1	**4 (0,13%)**
Puglia	3 (0,2%)	1 (0,072%)	0	**4 (0,13%)**
Calabria	2 (0,11%)	3 (0,22%)	0	**5 (0,16%)**
Campania	7 (0,4%)	3 (0,22%)	0	**10 (0,31%)**
Sicily	0	6 (0,43%)	0	**6 (0,2%)**



3.1.4 Discussion of the results

As the table above shows, a total of 3196 healthcare facilities have been identified in Italy. First of all, Northern Italy records the highest number of healthcare structures (67/3196) implementing A&F activities, followed by Southern (33/3196) and Central Italy (28/3196). These results are quite aligned with the initial expectations, given the reputation of Northern Italy healthcare system's efficiency. However, it is noteworthy that, in this part of Italy, the majority of the organisational units adopting A&F do not refer explicitly to auditing processes in their nomenclatures. Moreover, it is somewhat unexpected that Veneto region, which is renowned for its high-quality regional healthcare system, has only six structures using these mechanisms. A similar scenario is observable in Southern Italy, where most facilities do not have a dedicated unit to clinical-organisational auditing and very few apply this type of approach. Nonetheless, this piece of information does not come as a surprise. An exception is represented by Campania region, which registers ten organisations, among the overall 33 in the region, that actively use A&F mechanisms. A final consideration concerns Central Italy where, as illustrated on the map, multiple facilities are concentrated in Lazio region. Indeed, it accounts for 16 structures out of 28, of which two include units explicitly mentioning "Audit" in their nomenclatures.

Currently, a number of programmes concerning A&F activities are administered by regional entities. Specifically, P.Re.Val.E. has been implemented both in Lazio and Piedmont. In the first instance, the initiative is directly coordinated and managed by the Epidemiology Department (DEP) of the Lazio Regional Healthcare Service, whereas in Piedmont it is overseen by the Suprazonal Epidemiology Service of ASL TO3 in collaboration with Lazio's DEP (66). The programme aims to evaluate health outcomes in nine distinct clinical areas, measured through 70 indicators (67). Some of the domains monitored are cardiology, pneumology and neurology. In Tuscany, instead, there are two programmes in action under the oversight of the Regional Health Agency (ARS): PrOsE (68), which similarly to P.Re.Val.E. supervises health outcomes, and PrOTer-MaCro, that deals mainly with chronic diseases' management on a territorial level (69). Talking about Lombardy region, the Lombardy's Regional Oncology Network (ROL) is overseen by the General Directorate for Welfare and collects data on oncology care quality, monitoring intervention outcomes and evaluating performance (70). In the Sicilian context, the D.A.S.O.E. (71) is responsible for the coordination of multiple quality improvement initiatives, including the "Targeting Zero" program, whose aim consists in preventing and controlling infections related to central venous catheters (72). Moreover, Emilia-Romagna region's ASSR is focused on evaluating the burden of chronic diseases, in the attempt to assess and improving care delivery for long-term conditions (73). In contrast, Veneto region has several initiatives in place at a regional level that prioritise patient satisfaction measurement within the Regional Health Service, essentially through PREMs and PROMs. As a matter of fact, two distinct PREMs surveys are administered to record hospitalisation's (PREMsH) and territorial care's (PREMsT) experiences (74).

All the above-mentioned programmes are completed by the following regional legislative measures that explicitly reference clinical-organisational A&F:

- Lazio: Regional Oncology Network Guidelines (2019) developed in accordance with the State-Regions Agreement No. 59/CSR.
- Tuscany: Regional Government Decrees (DGR) No. 243/2018, No. 273/2020, and No. 167/2023.
- Lombardy: Regional Socio-Health Plan 2024–2028.
- Puglia: Deliberations No. 1384 (3 October 2024) and No. 1648 (27 November 2023).
- Liguria: Regional Law No. 41 (7 December 2006).
- Molise: Regional Health Plan 2013–2015.
- Sardinia: Managerial Decree No. 66 (10 February 2025) from ASL Oristano.

In conclusion, it is crucial to emphasise once again that this analysis represents a preliminary investigation to a subsequent national survey. Findings show that the majority of healthcare facilities implement A&F primarily in the context of management of adverse events, whereas other forms of clinical-organisational auditing are not fully incorporated into their daily routines. Despite Decree No. 70/2015 explicitly mandating the adoption of A&F within healthcare structures, its implementation remains inconsistent across regions. Additionally, the absence of comprehensive regulatory frameworks both at regional and national levels leads to a heterogeneous and limited adoption of A&F, mainly through sporadic and voluntary initiatives. Indeed, the lack of specific regional regulations significantly hampers the systematic use of such mechanism, making it fragmented and, thereby, limiting its efficacy in improving the quality of care.

3.2 Gemelli Isola Hospital

As previously mentioned, up until 2022, the hospital operated without a systematic patients' satisfaction and perceived quality monitoring process. In light of this deficit, the range of tools previously outlined in the second chapter has been gradually introduced. These instruments have since transformed the hospital's approach by establishing a structured and comprehensive monitoring system. As a matter of fact, information collected through this new mechanism is not merely archived, but is rather thoroughly processed to identify the strengths and weaknesses of the various Departments and Centres of Excellence within the hospital. This analysis forms the foundation for the implementation of targeted improvements when necessary.

Data derived from the regularly produced reports are communicated in different ways. First, the automatically generated reports are sent via email on a monthly basis to the heads of each Department and Centre of Excellence, providing them with detailed and specific performance metrics. Along with this, comprehensive aggregate reports are prepared monthly and quarterly for presentation during board committee meetings. On such occasions, resultant data is illustrated to the heads of all the hospital's Departments and Centres of Excellence and discussed with them.

Specifically, the monthly reports deal with information collected from outpatient totems. The documents offer an overview of each Centre of Excellence (CdE) and Department, encompassing the total satisfaction score registered during the month, its fluctuation compared to the previous period, the satisfaction percentage, and the total number of feedback received, together with its variation in comparison with the preceding month. It is then quantified the overall number of responses for each distinct satisfaction category. This information is expressed also as a percentage of the total number of evaluations gathered. Furthermore, the reports specify how many responses were registered for each satisfaction category across all Key Performance Indicators (KPIs), thus facilitating the identification of areas where patient satisfaction is suboptimal. Details in this sense are also provided for the Operational Units (UUOOs) within Centres of Excellence and Departments, in order to determine those predominantly contributing to patients' dissatisfaction. Moreover, for each Centre of Excellence and Department, the most significant or frequently recurring open-response comments highlighting persistent concerns are documented. Subsequently, Centres of Excellence are classified in descending order based on the values of the main satisfaction index of reference computed by the platform, also emphasising the numerical changes compared to the previous month. Ultimately, UUOOs with ratings below a predefined threshold are pointed out for further evaluation.

Moving on to the quarterly report, its structure is as follows: it begins with an analysis of the JCI-based questionnaires addressed to inpatients. Each assessable Operational Unit (UUOO) is examined, with a ranking of the ten most highly rated ones basing on patients' answers. This is followed by an overview of the total respondents, specifying socio-demographic characteristics such as gender and age distribution. The feedback related to the different areas included in the questionnaire is further analysed to identify significant statistics or trends. It is essential to note that not all questions are of the multiple-choice type, with several ones being open-ended. Consequently, these are also subjected to meticulous review. The subsequent section outlines data collected from the questionnaires administered to parturient women. In this regard, a summary of the total answers registered, and the scores computed for each evaluated area is presented. Again, the key dimensions under examination are explored, with the focus directed towards the most relevant data or consistent patterns. This segment concludes with the most impactful open-ended comments, whether positive or negative, with particular attention dedicated to those more frequently recurring. The report then transitions to the information gathered from outpatient totems, reflecting the same structure as the monthly reports but aggregated over the quarter. In the following section, the questionnaires submitted to paying patients are addressed. The assessment starts with an overview of the total responses and the average satisfaction scores per evaluated area, then progresses to a detailed examination of each dimension under analysis. The most noteworthy and influential open-response comments are reported at the end of the presentation. Subsequently, data gathered by the hospital's Public Relations Office (URP) is illustrated, beginning with a summary of the overall contacts that took place between patients and the URP and how these are distributed across categories. The different interaction classes are then subjected to analysis. The number of contacts is specified for all Directorates, and for those most commonly referenced, the interaction class registering the most mentions is further described. The report concludes with an analysis of Google reviews. Again, the total number of feedback received is initially presented within a general overview. This is followed by an in-depth evaluation of the most significant comments, encompassing both positive and negative ones. Ultimately, an additional semi-annual document is prepared summarising all the main satisfaction indices computed by the multiple feedback channels over such period of time.

Nevertheless, the Patient Reception and Organisational Innovation Directorate monitors data computed by the above-mentioned channels on a weekly basis to promptly intervene in instances where severe issues need to be flagged.

Those Departments, Centres of Excellence, and UUOOs that register particularly low scores with respect to pre-defined thresholds are flagged within the above-mentioned reports and proposed with specific and tailored corrective actions. The main objective of this phase is addressing the causes of underperformance and align the metrics with the hospital's performance objectives. To ensure the effective and efficient implementation of these suggestions, dedicated sessions are organised on a voluntary basis for the heads of each Department and Centre of Excellence involved in this part of the process who are willing to analyse the results of the reports in more depth. During such sessions, the quality monitoring team explains the identified issues, the rationale behind the recommended changes, and the steps required to put them in place. Progress on these suggestions is then monitored regularly. Such an approach is intended to facilitate a cultural change, emphasising the essential role played by these instruments to implement a process of continuous quality improvement (65).

The Medical Oncology Unit represents a significant example of the positive impacts of the new quality monitoring system implemented in January 2025. A marked decline in patient satisfaction was recorded between the 11th and 12th week of 2025, when patients frequently cited prolonged delays in appointments, insufficient information about waiting times and delays, and their underlying causes. Furthermore, dissatisfaction regarding the waiting room was reported, including its perceived inadequacy in terms of size, ventilation, and unpleasant odour. Following week 17, when levels of satisfaction reached the lowest point recorded, a working group was established to address these concerns. The team in question was composed of the Reception Directorate, the Medical Directorate, and the Care Directorate, in addition to the Director of the Centre of Excellence and the Director of the Complex Operational Unit (UOC) along with their respective team members. The nursing coordinator and administrative staff from the patient secretariat were also included in the process. Prior to proceeding, it is worth examining the function of the patient secretariat, which was established to address the inefficiencies of a conventional administrative structure within the hospital. This represents a paradigm shift towards a more specialised, patient-centric approach. Such a role differs from a traditional secretariat by dealing exclusively with front-office functions, serving as a primary point of contact for patients. The key responsibilities of the position include patient reception, the management of bureaucratic formalities such as prescriptions and certificates, the scheduling of appointments, and the provision of essential information. The emphasis is on interpersonal abilities, requiring staff with strong empathy and communication skills. The objective of the initiative was to optimise patient flows and enhance the overall patient experience by providing them with dedicated support throughout their journey. This role constitutes a component of a hybrid model that differentiates patient-facing duties from back-office and departmental administrative tasks, which are handled by the Departmental Secretariat.

Returning to the Medical Oncology Unit, the working group's objective consisted in analysing the reported issues and determining any contributing factors, as well as considering improvement actions to restore the department's prior quality standards. As a consequence of this collaborative effort, several elements were identified. Firstly, the initial morning appointments in each consultation room consistently started with a 30-minute delay, primarily due to the absence of medical staff. However, this issue persisted throughout the day, affecting all following appointments. This aspect was monitored through targeted inspections of the hospital’s Medical Directorate and analysis of activity data from a specific system recording patient arrivals and calls. Secondly, a temporary reduction in therapy chairs (specifically, one fewer chair for infusion treatments) was not reflected in activity scheduling, creating a misalignment between booked patients and available capacity and, thus, increasing waiting times. The chair has been subsequently restored. Thirdly, a dedicated protocol was established with the aim of addressing the issue of inadequate communication regarding delays. This objective was accomplished through the proactive instruction of staff members to inform patients of any scheduling disruptions, provide a rationale for such issues, and estimate additional waiting times. The ultimate goal of this process consisted in reassuring patients and mitigating feelings of neglect. Finally, the introduction of a new digital calling system led to the closure of the patient secretariat, with access to the facility being restricted to QR code scans only. Despite the original intent of optimising operational efficiency, this approach resulted in the development of both a physical and emotional barrier for patients, who experienced feelings of isolation and ambiguity, especially in cases of requests for assistance. Accordingly, the office was reopened while maintaining the digital system for desk calls, thereby allowing administrative staff to work efficiently and remain accessible at the same time. Beginning approximately in September 2025, the secretariat's operating hours will undergo an extension. Specifically, the current hours of 7:00 a.m. – 4:42 p.m. will be replaced by a new schedule that will run from 7:00 a.m. to 6:27 p.m. This adjustment is aimed at providing enhanced patient support. Furthermore, a second nurse has been introduced to strengthen the care team, and the waiting areas have been equipped with a dispenser for hot and cold water, a complimentary tea station, an air freshener, and a new air conditioning unit to ensure enhanced comfort, particularly in anticipation of the summer period. The working group met on a biweekly basis for the initial month and a half to assess the impact of these new measures and evaluate further adjustments. Despite the ongoing presence of delays, a substantial increase in the satisfaction index has been observed. In view of the above, the group now convenes on a monthly basis, while the Patient Reception and Organisational Innovation Directorate continues undertaking weekly data monitoring. Further improvements have been made, including the installation of electric heaters in the Obstetrics and Gynaecology outpatient clinics and the Fontana Polyclinic in response to complaints regarding the uncomfortably low temperatures in the waiting areas during the winter period. Nonetheless, decisions in this matter were taken in consultation with the Technical Office, considering budgetary and architectural constraints. Moreover, concerns regarding lavatory cleanliness, as raised via totems and satisfaction questionnaires, led to a month-long analysis of patient flow across floors and staircases. This initiative resulted in an increased frequency of cleaning operations in areas where patient density was higher. In conclusion, parturient women in the Obstetrics ward who were disturbed by the noise linked to construction works were provided with headphones and a personalised playlist upon request. In conclusion, a “Patient Accommodation Specialist” was appointed to conduct daily rounds to ensure that high hospitality standards were met (75).

3.3 Limitations of the study

The present study is subject to several limitations, which arise from the methodological approaches employed and require careful consideration to contextualize the findings appropriately.

3.3.1 Sitographic analysis

The sitographic analysis relied exclusively on institutional websites and related documents to evaluate the implementation of A&F practices across healthcare organisations in Italy. Although this approach ensured a degree of reliability and credibility in the data sources, it also introduced potential shortcomings. As a matter of fact, information available on websites, even when of institutional type, may not always reflect the most recent developments and upgrades.

Despite the rigorous selection of authoritative sources, there is a risk that recent advancements are not included, as these platforms may not be consistently revised to reflect real-time changes. Furthermore, healthcare institutions may deliberately choose not to publicly disclose some details concerning their activities. Consequently, this could lead to an underrepresentation of the range and variety of clinical-organisational auditing practices in Italy, thereby biasing the overall picture that emerges from the study.

3.3.2 Gemelli Isola Hospital

This case study is subjected to limitations as well, arising from its reliance on voluntary patients’ adherence to the feedback mechanisms. Indeed, the hospital's monitoring system uses instruments such as questionnaires and feedback totems, whose efficacy is intrinsically and inevitably linked to the patients' willingness to take part in the process. The voluntary nature of the study implies a selection bias, as it tends to capture mainly extreme experiences, either highly positive or highly negative, while potentially missing out on the perspectives of patients with more moderate or neutral impressions. Consequently, the opinions registered may not fully represent the wide range of experiences of the broader patient population. In order to address this imbalance, the hospital has introduced a variety of tools designed to interact with different patient groups and use several methods of feedback collection. While these elements add robustness to the system, they do not entirely solve this issue, thus limiting the generalisability of the findings.

Conclusions

This research aims to investigate the implementation of Audit and Feedback (A&F) within the Italian healthcare system, exploring its current state. Findings from the sitographic analysis corroborate the initial expectations, confirming that the adoption of systematic A&F practices across Italy is characterised by fragmentation and inconsistency. While Northern Italy exhibits a higher number of healthcare structures employing A&F activities, the overall national picture is characterised by sporadic, often voluntary initiatives. Despite Decree No. 70/2015 mandating the adoption of A&F within hospital organisations, the absence of comprehensive national or regional regulations represents a significant obstacle, hindering the widespread and effective use of A&F as a tool for continuous quality improvement.

In this regard, the case study of Gemelli Isola Hospital provides an example of the transformative potential of a structured and systematic approach to quality monitoring. The introduction of a multi-channel feedback mechanism in 2022 has led to a process of identification of specific strengths and weaknesses, thereby forming the basis for targeted interventions. A clear demonstration of this system's efficacy has been observed in the Medical Oncology Unit, where monitoring tools detected a marked decline in patients' satisfaction and assisted in understanding the root cause of this phenomenon. In response to the issues reported, a multi-disciplinary working group was established, whose collaborative efforts led to the implementation of several targeted corrective actions. Consequently, the patients' satisfaction indices recorded a substantial increase as a result of the initiatives adopted. This case highlights the crucial role of systematic data collection and feedback in healthcare settings, underscoring that healthcare organisations actively committing to data collection and being prepared to act on the insights gathered can achieve meaningful and quantifiable enhancements in the quality of care they deliver.

In conclusion, while the broader Italian context reveals considerable room for growth in the adoption of A&F, the example of Gemelli Isola offers an optimistic and practical example. Findings show that overcoming organisational inertia and the subsequent investment in robust monitoring systems, yields significant benefits. Therefore, the Italian healthcare system may benefit from embracing such models, as it would lead to an alignment of its services with the needs and expectations of patients, ensuring a collaborative and continuous pursuit of quality.

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Biografia

Nata e cresciuta a Roma, Emma Fitzgerald ha conseguito con lode la laurea magistrale in Management dei servizi, con specializzazione in Healthcare management, presso l'Università Cattolica del Sacro Cuore a luglio 2025, dopo aver completato con il medesimo risultato la laurea triennale in Economia e gestione dei servizi presso lo stesso ateneo nel 2023.

Appassionata di tematiche economiche, politiche e di attualità, ha partecipato attivamente a iniziative associative e progetti sia all'interno sia all'esterno dell'università, arricchendo così gli anni di formazione anche sotto il profilo personale.
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