

Competency Driven Evidence Informed Decision Making in Health Service Management and Public Health Systems

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Abstract

Evidence informed decision making has emerged as one of the most critical pillars of modern health service management and public health governance. In an era characterized by rapidly evolving healthcare technologies, expanding clinical knowledge, and complex organizational challenges, health systems can no longer rely on intuition, tradition, or political expediency alone. Instead, there is a growing global movement toward integrating the best available research evidence, professional expertise, stakeholder values, and contextual realities into managerial and policy decisions. Despite this theoretical consensus, the practical application of evidence informed decision making remains inconsistent and often weakly institutionalized. Hospital executives, middle and senior managers, and public health leaders frequently face structural, cultural, cognitive, and political barriers that prevent systematic use of evidence in everyday decisions. This article develops a comprehensive, competency driven framework for understanding how evidence informed decision making can be strengthened in health service management and public health systems. Drawing exclusively on the scholarly and institutional references provided, the study synthesizes research on managerial competence, evidence based and evidence informed management, organizational learning, policy translation, and health system governance. It advances the argument that evidence informed decision making is not merely a technical skill but a deeply embedded professional competence that depends on leadership, organizational culture, access to knowledge, and the ability to integrate multiple forms of evidence. The article also addresses the persistent divide between academic research and managerial practice, demonstrating how this gap undermines both the relevance of research and the quality of decision making. Through extensive theoretical elaboration, the study shows how frameworks such as the GRADE Evidence to Decision approach, knowledge translation platforms, and competency based leadership models can be integrated into a coherent system that supports evidence use across all levels of healthcare organizations. The results of this conceptual analysis indicate that improving evidence informed decision making requires long term investment in managerial education, continuous professional development, institutional incentives, and supportive policy environments. The discussion further explores the ethical and practical implications of evidence use, including issues of power, transparency, and contextual adaptation. By situating evidence informed decision making within the broader ecosystem of health governance, this article contributes to a deeper understanding of how competent managers and policymakers can drive sustainable improvements in health system performance, equity, and population health outcomes.

Keywords: Evidence informed decision making, health service management, managerial competence, public health policy, leadership, knowledge translation

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1. Introduction

Health systems around the world are under unprecedented pressure to deliver higher quality care, improve population health outcomes, and do so within increasingly constrained financial and human resource environments. These pressures arise from demographic transitions, technological innovation, rising patient expectations, and the growing burden of chronic and complex diseases. In this context, the quality of decisions made by health service managers and public health policymakers becomes a defining determinant of system performance. Decisions about resource allocation, service design, workforce development, and clinical governance shape not only organizational efficiency but also the safety, equity, and effectiveness of healthcare delivery. Over the past three decades, the concept of evidence based practice has transformed clinical medicine by promoting the systematic use of research findings in diagnosis and treatment (Sackett et al., 1996; Guyatt et al., 1992). A parallel movement has emerged in health management and public health, advocating for evidence informed decision making as a foundation for managerial and policy choices (Cookson, 2005; Brownson et al., 2009).

Evidence informed decision making in health service management refers to the deliberate and transparent integration of the best available research evidence with managerial expertise, organizational data, and stakeholder values in the process of making decisions (Lomas et al., 2005; Liang et al., 2012). Unlike simplistic notions of evidence based management that imply direct application of research findings, evidence informed approaches recognize the complexity of healthcare organizations and the need to interpret evidence within specific contexts (Kovner and Rundall, 2006; Shortell, 2006). Yet despite widespread rhetorical support, the routine use of evidence in managerial practice remains limited. Studies of hospital executives and senior managers have shown that while leaders value evidence in principle, their actual decision making is often driven by experience, peer advice, political considerations, and time pressures rather than systematic engagement with research (Walston and Khaliq, 2010; Howard et al., 2009).

The persistence of this gap between ideal and practice raises fundamental questions about competence, organizational culture, and the nature of managerial work. Research on healthcare management competencies suggests that effective leaders require not only technical and financial skills but also cognitive, relational, and learning oriented capabilities that enable them to acquire, appraise, and apply knowledge (Liang et al., 2013; Stefl, 2008). Competence in evidence informed decision making therefore cannot be

reduced to the ability to read academic articles. It encompasses the capacity to frame problems, search for relevant evidence, critically appraise information, balance competing values, and translate findings into actionable strategies within complex organizations (Epstein and Hundert, 2002; Garman et al., 2004).

At the same time, the literature on evidence informed policy making highlights the broader institutional and political dimensions of evidence use. Public health decisions are embedded in systems of governance that involve multiple stakeholders, power relations, and competing interests (Davies, 2004; Oliver and Pearce, 2017). Evidence does not speak for itself but must be interpreted, negotiated, and sometimes contested. Knowledge translation platforms, policy briefs, and decision frameworks such as the GRADE Evidence to Decision approach have been developed to support more systematic and transparent use of evidence in these settings (Moberg et al., 2018; Alonso Coello et al., 2016). However, the effectiveness of these tools depends heavily on the competencies and motivations of those who use them.

Despite the growing body of literature on evidence informed management and policy, there remains a lack of integrative frameworks that link individual competence, organizational processes, and system level structures. Much of the research focuses either on the attitudes and behaviors of managers or on the design of decision support tools, without fully examining how these elements interact. Furthermore, the divide between academic research and practitioner knowledge continues to limit the relevance and impact of evidence (Cohen, 2007). Managers often perceive research as too abstract or disconnected from their operational realities, while researchers may fail to address the questions that matter most to decision makers.

This article addresses these gaps by developing a comprehensive, competency driven framework for evidence informed decision making in health service management and public health systems. Drawing exclusively on the provided references, it synthesizes insights from management theory, public health, and policy studies to articulate how evidence use can be institutionalized as a core professional and organizational capability. The central argument is that evidence informed decision making is not a peripheral activity but a defining feature of competent leadership in contemporary health systems. By examining the cognitive, cultural, and structural conditions that support or hinder evidence use, the study aims to contribute to both theory and practice in health management and public policy.

2. Methodology

This research adopts a qualitative, theory driven synthesis methodology grounded in systematic conceptual integration of the provided reference base. Rather than conducting primary empirical data collection, the study uses an extensive interpretive analysis of peer reviewed articles, institutional reports, and conceptual frameworks that collectively define the state of knowledge on evidence informed decision making, managerial competence, and health system governance. Such an approach is consistent with the nature of the research question, which seeks to develop a comprehensive theoretical framework rather than test a specific hypothesis.

The first stage of the methodology involved close reading and thematic extraction from all references. Core concepts such as evidence informed decision making, managerial competence, knowledge translation, organizational learning, and policy frameworks were identified and mapped. For example, the work of Liang et al. (2012) provided a foundational framework for evidence informed management in health services, while Lomas et al. (2005) offered a conceptual model for combining different types of evidence in health system guidance. These were complemented by studies of managerial competence (Liang et al., 2013; Stefl, 2008), professional assessment (Epstein and Hundert, 2002), and organizational learning (Maurer et al., 2003).

The second stage involved comparative analysis across these sources to identify areas of convergence and divergence. For instance, evidence based medicine literature emphasizes hierarchies of evidence and systematic reviews (Sackett et al., 1996; Guyatt et al., 1992), whereas public health and policy literature stresses the importance of contextual and stakeholder evidence (Brownson et al., 2009; Oliver and Pearce, 2017). By juxtaposing these perspectives, the study was able to develop a more nuanced understanding of what counts as evidence in managerial and policy contexts (Liang and Howard, 2011a; Liang and Howard, 2011b).

The third stage focused on integrating competency based frameworks with evidence use models. The Healthcare Leadership Alliance model (Stefl, 2008) and the 360 degree feedback instruments for healthcare administrators (Garman et al., 2004; Liang et al., 2016) were analyzed in relation to the skills required for evidence informed decision making. This allowed the study to conceptualize evidence use not as an isolated behavior but as part of a broader set of leadership and management competencies.

The final stage involved synthesizing these insights into a coherent theoretical narrative that links individual competence, organizational processes, and system level structures. The GRADE Evidence to Decision framework (Alonso Coello et al., 2016; Moberg et al., 2018) and knowledge translation platforms (Partridge et al., 2020) were incorporated to illustrate how evidence can be systematically embedded in decision making. Throughout the analysis, attention was paid to the political, cultural, and ethical dimensions of evidence use, drawing on works such as Cookson (2005), Davies (2004), and Oliver and Pearce (2017).

The rigor of this methodology lies in its transparent and systematic engagement with a comprehensive and authoritative body of literature. By grounding all claims in the provided references and by explicitly integrating multiple theoretical traditions, the study achieves both depth and coherence in its conceptual contributions.

3. Results

The synthesis of the literature reveals several interrelated findings about the nature of evidence informed decision making in health service management and public health systems. First, evidence use is consistently identified as a core component of managerial competence, yet it is rarely institutionalized as a routine practice. Studies of hospital executives demonstrate that while leaders acknowledge the importance of continuing education and evidence based approaches, their actual reliance on formal research is limited (Walston and Khaliq, 2010; Howard et al., 2009). This suggests a gap between espoused values and operational behaviors, which can be partly explained by constraints such as time pressure, lack of access to relevant evidence, and limited appraisal skills.

Second, the literature shows that what counts as evidence in managerial and policy contexts is broader than in clinical medicine. While randomized trials and systematic reviews are central to evidence based medicine (Sackett et al., 1996; Guyatt et al., 1992), health service managers also rely on organizational data, experiential knowledge, stakeholder input, and political considerations (Liang and Howard, 2011a; Liang and Howard, 2011b). Lomas et al. (2005) emphasize that health system guidance must combine research evidence with contextual and experiential knowledge to be actionable. This pluralistic conception of evidence aligns with public health frameworks that integrate epidemiological data, community values, and economic analysis (Brownson et al., 2009; Carter et al., 2008).

Third, organizational and system level factors strongly influence evidence use. Birdsell et al. (2005) and Dobbins et al. (2001) show that access to research, organizational culture, and leadership support are critical determinants of whether evidence is utilized. Knowledge translation platforms and decision support tools can facilitate evidence use, but only when they are embedded in supportive institutional environments (Partridge et al., 2020; World Health Organization, 2021). The GRADE Evidence to Decision frameworks provide structured approaches to weighing evidence, values, and resource implications, thereby enhancing transparency and accountability in decision making (Alonso Coello et al., 2016; Moberg et al., 2018).

Fourth, the results highlight the importance of learning orientation and beliefs about skill improvability. Maurer et al. (2003) demonstrate that managers who believe their competencies can be developed are more likely to engage in learning and apply new knowledge. This has direct implications for evidence informed decision making, which requires continuous updating of skills and knowledge. Continuing education and competency based training programs are therefore essential for sustaining evidence use over time (Walston and Khaliq, 2010; McCarthy and Fitzpatrick, 2009).

Finally, the literature underscores the persistent divide between academic research and managerial practice. Cohen (2007) argues that differences in language, incentives, and publication norms create separate worlds for researchers and practitioners. This divide limits the relevance of research and the ability of managers to use evidence effectively. Bridging this gap requires not only better communication but also institutional mechanisms that align research agendas with decision maker needs (Davies, 2004; Stewart et al., 2019).

4. Discussion

The findings of this synthesis have profound implications for how evidence informed decision making should be conceptualized and promoted in health service management and public health systems. At the heart of the issue is the recognition that evidence use is a complex, socially embedded practice rather than a simple technical procedure. Managers and policymakers operate in environments characterized by uncertainty, competing priorities, and political constraints. In such contexts, evidence does not function as an objective arbiter but as one input among many, whose influence depends on credibility, relevance, and alignment with organizational goals (Cookson, 2005;

Oliver and Pearce, 2017).

From a competency perspective, this means that evidence informed decision making requires a broad set of skills and dispositions. Technical skills in literature searching and critical appraisal are necessary but insufficient. Managers must also possess strategic thinking, communication, and leadership abilities that enable them to integrate evidence into organizational processes and to persuade stakeholders of its value (Liang et al., 2013; Stefl, 2008). The 360 degree assessment frameworks developed by Garman et al. (2004) and Liang et al. (2016) illustrate how these competencies can be systematically evaluated and developed.

The organizational dimension is equally important. Even highly competent managers cannot use evidence effectively if their organizations lack access to information, time for reflection, or incentives for evidence based practice. Shortell (2006) and Hewison (2004) emphasize the role of leadership in creating cultures that value learning and inquiry. Such cultures encourage questioning of assumptions, experimentation, and continuous improvement, all of which are essential for evidence informed management.

At the system level, policy frameworks and knowledge translation platforms play a critical role in shaping evidence use. The GRADE Evidence to Decision approach exemplifies how complex evidence can be structured in ways that support transparent and accountable decision making (Alonso Coello et al., 2016; Moberg et al., 2018). Similarly, the WHO guide on evidence informed decision making provides practical tools for policymakers to integrate research with values and feasibility considerations (World Health Organization, 2021). However, these tools must be adapted to local contexts, particularly in low and middle income countries where resource constraints and institutional capacities differ significantly (Partridge et al., 2020).

Despite these advances, significant challenges remain. Power dynamics and political interests can distort the use of evidence, privileging certain forms of knowledge while marginalizing others (Oliver and Pearce, 2017). There is also a risk that an overly technocratic approach to evidence could undermine democratic deliberation and stakeholder engagement. Chalmers (2005) cautions that even when evidence informed policies work in practice, their legitimacy depends on broader social acceptance.

Future research and practice should therefore focus on strengthening the evidence ecosystem as a whole. Stewart

et al. (2019) describe how institutionalization of evidence use requires sustained investment in organizations, networks, and norms that support knowledge sharing. This includes not only training managers but also aligning funding, evaluation, and accountability systems with evidence informed principles.

5. Conclusion

This article has demonstrated that evidence informed decision making is a defining feature of competent leadership in contemporary health service management and public health systems. By synthesizing a diverse body of literature, it has shown that evidence use depends on the interaction of individual competencies, organizational cultures, and system level frameworks. While significant progress has been made in developing tools and models for evidence informed policy and management, their impact will remain limited unless they are embedded in supportive institutional environments and linked to ongoing professional development.

Ultimately, the pursuit of evidence informed decision making is not merely a technical endeavor but a moral and political one. It reflects a commitment to transparency, accountability, and the responsible use of knowledge in the service of population health. As health systems continue to confront complex and uncertain challenges, the ability of managers and policymakers to integrate evidence with judgment and values will be more important than ever.

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