



Trinity College Dublin  
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The University of Dublin

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# Understanding Change in Complex Health Systems

A review of the literature on  
change management in health  
and social care 2007-2017

Sarah Barry, Richard Dalton & Jessica Eustace-Cook,  
Centre for Health Policy and Management,  
Trinity College Dublin

## Commission

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## Accessing documentation

- ▶ This Literature Review and People's Needs Defining Change – Health Services Change Guide are available at [www.hse.ie/changeguide](http://www.hse.ie/changeguide).
- ▶ The **Change Hub** ([www.hseland.ie](http://www.hseland.ie)) also provides access to all of the documentation, templates, tools and methodologies referenced in the Change Guide.

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## **Section 0.1**

# Introduction to the current review

## 0.1 Introduction to the current review

This review was conducted as a companion piece to *People's Needs Defining Change – Health Services Change Guide* (referred to as the 'Change Guide' throughout this review). It presents an academic appraisal of current literature on change management in health and social care systems. An important theme reflected in this literature is 'engagement' which emphasises the people and culture aspects of change management which are presented in greater detail in the *Health Services Change Framework*.

The review, like the *Change Guide* is set in a context of critical change for the Irish health system as a significantly shifting national health profile and international developments on how healthcare might be designed, delivered and paid-for impact on current models and patterns of health service organisation. This also means changes to the model of care and the traditional roles played by almost all stakeholders including frontline providers, managers and organisational-support service-providers; patients, service users, the public at large and the politicians who represent their interests and goals. There is recognition among many stakeholders that the current situation is unacceptable, that change is needed; and importantly, that it is also necessary to change how 'change itself' is understood and managed. This review stands as a support and reference document for the *Change Guide*.

At a policy level the review has been conducted as the implementation of *Sláintecare, the report of the All-Party Oireachtas Committee on the Future of Healthcare in Ireland* (Houses of the Oireachtas, 2017) is planned and the implications of health demand and care capacity in the Irish health system are under review (Department of Health and PA Consulting, 2018). Regardless of the outcomes of *Sláintecare's* implementation, and the on-going management of demand and capacity challenges, a person-centred approach to healthcare is now firmly on the agenda and will continue to challenge established patterns and models of health and social care delivery, as well as challenging fundamental assumptions that

inform current ways of working and organisation models. In this vein change management itself is changing to enable a person-centred approach.

In the earlier 2006 Literature Review (McAuliffe and van Vaerenbergh) conducted for the health service change model publication, *Improving Our Services: A Users' Guide to Managing Change in the Health Service Executive* (2008) attention was paid to the theoretical underpinnings of change management. This review highlights how application challenges are now to the fore in the literature. The focus is on identifying practical solutions that positively address chronic barriers to implementing change and take advantage of opportunities arising. In this context the expansion of the implementation science literature since 2006 is relevant, although agreement as to the best constructs for implementation in practice is unclear (Chaudoir, Dugan and Barr, 2013). Further disruptors of traditional understandings of how change is best managed include questioning the notion of a general application of a positivist approach to change process design (May, 2013) and the prevalence of behavioural and social sciences in informing change management approaches (e.g. Waring and Bishop, 2010; Edwards and Saltman, 2017). Sociology is also important in resourcing how the social context and its determining factors (such as knowledge, culture, power, leadership and change itself) can be worked with.

Current literature addresses an identified 'gap-phenomenon' as failures of translation, coordination, management, policy relevance and implementation (e.g. Ranmuthugala et al., 2011). There is acceptance that change is nonlinear and messy, meaning that the design and management of change is not simply evidence-based but more realistically evidence-informed (Rangachari, Rissing and Rethemeyer, 2013; Seshia et al., 2014). New approaches to working with 'gaps' are sought, for example by building on the strengths of middle managers as team motivators (Birken, Lee and Weiner, 2012), bringing healthcare providers and researchers together to address translational challenges

(Rycrofft-Malone et al., 2016) or evaluating the role of communities of practice to enhance the context for change (Ranmuthugala et al., 2011). The randomised control trial (RCT) as the highest guarantor of change on the basis of the strongest evidence has lost some of its positionality in a growing awareness that process and system change does not happen on the basis of rationality or technical process alone (Pawson and Tilley, 1997; Greenhalgh, Thorne and Malterud, 2018).

Technology is identified as an important driver of change (e.g. McNutt et al., 2013). Technological innovation means a different approach to health workforce planning (for example) is required. This can enable a change from highly surgical to non-surgical care models. The movement internationally towards integrated and community-based patterns of healthcare delivery, ambulatory and population-based services, eHealth and other enablers of distributed care and collective leadership (Chreim et al., 2010) are relevant in this context. Technology may also present an opportunity to disable, where necessary, entrenched resistances to changing professional interactions and ways of working. This is because clinicians as a case in point tend to culturally embrace technology due to its association with innovation, efficiency, and modernity.

The conclusions of the review can thus be summarised around three core findings. Firstly, the dominant understanding of health and social care is through the lens of complex and adaptive systems. Secondly, the focus of the change management literature in health and social care settings is on tangible cases and practical examples rather than on theoretical considerations. Thirdly, the literature highlights context-specific determinants as critical factors for change reflecting the central concern of the literature with understanding how change can be implemented or realised in practice. These critical factors include phenomena such as social interaction, organisational culture, values, attitudes and behaviours, healthcare

environments, good governance, hierarchical structures and relating patterns, professional boundaries and networks, power dynamics and the distribution of core functions such as leadership, management and decision-making.

Given these parameters of complexity and context-specific dynamics, the approach to implementation identified seeks to generate better contextual understanding and engagement, enabling distributed skills for change, and better feedback loops of communication and learning at all levels. This also means that a systemic capacity for (new) ways of working-well with diversity and inclusion, for managing localised response and resistance, and harnessing high degrees of complexity and technological innovation is sought. Delivering on the promise and relevance of experience, participation and engagement-based change as organising principles rather than the more established organisational patterns of centralised command and control presents significant challenges in practice. The literature tentatively suggests initial pathways to discover how these challenges might be addressed.

### 0.1.1 The literature as reviewed in 2006

The first edition of the *Health Services Change Guide (Improving Our Services: A Users' Guide to Managing Change in the Health Service Executive)* (HSE, 2008)...van Vaerenbergh, 2006). That review outlined the parameters of scholarship and evidence on change management in large organisations including health systems. It identified two main streams of associated theoretical thought as 'planned' and 'contingency approaches'. Planned change is underpinned by the principles of scientific management and focuses on specific interventions to drive change. The contingency approach assumes change is constant and therefore draws on emergence, the unfixed nature of things and systems-thinking to address change in all its complexity (Mintzberg, 2007). The first review also explored how a transformational/transactional duality is useful for understanding the various change initiatives in

the Irish health system. Particular points included the importance of leadership and culture for transformational change on the one hand; and engagement with middle managers and structures as transactional drivers of change on the other. The 2006 review also usefully catalogued prominent approaches to change management from an organisational development perspective and linked these with appropriate change goals, strategies, tools, methods and critical enablers for the implementation of change.

### 0.1.2 The literature as reviewed in 2014

Antwi and Kale (2014) conducted a literature review in 2014 on the topic of 'change management in healthcare' comprehensively covering the relevant literature from 2006 to 2010. They concluded that change management theory can offer solutions to the challenges of implementing healthcare reform. Their starting point is the shift towards a 'patient-centred model' of healthcare delivery and they develop a three stage model of 'planning and preparing for change'; 'implementing change' and 'sustaining and supporting change' to deliver on this goal. The model reflects the foundational Lewinian approach of 'unfreeze, move, refreeze' (Lewin, 1951) which although underpinning much organisational development and change management thinking requires nuance and critique given the challenges of organisation today (Cummings, Bridgman & Brown, 2016). Using the tools of internal/external audit and process-mapping to assess healthcare organisation's capacity and readiness for change on the one hand, they note on the other that cultural change comes through 'disruption of the status quo'. Principally this happens with the redistribution of power from health service providers to health service consumers. This is the democratisation of healthcare evident in shifting expectations for universal, safe and quality delivery, technological innovation, affordability, and public accountability and governance in healthcare. In these 'unfrozen' waters, Antwi and Kale find that leadership, specifically, skilled change leaders are critical to implementing successful change (2014).

Change leaders need to understand the stage of change they are in; be committed and able to communicate the reasons for change, and translate these in collaboration with others into tangible organisational objectives.

Healthcare reform and system change is delivered in a context of organisational fragmentation on many fronts across service delivery models, professional affiliations, governance and accountability, policy debate, economic crisis and shifting population health profiles. Antwi and Kale affirm that change in these uncertain worlds needs to be tailored and targeted for specific groups and collectives. They identify the specific factors sustaining successful change initiatives as those which are clinically-led, use evidence, monitor performance, find and promote transformative change and identify ways in which the changes initiated do not 'evaporate' but become integral to an organisation's culture (2014). This often means differentiating between the initial triggers of change, and those longer-term factors that can sustain commitment to new practices, alliances or procedures on the basis of tangible shifts in thinking and attitudes.

In focussing the question of system reform overall, Antwi and Kale highlight the importance of strong leadership and new forms of cooperation to drive the cultural transformation needed for change. They note barriers such as legacy-related organisational fragmentation, professional affiliations and a leadership deficit. In response managers must develop change management capabilities whilst healthcare professionals must abandon unhelpful behaviours. A practical outcome of the 2014 review is the development of specific leadership programmes in the Canadian health system, a phenomenon also evident in the current Irish context. Although capturing many of the themes further explored in the current review, Antwi and Kale continue to imagine the change process through a traditional three-stage lens (2014).

### 0.1.3 Structuring the current review

On the basis of the current literature review it is clear that the findings and approaches of the 2006 and 2014 reviews continue to be relevant; they are encompassed in the focus here on people and power, culture and social interaction, leadership and learning. But the current focus on implementation as a science and the wicked challenges of contextualising change in practice (as noted above) is new. Also new to the change management literature in the health and social care context is greater focus on the specific capabilities and skills to harness individual, relational, team and organisational dynamics. A critical feature is the continued and expanding application of ‘whole-system-change’ as an approach. As health systems are conceptualised as complex and adaptive, organisations are no longer machines of many distinct parts. Change management now seeks new ways of working with ephemeral interconnectedness as the sum of those parts.

This 2018 review builds on the strengths of the earlier reviews by addressing recent developments. Whilst the immediate rationale remains that of resourcing change management in Irish health and social care services the review is not limited in its relevance. Change is constant and managing it well is of universal concern across the Irish political, social and civil system as well as internationally. Managing change well means continual reflection on emerging best practice and enabling change agents to improve on existing frames, tools and technologies. The current review in tandem with the *Change Guide* offers an overview of new thinking, exploration and experimentation. This 2018 review is therefore useful for a broad spectrum of audiences as the scope of change management widens to meet the challenges of service improvement, redesign and transformation.

Whilst the current review has sought to address change management in the domains of both health and social care, we note as a limitation the paucity of change management literature specific to the social care domain. On this basis we recommend that through initiatives in Ireland such as the national clinical and integrated care programmes among others; researchers, health professionals and policy makers collaborate to reflect and produce evidence for peer review and publication.

Given these initial parameters the following sections outline in further detail important themes identified from the literature on change management in health systems in recent years. **Complexity** is identified as the principal construct framing health and social care delivery through adaptive systems – with a strong focus on ‘context’ as a critical determinant of success. Change management **critical factors** are identified and developed through the text (i.e. people and power, culture and social interaction, leadership and learning). Finally, the review concludes with a short exploration of **implications** for implementation practice arising from the use of these constructs and approaches, as well as the challenges of addressing the critical factors identified.



# **Section 0.2**

## Review core themes

## 0.2 Review core themes

### 0.2.1 Constructing health systems as complex, contextual phenomena

Complexity science is increasingly used throughout the literature to approach change and its management in fresh ways (McDaniel, Driebe and Lanjam, 2013). The construct of complex adaptive systems offers new resources for understanding the processes of managing and organising healthcare (Mowles, van der Gaag and Fox, 2010). This approach is used to rethink many challenges including whole system change (Datée and Barlow, 2010), cultural complexity across medical groups (Nembhard et al., 2012), organisational innovation (Herbert and Best, 2011; Puustinen and Lehtimäki, 2016), leadership (Till, Dutta and McKimm, 2016), communication (Salem, 2013) performance evaluation (Boustani et al., 2010), workflow (Vardaman, Cornell and Clancy, 2012) and the failures of managed change (Edwards and Saltman, 2017).

Given the scale, range and diversity of interconnected elements involved in the production of population health, healthcare, community and social care services the complexity approach offers apt resources with which to better understand and manage change. It takes adequate account of the emergent, self-organising and unfixed nature of change (Suchman, 2011; Puustinen and Lehtimäki, 2016), its instability and contested status (Shore and Kupferberg, 2014), the often hidden unfolding of its patterns (Montgomery, Doulougeri and Panagopoulou, 2015; Baker, Suchman and Rawlins, 2016) and the awareness that ‘command and control’ modes often elude health system managers working where no *one* perspective or oversight is possible (Heldal, 2015). The unpredictability of change is taken into account in the change process so that managers and change agents must develop the skills of working well with ambiguity, paradox and uncertainty (Till, Dutta and McKimm, 2016). They must learn to expect the unexpected (Boustani, 2010).

The principles of complexity science usefully explain experiences such as the failure of interventions to lead to expected results (principle of nonlinearity), the multiple interpretations of initiatives resulting in disconnected outcomes (principle of self-determination), and implementation processes with unpredictable and protracted outcomes (principle of self-organisation). Constant system evolution means the ways in which distinct system parts function and interact constitutes a living structure where outcomes of change initiatives are often attributable (principle of emergence). The degree of complexity now contemplated in the literature evidences a significant attempt to manage change as it is, rather than how organisational science has previously framed it. The adoption of complexity for change management not only better explains the empirical evidence presenting, but also through application may result in better outcomes. By using the complexity principles of emergence, self-organisation, non-linearity and paradox to frame and drive change, a greater chance of sustained improvement, or a meaningful, transformative difference seems possible (Caffrey, 2016).

Complementary to the complexity approach is the emergence of *context* as a core construct for re-imagining how change can be understood, managed and sustained. Attention paid to the failures of change management and implementation over the last ten years or more has shifted the focus from theory to the applied context of change; this includes a search for appropriate methods for working-with the particularities of locality and situation (Obón-Azuara et al, 2010; Rangachari et al, 2013; Puustinen and Lehtimäki, 2016). This has resulted in a focus on the many complexities of organisations including teams, service settings, task profiles and roles (e.g. Ranmuthugala et al, 2011; Chreim and MacNaughton, 2016) as noted above. The critical questions arising focus on managing change through organisational culture, social interaction and the power dynamics of practice (e.g. Caarlstom and Olsson, 2014),

as well as the challenges of implementation, knowledge transfer and working with long established structures and patterns of work (Suchman, 2011; Dearing et al, 2011; Rycroft-Malone et al, 2016; Oborn, Barrett and Racko, 2013). In global terms the goal of this work is identifying, understanding and generating organisational and system changes in response to the challenges of public expectations for universal access to health and social care; for safety, quality, efficiency and affordability. It is a response to the radically changed population health profile, and the opportunities arising with advances in the tools and technologies available for health and social care, for improved service provision (Boustani et al, 2010).

Contextual phenomena such as culture and social interaction, are now considered principles of organisation to *work-with* (Konteh, Mannion and Davies, 2011; Nembhard et al, 2012; Elliot et al, 2014; Johansson et al, 2014; Evans et al, 2015) rather than as 'problems to be solved' (e.g. Ramirez, West and Costell, 2013). The result is a focus in the literature on pragmatic 'problem driven solutions' rather than 'theory driven' considerations of the change process. This shift also means that actors in particular organising contexts play a central role in change management and their agency is explored through a range of lens including leadership (e.g. Battilana et al, 2010; Franco and Almeida, 2011; Fitzgerald et al, 2013), the various roles and levels of managerial responsibility (Dressler et al, 2012), organisational networks and functions (Battilana and Casciaro, 2012; 2013) and their patterns and powerful impacts (Dearing et al, 2011).

In this vein the ways in which stakeholders in the change process experience change; as positive, negative, empowering or otherwise, matters as a critical determinant of its progress and outcome (Shirey, 2012; McCarthy et al, 2013). The literature focuses on *affective power* in change processes for those to whom they matter most in practice (Edwards and Saltman, 2017). *Affectivity* centres

the people accessing health services, delivering, managing and leading them; their perceptions, actions, values and behaviour patterns. These features constitute, more than anything else, the nature of health systems as complex. Central to the interactions of people as stakeholders in health systems are the patterns of power distribution, the cultures and social interactions characterising relationships and ways of working; and the modes of leadership and learning presenting through them.

### 0.2.2 Critical factors for change

#### 0.2.2.1 People and power

The literature tells us that healthcare systems are primarily characterised by the people and processes that constitute them; this also means that the successes and failures of planned change are greatly determined by those people and processes as either enablers or resisters of change (Goes, 2011; Allan et al, 2014; Baker, 2012). Two critical reasons identified for the lack of change are the belief that optimising organisational structure equates with optimal performance (Oliver et al, 2012) and the failure to fully realise the human dimension when planning for and implementing change (Shirey, 2012; Vardaman, Cornell and Clancy, 2012; Hewitt-Taylor, 2013).

How an individual reacts to a change initiative depends on context, personality, their role and location in their primary network and crucially how the planned change affects their power, and the power of their community of practice within the local hierarchy (Waring and Bishop, 2010; Chreim, Williams and Coller, 2012; Allan et al., 2014). The literature confirms that effective organisational transformation is localised at multiple levels and has influential champions at each of these levels (Goes, 2011; Barnett et al. 2011; Hendy and Barlow, 2012). Successful change implemented results in people changing how they work (Carlstrom and Olsson, 2014; Byrne-Davis et al., 2017). Some important phenomena presented

in the literature using a construct of *human dimensions* include routines, habitual behaviours, established knowledges and attitudes, embedded entitlements and the workings of professional affiliation and identity politics. Change is understood as messy, complex, unpredictable, potentially divisive, and resulting in unintended consequences (Caffrey, Wolfe and McKeivitt, 2016). Inevitably change will meet resistance but there are ways to manage this positively for success (Obón-Azuara et al., 2010; Carlstrom and Olsson, 2014). The literature provides evidence of successful change initiatives and the strategies behind them such as inclusive design and implementation, open communication, and specific attention and resourcing of the relational space in healthcare organisations (Johansson et al., 2014).

### *Forms of resistance to change*

From a cultural perspective routine, stability and established structures often lead to inertia and resistance to change (Carlford and Festin, 2015). Even stability is complex in a healthcare setting (Heldal, 2015). It is therefore necessary to understand the dimensions of resistances presenting in order to work positively with them. Resistance on the basis of entrenched patterns of behaviour takes several forms. For example, Carlford and Festin (2015) demonstrate how habit, when stronger than knowledge and intention can be a barrier to change. Bingham and Main (2010) in their study of change in maternity units show how clinician knowledge, attitudes and practices can be powerful barriers to change. Baker's (2016) study into the barriers to quality improvement outline how in health organisations dysfunctional and even destructive personal and team behaviours are accepted as the norm and therefore are considered non-amenable to intervention. These forms of entrenchment give those who benefit from them a sense and source of embedded power which is often rooted and sustained in prevailing organisational structures (Bleakley et al., 2012). Accordingly, traditional hierarchies and institutional climates

tend to generate monologue cultures rather than dialogue-based exchange (ibid.) meaning they cannot trigger change from within. This connection between established structures, behaviours and accrued power has been noted as an entrenched wicked problem (Braithwaite et al., 2012; Allan et al., 2014).

### *Loss of entitlement as a barrier to change*

One important form of entrenchment comes from a sense of entitlement. This is a benefit accrued over time and through experience in various ways to people within a system. Change in healthcare, no matter how well-justified or urgently needed, initially involves some form of loss of entitlement due to disruption of the status quo. Perceived losses can be in terms of role, competence, comfort, identity, relationship or status (Battilana and Ciascaro, 2012; Baker, 2012; Shore and Kupferberg, 2014; Allan, 2014). At a systemic level there can be significant loss when an organisation journeys from a culture of entitlement towards a culture of accountability. Change can become 'a perilous journey because rights and privileges are no longer automatic' and the 'entitled party' usually feels 'disappointed, angry, or mistreated' (Kaufman, 2011). To compound matters, culturally embedded entitlements can also mean healthcare spending is tied to a 'culture of money' (ibid). Whilst traditionally Porter asserts that natural competition leads all players towards 'gaming the system' (2008), be they physicians, suppliers, insurance companies or others, from a systems perspective Kaufman holds that the system *behaves* rationally according to its design, 'every system is perfectly designed to produce the results it gets'. Kaufman concludes that allocating more resources to healthcare does not equate with better outcomes *per se*.

### *Communities of practice as sources of power in healthcare systems*

Entitlement is also evident in the dynamics of communities of professional practice. Along with the many sources of power within healthcare systems (from knowledge, status, authority,

clinical autonomy and hierarchy, custom and practice, control over technology, beds, admission rights etc.) the strength of the powerful is often reinforced through deeply established systems of hierarchy and professional affiliation. These forms of power, both symbolic and real, are embodied in communities of professional practice, affiliation and accountability. As established patterns of power they are often threatened when planned organisational changes trigger potential power redistribution. Resistance emerges and leads to conflict, not only for managers or policy makers, but also across professional communities of practice.

In a study comparing the cultures of private and public hospitals Seren and Baykal (2007) conclude that 'a collaborative culture [is] most evident... in private hospitals, but in public hospitals the... dominant culture [is] a power culture'. They affirm that 'participants in a power culture [are] least open to change'. Haldal (2015) describes a clash of power not only between clinicians and management but also among clinicians during the imposed restructuring of a public hospital. He does this by recognising that although in complex adaptive systems independent actors maintain their independence whilst also working together for shared outcomes, healthcare organisations are primarily professional systems characterised by high levels of autonomy and differentiation, and low levels of interdependence and integration. A hospital, as one example, is therefore best understood as a system of bounded communities with relationships existing across loosely coupled boundaries. This loose-coupling between different medical professions is an important bond nonetheless that paradoxically holds them together. In this context planned change diffuses slowly (if at all) and if imposed is often perceived as a challenge to professionalism as well as professional unity (Haldal, 2015). Harmony is maintained in this arrangement when management and clinicians respect their professional community boundaries. Inevitably therefore, when hospital management imposes

organisational change it triggers conflict between the different professional communities of practice.

A further element of resistance to change often reinforced by professional affiliation is slow adoption of new clinical guidelines and evidence-based medicine. Professional expertise and general intellectual capacity does not necessarily translate into easy adoption of changes in practice by clinicians. Shore and Kupferberg (2014) cite slow implementation, and in many cases outright resistance to evidence-based-medicine. Despite guidelines being developed through randomised and validated clinical trials, physicians continue to ignore evidence-based medicine when making decisions (Shore and Kupferberg, 2014). These authors suggest that physicians reject evidence-based medicine because it reduces their professional authority. Other barriers to adoption noted include the existence of financial incentives (such as medical insurance reimbursement) and fee-for-service structures.

### *Opportunities for successful change – the importance of relationality*

In response to such forms of resistance the literature includes studies where change has become possible. One example is how structural change can result in the emergence of new forms of decision-making so that responsibility moves from the individual to the team, leading in turn to an increase in inter-organisational collaboration (e.g. Audet and Roy, 2016). Changing decision-making responsibilities requires attention to historically established positions of diversified professional work. Health providers and professionals have to learn to adopt new authentic inter-professional practices that have the potential to improve teamwork as well as safety and patient outcomes (Bleakley, Allard and Hobbs, 2012; Haldal, 2015).

People's behaviour patterns and the power accruing with them are not only critical features of resistance to change but are also the essential enablers of change (Hewitt-Taylor, 2013). It is

through the social and relational, rather than the purely rational dynamism of organisations that effective change becomes possible. When change agents win commitment for example (Battilana, 2013) and with high emotional intelligence have significant influence on their peers (Bernstrom, 2012). Behavioural science and social network analysis confirms these strategies showing how people are more willing to accept change if they like and have a relationship with the change agent, irrespective of the evidence (Ranmuthugala et al., 2011; Baker et al., 2012; Evans et al., 2015). So although the evidence may be convincing at face value, it is personal relationships that determine in fact whether or how change will happen and how it will be perceived and implemented (Evans et al., 2015). This means that every change model or process must recognise and plan for the human and relational factor.

Baker et al. (2012) argue that when faced with problems in quality improvement efforts, the predominant cause is relational, not technical. Similar findings are reported by Giniat et al., who recommend that change leaders need to consider the 'people agenda' as well as the 'change model' in managing an organisational transition. They note that this will be even more critical as the next generation of healthcare systems become more structurally integrated, interventions more evidence-based, and delivery modes more clinically integrated (2012). Focus on the tools and techniques of planned change needs to be accompanied with equal attention on the people directly and indirectly affected by it. Hewitt-Taylor (2013) argues that considering 'how people will perceive and be affected by an innovation, including what individuals and teams will gain or lose, who the opinion leaders will be, and the influence of workplace culture' is essential. As a resource for this work she usefully makes a distinction between *change* as the observable things that happen or are done differently, while *transition* describes what people feel, experience and see as important. On these grounds *experience* as a critical factor or determinant of success in the change process is opened up.

On the basis of a study of the effects of organisational change on professionals in the NHS (in which social care was contracted from hospital to primary care trusts) Allan et al. (2014) conclude that the *process* of change does affect the *outcomes*. In this case professionals were required to work in interdisciplinary teams, to make team decisions and adjust to a new structure, location and context of care delivery. The insight gained is that when the process conducted fails to take account of the human component of systems change the eventual outcomes are poorer. Change designers and agents need to attend to the changing positionality of team members, their emotional journey and how changes are perceived. They need to understand how change affects the relationships between people and the time and energy it takes to form new partnerships, teams and networks. People need support during times of uncertainty and depending on how relational factors during change are managed they will either exit an organisation or find their voice and generate refreshed loyalty. Successful change is characterised by the latter outcome (Allan et al., 2014).

Communication is critical for positive relations during change. Change agents and leaders who frame change in a context of open dialogue and debate anticipate levels of resistance and welcome critical discussion before seeking ways to bring organisations beyond what has been termed the 'valley of doubt' (Shore and Kupferberg, 2014). There is no easy change-path but people (especially those who broker power) need time and reflection to specifically understand planned changes and see why they are important. It is only when these parameters are established that stakeholders can address the '*who, how, when, and how-much*' questions of implementation. Stakeholder analysis (Shirey, 2012) is one approach in the literature that can help change-leaders anticipate and plan for resistance. This analysis engages but also minimises the power of groups to resist change. As stakeholder buy-in is necessary for change it



is important to understand the goals, concerns and influence of all relevant players. Mapping their positionalities assists with identifying stakeholders' potential power and influence, their needs and interests, their standpoint, what should be communicated and reported to them, and how they can be integrated into targeted communication strategies and appropriate action plans. According to Shirey every change model is only as good as its communication strategy (2012).

### 0.2.2.2 Culture and social interaction

If communication is at the heart of a successful change intervention then culture as the primary means by which an organisation communicates or socialises its values, patterns, goals and functions is a core determinant of the outcomes of a change-process (Evans et al., 2015). It is clear that culture is an important driver of organisational performance, but understanding *how* culture influences performance and determines success or otherwise is still emerging (Nieboer and Strating, 2012). Without attention to organisational culture and behaviour, sustained change seems unlikely (Bleakley, Allard and Hobbs, 2012). This is even more significant in a healthcare setting where culture shapes many factors including clinical performance, the quality of service delivery, organisational efficiency, patient satisfaction, provider empathy and workforce health and wellbeing (Carlfjord and Festin, 2015; Baker and Suchman, 2016). In broad terms, the culture of a healthcare organisation often determines its openness to change and innovation as well as its capacity to deliver on its stated goals (Barnett et al 2011; Carlstrom and Olsson, 2014).

The change management literature highlights how change interventions are moderated by local organisational contexts and the approach to implementation taken (Rycroft-Malone et al. 2002). Three critical contextual factors determine the outcomes of a change intervention: culture, leadership and implementation. Whilst these three factors are explored in more detail below an important concern relevant to each of them is the search for methods and means to better

understand, and positively work-with the linkages or dynamic interplays (sometimes causal) between context, mechanisms and outcomes (e.g. Ranmuthugala et al, 2011; Rycroft-Malone et al, 2016). When contextual factors and their dynamics are considered critical factors or determinants of outcome, then understanding their often implicit connectivities is both difficult and essential. On foot of these findings it is clear that change is above all a social phenomenon for which understanding relation-based organising patterns such as communities of practice, teamwork, professional associations etc., and the norms informing their interactivity is critical. Many of the participation-based and realist methodological approaches gaining traction in implementation and evaluation science are driven by this concern. They seek to better understand the *mechanisms* determining organisational life and its outcomes (Pawson and Tilley, 1997; 2004). Culture is understood as one of those mechanisms through which a particular context can or cannot incubate, trigger and deliver on planned change.

Culture can be defined as the ideas, customs and social behaviour of a particular people or society (OED). It is the base-level orientation shaping organisational life, the assumptions reflecting the shared values of a particular organisational unit (Carlstrom and Olsson, 2014). It is always shared, pervasive, enduring and implicit (Groysberg et al. 2018). Given these four core attributes, culture is characterised in each context by two primary dimensions – how people interact and how their organisation (of whatever size) responds to change. When an organisation's culture is strongly aligned with leadership and strategic direction then the outcomes of managed change will be positive and sustained; when this is not the case then culture becomes a liability (ibid.).

Often change is seeded through structural reorganisation, nonetheless the structural route rarely shifts established cultures and ways of working. When new care delivery models demand cultural and behavioural shifts other routes are reported in the literature, for example

training the next generations of practitioners in different ways of working (Chreim, Williams and Coller, 2012; Dressler et al., 2012). If culture as an enabler of change is to be harnessed, then in each organisational instance that culture needs to be understood. The literature is populated with various studies mapping healthcare organisation culture with the aim of identifying possible resistances to change and strategies to address them (Obón-Azuara et al, 2010; Waring and Bishop, 2010; Airolti, 2013; Battilana and Casciaro, 2013; Carlstrom and Olsson, 2014). In one such study Nembhard et al. (2012) characterise the distinct cultures of medical groups and their influencing factors. Seven different cultural types are identified. These are not mutually exclusive as they co-exist in a given organisation, although one dominant culture always emerges. Normally the dominant culture will determine whether an organisation can effectively adapt to healthcare reform or not.

The seven cultural types identified include firstly a 'group culture'. This is associated with the norms and values of attachment and affiliation. Medical groups demonstrating a group culture emphasise human relations and teamwork, cohesiveness and participation. In this cultural orientation members see the organisation as an 'extended family'. The second cultural type identified is 'hierarchical'. This type values stability, control, bureaucracy and internal efficiency. The emphasis is on structure, coordination, adherence to rules, policies and procedures; the chain of command is clear. The third cultural type is 'rational' such that competition is the motivating factor. In groups with this culture people are not very personally involved; they focus on getting the job done. The fourth type is 'developmental'. It emphasises change and flexibility; it is focussed on innovation, creativity, entrepreneurship, risk-taking and the pursuit of resources. Groups characterised by a developmental culture are dynamic and embrace change.

'Quality-orientation' characterises the fifth cultural type identified. In this mode everything is aimed at ensuring patients receive quality care. Quality-oriented groups monitor their processes and outcomes, they conduct activities for continuous improvement and take actions to uncover and respond to adverse events. They have a 'learning-from-our-mistakes' attitude and act supportively towards each other. The penultimate culture type identified is 'patient-centeredness'. This culture values respectful care and is responsive to individual patient preferences, their needs and values; it ensures that patient-values guide all clinical decisions. Finally, Nembhard et al. (2012) identify a 'physician-centered' cultural type for which values and actions are focussed on servicing and preserving physician preferences and authority over clinical decisions. The physician, not the patient is viewed as the primary agent.

Across these seven culture types six factors are identified as levers to enable change; these include using the management of finances and people, the identity and approach of leaders, an organisation's structure, its processes and environmental factors. This 'culture mapping approach' is one way change-agents can address the cultural challenge. Another is working-with and through communities of practice and subcultures on a relational basis.

The relational approach makes sense when healthcare is delivered through fragmented systems of many disparate organisational units, service delivery domains, professional groupings, service functions and technologies, resource allocations, governance and contractual arrangements. This complexity also includes complex population access and attendance patterns to health and social services. Given the prevalence of fragmented organisational design the literature critiques the assumption of homogeneous all-encompassing *system-culture* and posits a view of healthcare as delivered through complex relating subcultures (Carlstrom and Olsson, 2014). Health organisation subcultures are not necessarily constituted along



professional lines but they can be stronger than, and in tension with a prevailing or espoused generalised organisational culture (Lok et al., 2005). They can be the source of clashes between groups and can encourage commitment or resistance to change; they can also affect the production, delivery and quality of healthcare (Baker, Suchman and Rawlins, 2016). The force of resistance to a service or process-level innovation may be dependent on the speed of its diffusion. That speed is culturally modulated by a range of factors including the strength of the evidence underpinning the intervention, the inter-organisational partnerships supporting it, the influence of the human-based resources involved, and the impact of pertinent contextual factors (Barnett et al, 2011).

In a fragmenting system each local organising unit often has its own cultural identity to which members are primarily loyal. As well as understanding system fragmentation on organisational and subcultural terms, some authors frame the phenomenon with a 'communities of practice' lens. These communities can be formal or informal for healthcare workers who function as medical consultants, nurses, radiographers, porters, managers, administrators etc. These are networks of professional and social relationships that do the cultural work of cohesion-building; they drive communication between members, harness tacit knowledge, establish and induct new members into practices and norms. The literature suggests that the cultural work of such communities and subcultures largely determines how change initiatives play out determining how planned changes are supported or resisted (Lok et al, 2005; Ranmuthugala, 2011, Carlstrom and Olsson, 2014).

Given the importance of communities of practice and their social networks and subcultures as enablers and resisters of change effective change-agents build social coalitions (Chreim et al, 2010). They understand how change

implementation is an exercise in social influence (Battilana and Casciaro, 2012). How healthcare organisations function as 'socio-ecological systems' (Braithwaite et al, 2012) and that social networks leverage political influence in determining the outcomes of planned change. This relational approach means successful change-agents work with both 'fence-sitters and resisters' (Battilana and Casciaro, 2012). Whilst fence-sitters may be convinced to embrace change on a relational basis, the support of potentially influential resisters is more contingent on the extent to which proposed changes diverge from institutionalised practice.

Whilst these strategies confirm Greenhalgh's (2004) finding that the character of an innovation is a key factor in its diffusion, it also emphasises the importance of the social and the relational over the technical in overcoming resistance. Baker and Suchman (2016) remark that 'in our work with many health care leaders and organisations, our observation has been that relational rather than technical issues are the most common barriers to improvement' (ibid. p.54). The social and relational is even more critical given the fact that many change initiatives are not evidence-based (Richter et al, 2016) but come down rather to questions of power and influence; to transforming hearts more than minds.

The literature on culture and change is providing greater insights into the interplay between context and outcome – cultural change happens at the local community level and is triggered by contextual factors. Organisational culture both enables and resists change. Leaders and managers need to harness cultures that enable change and to disarm cultures that resist it. Whilst a health system may espouse certain values at a global level, it inevitably has little control of the cultural dynamics characterising the functionality of its many parts. Change agents therefore need to understand how to work-with desired values, ideas, attitudes and behaviours throughout a diversifying system that cannot be totally

controlled from a cultural perspective. If cultural change is a prerequisite for organisational change, then healthcare reform needs to start with cultural engagement. The literature reviewed indicates the importance of working-with organisational culture to ensure the consistency of a change or reform programme. This ability to work-with culture can empower change agents and strategies to address potential obstacles, identify points of leverage and know where to best allocate resources. Given the path dependency of the Irish healthcare system as an 'organisation' and its complicated two-tier access patterns – the question of culture is central to the challenge of change management. It is in essence a social, rather than 'command and control' system and as such can only change through a complex process of engagement that is relational, context-attuned and flexible (Damschroder et al., 2009).

### 0.2.2.3 Leadership and learning

Focussing and resourcing change is a core task for organisational leadership which, as noted above includes working-with culture, social interaction and the complexity of context. This includes forming and embedding a vision attuned to the needs of service users, the broader environment, and the relevant factors and dynamics of internal organisation. As early as 1958 the assertion was made that one of the 'defining challenges for leaders is to take their organisations into the future by implementing planned organisational changes' (noted in Battilana et al, 2010). Changing an organisation, whether that means altering its focus, business model, culture, or structure among other factors remains a challenge. Nonetheless, unlike earlier understandings that attributed successful change or transformation to the vision, tenacity, style, skill and relational-web of particular leaders, current literature (although reaffirming the link between leadership and change) understands it through a complexity lens. Battilana et al. (2010) assert that the linkage is complex because of the complexity of intra-organisational processes; whilst Caffrey et al. (2016) note that the change/leadership connection is complex because organisations are

complex and the ways in which people mediate change is also complex. The assumption of simple causality is disestablished in a change management literature that seeks to understand change processes as grounded in real-world experience rather than theoretically conceived control environments.

Given the critique of a simple relationship between transformational leadership and change, there is no surprise that the literature asserts a limit to the degree to which successful change implementation can be attributed to the actions of specific leaders. Effective leadership is less about the cult of personality and more about the vigor of the social and networking relationships within an organisation – this is the emergence of distributed leadership as a central theme (Fitzgerald, L. et al., 2013; McKimm and Till, 2015; West et al., 2015; Chreim and MacNaughton, 2016; Till, Dutta and McKimm, 2016). In this vein understanding how change is actioned through different leadership modes is seminal, as is the implication that a change model is only as good as the implicit understanding of the system it is designed to change (e.g. Roberts and Roper, 2011; Hendy and Barlow, 2012). The primary role of leadership in relation to change management therefore is to ensure a good process takes place to determine what needs to change and how that should best happen (Chreim et al., 2010; Hodges, Ferreira and Israel, 2012; Nicholson, Jackson and Marley, 2013) as well as sustaining commitment and ensuring tangible resources support throughout. Leaders need to champion change in the first instance (Hendy and Barlow, 2012; Birken et al., 2016).

This does not mean however that a directional type leadership (Caffrey et al., 2016) is redundant in complex adaptive and social healthcare systems. Leaders may direct and allocate resources but there is no certainty that a top-down defined change process will be implemented as initially imagined or planned. An intervention has no assurance of faithful implementation despite having the status of being evidence-based (Carlfjord and Festin, 2015). The literature asserts that *how* any change is

## 0.2 Review core themes

introduced into an organisation is more important than *who* mandates it (Stetler et al., 2014).

The process of implementation determines its acceptance and sustainability.

One of the important factors characterising the process of change implementation is the skill-set of the mid-level manager or change agent guiding it. The literature confirms the established view of a nuanced difference between leaders and managers. In this vein Battilana et al. (2010) identify three core competencies needed to successfully implement sustained change in a complex organisation. These competencies echo Lewin's *Unfreeze, Change, Refreeze* model (1951) in being defined as communicating the need for change, mobilising others to accept change and evaluating project implementation. Using a classic task-versus-person oriented model Battilana et al. (2010) find that task-oriented leaders tend to focus more on mobilising others to accept change, whilst people-oriented leaders focus more on communicating the need for change. They conclude that not all change agents (managers or leaders) possess the three requisite competencies necessary to engage in the full range of necessary change implementation activities. This suggests that the core competencies of leadership or management do not necessarily equate with the skill-mix for successful change-agency. Managers may be good leaders, or vice-versa, but they may lack necessary change-agency skills.

Despite these findings about the limitations of traditional leadership and management roles in relation to change implementation, Airoldi (2013) writing from a health policy perspective asserts that senior management plays a crucial role in highlighting the imperative for change by resourcing it and providing the evidence to promote and justify it. Birken et al. (2015) confirm that senior-level management is critical for implementation 'after adoption [when] employees ideally become proficient and consistent in the use of an innovation'. This is the period when

mid-level managers turn strategy into action and commonly face frontline barriers (Birken et al., 2015; Bernstrøm and Kjekshus, 2012; Bingham and Main, 2010). The role of mid-management implementation is a critical factor for success. Unit or service managers (often directors of nursing in the healthcare context) understand the complexity of the barriers to change and implementation as noted above, they are credible on the frontline (Babine et al., 2016) and as accountable, practical, trusted and relationally-rich connectors in the local context have transformational capacity (Bamford-Wade and Moss, 2010).

Senior management support after initial adoption is crucial and directly influences mid-level managers' commitment to change implementation by confirming the change programme as an organisational priority, allocating funding and human resources to it as well as aligning organisational functions such as training and performance reviews to enable change to happen. Senior leaders therefore need to convince mid-level managers that change implementation is possible in very tangible ways. The recognition of this linkage of trust between senior and mid-level management is important as a determinant of successful change implementation. Mid-level managers as a critical link in the implementation chain have to believe that senior decision-makers are committed to the change programme and see clear evidence of this in practical and impactful ways (Dressler et al., 2012).

Change leadership at whatever level requires dealing with technical and relational problems, it is a form of leadership that requires patience, persistence and courage, emotional self-regulation and a reasonable tolerance for ambiguity due to the complexities involved (Baker et al., 2016; Caffrey et al., 2016). As already noted in this review the evidence suggests people mediate change in messy, complex and unpredictable ways. Success has more to do with their position in the organisation, their relationship with their line manager and the subculture of their

unit than with the espoused values and vision of the system. The social relationships between change agents and change targets are recognised as a critical factor in enabling or resisting change (Balasubramanian et al. 2015). Change processes can disempower people but effective change leadership, often tacit or invisible in an evaluated sense, can empower people during periods of uncertainty and change. Whilst the role of senior management is critical for success so too is that of mid-level managers who contribute highly skilled connectivity, as well as translation of commitment, understanding and belief at critical stages in the implementation cycle.

The implication from the literature is that a greater distribution of leadership at each level and in diverse organisational settings is required for process-driven and context-specific change (Fitzgerald et al., 2013) it functions best when networked (Boustani et al., 2010). Even where a champion for change is necessary those leaders who are supported by networks for implementation are most successful (Barnett et al., 2011). Forms of distributed leadership include inter-organisational collaboration (Audet and Roy, 2016), teamwork (Bleakley et al., 2012) and many new forms of healthcare partnership (Bamford-Wade and Moss, 2010; Best, 2011; Byrne-Davis et al., 2017).

### 0.2.3 Implications for implementing sustainable change

Implementation is the phase in the change process when people, power dynamics, organisational cultures and social relations, including leadership and other connectivities often determine the success or failure of a change programme. Through implementation planned change becomes real and ceases to be a concept or a model. Earlier in this review complexity is presented as the primary context for health systems. While complexity science explains how change is unpredictable in complex adaptive systems, implementation science explores how to enact change and bridge the 'knowledge-to-

practice gap in healthcare' among other aims (Carlfjord et al., 2010). From an implementation science view for an intervention to succeed it should be evidence based, coupled with a targeted implementation strategy and a favourable change ecosystem (Smith and Donze, 2010). With the goal of translating evidence into practice in mind four core stages have been identified. These include defining the practice to be implemented, designing the process of implementation, delivering through operationalisation and implementation and finally, maintaining 'business as usual' (Giniat et al., 2012; Kash et al., 2014; Booker, Turbutt and Fox, 2016).

Rycroft-Malone et al. (2002) affirm that successful implementation is a function of evidence, context and facilitation. In their systematic review Greenhalgh et al. (2004) identify the factors influencing the diffusion and implementation of innovation in healthcare organisations as a) the characteristics of the innovation, b) adopter characteristics, c) contextual factors and d) the dissemination effort. On the basis of these early findings implementation science has increasingly been applied to the study of health systems change. In a context where healthcare reform programmes have been unsuccessful some writers believe this is due to poor implementation rather than the nature of the intervention per se (Obón-Azuara, Gutiérrez-Cía and Gimenez-Julvez, 2010; Rangachari, Rissing and Rethemeyer, 2013; Puustinen and Lehtimäki, 2016). However, whilst implementation science may be able to improve the success rate of change implementation, caution is needed. Although Chaudoir et al. (2013) in a recent systematic review identify five key measurable factors impacting the implementation of health innovation outcomes they also conclude that a reliable association between the factors and the implementation outcome cannot be demonstrated. As noted earlier in this review the particulars of different implementation contexts greatly determine success including staff expectations, the perceived need for the innovation and its potential compatibility with existing routine (Carlfjord et al., 2010).

Whilst implementation science provides insights into leadership as a factor in successful change, it has tended to focus on the implementation of evidence-based practices. Richter et al. (2016) argue that leadership nonetheless is not always about implementing evidence-based change; nor is it feasible to train managers in implementation-leadership for each new setting or practice-change. Carlford and Festin (2015) also demonstrate that although an intervention is evidenced-based it will not necessarily be adopted. In response to these challenges Richter et al. (2016) suggest that managers need to be first trained in generic implementation leadership skills before learning how to apply these skills to any implementation effort. It is evident that managers need to know how to lead change and implementation process even when the intervention is not evidence-based. Despite Battilana et al.'s analysis of the differences between transformational and transactional leaders (2010) other researchers argue that leadership theory with its emphasis on leadership style is too general and fails to understand the relationship between leadership and specific change management skills. They suggest that implementation science offers insights on the leadership skills needed to bring about specific change (Aarons, Sommerfeld and Willging, 2011; Richter et al., 2016). Training managers and other healthcare professionals to lead change must be domain-specific and for this purpose a category of *implementation-leadership* is defined (Bamford-Wade and Moss, 2010; Richter et al., 2016). It is also noted that it is more effective to train managers from the same division or organisational unit together as embeddedness influences managers' implementation leadership and behaviour (Bleakley, Allard and Hobbs, 2012; Byrne-Davis et al., 2017). Organisations need to understand the need and commit to specific implementation leadership training (Richter, 2016).

A further trend of relevance in the change management literature on implementation terms focusses on learning and evaluation. Evaluation can occur post implementation, or can be continually integrated into the implementation process itself. Balasubramanian (2015) holds that in 'healthcare change interventions on-the-ground learning about the implementation process is often lost because of a primary focus on the outcome improvements'. Battilana (2010) argues the same point when demonstrating how transformational leaders evaluate implementation while transactional leaders often do not. With the intention of capturing on-the-ground learning a learning evaluation approach is recommended (Balasubramanian et al., 2015). Learning evaluation is used to generate real-time insights into evolving implementation processes across multiple organisations as they go through processes of change. This helps bridge the implementation gap and improve outcome success. The advantages of this methodological approach include timely dissemination and application of lessons learned through flexible, grounded, iterative, contextualised, and participatory approaches. The process facilitates learning from small, rapid (plan-do-study-act, PDSA) cycles of change within organisations and captures contextual and explanatory factors relating to implementation and its effects on outcomes.

## **Section 0.3**

# Review findings and the *Health Services Change Guide*



## 0.3 Review findings and the *Health Services Change Guide*

After in-depth review of the literature on the basis of the guide themes of complexity, context, people and power, culture and social interaction, leadership, learning and implementation several core lessons are identified as a set of review conclusions to orientate ongoing change management design and practice. The focus of the literature is on problem driven solutions rather than theory driven solutions. This means that complexity, the plurality of cultures and distributed knowledges are not problems to be solved but are recognised instead as the organising principles regulating the social and power relations of organisational life and as such as principal resources to work-with for sustained and successful change. Understanding change as a significant, affective experience is essential, this means also taking account of the power of affect and experience in determining change process outcomes. Successful change processes will focus less on promoting the significance or projected benefits of change initiatives, and more on understanding the personal and corporate experiences that change processes generate for the people for whom they matter most.

The findings of this review all reference in some way the concept of complexity as the principal lens through which large multifaceted and distributed organisations are viewed. In such a central position 'complexity' is also the main construct informing how change is understood, designed-for, lead, managed and evaluated. In simple terms the review has found that complexity means there is no single approach, method or *right* design that will deliver on change goals, no one plan or programme that is universally true and transferrable. The complexity involved means that each group needs to engage in local change processes on local terms. This means people taking account at each time and in place of how *their* particular setting or service manages power relations, develops cultural ways and means, conducts social interactions as instances of being and working. It means working locally with patterns of leadership and learning and discovering the right environments and courageous actions that can enable different outcomes when required.

It is also clear that macro level organisational and system environments are essential factors in enabling bottom-up or situated change-making processes. An institutional environment that can host positive change is essential. In the context of the Irish health service these settings include the Community Health Organisations (CHOs), the Hospitals Groups, individual services or units, ambulatory services – both frontline and 'back office'. From a governance and management perspective they include all the people (in times and places) that make decisions and set tone through centralised strategic, operational and medical oversight at a national level, as well as through the multitude of programmes that shape and support the ongoing institutionalisation and delivery of health and social care. Finally, the scene is also set for change in the contractual arrangements and relationships that determine so much of how the health service and system works and is experienced.

Health services are distributed in complex ways – the review highlights how the path to implementing change in this context is therefore found in a *complexity-sensitive* approach that supports working with people, relationships, culture, power, and dynamic interactions. These are the critical factors noted in this review as essential for creating systemic resources such as leadership, learning and implementation that can result in meaningful and lasting change.

The review therefore underpins the general philosophy of the *Health Services Change Guide* that sets out an approach to promoting and managing positive change rather than a plan *per se*. It places an emphasis on community empowerment and a shift of power towards people in their local settings. The *Change Guide* offers thinking and practical up-to-date resources for sustained and cyclical change actions by focussing on new levels of communication, collaboration and the creation of public value.

# Section 0.4

## Review methodology



## 0.4 Review methodology

### 0.4.1 General approach

The literature review was conducted to underpin the *People's Needs Defining Change – Health Services Change Guide* published by **Organisation Development and Design Services, Human Resource Division, Health Service Executive**. The *Change Guide* was developed in collaboration with health service providers, service users and staff and was supported by the **Change Hub** (HSE online change management resource located at [www.hseLanD.ie](http://www.hseLanD.ie) <http://www.hseland.ie/lcdnn/Welcome/tabid/396/Default.aspx>)

The general approach of the literature review is realist on the basis of several research design principles including communication and dialogue between researchers and commissioners throughout the process. This resulted in an iterative integration of findings, additions and a focus on practical action in context. The emerging text was shared at various 'gatekeeping stages' to ensure applicability and fit where possible (Pawson and Tilley, 1997, 2004). The review work was carried out from July to December 2017. The search strategy was developed with assistance from the SFI Research Support, Nursing and Midwifery Subject Librarian at the Hamilton Library, Trinity College Dublin. The search terms used were developed using the key concepts of 'change management', 'health systems' and 'engagement' to reflect early orientations from the scoping stage of the review. On this basis a range of related terms were identified and agreed in collaboration with the commissioning team. Initial scoping of the literature from 2006 onwards resulted in agreement to apply a time-filter from January 2010 to July 2017 to the search. Only studies published and written in the English language were included.

Nine databases were searched (CINAHL / Medline / PsycINFO / ASSIA / Business Source Complete – EBSCO / Embase / Global health library / Wholis / Social Science Database: Proquest). These were deemed appropriate given their focus on health systems, healthcare delivery and prevalent approaches to change management within the social sciences more generally.

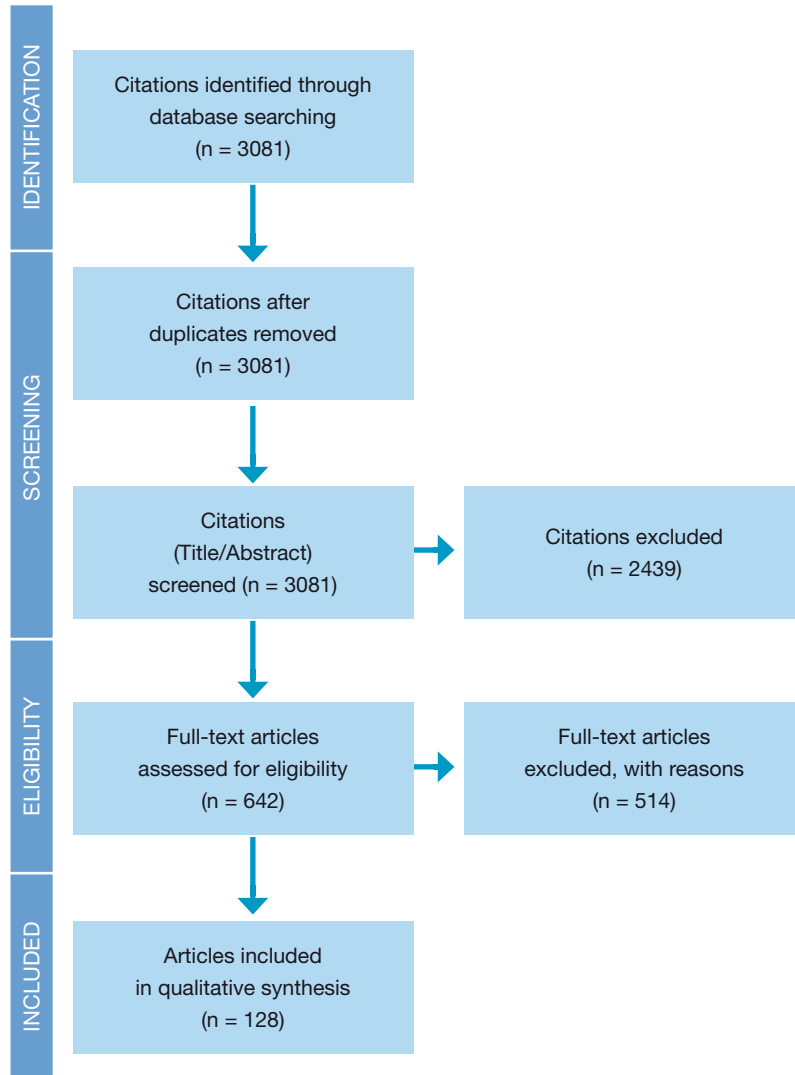
The initial search identified 3,081 citations. These were imported and managed using EndNote and Covidence software. After initial review of titles 2,439 citations were excluded on the basis of relevance. Titles and abstracts of the remaining 642 citations were reviewed independently by two reviewers resulting in the exclusion of 515 studies. The included 128 studies were reviewed in greater depth for content focus using a matrix approach. On the basis of 1) the commissioning terms of reference, 2) scoping searches and first drafting of emerging themes; and 3) the matrix analysis of included studies #128 – five guide themes were identified to orientate the full-text in-depth review. These were identified as complexity, people and power, culture and social interaction, leadership, and implementation and implementation science. Included papers were scanned for relevant content in relation to the five guide themes and summary thematic reviews drafted. Finally, summary reviews, supporting documentation and some additional relevant papers identified after the formal search was completed were used for final drafting; structuring of the review and reporting of findings. The process was managed and governed through a series of gatekeeping meetings between commissioners and researchers to ensure all review stages were marked, shared and progressed in a coherent manner.

## 0.4 Review methodology

### 0.4.2 PRISMA chart

Although not a formal systematic review Covidence software was used to manage the large number of search results. When relevant, additional sources were included in the review process.

#### PRISMA Flow Diagram

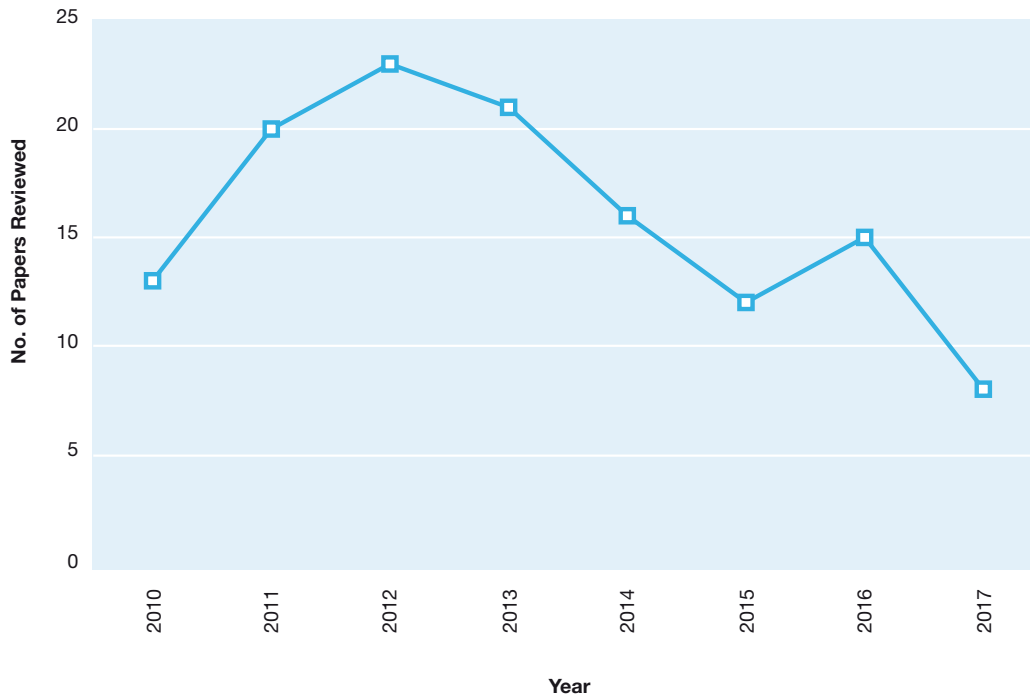


## 0.4 Review methodology

### 0.4.3 Descriptive data

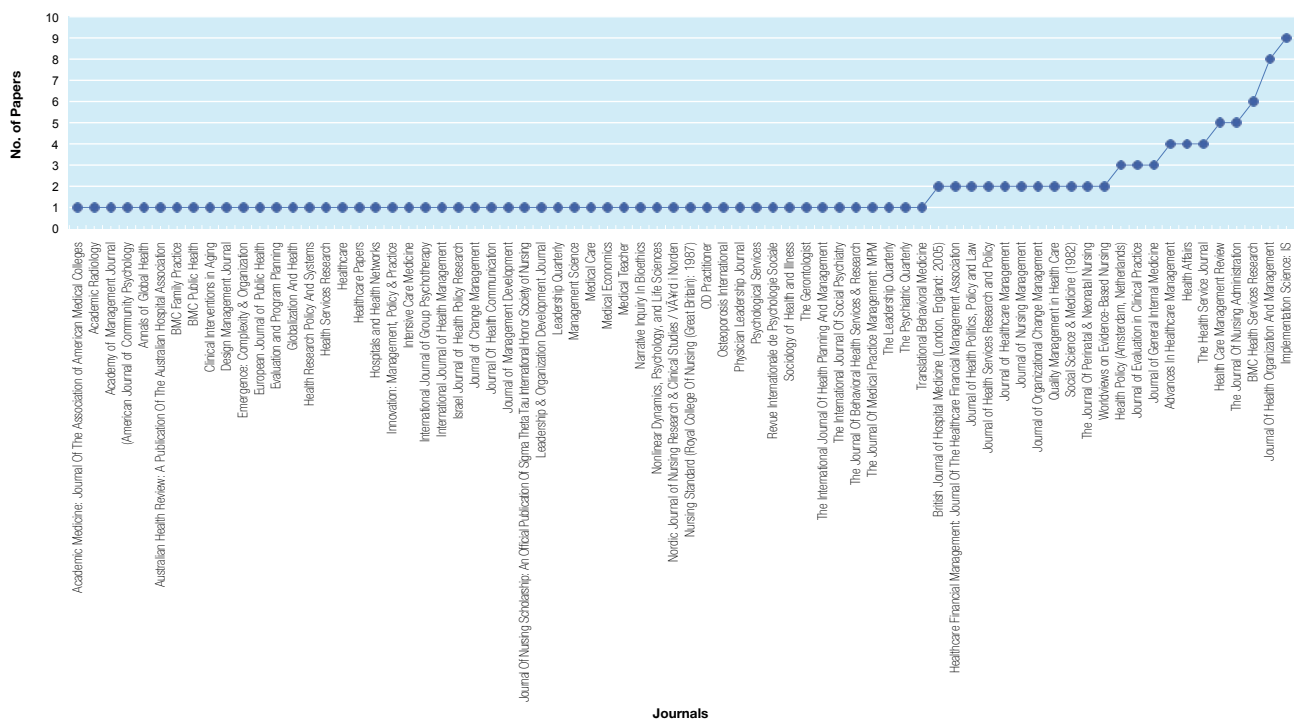
The papers reviewed at full-text level (#128) were predominantly published between 2012-2013

#### Papers Reviewed by Year



The predominance of implementation science as the primary lens on change management in the literature reviewed is evident in the overview of the number of papers published in implementation focused journals.

#### Papers Reviewed by Journal



## 0.4 Review methodology

A closer look at the range of reviewed papers shows emphasis on organisation, management and services delivery, with some focus on health policy. Nonetheless the diffuse nature of the literature is also evident in the total number of papers identified in one journal only, i.e. #74. This suggests the literature of change management oriented specifically towards health service reform, design and development is at this point in a seminal and unconsolidated state. This finding may reflect the predominance of health economics as the primary disciplinary lens employed in the literature of health system reform and system strengthening (Mick and Shay, 2014). A discussion point arises as to whether the source of many of the implementation gaps (whether clinical practice, organisational or policy focussed) noted in the literature are identified as a result of health system contexts where reflection, learning and embedded capacity for adaptation and change are often undervalued as resources and legitimate triggers of change.

**Table 1: Journals in which more than 1 citation was identified and citation numbers**

Health Policy (Amsterdam, Netherlands)	3
Journal of Evaluation in Clinical Practice	3
Journal of General Internal Medicine	3
Advances In Healthcare Management	4
Health Affairs	4
The Health Service Journal	4
Health Care Management Review	5
The Journal Of Nursing Administration	5
BMC Health Services Research	6
Journal Of Health Organization And Management	8
Implementation Science: IS	9

## 0.4 Review methodology

### 0.4.4 Search strategy

Initial Scope 3\_8\_17

'Guiding change in Irish health and social care services: a literature review of change management and implementation in health and social care.' – Principal Investigator: Dr Sarah Barry, Centre for Health Policy and Management, Trinity College Dublin

Filter 2006-2017 (2010) Database: CINAHL / Medline / PsycINFO / ASSIA / Business Source Complete – EBSCO / Embase / Global health library / Wholis / Social Science Database: Proquest

#### Concept 1: Change management

Medline: (MH "Organizational Innovation") OR (MH "Capacity Building")

CINAHL: (MH "Change Management")

PsycINFO: DE "Organizational Learning" OR DE "Organizational Change"

Embase: Emtree: 'change management'/exp OR 'capacity building'/exp OR 'change theory'/exp Business Source Complete – EBSCO: DE "CHANGE management" OR (DE "INNOVATION management") OR DE "ORGANIZATIONAL change" OR DE "ORGANIZATIONAL learning")

Social Science Database: Proquest: keywords only

Keywords: "change manag\*" OR "manag\* change" OR "change theor\*" OR "Management of change" OR "change model\*" OR "organizational change\*" OR "organizational innovation\*" OR "healthcare change\*" OR "Emergent change\*" OR "planned change\*" OR "organisational learning" OR "organizational learning" OR "organisational innovation" OR "organizational change\*" OR "organisational capacity" OR "capacity building" OR "Institutional Management"

#### Concept 2: Health Systems

Medline: (MH "Health Planning+") OR (MH "National Health Programs+") OR (MH "Delivery of Health Care+") OR (MH "Health Personnel")

CINAHL: (MH "Health Care Delivery+") OR (MH "Health Planning+") OR (MH "National Health Programs+") OR (MH "Delivery of Health Care+") OR (MH "Health Personnel+")

PsycINFO: (DE "Organizational Learning") OR (DE "Health Care Delivery" OR DE "Health Care Services" OR DE "Health Personnel" OR DE "Medical Personnel")

Embase: Emtree: 'health care delivery'/exp OR 'health care organization'/exp OR 'health care'/exp Business Source Complete – EBSCO DE "MEDICAL care" OR DE "HOSPITALS"

Social Science Database: Proquest: keywords only

Keywords: "healthcare system\*" OR "health care system\*" OR "health system\*" OR "national health service\*" OR "health care management" OR "healthcare structure\*" OR "national health programme\*" OR "national healthcare\*" OR "national health care\*" OR "healthcare innovation system\*" OR "health personnel"

### Concept 3: Engagement

Medline: (MH "Leadership") OR (MH "Organizational Culture") OR (MH "Communication+")

CINAHL: (MH "Empowerment") OR (MH "Leadership") OR (MH "Organizational Culture") OR (MH "Communication+")

PsycINFO: (DE "Leadership" OR DE "Leadership Qualities" OR DE "Leadership Style" OR DE "Transactional Leadership" OR DE "Transformational Leadership") OR DE "Empowerment" OR DE "Organizational Climate" OR (DE "Communication")

Embase: Emtree: 'leadership'/exp OR 'empowerment'/exp OR 'organizational climate'/exp OR 'self concept'/exp Business Source Complete – EBSCO DE "LEADERSHIP" OR DE "AUTHENTIC leadership" OR DE "DEVELOPMENT leadership" OR DE "INCLUSIVE leadership" OR DE "SHARED leadership" OR (DE "EMPLOYEE empowerment") OR (DE "CORPORATE culture") OR (DE "COMMUNICATION") OR DE "EMPLOYEE motivation" OR DE "EMPLOYEE competitive behavior"

Social Science Database: Proquest: keywords only

Keywords: leaders\* OR empower\* OR "collective leadership" OR "agreed values" OR performance OR "Organizational Culture" OR "Organizational Climate" OR communication\* OR "organisation climate" OR "organisational climate" OR "organization climate" OR "self-perception" OR "shared leadership" OR "corporate culture" OR collaboration OR motivat\* OR "stakeholder engagement" OR incentive\* OR "cultural web" OR "learning culture"

#### 0.4.5 Limitations

The search strategy did not highlight a distinct literature on change management from the social care sector. A targeted search for papers focussed on change management within the social care sector was reserved as an option for further review if it became clear that this sector was under-represented in the findings. This strategy was agreed with the research commissioning team. Nonetheless, due to time and resourcing constraints it was not possible to complete a second-stage targeted search to highlight change practice in this sector. This represents an important next stage for this research on change management in health and social care systems focussed increasingly on integrated and more distributed patterns of health, social and community care delivery.

# **Section 0.5**

# General Bibliography

## 0.5 General Bibliography

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