Policy and Society, 2023, **42(1)**, 1–13
DOI: https://doi.org/10.1093/polsoc/puac031
Advance access publication date 25 January 2023
Introduction

Employing the policy capacity framework for health system strengthening

Fabiana da Cunha Saddi[1], Stephen Peckham[2,3], Gerald Bloom[4], Nick Turnbull[5], Vera Schattan Coelho[6] and Jean-Louis Denis[7]

[1]Post-Graduate Programme in Political Science, Faculty of Social Sciences, Federal University of Goias, Goiania, Brazil
[2]Centre for Health Services Studies, University of Kent, Canterbury, UK
[3]PRUComm, London School of Hygiene and Tropical Medicine, London, UK
[4]Institute of Development Studies, Brighton, UK
[5]Department of Politics, The University of Manchester, Manchester, UK
[6]Brazilian Centre of Analysis and Planning, Sao Paulo, Brazil
[7]Health Policy and Management, Canada Research Chair on Health System Design and Adaptation, ESPUM-CRDP, Université de Montréal-CRCHUM, Montreal, Canada
We thank all authors in this issue for the discussions that took place in our workshops.
Corresponding author: F. C. Saddi, Federal University of Goias, Predio humanidades II, sala PPG-CP, Campus Samambaia, Goiania, Goias 74045-155, Brazil. Email: fabianasaddi1@gmail.com

Abstract

The policy capacity framework offers relevant analytical ideas that can be mobilized for health system strengthening. However, the employment of this framework in the health field constitutes a relevant interdisciplinary gap in knowledge. This themed issue explores the relationships between the policy capacity framework and health system strengthening, in a multidimensional and interdisciplinary way, in high-income and low–middle-income countries. This introduction unpacks the dynamic interrelationships between the policy capacity framework and health system strengthening, bringing together common and distinct elements from both fields and summarizing possible relationships between them. The analysis shows that both fields together can increase our knowledge on health policies and system's critical themes and reforms. This challenge could be followed by exploring the convergences between them, as far as concepts/themes (types of capacities and other themes) and levels of analysis are concerned. Although in varied ways, papers in this issue (based on European countries, China, Canada, New Zealand, India, Australia, and Brazil) advance the use of the policy capacity framework for health policy or system strengthening. They give two main interdisciplinary contributions. Critical capacities can be incorporated into the policy capacity framework for the analysis of system strengthening—capacity to adapt, contexts of mixed and complex systems, dynamic view of policy capacity, and policy capacity as a relational power. Policy capacity is contextually interpreted (relative to the problem frame) and dynamic and adaptive (processual and relational), in relation to the properties of a health system, particularly with regard to the existing and developing mixed and complex systems.

Keywords: policy capacity, health system strengthening, global health, health policy, health system research, public policy

This themed issue addresses a gap in knowledge in both public policy and health policy and systems research (HPSR): it explores relationships between the policy capacity framework (PCF) and health system strengthening (HSS) in high-income countries (HICs) and low–middle-income countries (LMICs). The HSS framework has focused on specific building blocks or functions within health systems to

achieve system's performance (World Health Organization, 2007). It focuses on the essential ingredients or attributes that health systems need to develop and implement to achieve better performance. The assessment of the robustness of the HSS framework has also referred to fewer tangible elements such as leadership or relational capital within a given health system (Frenk, 2010). While the HSS framework has been widely disseminated and used in many initiatives across the world to improve health systems, the capacity required to implement policy and organizational innovations in favor of health system improvement has not been systematically identified or assessed. Our theme issue focuses on the potential and limitations of PCF in providing insights into critical capacities associated with HSS. On one side, HSS is rather prescriptive and aims at supporting and organizing efforts made by the health policy community to improve health systems. The PCF as a framework is more analytical and aims at understanding the development of policy capacity within a policy system that includes not only government capacities but also distributed capacities within broad policy networks. We contend that such a broad approach to policy capacity provides an effective framework for probing capacities needed to strengthen health systems.

The policy capacity concept has been employed to understand policy processes and evaluate outcomes (Painter & Pierre, 2005; Pierre & Guy Peters, 2000) and has been utilized in the health policy and system literature (Bates et al., 2014; Blanchet et al., 2017; Forest et al., 2015; Lansang & Dennis, 2004). The PCF presents an integrated, systematic way to understand the capacity types needed for policy success. However, it has not yet been employed systematically within the health sector. Recent studies of policy implementation have highlighted several factors that can lead to policy failure, including overly optimistic expectations, implementation in dispersed governance, inadequate collaborative policymaking, and the vagaries of the political cycle (Hudson et al., 2019). Studies have also pointed out that insufficient attention is paid to policy design in relation to implementation (Peckham et al., 2022). A common theme in discussions of policy failure and success is the idea of capacity—both individual and organizational—to deal with problems, change, and complexity (Matland, 1995; Hudson et al., 2019; Peckham et al., 2022).

In the health policy and system field, "policy capacity" has been largely applied to management and organizational aspects (Bates et al., 2014), related mainly to implementation processes, capacity assessment, capacity building (Lansang & Dennis, 2004; Peters et al., 2009), and resilience management (Blanchet et al., 2017), based on diverse and multi-methods approaches including system thinking and realistic evaluation (Prashanth et al., 2014). Nevertheless, the PCF has not yet been used systematically for studying health services reforms, except in a few studies (Bali & Ramesh, 2021; Hughes et al., 2015).

Exploring the challenges at the core of both the PCF and HSS, this special issue analyzes how policy capacity—in program formulation and/or implementation—can contribute to health policy and system strengthening. The show that the Achilles' heel for the Australian government is the critical policy capacity of political legitimacy. Some articles also address questions of governance as a critical element of policy capacity that draws together individual policy skills (competencies), the mobilization of resources (capabilities and institutional arrangements), and development of relationships at the organizational level (Howlett & Ramesh, 2016; Wu et al., 2015). This broad and inclusive framing of governance is perhaps particularly important when examining HSS and the building blocks of well-functioning health systems (Chee et al., 2013; World Health Organization, 2007).

In this paper, we argue that the PCF offers political and system-relevant analytical ideas that could either be mobilized for the theoretical advance or be practically employed for HSS in distinct contexts, in both HICs and LMICs. There is further room to advance our knowledge with respect to the dynamic interrelationships among policy capacity and policy cycle phases, layers of government, modes of governance, and policy trust and then consider their effects on HSS elements, such as leadership and workforce. Three relevant questions guide our analysis: What are the main characteristics of the PCF and how can they contribute to health analysis? How has the PCF been applied to understand or evaluate health policies and reforms? How does the application to health policy reflect on the PCF?

In this introduction, we briefly present the PCF and the HSS concepts, arguing that the PCF offers political and system-relevant analytical constructs for theoretical advance and practical application to HSS. We present the articles that make up this issue, pointing out how they deal with this challenge. Next, we discuss critical capacity factors raised by the articles. Finally, we conclude by reinforcing the avenues opened to advance analyses employing both the PCF and HSS.

Analytical frameworks and related concepts

In this section, we briefly introduce the PCF and the HSS and how they have been employed in public policy and health system research. We seek to understand the extent of their use and how far this entails advances in PCF application.

The PCF

The PCF, developed by Wu et al. (2015), is a multidimensional and multilevel framework that inaugurates a new phase in the conceptualization and employment of nested models to understand and assess policy capacity. It helps to understand how types and levels of capacity can be facilitated or constrained in a diversity of contexts and policy sectors (Wu et al., 2015).

The PCF refers to three related capacities: analytical, operational, and political. These are linked to systemic, organizational, or individual elements within policy contexts and cover policy process phases: formulation, implementation, and evaluation. Analytical capacity has been employed to analyze the role played by distinctive types of evaluators or stakeholders and indicators in evaluation. Operational capacity has shed light on barriers and facilitators that actors must deal with during the implementation of programs. Political capacity has been employed to assess and reveal the knowledge and experience of policymakers and implementers when shaping the policy process. As broad analytical concepts, they can be used to bring to light distinctive forms of management and governance in health policy. They can also be employed to understand effects and adverse outcomes in policymaking, implementation, or evaluation in HSS.

Before the development of the PCF, interdisciplinary studies employing the capacity idea have focused on distinct and separate capabilities for policy success. They have worked with a common general assumption that high levels of each capacity lead to success. For instance, governance and organizational theory (Olsen, 1991; Williamson, 2002) focused on the *meso* level of organizational aspects for success, while the state capacity literature (Evans et al., 1985; Skocpol & Finegold, 1982) emphasized the importance of high-level policy and political dimensions.

Different from these works, the PCF integrates and refines these more specialized nonintegrated assumptions attached to a specific type of capacity. By adopting a capacity matrix, it enables the practical operationalization of how higher levels of capacity considered crucial to policy success can be understood in a multilevel and nested way, enabling a more detailed understanding about what and how distinct types of capabilities work at the individual, organizational, and system levels.

The PCF has gone beyond the usual emphasis on intelligence, taking into account resource mobilization and implementation as core capacities of successful policy processes (Ramesh et al., 2016b). The framework was reconfigured to understand modes of governance as a nested set of capacities (Ramesh et al., 2016b). The PCF has favored a comprehensive approach to policy analysis in various public sectors, such as education (Yan & Saguin, 2021), water policy, Internet policy, and environment (Wu et al., 2018), and from distinct policy perspectives to understand policy learning (Dunlop, 2018), interest groups (Daugbjerg et al., 2018), and public administration (Wu et al., 2018).

The PCF has been employed in public policy to complement the policy design and implementation literature. Ansell et al. (2017) argued for collaborative policy design between upstream and downstream actors in the development of visions, goals, causal assumptions, rules, tools, strategies, and organizations, through sharing knowledge and experience, which promotes innovation and more effective policy and implementation (Ansell et al., 2017; Sørensen & Torfing, 2011). Collaboration in policy design can also promote a sense of "joint ownership" (Ansell et al., 2017) and support for policy solutions through a process of "adaptive implementation" (Berman, 1980 cited in Ansell et al., 2017), where implementation knowledge and data feed back into policy adaptation.

From the implementation viewpoint, studies have questioned how different mixes of capacity types can contribute to the implementation in HICs and LMICs (Denis et al., 2015; Forest et al., 2015; Yan & Saguin, 2021). A complementary perspective refers to how employing the PCF and modes of governance contributes to high levels of design capacity (Howlett & Ramesh, 2016; Hudson et al., 2019; Hughes et al., 2015). Implementation analysis focusing on capacity can be used in policy adaptation and readaptation, either from a policy-learning or capacity-building perspective (Yan & Saguin, 2021).

The PCF could be further explored in relation to challenging implementation themes such as political and legitimacy capacity (Ramesh et al., 2016a; Lund-Tønnesen & Christensen, 2022). Given, for instance,

the role played by politicization, analyses can seek to understand how individual and systemic capacities play a dominant role in implementation—especially at delivery level—and how it interacts with implementation at national, state, or municipal government levels (Ramesh et al., 2016a). Another good example refers to the use of the policy legitimacy concept during COVID-19. It called attention to how societies' perspectives and satisfactions frame the capacity to implement programs (Lund-Tønnesen & Christensen, 2022). The political and legitimacy capacity perspectives can be useful in both HICs and LMICs and can contribute to advancing the application of the PCF to broader political and societal themes.

HSS frameworks and related concepts and themes

HSS emerged in the first decade of the 2000s as a relevant and recurrent concept in global health in both HICs and LMICs. After being linked to performance frameworks based on indicators (Hurst & Jee-Hughes, 2001) or associated with capacity-building strategies or programs to tackle specific diseases, experts claimed that it was time to employ the concept from a broader systemic perspective (Marchal et al., 2009).

The World Health Organization (WHO)'s "six building blocks" framework (World Health Organization, 2007) is based on health system functions: governance (leadership), resources and equipment, workforce, health service delivery, and financing. Chee et al. (2013) have clarified the HSS concept by differentiating supportive and strengthening activities within the WHO framework. Supporting activities improve services by investing in infrastructure and equipment, either short term or narrowly focused. The concept of "system strengthening", on the other hand, consists of more comprehensive aspects of performance that either bring changes in behavior or generate more effective uses of resources, including in the policy process. It is related to more soft blocks: governance (leadership), workforce, and delivery.

Many frameworks and methodologies have been employed, aiming to understand how system building blocks and challenges take place that affect system strengthening (Table 1). Today, the HSS concept is important as a systemic, contextual, and multidimensional concept (Mirzoev et al., 2022; Witter et al., 2019), reflecting power dynamics (Mirzoev et al., 2022) and attached to policy process phases (Denis et al., 2015; Forest et al., 2015) (Table 1). Health system frameworks have employed dimensions of policy capacity to understand effects on resilience (Blanchet et al., 2017) and capacity strengthening (Mirzoev et al., 2022). Policy capacity has been associated with themes (Witter et al., 2019), methodologies, and building blocks (Saddi et al., 2019, 2023) and used in the development of frameworks and analysis to study the process and effects on resilience (Blanchet et al., 2017) (Table 1).

Key challenging themes and concepts have been employed in frameworks and methodologies to understand HSS. Examples refer to building blocks and challenging themes such as context, governance and policymaking, adaptations and rapid changes, emergence of pandemics, and new technologies (Table 2).

How to combine the PCF and HSS?

With the development of the HPSR field, which emphasizes the role of institutions and actors in a transdisciplinary and health system interrelated perspective (Sheikh et al., 2014), few have attempted to develop comprehensive frameworks for use in research and practice (Mirzoev et al., 2022; Witter et al., 2019). For instance, HPSR researchers have called attention to the fact that governance strengthening can result from relationships, rather than structured "building blocks", as they entail people's interests, motivations, and forms of engagement in work (Abimbola et al., 2017). They have also initiated a politically relevant debate on how HSS should be considered by adding other elements and concepts.

The majority of health system studies have not yet employed the PCF (Table 1). HSS has been linked to the idea of capacity in a multidimensional way, revealing similar and different perspectives on how system strengthening and capacity relate to each other (Table1). The few public policy studies employing the PCF to study health advance our understanding of reforms but also propose extensions or adaptation of the PCF (Bali & Ramesh, 2021; Denis et al., 2015). Therefore, both fields together can increase our knowledge on health policies and systems challenging themes and reforms (Table 3). This challenge could be followed by exploring the convergences between the PFC and HSS, as far as concepts/themes (types of capacities and other themes) and levels of analysis are concerned.

Table 1. HSS and policy capacity application in HPSR: examples.

Definitions of HSS or dimensions of HSS	How HSS has been linked to policy capacity or employed to access HSS	References
HSS framed in six core "building blocks": service delivery, health workforce, health information systems, access to essential medicines, financing, and leadership/governance.	Building blocks offer dimensions, indicators, and measures of health systems capacity, including "inputs", "processes", and "outputs" and relate these to "outcome" indicators.	World Health Organization, 2007; World Health Organization, 2010
Leadership is a complex interactive dynamic from which adaptive outcomes (e.g., learning, innovation, and adaptability) emerge.	Leadership enables the emergence of learning, creative, and adaptive capacity.	Uhl-Bien et al., 2007.
HSS focuses on developing the capacity of local organizations and institutions that influence stakeholder interactions.	Strengthening achieved by enhancing organizational capacities and improving institutions.	Swanson et al., 2015
HSS governance refers to making, changing, monitoring, and enforcing rules governing health services' demand and supply. It involves communities and service users.	Attitudes and perceptions impact on the use of capacity and contribute to enforcing or changing values.	Abimbola et al., 2017
HSS governance employed to study resilience. Strengthening health systems' capacity is important for resilience.	Resilience management involves four capacity dimensions: (i) knowledge integration, (ii) coping with uncertainties, (iii) managing interdependence, and (iv) building legitimate institutions. Three levels of capacity resilience can be achieved: absorptive, adaptive, and transformative.	Blanchet et al., 2017
"Strategic leadership" competencies: core personal values and character qualities such as integrity and trustworthiness and skills, adapting, creating, and maintaining change and systems.	Leadership related to essential competencies and design, employed in capacity-building initiatives (Saharan Africa).	Agyepong et al., 2018
HSS defined according to the scope, scale, sustainability, and effects.	Individual and organizational capacity development is an ingredient of higher intervention effectiveness.	Witter et al., 2019
A comprehensive framework for systemic capacity strengthening, based on synergistic strengthening efforts across individual, organizational, and network levels.	Identify guiding values and principles that acknowledge and manage power dynamics inherent in capacity strengthening.	Mirzoev et al., 2022

Note. HSS = health system strengthening; HPSR = health policy and systems research; NCD = non-communicable diseases.

Table 2. HSS other key related concepts and themes.

Contexts—The HSS context includes financial constraints on public health; importance of new diagnostic, therapeutic, and information technologies; and an aging population with an increasing management burden of chronic NCDs requiring a greater emphasis on prevention and health promotion.
Governance and leadership—One major challenge, especially in LMICs, is the emergence of mixed (public/private) health systems (Bloom et al., 2008). The weakness of institutional arrangements in many countries' health sectors led to a growing interest in partnership models. The World Health Organization (2020) emphasizes the importance of government leadership in mixed systems but also collaboration with private providers and civil society groups to establish agreed behavioral norms. Governance has also been analyzed to better understand leadership roles and frontline implementation relationships or initiatives to strengthen leadership at different system levels or policy phases (Gilson & Agyepong, 2018; Saddi et al., 2019).
Delivery and workforce—Country information exchange is a weak point in health reform delivery in HICs (Polin et al., 2021). In both HICs and LMICs, frameworks link weakly to information systems, not capturing daily routine data that could benefit policymaking. Health delivery involves complex factors—such as community participation—that can affect system strengthening (Peters et al., 2009). In HICs (Rafferty et al., 2019) and LMICs (George et al., 2017; Saddi et al., 2019; Saddi et al., 2023), how frontline health professionals have coped with implementation challenges affects HSS.
Reforms and adaptations—Another challenge is how health systems adapt to changes: rapid urbanization and the need to expand services quickly; population aging and the rising burden of chronic noncommunicable diseases; increased emphasis on health promotion and the management of chronic health problems; and recurrent economic crises that impact need and government funding capacity.
Pandemic and technologies—The COVID-19 pandemic has highlighted a new phenomenon, the interrelationship among developing biotechnologies, including relatively low-cost point-of-care diagnostics, growing access to digital health services, and new vaccines and therapeutics that potentially offer more targeted personal health care. This has brought new organizations into health systems, including information technology platforms and biotechnology companies. The existing institutional arrangements should adapt to deal with these regulatory challenges.

Note. HSS = health system strengthening; NCD = Non-communicable diseases; HICs = high-income countries; LMICs = low–middle-income countries.

Studies from the PCF and HPSR fields highlight a common feature regarding how policy capacity can contribute to HSS: the need to focus on the policy process in a dynamic way, taking contexts into account. From the HPSR perspective, a strong and dynamic association between policy capacity and HSS needs to evolve according to the emerging system challenges. Complementarily, policy studies employing the PCF tell us that this association is dependent on how the policy process occurs and affects outcomes (or system strengthening) in varied contexts and system configurations. Policy capacity paves the way to understand the distinct policy processes in HICs and LMICs, with varied capacities and crisis contexts, in diverse times of uncertainties or pandemics, generating critical capacities for HSS. Broad political and institutional factors influence the ability to develop and sustain policy capacity within various phases of health system evolution. However, stability may either impede or contribute to policy capacity, depending on political ideologies and priorities.

Policy capacity and health strengthening: a contextual and dynamic relationship

In line with the efforts discussed earlier, emphasizing the role played by institutions and actors in a transdisciplinary and health system interrelated perspective (Sheikh et al., 2014), this issue explores the relationship between the PCF and HSS arguing that the PCF offers political and system-relevant analytical ideas that could either be mobilized for theoretical advance or be practically employed for HSS in distinct contexts in both HICs and LMICs. They focus on a group of countries (the European Union) or on specific countries (Canada, New Zealand, Australia, China, India, and Brazil), from the developed and developing world, located in five continents.

Hunter and Bengoa (2022) and Husain et al. (2021) employ the PCF to understand transformations and rapid changes in complex health reform implementation in European countries and China, respectively. By systematizing a mix of critical capacity issues for successful changes in HIC and LMIC contexts, they present evidence on how to foster effective reforms. Both papers highlight the relevance of context, either as receptive to reforms (Husain et al., 2021) or as a set of political factors, including the quality

Table 3. Summarizing possible relationships between the PCF and HPSR.

Defining the PCF	HSS synthesis definitions: selected studies	Possible relationships between PCF and HSS
Three related capacity types: analytical, operational, and political. These link to systemic or individual processes within policy contexts and policy process phases: formulation, implementation, and evaluation.	-HSS building blocks (World Health Organization, 2007). -Leadership as creative and adaptive learning (Uhl-Bien et al., 2007). -HSS by organizational strengthening (Swanson et al., 2015). -Governance as a relational perspective, involving institutions, communities, and users (Abimbola et al., 2017). -Levels of resilience as a result of capacity management (Blanchet et al., 2017). -Leadership as competencies and design (Agyepong et al., 2018). -Better understanding of scope, scale, sustainability, and effects on individual and capacity levels (Witter et al., 2019). -Capacity strengthening in a systemic and comprehensive way (Mirzoev et al., 2022).	-"Bringing HSS's policy capacity concepts to the PCF"—The dimensions of policy capacity used in HPSR could be brought to the PCF as a complementary capacity type or subtype. -"Bringing PCF's capacity types and levels of analysis to HSS frameworks". -"Applying the PCF multidimensional, nested perspective to HPSR"—Seeking to understand interrelationships between levels of the policy process and system and how they affect outcomes. Establish relations between governance modes in health and capacity types, using PCF matrix (Howlett and Ramesh, 2016).

Note. HSS = health system strengthening; HPSR = health policy and systems research; PCF = policy capacity framework.

and coherence of policy, leadership style, supportive organizational culture, and health professions, notably managerial–clinical relations (Hunter & Bengoa, 2022). Husain et al. emphasize the dynamic, adaptive character of policies in a complex and government-directed reform context, where stakeholders have played a crucial role in building analytical capacity and have perceived learning—from state and society—as a requirement to respond to challenges.

In different ways, Tenbensel & Silwal (2022) and Denis et al. (2022) engage in dialogue with and test relevant policy capacity literature. Both papers are focused on HICs and establish relations between dimensions of policy capacity. The first tests the relationships between governance and types of capacity, while the second explores how a dimension of capacity interacts with leadership strengthening. Tenbensel & Silwal (2022) test an assumption raised by Howlett and Ramesh (2016) that the critical component for network governance is operational capacity at organizational level. They explore three divergent cases of local implementation of the New Zealand's System Level Measures Framework to test this assumption and to see if a specific element of policy capacity remains central. Denis et al. (2022) explore how health reformers in Canadian provinces address the policy capacity question. Building on in-depth case studies, they identify how policy capacity is framed in various ways within health reforms. A series of core capacity dilemmas emerge from reform attempts in each province.

Two other articles account for contexts to understand the political and policy capacity types needed to implement health programs: in poor settings in LMICs (Roy et al., 2023) and during COVID-19 in Australia (Dickinson et al., 2023). Analyzing a community health program in India, Roy et al. (2023) argue that individual political capacity has been critical to policy success and strengthening in a context characterized by deficits and tensions between different capacity domains. They highlight the need to better understand organizational capacity deficits and to build capacities targeting workforce and leadership strengthening. Dickinson et al. (2023) identify the main implementation themes and drivers of COVID-19 vaccination hesitancy among people with disabilities in Australia. They based their work on the PCF, adding political legitimacy to the framework. The show that the Achilles' heel for the Australian government is the critical policy capacity of political legitimacy. This work brings evidence on how to build political and policy capacity in implementation.

Koga et al. (2023) study the critical capacity needed to formulate policies in highly uncertain times. They seek to understand the critical capacities characterizing the policymaking process in Brazil at the initial stage of COVID-19 and more specifically in relation to the work of a policymaking expert committee. The analysis highlights the uncertainties and ambiguities of the Brazilian pandemic context and what/how critical capacities characterized the work of experts providing recommendations.

Emerging policy capacity factors for HSS

The authors in this issue do not limit the idea of "capacity" to a static construct. Such a view might be supposed in some versions of "policy design", as a reservoir of pure capabilities or resources, on which policymakers can draw and apply. This sense of resources is an important feature of "power" to which "capacity" implicitly refers. In this issue, the authors also utilize the relational dimension of capacity (relational power) to refer to the dynamic interaction of individuals and organizations in networked health governance. For instance, analytical capacity is dynamic in that it concerns knowledge claims contested between different actors and calls up dynamic interactions between agencies responsible for knowledge generation and boundary work. Political capacity, for instance, can be enhanced or restricted by the orientation of health ministers and the political capital of governments, which vary considerably with contextual circumstances. And operational capacity, which might be interpreted as a "reservoir" in institutional structures and depth of resources, in the relational meaning extends out to encompass dynamic and often political interactions. This includes interagency relations, the role of arm's length providers, consultancies, and power struggles between professions (Denis et al., 2022). In a networked governance environment, changing health systems may be restricted by normative assumptions about health service provision, for instance the primary care model.

The authors show that the three PCF categories should themselves be considered as overlapping and interacting. Tenbensel & Silwal (2022) conclude that HSS can be understood through the effect of dynamic interactions and feedback loops between the three PCF dimensions. The relational distance and direction of interaction either generates capacities through productive relationships or degenerates it through low trust. In the China case (Husain et al., 2021), while capacity is initially state generated, over time, with the production of more complex health systems, new capacities are required to cope with new problems and contexts. Capacity has a temporal nature. It pertains to dynamic interactions, *and* it has itself a dynamic and evolving nature; adaptive capacity is a key element of policy capacity. Hence, we conclude that capacity generates system strengthening and is also mutually generated by it. This equally suggests a research agenda on processes that reduce policy capacity over time, leading to policy failure.

Articles in this issue advance the employment of the PCF, by establishing relations between the PCF and HSS, proposing critical capacity factors that increase our knowledge about the policy process and effects on HSS. Critical factors revealed are the capacity to adapt, the context of mixed and complex systems, a dynamic view of policy capacity, and policy capacity as a relational power.

Capacity to adapt

One theme is the capacity to adapt to changing needs and contexts. The article on Canada deconstructs the capacity concept and finds different modalities for organizing analytical capacity depending on the perceived problems of political leaders. This includes broad visions of reform and addressing specific performance targets. The article on China presents a story of changing understandings by government of the capacities required as it manages a process of rapid health system development and change. The New Zealand, UK, and China case studies emphasize the pluralistic nature of health systems, with different actors having different mandates and incentives. They point out the tension between the tendency to respond to incentives and the need to generate shared goals and understandings of roles and responsibilities, based on trust, which enables effective collaboration in defining problems and approaches to address them. This broadens the concept of political capability to include an ability to build long-term trust-based relationships. The New Zealand study emphasizes the importance of this kind of relationship in making relevant information available for analysis.

Contexts of mixed and complex systems

In this mixed and complex health system context, operational capacity also implies the ability to build and maintain trust-based relationships enabling each stakeholder to govern areas under their responsibility. The Australia paper shows this, regarding vaccine hesitancy and lack of trust in government. The Europe paper discusses the constraints upon change and the importance of pressures to overcome conservatism and resistance. It highlights the role of the COVID-19 crisis in overcoming resistance in a context in which governments had already developed broad policy objectives based on a body of analysis. The China article describes a similar process of the gradual buildup of change potential but pushed forward by crisis. In a context of economic turbulence and the growing challenge of climate change,

we need to analyze the capacity to respond to crisis and manage change. As Hunter and Bengoa (2022) explain in the Canadian case, this requires a variety of capacities, but, as contexts become increasingly complex, external collaboration and adaptability become more important.

Multiple frames of policy capacity

The articles in this issue go beyond a singular view of policy capacity. Denis et al. (2022) explain how capacity varies depending on the frame applied to the health system. Capacity to strengthen the system as the provision of "health care" can be quite different from the capacity to improve "health in society". So, different forms of assessements - of policy capacity and resources needed to raide it - can be used to frame and understand policy problems. And given the path dependency of institutions, problem framing may become constrained by the predominant available capacity, especially in advanced health systems, where incrementalism and small wins favor continuation of the hegemony of care over broader population health issues. Making a similar point, the EU analysis articulates the effort to shift health systems from emphasis on ill-health to well-being, noting that complex systems resist policy change and conclude that understanding "how" to change is the key capacity. This points toward policy capacity as inhering in both processual and relational properties. The longitudinal scope taken by Husain et al. (2021) treats policy capacity as a problem-solving property. This takes place firstly at the immediate level, which is mainly aligned with incremental problem-solving, and builds up to pose questions at the larger systemic level, which responds to a longer-term view via the need to enhance system coherence. Therefore, policy capacity is processual and adaptive, linked to specific problems, rather than confined to the generic properties of the PCF. Policy capacity itself thus changes over time.

Policy capacity as a relational power

Several authors argue that policy capacity is a relational power. In India (Roy et al., 2023), capacity is located in the experience of community health workers and how they gain identity and recognition from health authorities in the course of their work. In a developing state with few resources, individuals play a key role. Notably, this links to a community health provision model, not one in which the provision of high-end health services is most important. Tenbensel & Silwal, (2022) conceive of policy capacity as a relational dynamic in the form of feedback, covering both positive reinforcement (*virtuous*) and negative blocking (*vicious*). It is the relational qualities of interagency working that generate capacity. Again, capacity is not a property that is possessed but rather something that varies according to the nature and quality of system interactions.

Conclusions

This themed issue integrates the PCF with health policy and HSS. Advances are made by testing assumptions (Denis et al., 2022; Tenbensel & Silwal, 2022), bringing the PCF to complex contexts of health reforms (Hunter & Bengoa, 2022; Husain et al., 2021), exploring specific types of policy capacity in critical low-income and pandemic contexts (Koga et al., 2023; Roy et al., 2023), and adding an additional subtype of capacity to the framework in times of uncertainties and distrust (Dickinson et al., 2023).

In sum, we conclude that the PCF is highly useful for exploring the dynamics of HSS. But we feel that this is best achieved by utilizing a dynamic and relational understanding of capacity, intrinsically oriented toward networked governance. We think this lends to the Wu et al.'s (2015) framework more analytical power and scope. We conclude that policy capacity is contextually interpreted (relative to the problem frame) and dynamic and adaptive (processual and relational), in regard to the properties of a health system, particularly regarding mixed and complex systems This issue thus enables us to highlight some critical and contextually specific features that must be considered when analyzing policy capacity and HSS. Articles reveal significant and specific features, common to HICs and LMICs: capacity to adapt, context of mixed and complex systems, dynamic view of policy capacity, and policy capacity as a relational power. This work is relevant to policy, health professionals, and researchers.

The PCF is generic and offers broad categories to theorize and empirically probe capacity issues in various domains. Across the different articles, we see that policy capacities have different meanings and are largely influenced by the political and institutional environment in which they are developed or deployed. A contextualist approach is needed to assess their heterogeneity and to better understand how they are embedded in the institutional fabric and substrates of health systems.

While the PCF provides a solid basis for addressing capacity issues in different policy systems, the three types are defined in very general terms. The empirical analysis reveals how actors look for the mobilization of specific capacities to address specific policy problems, for example, the development of capacities to address persistent challenges, like better integration of the medical profession with health system objectives, or the development of care and services adapted to emerging health priorities. A core capacity relates to the ability to bring about significant changes within health systems, which are highly institutionalized and change resistant. How the three types of capacity are developed and deployed to support policy changes that cascade down the health system and support changes at the point of care is an important issue that needs further examination.

The policy capacity is not created in a vacuum. The contextual factors of the level of resources, economic cycles, and political regimes influence policy priorities and consequently which capacities policymakers seek. Periods of economic rationalization will probably be associated with a search for capacity in support of decisions, at least in publicly funded health systems. Periods of relative prosperity may provide the necessary slack to invest in capacity development but may also favor inattention among politicians who feel less pressure to face challenges.

Recent health systems' history shows a growing preoccupation with policy capacities, for example, in the creation of intermediary agencies to support health organizations and providers in continuous quality improvement, in the development of patient partnerships, and in evidence-informed decisions. How to better connect these pools of capacities with health system governance is an important issue. Recently, the WHO advocated the development of national quality strategies for promoting the development of systemic capacities. Through these capacities, innovations that have demonstrated value-added benefits at a small scale can be generalized to the system level. With national strategies, policymakers are in a better position to support capacity development in sectors that are often less considered when it is time to allocate resources. The primary care and community sectors, at least in HIC health systems, have often been neglected and lack capacities to contribute significantly to HSS.

Conflict of interest

None declared.

References

Abimbola, S., Negin, J., Martiniuk, A. L., & Jan, S. (2017). Institutional analysis of health system governance. *Health Policy and Planning*, *32*(9), 1337–1344. https://doi.org/10.1093/heapol/czx083.

Agyepong, I. A., Lehmann, U., Rutembemberwa, E., Babich, S. M., Frimpong, E., Kwamie, A., & Gilson, L. (2018). Strategic leadership capacity building for sub-Saharan African health systems and public health governance: A multi-country assessment of essential competencies and optimal design for a Pan African DrPH. *Health Policy and Planning*, *33*(suppl 2), ii35–ii49. https://doi.org/10.1093/heapol/czx162.

Ansell, C., Sørensen, E., & Torfing, j. (2017). Improving policy implementation through collaborative policymaking. *Policy and Politics*, *45*(3), 467–486. https://doi.org/10.1332/030557317X1497279976026.

Bali, A. S., & Ramesh, M. (2021). Governing healthcare in India: A policy capacity perspective. *International Review of Administrative Sciences*, *87*(2), 275–293. https://doi.org/10.1177/00208523211001499.

Bates, I., Boyd, A., Smith, H., & Cole, D. C. (2014). A practical and systematic approach to organizational capacity strengthening for research in the health sector in Africa. *Health Research Policy and Systems*, *12*(1), 1–10. https://doi.org/10.1186/1478-4505-12-11.

Blanchet, K., Nam, S. L., Ramalingam, B., & Pozo-Martin, F. (2017). Governance and capacity to manage resilience of health systems: Towards a new conceptual framework. *International Journal of Health Policy and Management*, *6*(8), 431–435. https://doi.org/10.15171/ijhpm.2017.36.

Bloom, G., Standing, H., & Lloyd, R. (2008). Markets, information asymmetry and health care: Towards new social contracts. *Social Science & Medicine*, *66*(10), 2076–2087. https://doi.org/10.1016/j.socscimed.2008.01.034.

Chee, G., Pielemeier, N., Lion, A., & Connor, C. (2013). Why differentiating between health system support and health system strengthening is needed. *The International Journal of Health Planning and Management*, *28*(1), 85–94. https://doi.org/10.1002/hpm.2122.

Daugbjerg, C., Fraussen, B., & Halpin, D. (2018). Interest groups and policy capacity: Modes of engagement, policy goods and networks. In X. Wu, M. Howlett & M. Ramesh (Eds.), *Policy capacity and governance: Assessing governmental competences and capabilities in theory and practice*. Springer.

Denis, J. L., Brown, L., Forest, P. G., Normandin, J. M., Cambourieu, C., Cannizzaro, V., & Preval, J. (2015). *Policy capacity for health system reform*. ENAP & Nova Scotia Health Research Foundation. http://recherche.enap.ca/cerberus/files/nouvelles/documents/La_recherche/PolicyCapacitySynthesis_2015-10-29.pdf.

Denis, J. L., Usher, S., & Préval, J. (2022). Health reforms and policy capacity: The Canadian experience. *Policy and Society*, *42*(1), 64–89. https://doi.org/10.1093/polsoc/puac010.

Dickinson, H., Kavanagh, A., Dimov, S., Shields, M., & McAllister, A. (2023). Political legitimacy and vaccine hesitancy: Disability support workers in Australia. *Policy and Society*, *42*(1), 104–116. https://doi.org/10.1093/polsoc/puac030.

Dunlop, A. C. (2018). Building organizational political capacity through policy learning: Communicating with citizens on health and safety in the UK. In X. Wu, M. Howlett & M. Ramesh (Eds.), *Policy capacity and governance: Assessing governmental competences and capabilities in theory and practice* (pp. 265–287). Springer.

Evans, P. B., Rueschemeyer, D., & Skocpol, T. (1985). *Bringing the state back in*. Cambridge University Press.

Forest, P. G., Denis, J. L., Brown, L. D., & Helms, D. (2015). Health reform requires policy capacity. *International Journal of Health Policy and Management*, *4*(5), 265–266. https://doi.org/10.15171/ijhpm.2015.85.

Frenk, J. (2010). The global health system: Strengthening national health systems as the next step for global progress. *PLoS Medicine*, *7*(1), e1000089. https://doi.org/10.1371/journal.pmed.1000089.

George, A., Scott, K., Govender, V., & World Health Organization. (2017). *A health policy and systems research reader on human resources for health*. World Health Organization. https://apps.who.int/iris/bitstream/handle/10665/259460/9789241513357-eng.pdf.

Gilson, L., & Agyepong, I. A. (2018). Strengthening health system leadership for better governance: What does it take? *Health Policy and Planning*, *33*(suppl 2), ii1–ii4. https://doi.org/10.1093/heapol/czy052.

Howlett, M., & Ramesh, M. (2016). Achilles' heels of governance: Critical capacity deficits and their role in governance failures. *Regulation & Governance*, *10*(4), 301–313. https://doi.org/10.1111/rego.12091.

Hudson, B., Hunter, D., & Peckham, S. (2019). Policy failure and the policy-implementation gap: Can policy support programs help? *Policy Design and Practice*, *2*(1), 1–14. https://doi.org/10.1080/25741292.2018.1540378.

Hughes, A., Gleeson, D., Legge, D., & Lin, V. (2015). Governance and policy capacity in health development and implementation in Australia. *Policy and Society*, *34*(3–4), 229–245. https://doi.org/10.1016/j.polsoc.2015.11.001.

Hunter, D. J., & Bengoa, R. (2022). Meeting the challenge of health system transformation in European countries. *Policy and Society*, *42*(1), 14–27. https://doi.org/10.1093/polsoc/puac022.

Hurst, J., & Jee-Hughes, M. (2001). *Performance measurement and performance management in OECD health systems*. https://www.oecd-ilibrary.org/content/paper/788224073713?crawler=true&mimetype=application/pdf.

Husain, L., Bloom, G., & Xiao, Y. (2021). Building policy capacity for managing rapid, complex change in China's health system. *Policy and Society*, *42*(1), 28–48. https://doi.org/10.1080/14494035.2021.1933336.

Koga, N. M., Palotti, P. L. M., Pontes, P. A. M. M., Couto, B. G., & Soares, M. L. V. (2023). Analytical capacity as a critical condition for responding to COVID-19 in Brazil. *Policy and Society*, *42*(1), 117–130. https://doi.org/10.1093/polsoc/puac028.

Lansang, M. A., & Dennis, R. (2004). Building capacity in health research in the developing world. *Bulletin of the World Health Organization*, *82*(10), 764–770. https://doi.org/10.1590/S0042-96862004001000012.

Lund-Tønnesen, J., & Christensen, T. (2022). The dynamics of governance capacity and legitimacy: The case of a digital tracing technology during the COVID-19 pandemic. *International Public Management Journal*, 1–19. https://doi.org/10.1080/10967494.2022.2112328.

Marchal, B., Cavalli, A., & Kegels, G. (2009). Global health actors claim to support health system strengthening—Is this reality or rhetoric? *PLoS Medicine*, *6*(4), e1000059. https://doi.org/10.1371/journal.pmed.1000059.

Matland, R. E. (1995). Synthesizing the implementation literature: The ambiguity-conflict model of policy implementation. *Journal of Public Administration Research and Theory*, *5*(2), 145–174. https://doi.org/10.1093/oxfordjournals.jpart.a037242.

Mirzoev, T., Topp, S. M., Afifi, R. A., Fadlallah, R., Obi, F. A., & Gilson, L. (2022). Conceptual framework for systemic capacity strengthening for health policy and systems research. *BMJ Global Health*, *7*(8), e009764. http://dx.doi.org/10.1136/bmjgh-2022-009764.

Olsen, J. P. (1991). Modernization programs in perspective: Institutional analysis of organizational change. *Governance*, 4(2), 125–149. https://doi.org/10.1111/j.1468-0491.1991.tb00007.x.

Painter, M., & Pierre, J. (2005). Unpacking policy capacity: Issues and themes. In M. Painter & J. Pierre (Eds.), *Challenges to state policy capacity*. Palgrave Macmillan.

Peckham, S., Hudson, B., Hunter, D., & Redgate, S. (2022). Policy success: What is the role of implementation support programmes? *Social Policy & Administration*, 56(3), 378–393. https://doi.org/10.1111/spol.12771.

Peters, D. H., El-Saharty, S., Siadat, B., Janovsky, K., & Vujicic, M. (2009). *Improving health service delivery in developing countries: From evidence to action*. Directions in Development; Human Development. World Bank.

Pierre, J., & Guy Peters, B. (2000). *Governance, politics and the State*. Macmillan.

Polin, K., Hjortland, M., Maresso, A., van Ginneken, E., Busse, R., & Quentin, W. (2021). "Top-three" health reforms in 31 high-income countries in 2018 and 2019: An expert informed overview. *Health Policy*, 125(7), 815–832. https://doi.org/10.1016/j.healthpol.2021.04.005.

Prashanth, N. S., Marchal, B., Devadasan, N., Kegels, G., & Criel, B. (2014). Advancing the application of systems thinking in health: A realist evaluation of a capacity building programme for district managers in Tumkur, India. *Health Research Policy and Systems*, 12(1), 1–20. https://doi.org/10.1186/1478-4505-12-42.

Rafferty, A. M., Busse, R., Zander-Jentsch, B., Sermeus, W., & Bruyneel, L., (Eds.). (2019). *Strengthening health systems through nursing: Evidence from 14 European countries [Internet]*. European Observatory on Health Systems and Policies.

Ramesh, M., Howlett, M. P., & Saguin, K. (2016a). Measuring individual-level analytical, managerial and political policy capacity: A survey instrument. *Lee Kuan Yew School of Public Policy Research Paper*, (16–17). http://dx.doi.org/10.2139/ssrn.2777382.

Ramesh, M., Saguin, K., Howlett, M. P., & Wu, X. (2016b). Rethinking governance capacity as organizational and systemic resources. *Lee Kuan Yew School of Public Policy Research Paper*, (16–12). http://dx.doi.org/10.2139/ssrn.2802438.

Roy, B., Saddi, F. C., Peckham, S., & Barretos, M. P. (2023). Critical policy capacity factors in the implementation of the Community Health Worker Programme in India. *Policy and Society*, 42(1), 90–103. https://doi.org/10.1080/14494035.2021.1933336.

Saddi, F. C., Peckham, S., & Coelho, G. A. (2023). A framework for measuring the effects of policy processes on health system strengthening. In J. M. Lewis & P. Triantafillou (Eds.), *Handbook on measuring governance* [Book submitted for publication]. Edward Elgar Publishing.

Saddi, F. C., Peckham, S., Coelho, G., Silva, J. D., Barretos, M., Lozano, R., & Dantas, J. 2019. A comprehensive mixed-method policy framework to evaluate how the re-design and implementation of a P4P program can effectively affect health system strengthening: And applying it to the Brazilian case (PMAQ). International Public Policy Conference (ICPP4), Montreal. https://www.ippapublicpolicy.org//file/paper/5d112a8164521.pdf.

Sheikh, K., George, A., & Gilson, L. (2014). People-centred science: Strengthening the practice of health policy and systems research. *Health Research Policy and Systems*, 12(1), 1–8. https://doi.org/10.1186/1478-4505-12-19.

Skocpol, T., & Finegold, K. (1982). State capacity and economic intervention in the early new deal. *Political Science Quarterly*, 97(2), 255–278. https://doi.org/10.2307/2149478.

Sørensen, E., & Torfing, J. (2011). Enhancing collaborative innovation in the public sector. *Administration & Society*, 43(8), 842–868. https://doi.org/10.1177/0095399711418768.

Swanson, R. C., Atun, R., Best, A., Betigeri, A., de Campos, F., Chunharas, S., Van Damme, W. (2015). Strengthening health systems in low-income countries by enhancing organizational capacities and improving institutions. *Globalization and Health*, 11(1), 1–8. https://doi.org/10.1186/s12992-015-0090-3.

Tenbensel, T., & Silwal, P. R. (2022). Cultivating health policy capacity through network governance in New Zealand: Learning from divergent stories of policy implementation. *Policy and Society*, 42(1), 49–63. https://doi.org/10.1093/polsoc/puab020.

Uhl-Bien, M., Marion, R., & McKelvey, B. (2007). Complexity leadership theory: Shifting leadership from the industrial age to the knowledge era. *The Leadership Quarterly*, 18(4), 298–318. https://doi.org/10.1016/j.leaqua.2007.04.002.

Williamson, O. E. (2002). The theory of the firm as governance structure: From choice to contract. *Journal of Economic Perspectives*, 16(3), 171–195. 10.1257/089533002760278776.

Witter, S., Palmer, N., Balabanova, D., Mounier-Jack, S., Martineau, T., Klicpera, A., Gilson, L. (2019). Health system strengthening—Reflections on its meaning, assessment, and our state of knowledge. *The International Journal of Health Planning and Management*, 34(4), e1980–e1989. https://doi.org/10.1002/hpm.2882.

World Health Organization. (2007). *Everybody's business—Strengthening health systems to improve health outcomes: WHO's framework for action*. https://apps.who.int/iris/bitstream/handle/10665/43918/9789241596077_eng.pdf.

World Health Organization. (2010). *Monitoring the building blocks of health systems: A handbook of indicators and their measurement strategies*. World Health Organization.

World Health Organization. (2020). *Engaging the private health service delivery sector through governance in mixed health systems: Strategy report of the WHO Advisory Group on the Governance of the Private*. Sector for Universal Health Coverage. https://apps.who.int/iris/bitstream/handle/10665/341057/9789240025943-por.pdf.

Wu, X., Howlett, M., & Ramesh, M. (Eds.). (2018). *Policy capacity and governance: Assessing governmental competences and capabilities in theory and practice*. Springer.

Wu, X., Ramesh, M., & Howlett, M. (2015). Policy capacity: A conceptual framework for understanding policy competences and capabilities. *Policy and Society*, 34(3–4), 165–171. https://doi.org/10.1016/j.polsoc.2015.09.001.

Yan, Y., & Saguin, K. (2021). Policy capacity matters for capacity development: Comparing teacher in-service training and career advancement in basic education systems of India and China. *International Review of Administrative Sciences*, *87*(2), 294–310. https://doi.org/10.1177/0020852320983867.