




Factors that influence the implementation of (inter)nationally endorsed health and social care standards: a systematic review and meta-summary

Yvonne Kelly ^{1,2}, Niamh O'Rourke,³ Rachel Flynn,¹ Laura O'Connor,¹ Josephine Hegarty⁴

► Additional supplemental material is published online only. To view, please visit the journal online (<http://dx.doi.org/10.1136/bmjqs-2022-015287>).

For numbered affiliations see end of article.

Correspondence to

Dr Laura O'Connor, Health Information and Standards Directorate, Health Information and Quality Authority, Unit 1301, Citygate, Mahon, Cork, T12 Y2XT, Ireland; loconnor@hiqa.ie

Received 20 June 2022
Accepted 15 April 2023
Published Online First
8 June 2023



► <https://dx.doi.org/10.1136/bmjqs-2023-015935>



© Author(s) (or their employer(s)) 2023. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

To cite: Kelly Y, O'Rourke N, Flynn R, *et al.* *BMJ Qual Saf* 2023;**32**:750–762.

ABSTRACT

Background Health and social care standards have been widely adopted as a quality improvement intervention. Standards are typically made up of evidence-based statements that describe safe, high-quality, person-centred care as an outcome or process of care delivery. They involve stakeholders at multiple levels and multiple activities across diverse services. As such, challenges exist with their implementation. Existing literature relating to standards has focused on accreditation and regulation programmes and there is limited evidence to inform implementation strategies specifically tailored to support the implementation of standards. This systematic review aimed to identify and describe the most frequently reported enablers and barriers to implementing (inter)nationally endorsed standards, in order to inform the selection of strategies that can optimise their implementation.

Methods Database searches were conducted in Medline, CINAHL (Cumulative Index to Nursing and Allied Health Literature), SocINDEX, Google Scholar, OpenGrey and GreyNet International, complemented by manual searches of standard-setting bodies' websites and hand searching references of included studies. Primary qualitative, quantitative descriptive and mixed methods studies that reported enablers and barriers to implementing nationally or internationally endorsed standards were included. Two researchers independently screened search outcomes and conducted data extraction, methodological appraisal and CERQual (Confidence in Evidence from Reviews of Qualitative research) assessments. An inductive analysis was conducted using Sandelowski's meta-summary and measured frequency effect sizes (FES) for enablers and barriers.

Results 4072 papers were retrieved initially with 35 studies ultimately included. Twenty-two thematic statements describing enablers were created from 322 descriptive findings and grouped under six themes. Twenty-four thematic statements describing barriers were created from 376 descriptive findings and grouped under six themes. The most prevalent enablers with CERQual assessments graded as high included: available support tools at local level (FES 55%); training courses to increase awareness and knowledge of the standards (FES 52%) and knowledge sharing and interprofessional

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Health and social care standards are quality improvement interventions in health systems. Existing literature relating to standards has focused on accreditation and regulation programmes and there is limited evidence to inform implementation strategies to support the implementation of standards.

WHAT THIS STUDY ADDS

⇒ This review provides empirical evidence on factors that influence the implementation of (inter)nationally endorsed standards. Key enablers identified related to available support tools, education and shared learning. Key barriers related to a lack of knowledge of standards, staffing issues and insufficient funds.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ Researchers, policy makers and service providers can infer from these findings which influencing factors apply to their own context. Findings from this review can inform decision making when selecting strategies that can be effective in supporting implementation of (inter)nationally endorsed standards.

collaborations (FES 45%). The most prevalent barriers with CERQual assessments graded as high included: a lack of knowledge of what standards are (FES 63%), staffing constraints (FES 46%), insufficient funds (FES 43%).

Conclusions The most frequently reported enablers related to available support tools, education and shared learning. The most frequently reported barriers related to a lack of knowledge of standards, staffing issues and insufficient funds. Incorporating these findings into the selection of implementation strategies will enhance the likelihood of effective implementation of standards and subsequently, improve safe, quality care for people using health and social care services.

INTRODUCTION AND BACKGROUND

Reports of substandard care exist across health systems globally.^{1 2} It has been estimated that only 60% of healthcare is delivered according to best evidence and health systems waste approximately 30% of health expenditures.^{1 3} In addition, 10% of service-users experience medical harm or adverse events globally.^{1 3} Publications such as *Crossing the Quality Chasm* by the Institute of Medicine⁴ and *Caring for Quality in Health* by the Organisation for Economic Co-operation and Development⁵ have encouraged the adoption of quality systems to strengthen healthcare delivery and improve patient safety.

Setting standards for health and social care services is a well-recognised lever to improving quality and safety in health systems. Health and social care standards (referred to as standards hereafter) typically consist of evidence-based statements (based on evidence of all grades from expert consensus to meta-analyses) that describe an outcome or process of providing safe, high-quality, person-centred care.⁶ Implementation of standards promotes quality assurance, guides delivery of appropriate care, reduces variation in service provision, and sets out the care that service-users can expect to receive.⁷

Health systems globally adopt different approaches to setting standards whereby standards vary from statutory requirements to supportive quality improvement approaches. Standards may be promulgated through laws, regulation, private accreditation or certification or endorsement of professional organisations. They may be enforced or encouraged through licensure, regulatory inspection, certification or private accreditation recognition. However, standards by themselves do not bring about improvements in practice. They require multilevel service activities and efforts from stakeholders at multiple levels across diverse services. For standard-setting bodies to learn how to support services to effectively implement standards, there is a need to examine the implementation process. This begins with gaining an understanding of what, why and how standards are implemented in real world health and social care services. A comprehensive understanding will also inform strategies that can enhance implementation and subsequently improve the quality and safety of care delivery.⁸

Existing systematic reviews relating to standards, all pertain to accreditation or regulation programmes.^{9–17} There is a gap in synthesising literature relating to

the broader field of standards and more specifically relating to the implementation of standards. Furthermore, implementation scientists have highlighted that limited evidence exists to inform the selection and tailoring of implementation strategies for any interventions.⁸ They have recommended assessing enablers and barriers that influence the implementation process as a first step in selecting appropriate implementation strategies.^{8 18} This paucity of evidence for both standards and implementation strategies makes it difficult to determine effective implementation strategies specifically for standards. Therefore, we conducted a systematic review and meta-summary to synthesise the existing empirical literature, describing the most frequently reported enablers and barriers that influence implementation of (inter)nationally endorsed health and social care standards.

METHODS

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines¹⁹ were followed in conducting this systematic review and meta-summary (online supplemental appendix 1).

A protocol detailing the methodological plan has been published on HRB (Health Research Board) Open Research.²⁰ Deviation from the protocol did not occur. The methods are summarised below in brief.

Search strategy

The following database searches took place in November 2020 and were updated in November 2021: Medline, CINAHL (Cumulative Index to Nursing and Allied Health Literature), SocINDEX, Google Scholar, OpenGrey and GreyNet International. In addition, manual searches of targeted websites belonging to relevant standard-setting bodies and hand searching the references used in included studies were conducted in February 2021. Keywords for the search were informed by the SPICE (Setting, Perspectives, Interest phenomenon of, Comparison, Evaluation) framework and were; ‘healthcare’, ‘social care’, ‘standards’, ‘enabler’, ‘barrier’, ‘implementation’ (online supplemental appendix 2). Time and language limits were not applied. Records retrieved were imported into the Covidence systematic management software and duplicates were automatically removed.²¹ One reviewer (YK) paired with a second reviewer (NO’R/LO’C/JH) to independently screen titles and abstracts based on the inclusion and exclusion criteria (online supplemental appendix 3). Articles selected for full-text screening were screened by two reviewers (YK, NO’R/LO’C/JH) independently. Any discrepancies with decisions during the screening stages were resolved through discussion or inviting a third reviewer (NO’R/LO’C/JH) to review until consensus was reached.

Study selection criteria

Empirical qualitative, quantitative descriptive and mixed methods studies were included. Systematic reviews and scoping reviews were excluded but the reference lists of relevant reviews were screened for potential studies fitting the inclusion criteria. The phenomenon of interest was factors reported as facilitating (enablers) and hindering (barriers) implementation of standards that were (inter)nationally endorsed. Standards are statements that ‘describe best evidence to achieve quality, safe, and person-centred care’.²⁰ Terminological inconsistencies with ‘standards’ posed challenges in ascertaining if the implementation object was specifically standards or, for example, guidelines. Nonetheless, researchers acting as the second and third reviewers were subject matter experts in standards and alongside careful discussion, a mutual interpretation of what ‘standards’ were was achieved, thus reaching consensus on the application of the eligibility criteria.

Data extraction

Data items from included studies were extracted and populated into two data extraction tables in Microsoft Excel. The first table included general characteristics of the studies and the second table was used to categorise the data as enablers or barriers. These data were descriptive portions of text extracted verbatim from the results and discussion sections of the studies. These descriptive portions were second order constructs representing the author’s descriptions, discussions, interpretations, statements and ideas pertaining to the primary data collected.^{22 23} Two reviewers (YK, NO’R/LO’C/JH) independently extracted these data.

Quality assessment

According to Sandelowski *et al*, any finding relevant to the research aim enhances the synthesis of the empirical findings.²⁴ Thus, all studies were included in the synthesis, irrespective of any quality concerns. Methodological quality was assessed using the Critical Appraisal Skills Programme tool²⁵ for qualitative studies, Joanna Briggs Institute Critical Appraisal Tools²⁶ for quantitative studies and The Mixed Methods Appraisal Tool²⁷ for mixed methods studies. One study used a one group post-test design.²⁸ A quality appraisal tool specifically for this study design was not sourced and the generic Evidence-based Librarianship critical appraisal checklist²⁹ was used. Two researchers independently (YK, NO’R/LO’C/JH) completed the quality appraisals and assessed studies for concerns with methodological limitations. The methodological assessments were used to inform the Confidence in Evidence from Reviews of Qualitative research (CERQual) component ‘methodological limitations.’

Data synthesis

Sandelowski’s meta-summary approach was applied to synthesise the descriptive findings from the included studies.^{22 24} An inductive approach was adopted and facilitated the identification of ‘real-world’ experiences. As part of the meta-summary, minor edits were made to the verbatim data populated in the second data extraction table to facilitate understanding. An example of minor edits included: ‘Poor or patchy QS11[Quality Standard 11] implementation was often attributed to weak communication between healthcare professionals in different sectors or settings’³⁰ (p272) was edited to read: Poor or patchy implementation was often attributed to weak communication between healthcare professionals in different sectors or settings. These data were uploaded to QRS International’s NVivo V.12 software programme and organised into their overarching category of being an enabler or a barrier. Data with similar meanings were combined to create descriptions of the underlying data. Preliminary thematic statements were developed using these descriptions and then grouped into themes. A codebook was created from NVivo V.12 that consisted of preliminary themes, thematic statements and descriptions with associated data. The codebook was crosschecked against the original data for comprehensiveness and accurate reflection of the data by two researchers (YK, JH).

The contributions of enablers, barriers and individual studies to the overall findings were quantified using frequency effect size (FES) and intensity effect size (IES). The FES represents the prevalence of each enabler or barrier relative to all studies reporting enablers or barriers.²⁴ The FES was calculated by dividing the total number of studies reporting on an enabler or barrier by the total number of studies reporting on all enablers or barriers.²⁴ Studies (where there were multiple associated publications) with identical setting and population were counted once in the FES calculations. The IES represents the contribution of each study to all enablers and barriers identified.²⁴ The IES was calculated by dividing the number of findings (enablers or barriers) in a study by the number of findings (enablers or barriers) identified across all studies.²⁴

Assessment of confidence in evidence

The Grades of Recommendation, Assessment, Development, and Evaluation-CERQual approach was used to assess confidence in the identified enablers and barriers.^{31–35} The overall assessment was based on the researchers in pairs, independently judging (YK, LO’C/JH) each of the four CERQual components until consensus was reached. CERQual components comprise: methodological limitations which factored in the quality assessments conducted on the primary studies; relevance of data from the primary studies supporting the findings, for example, how applicable

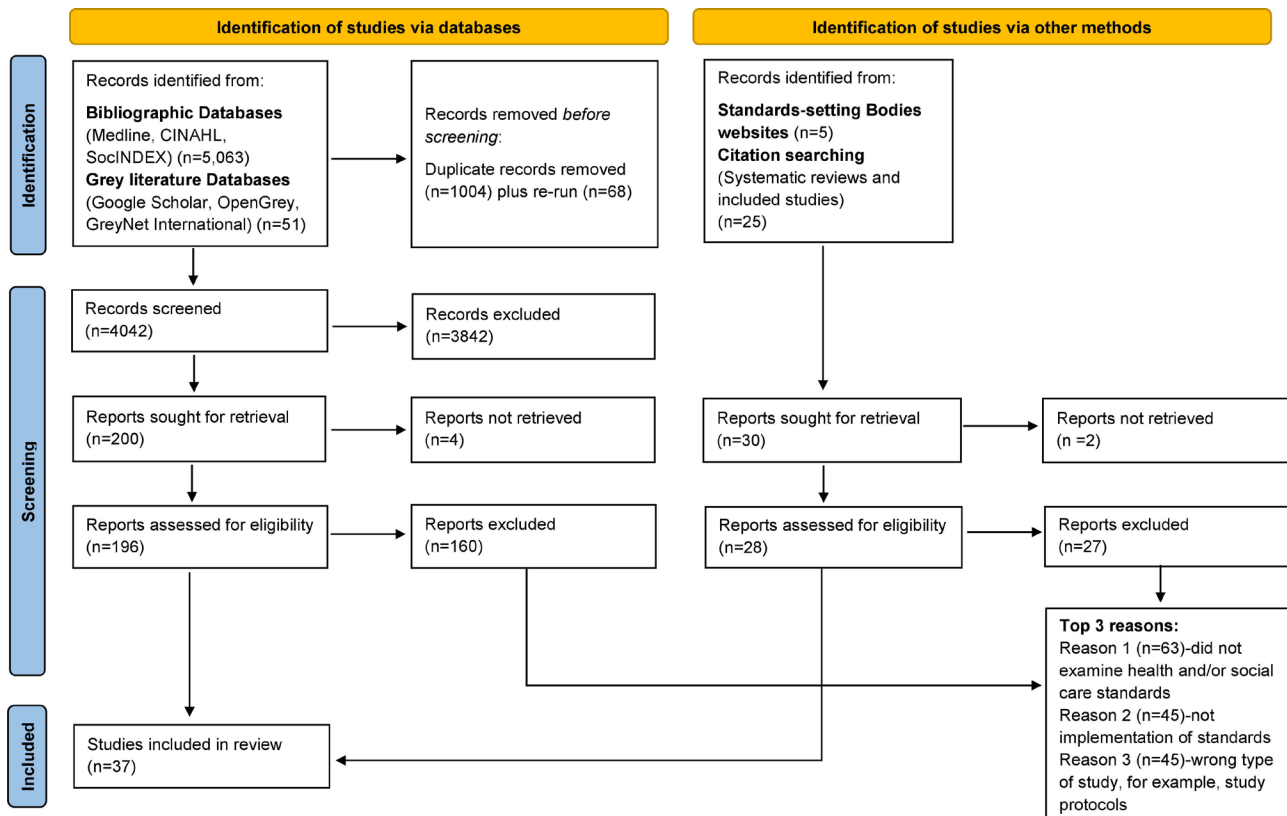


Figure 1 Preferred Reporting Items for Systematic review and Meta-Analysis diagram for factors that influence the implementation of (inter)nationally endorsed health and social care standards.

were the data to the context within the review question; coherence assessed if the fit between the data from the primary studies and the findings was clear and logical; adequacy of the data related to the degree of richness as well as quantity of the data supporting the findings. Concerns were assessed as ‘no concerns’, ‘minor concerns’, ‘moderate concerns’ and ‘serious concerns’ in relation to each component. These assessments were used to enhance usability of findings by giving weight to the credibility and potential impact of each enabler and barrier in the implementation process. All enablers and barriers began with high confidence and were graded down to moderate or low if any concerns existed in relation to the CERQual components.³¹ High, moderate or low confidence was based on the judgement that the finding was highly likely, likely, or possibly a reasonable representation of an enabler or barrier to implementing standards.³⁶

RESULTS

The initial search yielded 4072 records with 4042 records retrieved from database searches and 30 records retrieved from other methods (figure 1). Two hundred and thirty reports were sought for full-text review as they fulfilled the criteria or a decision could not be made based on title and abstract alone. Despite extensive efforts, including contacting the authors and the publishing journals, six records could not be retrieved. Following full-text screening, 37 papers were deemed

eligible for inclusion in the meta-summary synthesis. The main reasons for excluding studies were: research did not examine health and/or social care standards; not pertaining to implementation of standards; wrong type of study, for example, study protocols.^{37–39} These were crosschecked by a second reviewer (NO'R) to confirm identical setting and population and were counted as one study thereafter.

Of the 35 studies included, 9 originated from the USA,^{40–48} 8 from Australia,^{49–56} 5 from the UK,^{28 30 57–59} 4 from the Netherlands,^{60–63} 2 from Iran^{64 65} and 1 from each of Bangladesh,⁶⁶ Brazil,⁶⁷ Croatia,⁶⁸ Ethiopia,⁶⁹ Jordan,⁷⁰ Republic of South Africa^{37–39} and WHO regions (including 180 countries).⁷¹ The majority of studies used quantitative methods (n=21)^{28 40–43 46 48 50 51 55–59 61 62 64 65 67 68 71} with questionnaires, followed by qualitative methods using mainly focus groups and interviews as data collection approaches (n=9).^{30 37–39 45 47 52–54 60 70} There were five mixed methods studies that used focus groups, interviews, observations and surveys for data collection.^{44 49 63 66 69} One mixed methods study adopted a three-step process using an assessment of causality, rapid review and case study design.⁶⁶ As such, only the qualitative component (case study) was included in the synthesis and quality appraisal.⁶⁶ Studies examined healthcare standards (n=30),^{28 30 37–44 46 47 50–53 56–71} social care standards (n=2),^{45 48} health and mental

healthcare standards (n=2),^{49 55} and health and social care standards (n=1).⁵⁴ The standards ranged from cross-system standards (n=1),⁷¹ 'WHO Child Growth Standards' to whole system standards (n=8 of which 2 were examined in more than one paper),^{37–39 42 49 53–55 65 69 72} for example 'National Safety and Quality Health Service Standards' to standards for specific conditions (n=26),^{28 30 41 43–48 50–52 54 56–64 66–68 70} for example 'Delirium Clinical Care Standard'. The included studies represented the analysis of 847 documents, for example, patient charts and notes and, 13 679 participants. Of this 13 679 sample, 308 represented individuals at system level, for example, government representatives and academic professionals, 1920 were service-users and the remainder consisted of individuals working at service management and front-line level (online supplemental appendix 4).

Quality appraisal

Nineteen included studies were assessed as having no methodological limitations,^{28 30 43 46 49 50 53–56 60 61 63–68 71} 14 had minor^{37–42 44 45 48 52 57 58 62 70} and 4 had moderate methodological limitations^{47 51 59 69} (online supplemental appendix 5). Quantitative studies with cohort and descriptive cross-sectional designs were mainly assessed as having no methodological limitations. The main reasons for minor to moderate methodological limitations across studies included: poor reporting of sampling and outcome measures in quantitative studies; poor reporting on reflexivity, ethical considerations and rigour of analysis in qualitative studies; poor reporting on the integration of findings, divergences between study designs and unclear rationale for using a mixed methods approach in mixed methods studies.

Confidence in the findings

We had high confidence in 16 enablers, moderate confidence in 4 and low confidence in 2 enablers (table 1). We had high confidence in 16 barriers, moderate confidence in 6 and low confidence in 2 barriers (table 2). Our concerns were mainly with methodological limitations and adequacy of data as reported in studies (online supplemental appendix 6). Reasons for downgrading adequacy of data were concerns relating to a low number of studies reporting the finding and studies with low numbers of participants. Downgrading for relevance occurred where a study took place in a jail or prison setting, as this was deemed only partially relevant to our research question. Coherence did not feature as a concern throughout the assessments.

Meta-summary findings

For enablers to implementing standards, six themes with 22 thematic statements were generated from 322 findings extracted from 31 studies (table 1). For barriers, six themes with 24 thematic statements were

generated from 376 findings extracted from 35 studies (table 2).

The FES for thematic statements describing enablers ranged from 10% to 55% (online supplemental table 3). Themes containing thematic statements with the highest FES were: services have key staff who will lead and share knowledge of the standards (theme 2); services have accessible training, support tools and monitoring practices (theme 6). The FES for thematic statements describing barriers ranged from 6% to 63% (online supplemental table 4). Themes containing thematic statements with the highest FES were: services work in silos, have limitations with staffing and knowledge of standards (theme 2); services have poor access to resources and funding (theme 4). One study contributed a large proportion of findings for both enablers (IES=77%) and barriers (IES=75%).⁴⁹ The majority of studies (n=25) had an IES between 21% and 46%.

Thematic statements and their associated themes are discussed below.

Theme 1

Enabler: Standards are adaptable and relevant in day-to-day practice.

Barrier: Standards have limited adaptability.

Theme 1 described the adaptability of standards and relevance in practice. Studies reported that standards were adaptable when they were simplified and tailored for implementation (FES 16%, high confidence) and relevant for application in practice (FES 12%, high confidence).

Standards had limited adaptability when there was heterogeneity across healthcare services and their geographical locations (FES 20%, high confidence). Language used in standards was described as medical oriented, which made standards difficult to embed in practice (FES<10%, moderate confidence). Standards did not always fit neatly with legislation, accreditation or regulatory frameworks and this did not support effective implementation (FES<10%, moderate confidence).

Theme 2

Enabler: Services have key staff who will lead and share knowledge of the standards.

Barrier: Services work in silos, have limitations with staffing and knowledge of standards.

Theme 2 focused on knowledge and staff. Studies reported that shared knowledge and interprofessional collaborations enabled collective efforts with implementation of standards (FES 45%, high confidence) and knowledge of the standards were fundamental to implementation (FES 26%, high confidence). Active involvement from managers by providing leadership and commitment was reported as assisting with implementation (FES 26%, high confidence). The availability of staff was identified as a key enabler and

Table 1 Themes, thematic statements and descriptions of enablers to implementing (inter)nationally endorsed health and social care standards with level of confidence in the evidence* reporting the enablers

Enablers to implementing (inter)nationally endorsed health and social care standards		
Themes (†N)	Thematic statements	Descriptions
1. Standards are adaptable and relevant in day-to-day practice (n=8).	Standards are simplified, tailored and feasible for implementation in day-to-day practice. ^{44 48 49 61 66}	Standards use simple language, are easy to read, concise and actionable, so they are feasible for implementation in day-to-day practice.
	Standards are reviewed for continued relevance for implementation and application to practice. ^{49 50 53 54}	Standards are reviewed for relevance for implementation, suitability and application to daily activities.
2. Services have key staff who will lead and share knowledge of the standards (n=28).	Recruitment and availability of staff such as designated personnel who act as champions and role models are key elements to implementation of standards. ^{28 30 39 43 44 47 49 51 53 58 59 63 66–68 70}	Key human resources are described as champions, designated personnel, care coordinators, and specialist nurses or physicians. Recruitment, availability of staff, and staff sociodemographics such as marital status are associated with implementation of standards.
	Shared knowledge and interprofessional collaborations enable implementation of standards. ^{37 40 41 45 48–53 56 60 64 66 68 69 71}	Knowledge, experiences and expertise that are shared between multidisciplinary teams and organisations enable collective efforts with implementation of standards.
	Knowledge of the standards and skills to perform are fundamental to implementation of standards. ^{28 39 41 44 50 63 67 70}	Knowledge, skills and competencies are needed to ensure quality and effective care. Age, experience and academic qualifications contribute to knowledge.
3. Services collaborate with people using services (n=10).	Services have managers that provide leadership, commitment and support to assist with implementing standards. ^{30 37 39 45 49 50 64 66 67 69}	Management provides strong and focused leadership. Management is accountable, actively involved and gives support at all levels to assist with implementation.
	Services collaborate in partnership with service-users as an essential step to implementing standards. ^{41 49 52 69 70}	The involvement of patients, families and carers in service delivery will enhance improvements in care and enable implementation of the standards.
4. Services have access to resources (n=15).	Services have effective supports available to service-users to support implementation of standards. ^{30 41 45 51 60 63}	Services recognise a person's rights and staff offer motivational support including access to therapy, support groups or easy-to-understand brochures. This will support implementation of standards.
	Standards are incorporated into practice by providing the necessary resources such as supplies, equipment and health-screening systems. ^{28 39 43 44 49 52 59 61 64 67 68 71}	Services have adequate resources, for example, medical supplies, equipment, and provide systematic screening and assessment practices to incorporate the standards into practice.
	Standards implementation is allocated sufficient budgets to support necessary resources such as supplies and equipment. ^{39 50 70}	Funds are increased and allocated to resources that will purchase, operate and maintain medical supplies, equipment and infrastructure.
5. Services promote quality improvements and value staff in doing so (n=17).	Service size, space and maintenance of infrastructure facilitates implementation of standards. ^{39 40 70}	Service size, available physical space and well-maintained infrastructure are facilitating factors to implementation of standards.
	Services have quality improvement activities including capacity building such as specialist programmes and staff engagement to improve adherence to the standards. ^{28 30 46 48 50 59 64 67 69}	Services have processes in place for quality improvement to improve adherence to the standards such as; staff participation and autonomy; specialist programmes; back-up planning.
	Services appreciate staff members and acknowledge their workloads to optimise performances with standards. ^{28 30 39 49 63 69}	Staff are recognised for their efforts and consideration is given to time and workload. This will optimise their performances with standards.
	Standards become part of everyday practice when there is credibility that they are an impetus to safety and quality improvements. ^{44 47 49 53 62 64}	An understanding that standards are evidence-based and provide a framework for safety and quality improvements, will engage services to incorporate the standards into everyday practices.
	Services have a culture of ongoing quality improvement to encourage quality standards implementation. ^{49 53 64}	A culture that supports different quality improvements and is aware of safety, risk and ongoing review, will encourage implementation of standards.
6. Services have accessible training, support tools and monitoring practices (n=31).	Services have financial incentives to motivate implementation of standards. ^{30 49 54}	Services provide or, are provided with, financial rewards that act as an incentive to implementation of standards.
	Services use support tools at local level to prompt compliance, improve performances and assure effective implementation of standards. ^{28 37 41 43–45 47–51 56 58 62 63 66 70 71}	Standards included on meeting agendas place a focus on safety and quality. Standardised assessment tools and information systems prompt compliance and improve performances. Checklists evaluate practices and offer assurance that care is provided. The availability of local policies, guidelines and procedures improve care and management.
	Services have training courses to increase awareness and knowledge of the standards and help implement the standards. ^{28 39–41 44 47–52 56 64 67–71}	Education of standards include targeted training, national and regional training, preservice training, in-service training, prequalification education, workshops, role play sessions, topic awareness week. Education will raise awareness and improve knowledge which will establish the standards and their implementation.

Continued

Table 1 Continued

Enablers to implementing (inter)nationally endorsed health and social care standards

Themes (†N)	Thematic statements	Descriptions
	Services have accessible educational materials to raise awareness and understanding of standards. ^{41 44 47 49 51 53 61 63 64 67 71}	Accessible educative materials such as simplified versions of standards in brochure, poster or ID flip card format assists with awareness and understanding of standards.
	Services have internal monitoring, audit and feedback processes to guide quality improvements. ^{30 37 41 45 49 50 57 60 63 64 66 67}	Services monitor their own staff practices and have indicators for surveying practices to guide and enhance quality improvements. Internal staff members monitor performances and give feedback.
	Services use effective communication strategies to disseminate and promote information on standards. ^{44 49 50}	Communication methods to disseminate and promote information on standards include orientation programmes, newsletters, internal websites, phone or email, paper-based systems, government web pages and academic journals.
	Services have external mandatory requirements such as national benchmarking, accreditation or regulation to motivate implementation of standards. ^{49 53 54 56 71}	A motivating factor for implementation is when standards are mandatory and are surveyed, monitored and evaluated through national benchmarking, accreditation or regulation.

High confidence in the evidence reporting the enabler; Moderate confidence in the evidence reporting the enabler; Low confidence in the evidence reporting the enabler.

*Level of confidence in the evidence was assessed using the four CERQual (Confidence in Evidence from Reviews of Qualitative research) components: methodological limitations; relevance of data; coherence; adequacy of the data. High, moderate or low confidence was based on the judgement that the finding was highly likely, likely or possibly a reasonable representation of an enabler to implementing (inter)nationally endorsed standards. Please refer to section 'Assessment of confidence in evidence' in the main manuscript for further details.

†n: Number of studies that contributed to this theme.

studies referred to key staff as champions, role models, designated personnel or care coordinators (FES 52%, moderate confidence).

A lack of knowledge, awareness and understanding of the standards was the most frequently reported barrier (FES 63%, high confidence). The gap in knowledge related to the rationale for standards, their content, expectations and knowledge of available support tools. Staffing constraints were reported as a barrier, which resulted in issues such as an increase in transient staff (FES 46%, high confidence). Other barriers reported were: managers who do not support staff with consistent processes or onsite presence (FES 23%, moderate confidence); services taking a mono-disciplinary approach resulting in a lack of shared knowledge (FES 20%, moderate confidence); staff not consistently involved in implementation (FES 11%, moderate confidence).

Theme 3

Enabler: Services collaborate with people using services.

Barrier: Services and service-users have misconceptions about healthcare and support.

Theme 3 described the role of the service-user in implementation of standards. Collaborations and partnerships with patients, family and carers were reported as improving care delivery (FES=16%, high confidence). The availability of appropriate supports for service-users assisted with implementing standards (FES=13%, high confidence).

Barriers included service-users having misconceptions about healthcare due to a lack of knowledge on service delivery and healthcare needs (FES 23%,

high confidence). Care and support that was patient-focused resulted in families and carers experiencing challenges accessing supports for themselves (FES 23%, high confidence). Healthcare professionals reported concerns that they would harm relationships with patients if they raised sensitive issues as recommended in some standards (FES 11%, high confidence).

Theme 4

Enabler: Services have access to resources.

Barrier: Services have poor access to resources and funding.

Theme 4 described the availability of adequate resources such as supplies, equipment and screening systems which were required to incorporate the standards into practice (FES 39%, high confidence). The allocation of sufficient budgets to services (FES 10%, low confidence) and maintenance of infrastructures were reported as facilitating implementation (FES 10%, low confidence).

Conversely, limited supply of equipment, medical supplies and materials impeded implementation (FES 40%, high confidence). Reasons for limited supply were described as a lack of availability or, distribution and allocation issues. Other barriers such as insufficient funds resulted in shortages in supplies, poor maintenance of equipment and infrastructure. Standards had cost implications that led to competing tenders for safety and quality projects (FES 43%, high confidence). Infrastructural issues were described as limited physical space, old structures and service size (FES 26%, moderate confidence).

Table 2 Themes, thematic statements and descriptions of barriers to implementing (inter)nationally endorsed health and social care standards with level of confidence in the evidence* reporting the barriers

Barriers to implementing (inter)nationally endorsed health and social care standards		
Themes (†N)	Thematic statements	Descriptions
1. Standards have limited adaptability (n=10).	Standards have limited applicability due to inherent differences between services including geographical locations. ^{30 41 49 54 59 61 62}	Differences in service type, service delivery and geographical location, results in difficulty applying standards to all service areas. Examples include differences between urban and rural services, healthcare and community settings, emergency and outpatient services.
	Standards overlap and use compliance or medical oriented language making them difficult to embed in practice. ^{49 65 66}	Standards use language that is compliance or medical oriented. There is a high number of standards resulting in different overlapping standards and information overload which make it difficult to embed the standards in practice.
	Standards do not align well with legislation, accreditation or regulatory frameworks. ^{49 53 62}	Standards do not fit neatly with legislation, accreditation or regulatory frameworks. Aspects of these frameworks do not support effective implementation of standards.
2. Services work in silos, have limitations with staffing and knowledge of standards (n=31).	Services have a lack of knowledge, awareness and understanding of what standards are. ^{28 30 38 39 41 44 47 49–53 55 59 60 62–65 67–70}	There is a gap in knowledge, awareness and understanding of standards among staff relating to the rationale for standards, content of standards, expectations of service delivery and available support tools.
	Services are experiencing staffing constraints that act as a barrier to complying with standards. ^{28 30 38–40 44–50 56 59 63 66 70 71}	Services are experiencing a lack of and a shortage of staffing resources such as unfilled specialist positions. This can lead to other issues such as loss of skills at local level, poaching of staff and an increase in transient staff.
	Services have managers who do not support staff to comply with the standards. ^{37–39 44 47 48 50 56 65 69}	A lack of support from management includes a lack of; consistent processes, enforcement, leadership, understanding and onsite presence to support compliance with standards.
	Services take a monodisciplinary approach with poor communication practices resulting in a lack of shared understanding and knowledge and poor implementation of standards. ^{30 37–39 49 59 60 63 70}	Services have poor integration and communication practices resulting in a lack of shared knowledge and joined up working, thus limiting the broader effectiveness of service delivery resulting in poor implementation of standards.
	Services do not involve staff members including managers and professionals in decision-making and implementation of standards. ^{38 39 44 65 69}	Service managers and healthcare professionals are not consistently involved in implementation of standards.
3. Services and service-users have misconceptions about healthcare and support (n=15).	Service-users lack awareness and knowledge leading to misconceptions about healthcare and demotivates standards implementation. ^{41 46 49 59 60 63 68 70}	Patients, carers and family members have a lack of awareness, knowledge and understanding of healthcare needs and service delivery which demotivates standards implementation.
	Services do not have appropriate supports available to service-users including families and carers to comply with standards. ^{30 45 48 49 51 55 60 62}	Care and support can be patient focused and hence, families and carers can experience challenges accessing appropriate support services. Ethnic minority groups can be difficult to reach posing challenges to providing supports.
	Standards may harm relationships between healthcare professionals and service-users. As such, healthcare professionals are reluctant to implement the standards. ^{49 52 60 63}	Healthcare professionals are threatened by a shift in power dynamics and fear that they will harm relationships with patients and family when raising sensitive health issues as recommended in a standard. This results in reluctance to implement the standards.
4. Services have poor access to resources and funding (n=25).	Services have insufficient funds causing resource issues and competing tenders for safety and quality projects impacting on implementing the standards. ^{28 38 39 46–50 56 57 61 63 65 66 70 71}	A lack of funding can result in: shortages in medical equipment and supplies; poor maintenance of equipment and infrastructure; poor morale in services. Insufficient funding hinders implementation and is problematic for services. For example, standards have cost demands that result in competing tenders for safety and quality projects.
	Services have a limited supply of resources such as equipment and medical supplies and hence are unable to provide all the activities set out in the standards. ^{30 38 39 44 46 50 56 59 62 64 66 67 69–71}	Services have poor access to resources including equipment, medical supplies and materials. Reasons are described as shortages in supply, lack of availability or distribution and allocation issues.
	Services do not have specialist programmes to implement the standards effectively. ^{30 40 48–50 56 59 63 64 68}	There is poor access to specialised services or programmes to support individuals at all times and to implement the standards effectively.
	Services have infrastructural issues such as limited space and service size affecting compliance with standards. ^{38–40 44 48 49 57 64 65 69}	A lack of physical space, old structures and service size can affect the quality of a service and pose challenges to compliance with standards.
5. Services experience resistance to change due to cultural practices (n=31).	Services have insufficient time to implement standards due to increased service capacity and work overload. ^{30 37 38 42 48 49 52 59 61 63 65 66 69–71}	Services experiencing increased capacity coupled with implementing standards creates additional work and limits the provision of care and support due to time constraints.

Continued

Table 2 Continued

Barriers to implementing (inter)nationally endorsed health and social care standards

Themes (†N)	Thematic statements	Descriptions
	Services have entrenched cultures that resist change acting as a barrier to implementing standards. ^{41 43 45 49 50 56 58 59 63–65 67 70 71}	Services may have cultural sensitivities with a reluctance to change. Compliance with aspects of standards may be perceived as a burden such as documentation practices.
	Services have competing priorities and hence variations can exist with implementation of standards. ^{28 44 49–51 59 71}	Time spent on standards means time away from other competing projects. This can result in variations in implementation where more urgent activities are prioritised, for example, mandatory standards are prioritised over aspirational standards.
	Services have unclear accountability systems resulting in a misunderstanding of roles and responsibilities with implementing standards. ^{46 49 55 60 63 69}	Staff do not feel implementation of various aspects of standards fall within their scope of practice and hence roles and responsibilities are unclear.
	Services perceive the standards as not being the norm for high quality care and in doing so, hinders implementation. ^{53 59 62}	Healthcare professionals do not perceive the standard as the norm for quality. Standards can miss important elements of care and lack focus on promoting improvements.
6. Services have a lack of training, support tools and consistent monitoring processes (n=21).	Services have an absence of clear policies, guidelines, protocols and pathways at local and national level to support local implementation of standards. ^{30 41 48 51 57 60 62–64 70}	Services have a lack of clear and effective policies, guidelines, protocols, pathways and interventions. This can result in contradictory advice from professionals and uncertainty in care provision and thus standards implementation.
	Services experience challenges with education and training such as cost, replacing staff, time and this acts as a barrier to establishing the standards. ^{28 30 40 44 47 49 50 56 62 64 69}	Generic training does not always adapt to local settings. There is a lack of formal, on-site and refresher training programmes due to no backup capacity to replace staff while training occurs. There is a lack of trainers, funding and time, hence staff can become unreceptive to training.
	Services do not have internal monitoring and evaluation processes to assess the effectiveness of standards implementation. ^{41 47 49 50 53 64 68}	Services do not monitor, assess or evaluate their performances or programmes to establish effectiveness of standards implementation. Reasons for this include a lack of time, lack of requirement to do so and lack of reliable assessments.
	Services are at risk of inconsistent external assessments and judgements about standards implementation due to different monitoring agencies. ^{53 56}	Implementation of standards is at risk of inconsistencies in assessments and judgements about performances, thus resulting in low reliability and undermining the standards credibility. This can occur if there are different monitoring agencies.

■ High confidence in the evidence reporting the barrier; ■ Moderate confidence in the evidence reporting the barrier; ■ Low confidence in the evidence reporting the barrier.

*Level of confidence in the evidence was assessed using the four CERQual (Confidence in Evidence from Reviews of Qualitative research) components: methodological limitations; relevance of data; coherence; adequacy of the data. High, moderate or low confidence was based on the judgement that the finding was highly likely, likely, or possibly a reasonable representation of a barrier to implementing (inter)nationally endorsed standards. Please refer to section 'Assessment of confidence in evidence' in the main manuscript for further details.

†n: Number of studies that contributed to this theme.

Theme 5

Enabler: Services promote quality improvements and value staff in doing so.

Barrier: Services experience resistance to change due to cultural practices.

Theme 5 set out organisational cultures and practices that influenced implementation of standards. Enabling factors comprised a culture of quality improvement such as: capacity building and staff engagement (FES 32%, high confidence); recognising staff for their efforts (FES 19%, high confidence); credibility that standards were an impetus to safety and quality improvements (FES 19%, high confidence).

Barriers related to entrenched cultures that resisted change because standards were perceived as a burden (FES 40%, high confidence). Studies reported that there was insufficient time to implement standards (FES 40%, high confidence) as time spent on standards meant time away from other competing projects, resulting in variation in implementing standards

(FES 20%, high confidence). Unclear accountability systems resulted in a misunderstanding of roles and responsibilities with standards (FES 17%, high confidence). A culture where staff did not perceive the standards as the norm for high quality care was also reported as hindering implementation (FES <10%, low confidence).

Theme 6

Enabler: Services have accessible training, support tools and monitoring practices.

Barrier: Services have a lack of training, support tools and consistent monitoring processes.

Theme 6 described strategies that facilitated implementation of standards. The availability of support tools (FES 55%, high confidence), training courses (FES 52%, high confidence) and accessible educational materials (FES 32%, high confidence) helped to implement standards. Studies referred to support tools

as standardised assessment tools, checklists, policies and guidelines. Descriptions of training courses across studies included targeted training, prequalification education, workshops and role-play sessions. Effective communication strategies such as newsletters, internal websites and academic journals promoted information about the standards (FES 10%, moderate confidence). Internal and external monitoring were motivating factors to implementation. Internal monitoring such as audit and feedback guided quality improvements (FES 32%, high confidence). External monitoring such as benchmarking, accreditation or regulation were motivators (FES 10%, high confidence).

Conversely, an absence of clear policies, guidelines, protocols and pathways (FES 29%, high confidence), and challenges with education and training (FES 31%, high confidence) acted as barriers to implementing standards. Challenges with education related to cost, time and backup capacity to replace staff, causing staff to become unreceptive to training. A lack of internal monitoring resulted in an inability to determine if implementation was effective (FES 20%, high confidence). Inconsistent external assessments resulted in low reliability and thus effected stakeholders' perceptions of the credibility of the standards (FES <10%, low confidence).

DISCUSSION

This systematic review synthesises the evidence from 35 primary studies. The meta-summary technique identified enablers and barriers based on prevalence across the literature and offers a focused thematic summary of the data which distinguishes it from other analytical methods where the generation of themes is determined by the researcher's judgements.^{73 74} The most frequently reported enablers in which we had high confidence included services using support tools, accessible training courses and shared knowledge and interprofessional collaborations. The most frequently reported barriers in which we had high confidence included a lack of knowledge, awareness and understanding of what standards are and, services experiencing staffing constraints. A central concept underpinning these factors is knowledge of the standards themselves.

Influencing factors found in this review are bidirectional and are reflected in the literature on implementation, for example, Damschroder's Consolidated Framework for Implementation Research⁷⁵ and Greenhalgh's Model of Diffusion in Service Organisations.⁷⁶ In addition, this review incorporates new studies published since these frameworks were developed, expanding the research base and better allowing tacit knowledge to be made explicit. Enablers and barriers with low FES measurements were system-level factors that are described in the 'outer context' domains of the aforementioned frameworks. A less frequently reported enabler in which we had high

confidence was services having external mandatory requirements, for example, accreditation. This is noteworthy considering 20 of the 35 studies examined standards that were part of accreditation or regulatory systems.^{37 40–42 44 45 47–57 64 65 67} Existing literature reports evidence to support external pressures from accreditation as assisting implementation of healthcare standards and the lack of such pressures as a hindering factor.⁷⁷ Other less frequently reported barriers in which we had low to moderate confidence were standards not aligning well with legislation, accreditation or regulatory frameworks and services at risk of inconsistent external assessments regarding standards implementation. Three of four studies included in this review that identified system-level factors included people working at system level, for example, government representatives.^{49 53 54 66} Most studies in this review included people from service management and front-line staff in their samples suggesting a bottom-up perspective. Literature reports implementation science as primarily focusing on bottom-up approaches⁷⁸ and policy implementation research typically focuses on system-level (top-down) approaches.⁷⁹ Nilsen and Cairney reported a lack of recognition across implementation science for characteristics of the political and outer context environments in healthcare.⁷⁹ This perhaps suggests a need for convergence between policy implementation research and implementation science to adopt a whole system approach to implementing standards.

Similarities in enablers and barriers reported across studies were evident regardless of the country where the study took place. For example, barriers such as staff constraints and insufficient funds were reported in low-income to middle-income^{38 66} and high income countries.^{50 63} In this review, we retrieved predominantly quantitative studies. Qualitative explorations are needed to gain an in-depth understanding of the extent to which an enabler or barrier is experienced.

Strengths and limitations

The meta-summary methodology enables a mixed research synthesis of the evidence from all study designs and thus a key strength of this review is methodological inclusivity. The FES is a useful metric to describe the prevalence of influencing factors across the literature and gives weight to their potential impact. This can assist with decision making on what enablers and barriers need to be addressed when developing implementation strategies. However, a critique of this metric is that it does not describe the scale at which factors have influence over implementation of standards or the interactions between the standards and their implementation in context.

The variation in standards examined in this review has captured the breadth of the literature relating to the implementation of (inter)nationally endorsed standards. This variation may pose challenges for

researchers if transferring the enablers and barriers experienced in diverse health systems to their own situations, however, detailed descriptions of the methods and findings are presented.

CONCLUSION

Health and social care standards are complex interventions. The enablers and barriers described in this systematic review can be used to aid decision making on implementation strategies and support given by standard-setting bodies to health and social care services when they are implementing standards. Using Sandelowski's meta-summary approach enabled presentation of these enablers and barriers in an accessible form given the large volume of data retrieved. The most prevalent identified factor across enablers and barriers was knowledge of standards. Implementation strategies that focus first and foremost on increasing knowledge and understanding of standards, are likely to be effective.

Author affiliations

¹Health Information and Standards Directorate, Health Information and Quality Authority (HIQA), Cork, Ireland

²Catherine McAuley School of Nursing and Midwifery and School of Public Health (SPHeRE programme), University College Cork, Cork, Ireland

³Health Information and Standards Directorate, Health Information and Quality Authority (HIQA), Dublin, Ireland

⁴Catherine McAuley School of Nursing and Midwifery, University College Cork, Cork, Ireland

Acknowledgements This work was conducted as part of the Structured Population health, Policy and Health-services Research Education (SPHeRE) programme (Grant No. SPHeRE/2019/1). Yvonne Kelly has conducted this work as part of a PhD studentship that is funded by the Health Information and Quality Authority (HIQA).

Contributors YK: conceptualisation, data curation, formal analysis, investigation, methodology, software, project administration, validation, visualisation, writing—original draft preparation, writing—review and editing. NO'R: resources, supervision, validation, writing—review and editing. RF: funding acquisition, resources. LO'C: conceptualisation, supervision, validation, visualisation, writing—review and editing. JH: conceptualisation, methodology, supervision, validation, visualisation, writing—review and editing, guarantor.

Funding This study was funded by Health Information and Quality Authority (no award/grant number).

Competing interests None declared.

Patient consent for publication Not applicable.

Ethics approval Not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement All data relevant to the study are included in the article or uploaded as supplementary information.

Supplemental material This content has been supplied by the author(s). It has not been vetted by BMJ Publishing Group Limited (BMJ) and may not have been peer-reviewed. Any opinions or recommendations discussed are solely those of the author(s) and are not endorsed by BMJ. BMJ disclaims all liability and responsibility arising from any reliance placed on the content. Where the content includes any translated material, BMJ does not warrant the accuracy and reliability of

the translations (including but not limited to local regulations, clinical guidelines, terminology, drug names and drug dosages), and is not responsible for any error and/or omissions arising from translation and adaptation or otherwise.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>.

ORCID iD

Yvonne Kelly <http://orcid.org/0000-0003-3011-7640>

REFERENCES

- Braithwaite J, Glasziou P, Westbrook J. The three numbers you need to know about healthcare: the 60-30-10 challenge. *BMC Med* 2020;18:102.
- Saini V, Garcia-Armesto S, Klemperer D, *et al*. Drivers of poor medical care. *Lancet* 2017;390:178–90.
- Braithwaite J. Changing how we think about healthcare improvement. *BMJ* 2018;361:k2014.
- Institute of Medicine. *Crossing the quality chasm. A New Health System for the 21st Century*. Washington: National Academy Press, 2009.
- OECD. Caring for quality in health. Lessons learnt from 15 reviews of health care quality; 2017.
- Kelly Y, O'Rourke N, Flynn R, *et al*. Definitions of health and social care standards used internationally: a narrative review. *Int J Health Plann Manage* 2023;38:40–52.
- HIQA. International review of the methodologies for developing national standards and guidance for health and social care services cork; 2018.
- Proctor EK, Powell BJ, McMillen JC. Implementation strategies: recommendations for specifying and reporting. *Implement Sci* 2013;8:139.
- Cunningham S, Taylor BJ, Murphy A. Standards in regulating quality of adult community health and social care: systematic narrative review. *J Evid Based Soc Work (2019)* 2020;17:457–68.
- Alkhenizan A, Shaw C. The attitude of health care professionals towards accreditation: a systematic review of the literature. *J Fam Community Med* 2012;19:74.
- Alkhenizan A, Shaw C, Alkhenizan A. Impact of accreditation on the quality of healthcare services: a systematic review of the literature. *Ann Saudi Med* 2011;31:407–16.
- Brubakk K, Vist GE, Bukholm G, *et al*. A systematic review of hospital accreditation: the challenges of measuring complex intervention effects. *BMC Health Serv Res* 2015;15:280.
- Flodgren G, Gonçalves-Bradley DC, Pomey M-P. External inspection of compliance with standards for improved healthcare outcomes. *Cochrane Database Syst Rev* 2016;12:CD008992.
- Flodgren G, Pomey M-P, Taber SA, *et al*. Effectiveness of external inspection of compliance with standards in improving healthcare organisation behaviour, healthcare professional behaviour or patient outcomes. *Cochrane Database Syst Rev* 2011:CD008992.
- Hussein M, Pavlova M, Ghalwash M, *et al*. The impact of hospital accreditation on the quality of healthcare: a systematic literature review. *BMC Health Serv Res* 2021;21:1057.

- 16 Tabrizi JS, Gharibi F. Primary healthcare accreditation standards: a systematic review. *Int J Health Care Qual Assur* 2019;32:310–20.
- 17 Greenfield D, Pawsey M, Hinchcliff R, *et al.* The standard of healthcare accreditation standards: a review of empirical research underpinning their development and impact. *BMC Health Serv Res* 2012;12:1–14.
- 18 Powell BJ, Beidas RS, Lewis CC, *et al.* Methods to improve the selection and tailoring of implementation strategies. *J Behav Health Serv Res* 2017;44:177–94.
- 19 Page MJ, McKenzie JE, Bossuyt PM, *et al.* The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ* 2021;372:n71.
- 20 Kelly Y, O'Rourke N, Flynn R, *et al.* Factors that influence the implementation of health and social care standards: a systematic review and meta-summary protocol. *HRB Open Res* 2021;4:24.
- 21 Covidence. Better systematic review management. Melbourne AUS Covidence; 2021. Available: <https://www.covidence.org/>
- 22 Sandelowski M, Barroso J. *Handbook for synthesizing qualitative research*. New York: Springer Pub. Co, 2007.
- 23 Butler A, Hall H, Copnell B. A guide to writing a qualitative systematic review protocol to enhance evidence-based practice in nursing and health care. *Worldviews Evid Based Nurs* 2016;13:241–9.
- 24 Sandelowski M, Barroso J, Voils CI. Using qualitative metasummary to synthesize qualitative and quantitative descriptive findings. *Res Nurs Health* 2007;30:99–111.
- 25 Critical Appraisal Skills Programme. CASP checklists. 2018. Available: <https://casp-uk.net/casp-tools-checklists/> [Accessed 01 Sep 2020].
- 26 The Joanna Briggs Institute. Checklist for quantitative research. Adelaide, Available: <https://joannabriggs.org/critical-appraisal-tools>
- 27 Hong QN, Fàbregues S, Bartlett G, *et al.* The Mixed Methods Appraisal Tool (MMAT) version 2018 for information professionals and researchers. *EFI* 2018;34:285–91.
- 28 Fuller M, Dufty NE. Sexual health provision in defence primary health care: a model for change? *J R Army Med Corps* 2015;161 Suppl 1:i34–8.
- 29 Cleyle S, Glynn L. A critical appraisal tool for library and information research. *Library Hi Tech* 2006;24:387–99.
- 30 Knight A, Littlejohns P, Poole T-L, *et al.* The NICE alcohol misuse standard-evaluating its impact. *Int J Health Care Qual Assur* 2017;30:260–73.
- 31 Lewin S, Bohren M, Rashidian A, *et al.* Applying grade-cerqual to qualitative evidence synthesis findings—paper 2: how to make an overall cerqual assessment of confidence and create a summary of qualitative findings table. *Implement Sci* 2018;13:10.
- 32 Munthe-Kaas H, Bohren MA, Glenton C, *et al.* Applying GRADE-cerqual to qualitative evidence synthesis findings—paper 3: how to assess methodological limitations. *Implementation Sci* 2018;13.
- 33 Colvin CJ, Garside R, Wainwright M, *et al.* Applying grade-cerqual to qualitative evidence synthesis findings—paper 4: how to assess coherence. *Implement Sci* 2018;13:13.
- 34 Glenton C, Carlsen B, Lewin S, *et al.* Applying grade-cerqual to qualitative evidence synthesis findings—paper 5: how to assess adequacy of data. *Implement Sci* 2018;13:14.
- 35 Noyes J, Booth A, Lewin S, *et al.* Applying GRADE-cerqual to qualitative evidence synthesis findings—paper 6: how to assess relevance of the data. *Implementation Sci* 2018;13.
- 36 Lewin S, Glenton C, Munthe-Kaas H, *et al.* Using qualitative evidence in decision making for health and social interventions: an approach to assess confidence in findings from qualitative evidence syntheses (grade-cerqual). *PLoS Med* 2015;12:e1001895.
- 37 Mogakwe LJ, Ally H, Magobe NBD. Recommendations to facilitate managers' compliance with quality standards at primary health care clinics. *Curationis* 2019;42:e1–8.
- 38 Mogakwe LJ, Ally H, Magobe NBD. Reasons for non-compliance with quality Standards at primary healthcare clinics in ekurhuleni, South Africa. *Afr J Prim Health Care Fam Med* 2020;12:e1–9.
- 39 Mogakwe L, Ally H, Magobe NBD. Facilitating compliance with quality Standards at primary health care clinics through adequate health care resources. *AJNM* 2020;22:1–17.
- 40 Anno B. Jails' progress in implementing AMA (American Medical Association) standards; 1982.
- 41 Cohen MZ, Easley MK, Ellis C, *et al.* Cancer pain management and the JCAHO's pain standards: an institutional challenge. *J Pain Symptom Manage* 2003;25:519–27.
- 42 Gibson BR, Phillips G. Challenges and opportunities in correctional health care quality: a descriptive analysis of compliance with NCCHC standards. *J Correct Health Care* 2016;22:280–9.
- 43 Granade CJ, Parker Fiebelkorn A, Black CL, *et al.* Implementation of the standards for adult immunization practice: a survey of U.S. health care providers. *Vaccine* 2020;38:5305–12.
- 44 Lehman EJ, Huy JM, Viet SM, *et al.* Compliance with bloodborne pathogen standards at eight correctional facilities. *J Correct Health Care* 2012;18:29–44.
- 45 McTate E, Szulczewski L, Joffe NE, *et al.* Implementation of the psychosocial standards for caregiver mental health within a pediatric hematology/oncology program. *J Clin Psychol Med Settings* 2021;28:323–30.
- 46 Srivastav A, Black CL, Lutz CS, *et al.* U.S. clinicians' and pharmacists' reported barriers to implementation of the standards for adult immunization practice. *Vaccine* 2018;36:6772–81.
- 47 Vandervort EB, Melkus GD. Linguistic services in ambulatory clinics. *J Transcult Nurs* 2003;14:358–66.
- 48 Wiener L, Rosenberg AR, Lichtenthal WG, *et al.* Personalized and yet standardized: an informed approach to the integration of bereavement care in pediatric oncology settings. *Pall Supp Care* 2018;16:706–11.
- 49 ACSQHC. *Scoping study on the implementation of national standards in mental health services*. Sydney, 2014.
- 50 Avent ML, Hall L, Davis L, *et al.* Antimicrobial stewardship activities: a survey of Queensland hospitals. *Aust Health Rev* 2014;38:557–63.
- 51 Cody S, Lizarondo L, McArthur A, *et al.* Improving the quality of delirium practices in a large Australian tertiary Hospital: an evidence implementation initiative. *AJAN* 2021;38:3–13.
- 52 Eeles E, McCrow J, Teodorczuk A, *et al.* Delirium care: real-world solutions to real-world problems. *Australas J Ageing* 2017;36:E64–9.
- 53 Greenfield D, Hinchcliff R, Banks M, *et al.* Analysing "big picture" policy reform mechanisms: the Australian health service safety and quality accreditation scheme. *Health Expect* 2015;18:3110–22.
- 54 Hinchcliff R, Greenfield D, Westbrook JI, *et al.* Stakeholder perspectives on implementing accreditation programs: a

- qualitative study of enabling factors. *BMC Health Serv Res* 2013;13:437.
- 55 Lawn S, Waddell E, Cowain T, *et al.* Implementing national mental health carer partnership standards in South Australia. *Aust Health Rev* 2020;44:880–90.
- 56 Jones R, Carville K, James R. Antimicrobial stewardship in Australian hospitals: how does compliance with antimicrobial stewardship standards compare across key hospital classifications? *JAC Antimicrob Resist* 2020;2:dlaa100.
- 57 Dignan FL, Hamblin A, Chong A, *et al.* Survivorship care for allogeneic transplant patients in the UK NHS: changes centre practice, impact of health service policy and JACIE accreditation over 5 years. *Bone Marrow Transplant* 2021;56:673–8.
- 58 Heller R, Fernando I, Macdougall M. Factors associated with a clinician's offer of screening HIV-positive patients for sexually transmitted infections, including syphilis. *Int J STD AIDS* 2011;22:351–2.
- 59 Wilkinson C, White S, Fronzo C. Are multiple sclerosis services meeting the NICE quality standard? *Br J Neurosci Nurs* 2018;14:73–6.
- 60 Derksen RE, Brink-Melis WJ, Westerman MJ, *et al.* A local consensus process making use of focus groups to enhance the implementation of a national integrated health care standard on obesity care. *Fam Pract* 2012;29 Suppl 1:i177–84.
- 61 Hifinger M, Ramiro S, Putrik P, *et al.* The eumusc.net standards of care for rheumatoid arthritis: importance and current implementation according to patients and healthcare providers in the Netherlands. *Clin Exp Rheumatol* 2018;36:275–83.
- 62 Raaijmakers LGM, Martens MK, Bagchus C, *et al.* Perceptions of Dutch health care professionals regarding the care standard for diabetes. *BMC Res Notes* 2013;6:417.
- 63 Schalkwijk AAH, Nijpels G, Bot SDM, *et al.* Health care providers' perceived barriers to and need for the implementation of a national integrated health care standard on childhood obesity in the Netherlands—a mixed methods approach. *BMC Health Serv Res* 2016;16:83.
- 64 Tabrizi JS, Saadati M, Heydari M, *et al.* Medical waste management improvement in community health centers: an interventional study in Iran. *Prim Health Care Res Dev* 2019;20:1–6.
- 65 Yahyavi F, Nasiripour AA, Keikavoosi Arani L, *et al.* Challenges of implementation of Iranian national Hospital accreditation standards (3rd edition 2016) for Tehran's Islamic Azad University hospitals. *Medical Sciences* 2018;28:252–7.
- 66 Chang KT, Hossain P, Sarker M, *et al.* Translating international guidelines for use in routine maternal and neonatal healthcare quality measurement. *Glob Health Action* 2020;13:1783956.
- 67 La-Rotta EIG, Garcia CS, Barbosa F, *et al.* Evaluation of the level of knowledge and compliance with standart precautions and the safety standard (NR-32) amongst physicians from a public university Hospital, Brazil. *Rev Bras Epidemiol* 2013;16:786–97.
- 68 Zakarija-Grković I, Boban M, Janković S, *et al.* Compliance with WHO/UNICEF BFHI standards in Croatia after implementation of the BFHI. *J Hum Lact* 2018;34:106–15.
- 69 Habte T, Tsige Y, Cherie A. Survey on the quality of care standards in a nursing/midwifery training hospital at tikur anbessa specialized hospital in Addis Ababa, Ethiopia, 2019. *Adv Med Educ Pract* 2020;11:763–74.
- 70 Krause S, Williams H, Onyango MA, *et al.* Reproductive health services for Syrian refugees in zaatari cAMP and irbid City, hashemite Kingdom of Jordan: an evaluation of the minimum initial services package. *Confl Health* 2015;9.
- 71 de Onis M, Onyango A, Borghi E, *et al.* Worldwide implementation of the who child growth standards. *Public Health Nutr* 2012;15:1603–10.
- 72 Anno BJ. Jails' progress in implementing AMA (American Medical Association) standards. United States American Medical Association; 1982.
- 73 Sandelowski M, Barroso J. Creating metasummaries of qualitative findings. *Nurs Res* 2003;52:226–33.
- 74 Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol* 2006;3:77–101.
- 75 Damschroder LJ, Aron DC, Keith RE, *et al.* Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. *Implement Sci* 2009;4:50.
- 76 Greenhalgh T, Robert G, Macfarlane F, *et al.* Diffusion of innovations in service organizations: systematic review and recommendations. *Milbank Q* 2004;82:581–629.
- 77 Greenfield D, Pawsey M, Hinchcliff R, *et al.* The standard of healthcare accreditation standards: a review of empirical research underpinning their development and impact. *BMC Health Serv Res* 2012;12:329.
- 78 Nilsen P, Bernhardsson S, Sahlgrenska A. Context matters in implementation science: a scoping review of determinant frameworks that describe contextual determinants for implementation outcomes. *BMC Health Serv Res* 2019;19:189.
- 79 Nilsen P, Cairney P. Policy implementation research. In: Nilsen P, Birken SA, eds. *Handbook on implementation science*. Cheltenham: Edward Elgar Publishing, 2020: 368–88.