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A policy ethnography study of a Singapore regional health system on its governance adaptations and associated challenges as a project organisation to implement Healthier Singapore

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ABSTRACT

Objectives: Project organisations reflect a modern and non-bureaucratic form of organising public-sector activities, which promises innovation, entrepreneurship, and order and control to bring about change. This study seeks to investigate the project organisation Singapore Health Services (SingHealth) Region Health System (RHS)'s approach to implementing the Healthier Singapore (HSG) strategy, including models of governance and perceptions of RHS leads, identify the challenges facing the RHS, and to draw insights into the conditions necessary for using project organisation as a policy tool in policy implementation.
Study design: We adopted a policy ethnography approach to answering the research question.
Methods: The approach involved: (1) non-participant observation with fieldnotes taken during meetings, events, programme activities, and conferences concerning SingHealth and HSG implementation; (2) analysis of 52 organisational documents; and (3) interviews with 21 senior SingHealth leaders from the RHS Executive Committee, involved in envisioning and overseeing the production of RHS projects to align with the HSG strategy (March to September 2022).
Results: Evidence demonstrates the presence of multiple governance and interactive governance in HSG implementation, including legitimising the RHS as the project organisation; engaging the private corporations; incorporating the citizens; and working with non-governmental organisations. However, the RHS faced many challenges, ranging from governance, workforce, financing, IT infrastructure and care models, problem definition, primary care and legacy issues, knowledge management, and being pandemic-informed in its delivery.
Conclusion: The RHS will need to address these challenges through the necessary constitutive, directive, and operational actions, and interactive governance to enhance its institutional capacity to implement the HSG Strategy.

1. Introduction

Many countries face complex health and social problems related to a rapidly ageing population, increasing prevalence of chronic diseases, rising healthcare costs, longer lifespans, and smaller family sizes [1]. Reforms and policies launched in recent decades have been enabled by projects to integrate care. This time-limited funding approach has led to the funded operations functioning as project organisations [2]. Project organisations, sometimes known as project-based organisations, refer to various organisational forms that involve creating systems to perform project tasks [3]. They reflect a modern and non-bureaucratic form of organising public-sector activities, where the concept of 'project', in 'project organisation', signals innovation and entrepreneurship, and promises order and control to bring about change [2,4]. While such project organisations can be viewed as policy tools, often to tackle complex societal problems, they are rarely explored and addressed as an object for research, which may limit the extent to which they can be used to explain policy outcomes [5].

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In Singapore, to tackle similar issues, the government, in March 2022, rolled out the Healthier SG (HSG) Strategy. This coherent policy adopts a life-course approach to drive population health and promote overall healthier living while taking targeted health measures for specific segments of society [6]. This policy represents a significant development in health policy thinking and healthcare governance, where additional funding to the Regional Health System (RHS), rather than individual programmes, is seen to facilitate and stimulate innovative developmental integrated care. The RHS constitutes a form of 'project organisation', where the policy will see the institution adopt a whole-of-systems approach to coordinate care and be held accountable for the overall well-being of a defined population and their health outcomes. This devolution or delegation of power from the central government to the regional health systems to distribute funding based on pre-determined health outcomes reflects a transformation of the public sector governance in the health sector.

Project organisation, which has its roots in project management literature, has been considered a "forceful policy tool" to put the policy to action, where the emphases are on organisational innovation, performance, and outcomes [2]. It serves to clarify and manifest intentions and ambitions among policymakers and is simultaneously congruent with the new public management discourse [7]. The common thrusts for project organisations can be explained by the will to bring about change in permanent organisations, such as the health systems, or to develop new organisational arrangements suitable for emerging and new social challenges [2]. In contrast to the matrix, functional, and other forms of organisations, the 'project' in project organisation is the primary unit for production organisation, innovation and competition. It is also the primary business mechanism for coordinating and integrating all the main business functions of the organisation [8].

Project organisation as a policy tool and an organisational form involving inter-organisational collaboration is not without problems [2,9–11]. For example, the inherent isolation in an organisation project could create barriers between such an organisation and other public authorities and entities and thus counteract its intended role [2]. When a project organisation fails to fit into the overall governance structure when used as a policy tool, the project may remain encapsulated without sufficient impact on the permanent organisational structure and outcomes [2]. Problems such as demarcations of project activities from regular activities, lack of integration of projects into everyday activities, interactional uncertainties, and when the system of monitoring and evaluation of the policy is directed towards projects rather than permanent organisations could also lead to its failure [2]. Contextual influence, political and social conditions, institutionalised norms and values, and human factors may similarly regulate and standardise project organising [4,12–19].

Importantly, organisational integration may not produce benefits if involved organisations cannot coordinate their work effectively [20,21]. Studies on project models have highlighted that leadership and team, policy and strategy, stakeholder management, spatial aspects of innovation networks, resources, contracting and project management, knowledge management (diffusion, transfer, dissemination), and learning and innovation are also critical features in determining its success [15,22–25]. Project organisations must constantly negotiate a potentially hostile environment, where their aims, goals and assumptions may not be similarly shared by other stakeholders [12]. In contrast to functional and matrix organisations, they are inherently weak when performing routine tasks, achieving economies of scale, coordinating cross-project resources, facilitating technical development, promoting organisation-wide learning, and fostering broader interests of corporate strategy and business coordination [8]. Additionally, research has been lacking in using project organisation as a policy tool in making a strategic choice to inform policy implementation [2,5].

This study thus explores the project organisation as an experimentation and implementation instrument in reshaping public governance in the Singapore health sector. Specifically, the study will investigate the project organisation SingHealth RHS' approach to implementing the Healthier SG (HSG) Strategy and the associated challenges. It will explore the model of governance that guides HSG implementation as the implementation details are still being worked out, the perceptions of key RHS leaders on the MOH HSG Strategy, and the associated challenges in implementing HSG. Additionally, we aim to draw insights into the conditions necessary for using project organisation (RHS) as a policy tool in policy implementation and contribute to the broader body of knowledge on healthcare governance, project organisation, health systems and policy implementation.

2. Methods

2.1. Study design

To answer the research question above, we adopted a policy ethnography approach to draw out the multiple discourses in a policy landscape that include subjectivities, objects, and contexts that could sometimes be uncomfortable or excluding. Policy ethnography is a methodological approach employed to look at the detail of policy implementation, identify problems in the field and reveal the complexity of the human situation by studying a single case through ethnographic methods [26]. It aims to "provide detailed observational data on the organisational enactment of public policies that will complement data from a larger-scale survey or interview research" [27].

In this study, we used a framework developed by Hill and Hupe [21,28,29] on multiple governance framework to explore how the circumstances under which this healthcare transformation is effected through the SingHealth RHS as a project organisation. Hill and Hupe's [2,21,29] multiple governance model is an analytical framework for assessing the organisational context in which policy is developed, and implementation is supposed to occur. It consists of three different layers in the political-administrative system (policy setting, institutional setting, and micro-setting) and three broad sets of activities (constitutional, directive, and operational governance) (Table 1). Constitutive governance establishes the structural dimensions, directive governance determines the detailed contents, and operational governance concerns the process side of public policies. Governance generally refers to the "interactive processes through which society and the economy are steered towards collectively negotiated objectives" [30]. This framework provides a conceptual (meta-) basis for contextual theory building in the study of the policy process.

Additionally, we bridge the multiple governance framework with the interactive governance model articulated by Torfing & Peters to tease out challenges in the implementation. Interactive governance refers to a complex process through which a plurality of social and political actors with diverging interests interact to formulate, promote, and achieve

Table 1
The multiple governance framework (Hill & Hupe, 2006, p. 563; 2014, p.130).

	Governing triads ("the triads gubernandi")		
Scale of action situation	Constitutive governance	Directive governance	Operational governance
Policy setting (System) national government and the central institutions of the state)	Institutional design	General rule setting	Managing trajectories
Institutional setting (Organisation)	Designing (inter-) organisational settings and contextual relations	Mission and maintenance	Managing relations
Micro-setting (Individual)	Internalisation of values and norms	Situation-bound rule application	Managing contacts

Sources: adaptation of Hill and Hupe (2014, p. 130), and Hill and Hupe (2006, p. 563).

common objectives by mobilising, exchanging, and deploying a range of ideas, rules, and resources (Fig. 1) [31]. The framework will foreground the governing roles of the state, market, and civil society as the implementation details of HSG are being developed.

This study will focus on the policy setting and institutional setting of the multiple governance framework. A subsequent and more extensive study involving interviews with all policy actors, including project managers on the ground and patients and caregivers, will explore the implementation across all three layers in the political-administrative system once the HSG is fully implemented.

2.2. Participants

This project, which took place from March to September 2022, looks at the specific case of the Singapore Health Services (or SingHealth) RHS, one of the three healthcare clusters in Singapore. SingHealth, the largest of the three healthcare clusters in Singapore, is a network of four acute hospitals, five national specialty centres, three community hospitals, and nine polyclinics providing care for 36.2% of the population (n = 1.51 million). The principal investigator is the primary ethnographer. We adopted ethnographic methods to collect our data, which included non-participant observation with fieldnotes taken during meetings, events, programme activities, and conferences concerning SingHealth and HSG implementation. We analysed 52 SingHealth RHS documents and fieldnotes and interviewed 21 SingHealth RHS programme managers, using a topic guide with semi-structured questions. Some of the interview questions include "What are your views on the MOH HSG Strategy?", "How can hospital clinical services/specialist centres work with or augment community services in the delivery of HSG?", and "What aspects of governance need to be strengthened or put in place?" The programme managers, comprising senior SingHealth leaders from the SingHealth RHS Executive Committee, were approached through the Chairperson of the Committee for access and selected based on their primary roles in envisioning and overseeing the production of multiple RHS projects to align with the HSG strategy.

2.3. Analysis

We analysed our data using framework analysis to organise the emerging themes arising from the organisational documents and thematic analysis to explore respondents' perspectives of the MOH HSG strategy and overall data, with the aid of NVivo software [32]. Our data consisted of organisational documents, transcripts (interviews), records of raw data and fieldnotes, and a reflexive journal drawn from non-participant observation by the principal investigator, to ensure the data's dependability and to meet requirements stipulated by the institutional review board. The organisational documents comprised SingHealth RHS Executive Committee minutes, HSG working documents and materials, implementation materials and across the healthcare cluster, and instructions and guidelines from the health ministry on implementing HSG. To establish the study's trustworthiness, we adhered to the four-dimension criteria established by Lincoln and Guba; the criteria include credibility, dependability, confirmability, and transferability [33]. We further performed triangulation across our data sources, which included interviews, fieldnotes and organisational documents.

3. Results

Findings revealed the presence of multiple governance and interactive governance in the implementation of HSG. Most respondents found HSG as a timely and appropriate evolution from previous policies implemented by MOH and the RHS to be well-placed to lead on the regional scale. However, the project organisation RHS faced multiple challenges. These findings are highlighted below.

3.1. Multiple governance and interactive governance in healthcare policymaking

3.1.1. Characterising the governance model that guides its implementation

Based on the analysis of organisational documents and fieldnotes, the operational mechanism or the governance regime reflected the presence of multiple governance, as articulated by Hill and Hupe (Table 2). For example, the MOH established the structural dimensions of the HSG, demonstrating constitutive governance, and outlined broad parameters as part of directive governance to provide the necessary guidance at the outset for the RHS and other networks to deliver HSG. The areas covered include data governance, IT infrastructure, and financing directives. The directions and guidance also demonstrated how the MOH defined the 'rules of games' in the governance, reflecting the power relations across the scales.

The MOH also leads in the policy and works closely with the healthcare clusters to take in inputs in shaping the approach and influence and regulate the inter-local interactions across the other actors. It co-defined the metrics and outcome indicators with the RHS that would be meaningful at the population health level. It convened the private primary care sector as actors to meet the policy objectives of the HSG, with some serving as key committee members or co-chairpersons in the national committees as part of the GP engagement effort. The MOH further introduced the Drug Subsidy Framework to allow listed drugs to enable a level playing field for private primary care providers. It also set up the HSG Planning Office and Task Group to ensure operational governance to support the care protocols and at the various milestones of the resident enrolment programme.

In tandem, the RHS self-organised to cooperate with and strengthen its networks with community partners while exploring new and revised models of care. It evolved its structural dimensions over time to include communications and operational arms to meet the needs of implementing HSG (Fig. 2 – SingHealth Regional Health System Integrated Function Chart). It also introduced the various scales of governance

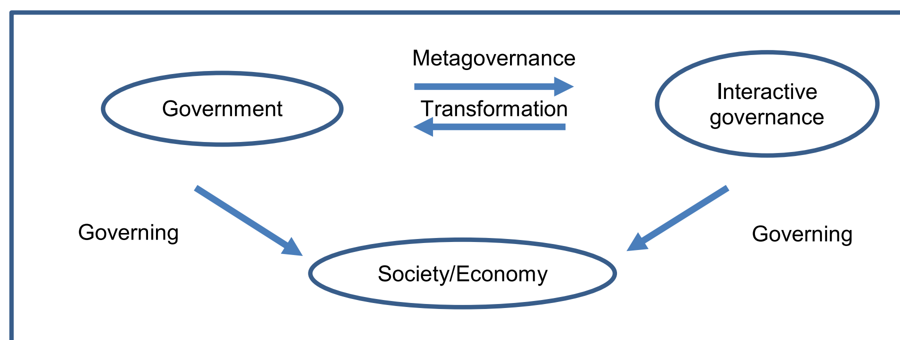

Fig. 1. Linkages among forms of governance.

Table 2
The ‘governing triads’ in HSG, based on the multiple governance framework.

	Governing triads (“the triads gubernandi”)		
Action level Action scale	Constitutive governance	Directive governance	Operational governance
Policy setting (System) national government and the central institutions of the state)	**Institutional design** Established the structural dimensions of the HSG, which involved the three healthcare clusters, general practitioners, the social care sector and the civil society.	**General rule setting** Outlined the broad parameters to provide the necessary guidance at the outset for the RHS and other networks to deliver HSG, such as data governance, IT infrastructure, and financing to enable HSG implementation. Co-defined the metrics and outcome indicators with the RHS that would be meaningful at the population health level. Convened the private primary care sector as actors to meet the policy objectives of the HSG. Directed and paced the RHS engagement with primary care and defined the scope of work. Introduced the Drug Subsidy Framework to allow listed drugs to enable a level playing field for private primary care providers. Enabled co-sharing of progress across healthcare clusters. Directed the RHS to engage in residents engagement within their region.	**Managing trajectories** Set up the HSG taskforce/ implementation office to ensure operational governance to support the care protocols and IT infrastructure, and at the various milestones of the resident enrolment programme. Worked with RHS to define and articulate care protocols, subsidised drugs for PCNs and details and milestones of residents’ enrolment. Engaged in the public consultation on HSG.
Institutional setting (Organisation)	**Designing (inter-) organisational settings/ contextual relations** Established the SingHealth Population Health Steering Committee (PHSC), the peak body to govern HSG implementation.	**Mission and maintenance** Set up the various scales of governance within SingHealth, ranging from the SingHealth RHS Executive Committee and sub-committees, Population Health Steering Committee (PHSC), Medical Board, Community Nursing Committee, Community Partnership Council, and the RHS Operations arms. Strengthened its engagement with primary care providers as part of directive governance, playing both advocacy and collaborative roles. Worked with MOH to define the IT architecture for the HSG landscape on the national scale. Established new models of care in the community, e.g., Placed-based Integrated Care Teams.	**Managing relations/ contacts** Created an operations arm to ensure operational governance in overseeing the implementation of HSG programmes. Roles included maintaining and managing relations with community partners, including general practitioners and social service agencies. Engaged residents within regional zones as part of public consultation efforts. Experimenting with new models of care in the community.

within SingHealth to ensure collective decisions Crucially, it introduced the various scales of governance within the SingHealth, ranging from the SingHealth RHS Executive Committee and sub-committees, Population Health Steering Committee (PHSC), Medical Board, Community Nursing Committee, Community Partnership Council, and the RHS Operations arms. The SingHealth PHSC, the peak body representing constitutive governance, chaired by the SingHealth Group Chief Executive Officer, leads in the HSG implementation. It provides the necessary structure on the regional scale, while the Population Health Executive Committee, which is the Council Sub-committee, oversees the work.

These various scales of governance aim to ensure that collective decisions can be made and are enforceable to achieve shared outcomes. They constitute an efficient institutional design to secure the cooperation and alignment among all SingHealth institutions in shaping institutional choices and decisions. Additionally, the RHS strengthened its engagement with primary care providers as part of directive governance, playing advocacy and collaborative roles. It co-designed new care models with community partners and, importantly, created an operations arm to ensure operational governance, to maintain and manage relations with community partners to shape and deliver HSG services to residents within its region.

Notably, the MOH launched a public consultation from June to August 2022, followed by a White Paper published in September 2022. This public consultation constituted a form of civic engagement by the public sector, reflecting the role of interactive governance in the HSG implementation. The engagement of citizens facilitated the empowerment of the population by moving them from subjects to co-producers of governance and allowing them more significant influence in policy-making and the delivery of the policy. This population engagement was similarly enacted within the RHS through its network of care services, general practitioners, and residents in the region under its care. Informal engagements were also carried out with individuals who were comfortable speaking candidly about their views of HSG and implementation.

Overall, the policy landscape was characterised by interactive governance involving different power dynamics across the policy process. There was a mix of hierarchy, markets (such as involving private primary care), networks, cooperation and collaboration in the

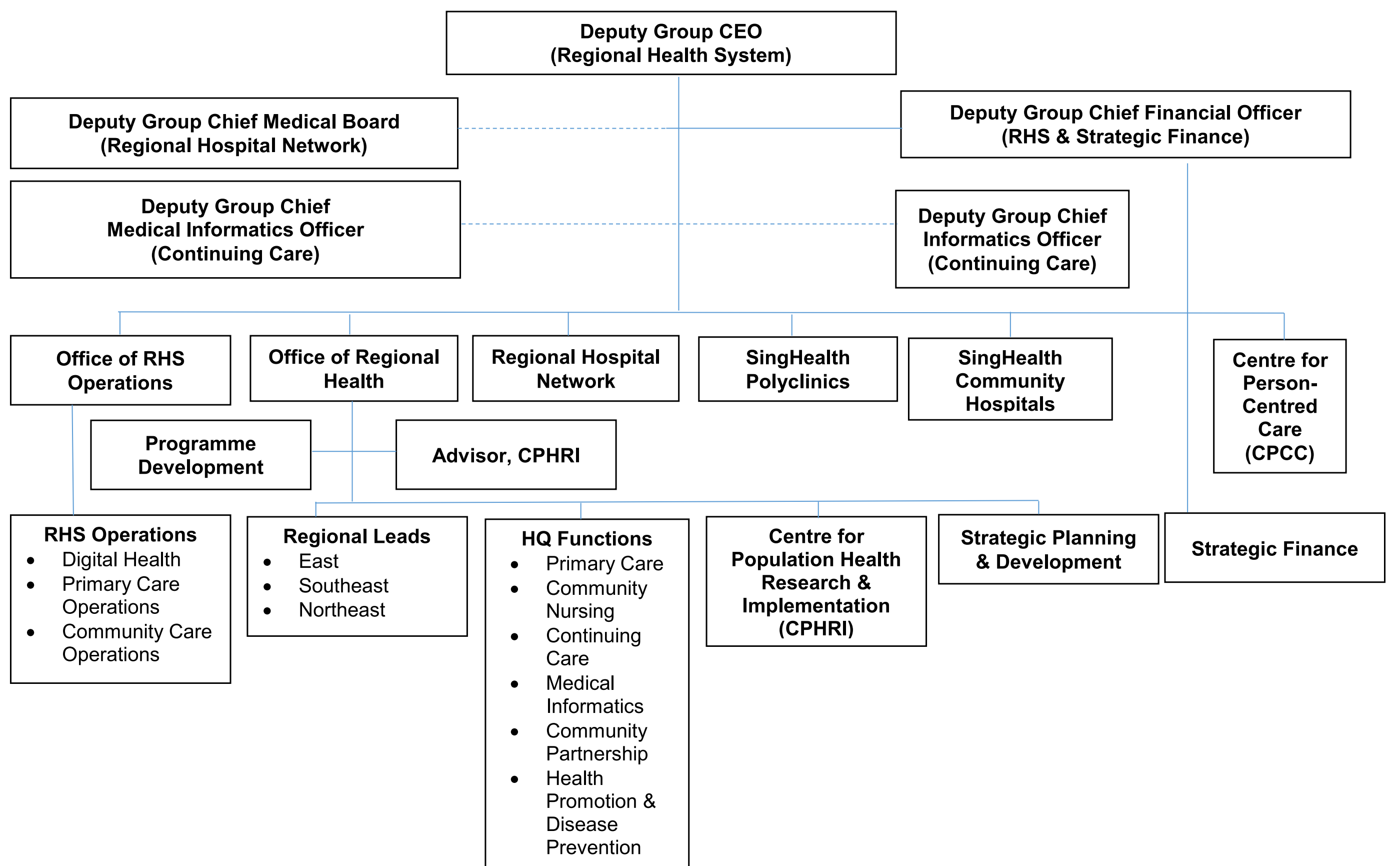

Fig. 2. SingHealth regional health system integrated function chart (correct as at January 2023).

interactions among the actors. The presence of scalar politics among the interactions across the plurality of actors, including the state, the RHS and other networks, was reported by most respondents. 'Scalar politics' involves a strategic deployment of scale by various actors, organisations and movements to restructure power and responsibilities, and 'scale' refers to the spatial, temporal or administrative dimensions used to measure or study any phenomenon [34,35]. Actors with diverging interests were observed and reported to be constantly framing and negotiating the responsibilities with other actors as they worked to mobilise, exchange, and deploy a range of ideas, rules, and resources to implement HSG. Crucially, while the governance was being put in place in HSG, there remained multiple challenges faced by the project organisation RHS to implement it. The following sections highlight the perceptions of the key SingHealth RHS leaders on the MOH HSG Strategy, and the associated challenges in implementing HSG.

3.2. Perceptions of the MOH HSG strategy and accompanying shifts

3.2.1. A timely, appropriate evolution

Most respondents saw the introduction of the HSG Strategy as a mark of political will that legitimises and provides the mandate for the RHS to address the emergent needs to achieve pre-defined health outcomes while containing costs. The HSG was seen as a timely, long-awaited, and appropriate evolution from the previous policies. The previous policies include the Healthcare 2020 Masterplan launched in 2012 and the "3 Beyonds" in 2017. The HSG was reported to have shifted the focus from clinical specialisation to public and preventive health and given the RHS the impetus to transform healthcare. Most participants also saw the healthcare landscape to be ripe for change. For example, with the healthcare cluster number decreasing from six to three in 2017 through the merger of paired clusters, coordination efforts on the regional scale, which might not have been possible previously, "are now possible," stated respondent P17. The introduction of the HSG further allowed the RHS time to germinate ideas, build relations, and experiment with care models in the community.

3.2.2. RHS is well-placed to lead on a regional scale

Many participants described the RHS to be well- or appropriately placed to lead in HSG implementation on the regional scale. "Who else is there?" asked respondent P5. The RHS is first and foremost seen to have the necessary structure, albeit shy of a human resource arm, to deepen the work in population health, said respondent P17. Respondents saw the RHS as possessing the clout in terms of power relations to deliver the HSG and the potential to serve as a high-performing system, particularly with its strong network of resources and experience to deepen its existing work (P9). The RHS, they said, will also be able to lend itself aptly as a platform and space for discussions and collaborations, and to serve as a conduit for innovation and strategies across networks and scales.

3.3. Implementation challenges

Despite the RHS being considerably well-placed to lead on the regional scale, respondents shared that the implementation process was fraught with challenges. We highlight the challenges in the table below and the necessary interactive governance and constitutive, directive, and operational actions to address these challenges (Table 3).

3.3.1. Tighter and more precise (meta-)governance is critical

Many respondents cited a need for clearer metagovernance (or 'governance of governance') across scales to bring clarity to the RHS to facilitate ground implementation of the HSG strategy. Metagovernance involves the judicious mixing of market, hierarchy, and networks to achieve the best possible outcomes from the viewpoint of those engaged

Table 3
Necessary constitutive, directive, and operational actions, and interactive governance to address HSG implementation challenges.

	Governing triads ("the triads gubernandi")		
Action level Action scale	Constitutive governance	Directive governance	Operational governance
Policy setting (System) national government and the central institutions of the state)	**Institutional design** Ensure metagovernance in working with the organisational constituents across the three healthcare clusters to coordinate funding principles, and IT infrastructure. Rationalise the demand and supply of the health and social care workforce, including the emerging professions on the national scale. Structure the empanelment of general practitioners to support HSG. Structure HSG within the workplace and school policies.	**General rule setting** Ensure metagovernance in working with the organisational constituents across the three healthcare clusters to coordinate implementation plans, care models and associated HSG projects. Ensure clarity to the RHS to facilitate ground implementation of the HSG strategy. Foster trust in general practitioners among the general population.	**Managing trajectories** Ensure a balance between a 'hands-on' strategy and a 'hands-off' strategy in managing operations necessary, e.g., designing and implementing the IT infrastructure.
Institutional setting (Organisation)	**Designing (inter-) organisational settings/ contextual relations** Rationalise governance for SingHealth nurses to support community care. Integrate population health into regular hospital and speciality centre activities. Engage community hospitals, which are family medicine physician staffed, to support HSG work, and the infrastructure of polyclinics. Manage the financial risk to SingHealth in the context of capitation funding by implementing effective care models and core financing structures across the different forms of care (e.g., primary care, preventive medicine in acute hospitals) and ensuring sustainability. Ensure the structure of HSG delivery is pandemic-resilient. Establish a shadow of hierarchy across all population health committees across SingHealth institutions to coordinate implementation.	**Mission and maintenance** Articulate the governance for current and new team-based care and services. Standardise job scopes, define competencies, and de-conflict the roles of emerging professions with nurses. Shift and redefine how nurses deliver care in managing residents with complex needs. Include preventive and community care in work besides clinical care. Clear problem definition. Leadership on the community scale needs continuing effort. Ensure continuing and the sustainability of a learning ecosystem. Ensure work with health-social care partners considers the agencies' economic, social, and environmental goals. Adopt trust, reciprocity-based exchange, and an advocacy perspective to forge cooperative relations with general practitioners.	**Managing relations/ contacts** Continue to engage general practitioners, community providers and other social actors, including patients and caregivers.

in metagovernance [36]. For example, respondent P1 stated, " [N]o one is adding it all up. No one asks whether it makes sense to the person on the ground. For all those different levels of planning, so what? So where is the proof-point of that leadership, that planning, that comes out? I think [on] the multiple [scales], we do not have enough of these conversations."

The respondent stressed that it would be necessary for the metagovernor, or the relevant authority, to be clear about the objectives even as it steers the HSG and reshapes the organisational constituents and governance processes. It must ensure tighter metagovernance or governance across healthcare clusters to articulate and coordinate implementation plans, funding principles, and care models. It will include coordinating the demand and supply of healthcare workforce, such as family medicine physicians, nurses and associated workforce, on the national scale, as there are implications on resources.

On the RHS scale, respondents stated that SingHealth institutions should work together to embark on the HSG project. "So, if there is resistance to change, and they are not supporting the change, it would be impossible to do [this]," said respondent P8. Many respondents further underscored the importance of integrating population health into regular hospital and specialty centre activities. It will also be crucial to explore how community hospitals could support the HSG endeavour alongside the specialist centres, and integrate it into their regular activities, said respondent P13. With the sprouting of the multiple governance entities in population health across SingHealth, establishing some form of 'governance of governance' to coordinate these bodies will be necessary, stated some respondents.

Respondents also asserted that an explicit articulation of governance would enhance team-based care coordination. For example, rationalising governance for SingHealth nurses to support community care, such as by introducing central employment to foster shared identity and vision, may facilitate shared resources and standardise practice across the different parts of SingHealth. Governance on the community scale was seen to be "mixed", with concerns about knowledge asymmetry across stakeholders, clinical care, and resourcing. A few respondents reported this evolving with possibilities of cross-secondment between health and social care sectors (P17, P20), reflecting the collaboration, coordination, and shared responsibility in interactive governance.

3.3.2. Rethinking workforce – emerging professions, competencies, and parity

The workforce remained a key area of concern among the respondents. There was a noticeable increase in the number of emerging professions, ranging from social prescribers, care coordinators, well-being coordinators, and primary care coordinators to care associates. Respondents highlighted the need to standardise job scopes, define competencies, and de-conflict the roles, particularly that of nurses. "Let's say well-being coordinators, there must be a clear job description of a well-being coordinator, and it must be similar across the [SingHealth] cluster," said respondent P15. Nursing, too, as a profession, will

need to evolve.

3.3.3. Capitation and risk-adjustment

Mitigating the financial risk associated with capitation funding hinges on SingHealth's regional ability to collaborate with its institutions and deliver care for collective action, stated respondent P13, "you need to have a very strong clinical practice backed by research." As SingHealth plays national and regional roles in caring for residents across Singapore, it will need to consider a hybrid capitation with value-based and bundled care payments in allocating funding to its institutions. Additionally, respondents, including P18 and P10, cautioned on the complexity of the intersection of multiple diseases in patients, the influence of global market changes, and the implications on HSG financing over time.

3.3.4. Problem definition

A few respondents expressed concerns about the need for a clear problem definition in the HSG. " [W]hen we define the population … what is the problem we want to solve? And that problem. Lay it out clearly and say, do we want to work towards this?" stated P1. Respondent P4 echoed this and explained that the lack of an agreed problem definition might influence what and how the 'substance' could be designed and delivered to meet the pre-defined outcomes.

3.3.5. IT and clarity on care models

IT was deemed to be an essential enabler in the implementation of the HSG strategy. The IT architecture design depends on the overall care model in delivering HSG, which is still in development. It depends on how acute and community hospitals, and specialty centres across institutions and professions transform themselves. However, respondents [5,6,8,15] explained that the longer the RHS and MOH debated on the architecture of the IT system to support the care model and patient management needs, the greater the risk of project delay.

3.3.6. Primary care and legacy issues

Private GPs constitute 80% of primary care delivery in Singapore, while restructured GP services constitute 20%. Overall, GPs are a heterogeneous group, made up of varying sizes in terms of clinics, such as singleton GPs and those belonging to primary care networks. While efforts have been made to engage this group of actors, engaging them and getting their buy-in would require addressing their other longstanding concerns. These concerns include operational efficiency; IT support; allied/ancillary health and nursing support; the financial gradient between GPs and polyclinics; public confidence in GPs; and administration, such as audit burden. Additionally, polyclinics will need to evolve, said some respondents, as complex patients may need more time for consultation, highlighted respondent P12.

3.3.7. Leadership and size of the institution

Respondents lauded the MOH for capably bringing all three healthcare clusters together to facilitate discussion and generating of ideas so that there could be more sharing, openness and building of trust (P2). Many respondents also credited the current SingHealth leadership in the implementation of the HSG. For example, respondent P20 stated, "He is a very good leader, and he has foresight about many things. And I like how he brings us together regarding our relationship with the different leads." However, the pace to which the institutions could move was observed to be limited by the sheer size of SingHealth, stated respondent P17. Leadership on the community scale will also need continuing effort.

3.3.8. Knowledge management, learning and innovation, and sustainability

While some respondents observed the establishment of a learning ecosystem that innovates, learns, and grows, such as through the creation of the SingHealth Centre of Population Health Research & Implementation, there were concerns about the sustainability of such efforts. Respondent P18 suggested looking beyond traditional funding sources and considering resource-sharing to ensure sustainability, which reflects how evaluation and innovation in governance may involve more and different forms of resourcing [37].

3.3.9. Pandemic-informed HSG

The pandemic, which required measures such as social distancing, has affected the performance of the RHS in areas like health promotion and disease prevention, primary care, continuing community care, and community nursing. Some respondents, such as P9 and P17, shared that as we advance, the delivery of HSG should be pandemic-resilient, as the RHS has now developed an ability to deliver care remotely, and technologies are evolving. However, the need to deepen its work with community partners remains, particularly in reaching out to the vulnerable population during pandemic times, highlighted respondent P20.

4. Discussion

This study has sought to explore the RHS as a 'project organisation' and as an experimentation and implementation instrument in reshaping the mode of public governance in the Singapore health sector in a context of transition and ongoing devolution. Specifically, the study aimed to investigate SingHealth RHS' approach to implementing the Healthier SG Strategy (HSG), as the implementation details are still being worked out, and what the associated challenges are.

Importantly, evidence from this study lends credence to the presence of multiple governance and interactive governance to strengthen and expand the power of the government and its partnership with the various policy actors. The multiple governance framework has made explicit the roles of the constitutive, directive, and operational governance while highlighting the role of the interactive governance model in facilitating the understanding of how actors with diverging interests worked together in framing and negotiating the responsibilities with other actors, to achieve the aim of HSG. The engagement of residents through public consultation and RHS accentuated a diffused yet interactive nature of governance, which is crucial in the planning and delivery of HSG. This access to "resources of citizenship" seeks to advance social justice, enhance understanding of public problems, and explore and generate solutions to produce policies, plans and projects of higher quality in terms of their content [38,39].

Additionally, the engagement of the various societal actors and interactions among them reflected less state-centred governance but more of an increased interest towards actors' networks. It demonstrates the governing roles of the state, market and civil society and how these relationships and institutions present as opportunity structures or arenas for agency, including resource pooling and joint action [36,39]. Such governance with corporativist involvement, such as the public sector GPs, aims to create a space for the different policy actors to interact, promote innovation, and advance the impact of the policy delivery through exchanges while building trust in existing governmental and political institutions [40–42].

Here, the RHS, as a project organisation, serves as an institutional link between the interactive and formal state decision-making processes. This institutional embeddedness is critical in interactive governance. Like any project organisation, the RHS is confronted with multiple constraints, requiring the necessary constitutive, directive, and operational actions and interactive governance to address them. For example, strengthening the metagovernance in IT and workforce across healthcare clusters and with community partners calls for reflexive and strategic implementation. It will be essential to create a 'shadow-of-hierarchy' in the RHS to shape and legitimate the goals and outcomes of emerging HSG governance entities to mitigate any risk of an over-institutionalised structure and network [43]. And ensuring a sustainable balance of goals with health and social care partners will be critical in the interactions between the RHS and them [44,45].

Amidst the concerns of emerging professions or the new categories

('species') of healthcare workers in the RHS, rationalising the demand and supply of appropriate and correctly trained healthcare workforce on the national scale will be crucial. Within SingHealth, mitigating the financial risk that comes with the capitated funding model hinges on SingHealth's regional ability to influence its institutions to collaborate and deliver care for collective action. Its clinical service would have to be backed by sustained research and innovation, collective learning, and knowledge management to deliver care [39,46]. Successful integration of population health or HSG activities into the regular SingHealth institution activities will require change management, crucially to include the HSG in the primary institutional logic of SingHealth and to negotiate the "politics of structural choice" facilitated by an astute and principled leadership [2,47].

The engagement of private primary care, which depicts the case of a quasi-market, involves a purchaser-provider model, but where the interaction between the public purchaser and the private providers has been conflict-ridden due to legacy issues, such as trust and communication [48]. So, while quasi-markets are created to curtail the growth of public expenditures and enhance flexibility in service delivery [31], the RHS will need to adopt trust and reciprocity-based exchange to forge cooperative relations with them to shape relational contracts for sustained diplomacy [49].

This study further suggests the need to consider different forms of funding to support innovations in governance, as it is about political steering and decision-making, as well as the more comprehensive evaluation and the public value it brings for the current governance system to flourish [37]. Addressing the problem definition issue in this implementation may help garner support for the decisions in the course [39]. Also, there would be a need to review the roles of the workplace and school policies in the context of HSG, which have remained mostly silent. Understanding the potential influence of culture on public perception towards how healthcare is delivered on the national scale would require attention [50–52].

Overall, our study has elicited the potential challenges a regional health system as a project organisation may face in the healthcare sector and public health projects. These challenges include governance, workforce, financing, IT infrastructure and care models, problem definition, primary care and legacy issues, knowledge management, and being pandemic-informed in its delivery. Some of these implementation challenges are commonly reported by project organisations, while others are more specific to healthcare sector, such as the need for clear problem definition of 'public health problem' to align policy actors and ensuring policy implementation to be public health crisis-resilient. As countries continue to face complex health and social problems and exploring reforms through public health projects to integrate care, often with time-limited funding, project organisations will remain relevant, and even critical, in public health care. Incorporating and drawing on project organisations literature from project management studies will provide important insights to mitigating public health issues. The role of policy and public health policies will highlight the structure and processes through which to understand policy implementation. Our study further demonstrated that while the multiple governance framework provides the structure to which policy is implemented through the health system, as suggested by Hill and Hupe [21,28,29], the interactive governance framework highlights the roles of the various policy actors in the complex healthcare landscape and the differing interests, concerns and challenges that need to be addressed at the different levels or scales of governance. Together, these models provide critical insights to anticipate challenges in public health projects and provide potential solutions, drawing from policy implementation and project management literature, to address them.

5. Strengths and limitations

There are a few strengths to this research study. First, the embedded nature of ethnographic work in this study allows repeated exchanges with participants, which enabled the principal investigator to capture observational data in a naturalistic setting throughout the implementation period rather than through post-hoc interviews and self-reports [53,54]. Second, the policy ethnography study is embedded within the respondents' cultures and social worlds, which facilitated the exploration of the contextual factors in the policy context of the HSG. Third, the process evaluation nature of ethnography is a theory-building approach, which has bearings for the broader knowledge within policy ethnography and intervention theory of regional health systems in this instance.

As with any study, there are limitations. First, ethnography researchers bring their own experiences to the field and may have inherent implicit or explicit biases. To overcome this concern, the researchers exercised reflexivity to manage their position as insiders and outsiders (or emic and etic perspectives) to account for their role in data production [53,55–57]. Second, ethnography stretches for a period of time and is time-consuming and labour-intensive. However, shorter or rapid ethnographies, like this one, can be adapted to produce timely findings about critical contextual factors to inform the design of the project organisation and policy implementation. Third, while the findings of any ethnography studies cannot be generalised, they can generate theoretical insights about a specific group or population rather than for its typicality, which makes it still relevant and vital. Finally, senior SingHealth leaders interviewed in this study may be biased about the likely success of SingHealth RHS in the HSG implementation and the suitability of the RHS management structures. A following study, comprising interviews with other policy actors and which this study is part of, will provide a fuller analysis and evaluation while this study provides a snapshot of the HSG implementation challenges for immediate actions by the RHS.

6. Conclusion

Through institutionalised collaboration and a multi-perspectival approach, this study of healthcare governance forms an organising concept for understanding the evolving Singaporean healthcare policy-making. Specifically, as the Singapore public healthcare sector becomes a relatively more open and reflexive enterprise and extends its governance through the project organisation, it must contend with engaging in active negotiated interaction. It will involve joint problem-solving and collaborative service delivery with a wide range of policy actors in delivering the HSG Strategy. As the project organisation, the RHS will need to address the challenges on various scales to enhance its institutional capacity to implement the HSG in an accountable, effective, and collaborative manner.

Ethical approval

The SingHealth Centralised Institutional Research Board has approved this study (CIRB Ref: 2022/2184).

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Competing interests

The authors have no competing interests to declare.

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