



Research article

Population-based integrated care funding values and guiding principles: An empirical qualitative study

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ABSTRACT

There is wide agreement on the benefits of integrated care; yet funding barriers persist. We suggest that funding models could currently hinder quality of care and that identifying values is necessary to designing adequate funding models. Yet it is currently unclear what are these values that ought to shape healthcare policy decisions. To fill in this gap, we conducted semi-structure interviews with fourteen health policy officials, managers, and researchers to elicit and explore how they conceptualize the values and guiding principles underlying these funding policies. Our findings suggest that values guide population-based integrated funding models, namely: accountability & integrity, transparency, equity, and innovation. Overall, funding mechanisms could incentivize integrated population-based care when the following conditions are met: a) there is transparent governance, with a whole-system approach, political will, and engagement and collaboration across health system partners, organizations and institutions, b) regulatory and evaluative frameworks support accountability including in decision-making, in outcomes and quality of care, as well as financial accountability; c) funding is equitable with a fair distribution of resources and supports accessibility to services; and d) funding mechanisms design and implementation include innovation enabling change, which are continuously evaluated. These values and guiding principles could be used in the development of funding models and future studies need to evaluate the effect of these values on decisions made by policy makers with respect to funding allocations and investments.

1. Introduction

Governments and health care delivery systems across the globe strive to achieve high-quality, accessible, and cost-effective health care. Yet, increasing health care costs, limited resources, ageing populations, and the growing prevalence of chronic conditions make these goals difficult to achieve [1]. These challenges have been magnified during the COVID-19 pandemic with economic downturns,

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climate changes, shortages of health human resources and medical supplies and increased costs of operations. Health expenditures are steadily increasing, reflecting growth both in demand for health care services and prices of services [2]. For decades, policymakers focused on hospitals and hospital funding policies to ensure quality, effectiveness, and efficiency of care delivery [3,4]. A widely used funding approach for health care organizations is global budgets [5,6]. Global budgets are simple to administer, provide financial stability and can be effective in controlling expenditures [7]. Yet, global budgets do not incentivize productivity, quality, or appropriateness of care (i.e. patients receiving the right care in the right place at the right time [7,8]). They are also associated with waiting lists and delays to care [9,10].

Over the last decades, several countries have diverted from global budgets, including: the United States, the United Kingdom, other European countries, and Canada to a lesser extent. Studies have shown that financial incentives can affect the behavior of both individuals and organizations [7,11]. They can encourage specific desired behaviors, but they may also have undesirable effects. For example, paying for each service (fee-for-service or activity-based funding), encourages providers to increase the volume of the services as designed. Unintended consequences of such payment mechanisms include a decrease in the quality of services or an increase in inappropriate care or interventions, if there are no mechanisms to hold providers accountable for quality and appropriateness of care. The prices must be set appropriately by the funder to ensure providers do have the right resources for the care. Moreover, these approaches do not encourage the coordination of care between providers, which could hinder transitions between different levels of care (e.g., for patients being discharged from hospitals and requiring home care [10]). Concern over the integration along the continuum of care and the quality of care has contributed to developing payment mechanisms that cover the care trajectory across different types of services and providers [12], and where payment is linked to quality outcomes [13].

Indeed, to ensure accessible, cost-effective, high-quality integrated health care, many jurisdictions have begun transitioning from global budgets and considering population-based integrated funding mechanisms. Healthcare funding reforms continue to evolve in the United States, the Netherlands, Germany, and Canada [13]. In Canada, for example, payment reforms have recently been implemented in many provinces pre-pandemic, with Ontario [14] and British Columbia [6,15,16] leading, and Alberta [17] questioning how best to move forward in the present environment. Quebec planned an important shift toward patient-based funding, but the implementation was delayed by the pandemic. Integrated funding mechanisms aim to cover the care trajectory across different types of services and providers, and where payment is linked to quality outcomes [12,13].

Although a variety of integrated population-based funding models have been piloted across jurisdictions, research and policy evidence show that there is no one-size-fits-all formula for population-based integrated care funding [13,18]. Indeed, values can play an important role in revealing and highlighting guiding principles for integrated care funding decision-making [19]. Conceptually, values are general principles, guidelines for behavior, key ideas of perspectives, which suggest what should be done in a situation where various options exist [18]. In turn, principles are based on values, beliefs, norms, and knowledge that provide direction for action [20]. Examining values is particularly relevant when dealing with the multidimensional nature of integrated care delivery, which transcends organizations, governance and funding mechanisms [12]. Yet, it is unclear what health decision-makers, health managers, and health policy researchers value in integrated care funding policies and how they conceptualize and prioritize these values.

Health policy stakeholders often talk about values and principles, but they rarely clarify what they mean by these. Lack of overt discussions about values sidesteps meaningful conversations and constrains the acknowledgement of the role of the principles guiding integrated care funding policy decisions. Making explicit and better understanding the role of values could help policy-makers increase the transparency and consistency of healthcare funding decisions, and ensure that these align with the policy objectives of high-quality integrated care. Accordingly, we conducted a qualitative study to elicit and explore how health policy-makers and other stakeholders conceptualize the values and guiding principles about population-based integrated care funding policies. We did not define integrated care as there are multiple definitions and integration can be considered from various perspectives (i.e., service users, providers, policy-makers, managers, etc.) [21–23]. We also did not define which services ought to be integrated, for whom, by whom, or how as our aim was to identify values that would be relevant to consider when designing funding models for integrated care, regardless of the integration that is aimed.

This study received funding from the Ontario Hospital Association (OHA). The OHA was interested in learning from key stakeholders from both within and outside of Ontario on integrated care funding.

2. Methods

Qualitative description [24] was used to guide this assessment. This approach was selected because it provides an accurate and rich account of an event, from the point of view of those involved, in an easily understood language [24,25]. Accordingly, semi-structured interviews were conducted with 14 key informants involved in integrated care and integrated care funding decision-making from

Table 1
Participants' characteristics.

	N	Percentage
Health policy officials	6	43%
Health managers and administrators	6	43%
Researchers	2	14%
Total	14	100%

Canada (i.e., British Columbia, Ontario, and Quebec), Australia, and The Netherlands. A purposive sampling strategy [20] was used to identify key health policy officials (e.g., Ministry of Health officials), health managers and administrators (e.g., hospital CEOs), and health policy researchers (i.e., subject matter experts) (see Table 1 for interviewees' characteristics). To this end, a preliminary list of potential participants was developed in assistance with an expert in this field, who acted as a gatekeeper, and by using snowball sampling techniques [20]. All potential participants (n = 16) were contacted via email and those willing to take part (14, i.e. 87,5% response rate as two did not respond to our emails) in the study were subsequently approached confidentially to schedule an interview and to provide them with a copy of the information letter and consent form. Interviews took place between March and August of 2021, with waves of the pandemic imposing delays and rescheduling of some interviews. All interviews were conducted via Zoom, in either English or French, audio-recorded, and assisted by an interview guide (See supplement 1). The researchers conducting this study are from Ontario and Quebec, two provinces of Canada that acknowledge challenges related to improving care integration and that have been experimenting with health care reforms in the past decades. In Canada, each province has a universal health insurance plan that covers their respective population. The researchers considered their knowledge and experience of these jurisdictions while conducting the study. They reflect on how these provinces faced similar challenges in terms integrated care and were operating under Canada's Health Law stipulating five principles for the provinces' health care systems and that medical and hospital care is provided free at the point of services.

Interview transcripts were analyzed using content analysis [26] and a constant comparison analysis technique adapted from grounded theory [27]. Grounded theory consists of developing theory from the analysis of primary data, that were collected for this purpose. Charmaz (2014) provides guidelines of the methodology throughout each step of conducting purposeful interviews to collect relevant empirical data, and of an analytic process which includes initial coding and focused coding, memo-writing, theoretical sampling, and reconstructing theory.

An initial open-coding for emergent conceptual findings was followed by a focused-coding procedure to organize these initial concepts into higher order categories that captured and described the values and guiding principles of integrated population-based funding mechanisms. At each stage, the data was reexamined for critical comparison with the emerging conceptual findings. To ensure reliability of coding and interpretation, codes were discussed regularly with a second reviewer, and differences were resolved by consensus. Verbatim quotes supporting the themes identified were extracted from the transcripts and used to illustrate the study findings. Nvivo®v.12 was used to support data management and analysis. We use O'Brien's SRQR guidelines to report on qualitative research [28]. Preliminary findings were discussed with knowledge users from Ontario with a vested interest in the study.

3. Ethics

Ethics approval for this study was obtained from the Research Ethics Board from Université Laval (number: 2020-405/02-02-2021). Written voluntary informed consent was obtained from participants prior to their inclusion in the study.

4. Results

Four key values for designing population-based integrated care funding policies were identified during the analysis, namely: accountability & integrity, transparency, equity, and innovation. Details on these values are presented below, with guiding principles and supports, using exemplar quotes to illustrate our findings.

4.1. Accountability and integrity

Many experts identified accountability and integrity as values that ought to go hand in hand for integrated population-based funding mechanisms and described accountability in three different ways: a) decision-making accountability; b) outcomes and quality accountability; and c) financial accountability.

4.1.1. Decision-making accountability

Experts described accountability as shared obligation, which includes sharing the answerability of decisions and fulfilling the obligations set by those decisions across different levels of the health system. Participants emphasized accountability across health system levels (i.e., individual, organizational, institutional) and health system objectives (e.g., quality of care, safety, equitable resource allocation, cost containment, efficiency, and access).

"So, no one's wrong or right, it's just there's not aligned accountability. If you take two separate organizations, they're both trying to grow programs and have two different funding model and two different accountability structures report to two different boards you're not concerned on what the other organizations doing, you're concerned on how you're going to grow and how you're going to manage the population coming in and you want that autonomy. If you're trying to do it regionally what you have to get is agreement on decisions, the problem is, you still don't have that one line of accountability." (P13)

4.1.2. Outcomes and quality accountability

Participants viewed measuring performance on outcomes and quality of care as integral to accountability. Interviewees highlighted the need for agreeing on a single form of accountability, – intended as one organization, one framework with defined and shared protocols – for ensuring the desired outcomes and quality of care.

“I think the whole clinical consensus is important. That consensus on the responsibilities, the accountability of every partner, every part of, of, that integrates or touches that pathway. So it’s important that there is some consensus on clinical protocols, on the appropriateness of care, on many aspects of performance and continuity of service and sustainability.” (P10)

4.1.3. Financial accountability

Participants described financial accountability and transparency as aligning decision-making, and efficiency accountabilities, with funding. They described financial accountability as a governance tool to bring integration of funding at the population level.

“Joint accountability on budgets that are allocated to us collectively where we have to have consensus on investments, (...) it would still have to be a group of people who decide how it’s going to be allocated and they would have to be collectively accountable for the results. The money can go into an account, but it takes co-signers, people ... collectively accountable.” (P6)

4.2. Transparency

Participants raised the importance of having payment models that are transparent, in which healthcare providers understand how money flows and that the funding is clearly tied not only to activities and quality, but also to who delivers the care. Transparency was considered a value that ought to be at the heart of the governance and the design of the funding models. The guiding principles and supports that were related to this value were to have a whole-system approach, political will, and collaboration across partners. When discussing integrated population-funding models from a whole-system perspective, interviewees described the need for a clear and shared political will coupled with engagement and collaboration across health care organizations.

4.2.1. Whole-system approach

Participants described population-based funding as a large-scale, whole-system endeavor. Experts highlighted the need to focus on the organization and regulation of resources across partners and sites, on the clear definition of roles and functions of centralized and/or regionalized infrastructures, and on the scalability of pilot projects once completed. Additionally, participants pointed out the need to better integrate health and social care, hospital and community care, and clearly integrate Social Determinants of Health (SDoH) in population-based funding models. According to a key stakeholder in British Columbia:

“So, I think there are a lot of things one could do, I’m just not sure that that’s going to drive population health outcomes without thinking about, you know, access to social care data, point of contact, and all of these other important things, in addition to just health care that are important to health outcomes.” (P12)

4.2.2. Political will

Participants discussed political will as a necessary support for establishing consensus around a unified regulatory framework aimed at defining funding models’ common objectives, rules and protocols to facilitate integration of care. Many discussed the benefits of having government, policy-makers, healthcare delivery organizations, clinicians and patients coming together to define common goals, make decisions and share responsibilities. According to two interviewees:

“Incremental change is desirable but there also needs to be the will and commitment to expand these initial, localized projects, as they easily change as new governments get elected and new visions developed. (...) You know, this demonstration projects in the multiyear iterative reform never goes anywhere, right? Like we do another pilot and then, you know, some other government gets elected, and they have some other vision. So, I don’t know I’m not hugely optimistic about that, I would suggest that maybe we have the things in the opposite order, maybe we should focus on governance first and then changing the governance will move us to the funding.” (P13)

There’s a need for provinces or governments to lay the groundwork of what they want for funding models. (...) If you, if you’re trying to do it regionally what you have to get is, you have to get agreement on decisions. (P9)

While laying the groundwork for funding policies and models were considered a priority, experts pointed out outstanding knowledge gaps concerning the logistics of linking funding to governance in the field.

Population-based funding for integrated care sounds amazing. The question is just how do we get from where we are to there, and how do we link the funding to the governance? (P13)

4.2.3. Engagement and collaboration

Participants discussed engagement as the meaningful involvement and collaboration of healthcare stakeholders in decision-making and accountability sharing as critical to address what they perceived as key barriers to population-based funding and health care, namely: lack of population health infrastructures and health system fragmentation. Experts highlighted the need to ensure that the allocation of financial resources requires collaboration and suggested four strategies to attain this, including:

- a) Designing and developing integrated population-based infrastructures;
- b) Having one decision-making lead at the jurisdictional level;

- c) Integrating healthcare providers in the decision-making process concerning their remuneration for integrated population-based care funding;
- d) Aligning funding models and incentives for public health and primary care collaboration.

As explained by a participant, guidelines or rules of engagement and collaboration are very important:

We separated the information, we separated and said this is your budget for one case and the other. We have to do it ourselves because a third party has to intervene in these situations. They couldn't agree on how to proceed and it was a question of the service requirement versus the funding that was granted. And there, he had a lot of adjustments and a common responsibility. (P11)

4.3. Equity

Experts described equity as one of the foundational values for population-based integrated funding models. The principles of fairness and accessibility were central to the participant's discussion of equity.

4.3.1. Fairness

Equity values include fairness as allocation of resources based on individual health needs. Interviewees described fairness as delivering care to all regardless of each individual's status and use of health services. Health needs and ensuring providers are funded to address these needs may require reallocation of funding. With varying size and mandates of hospitals, siloed providers in the community (not for profit and for profit) and different incentives, many have commented on the need for a fair allocation of resources. To ensure that the funding is fair, it is important to consider the contextual elements such as the geography, the size of the population served, as well as the social determinants of health.

"That's why I use carefully the word equity and not equality, because that, that equity has to be key because you have to adapt to the circumstances in which you find yourself in and ensure access appropriate to the geography and the needs of those populations." (P2)

"It's about adjustment for income and social economic status and what you're suggesting I think is critical, but it's also so that you can get funding mechanisms in the local area, so there's that local ability to design interventions and, and adapt programs to the local community." (P2)

4.3.2. Accessibility

To complete the principle of fairness was that of accessibility. Making health services accessible requires funding models that consider efficiency, economies of scale, and supports outside of health care such as social services. Accessible services means that health care providers are accountable for connecting their patients with the appropriate providers. Ensuring accessibility may mean, in the geographical context of Canada where distances and low population density represent barriers to access, developing and implementing alternatives. Such alternatives could include virtual care or establishing partnerships and collaborations among providers with transportation for patients when needed. The funding models needs to account for patients not receiving necessarily all their care from the same healthcare organization.

"When you go to the North Shore and you have 2,000 km of coastline and you have 96,000 people, but on the other hand you have a logical ecosystem in the care trajectories. There are 2 regional poles, Sept-Îles, Baie-Comeau, you have well established care trajectories in the east and in the west and there is a logic of services. I think we need to make sure that what they are creating is also based on the population's service utilization patterns. That there are corridors, that no one is forgotten. (...) We have to make sure that all the programs and services, that all the levers that everyone needs, they have to be part of the deal." (P6)

To ensure accessibility, integrated care funding models need to be informed by population needs, as explained by a participant:

"The advantage is that it allows you to start from a base that reflects the need of your population, regardless of the supply you put in place to cover that demand. It's important for governments, the Ministry of Health, to have a more informed view of the demand, the needs, and whatever the level of supply is. That's where the importance of building a population model comes from." (P10)

4.4. Innovation

Participants discussed the need to innovate and to value innovation. However, innovation needs to be evaluated, and evidence generated to inform decision makers about the use of the innovation. Hence, within innovation came with the need to collect data and evaluate the innovation. Innovations can be relevant in a specific context, and not cost-effective in others. Underlying the value of innovation are the guiding principles of data collection, and evaluation. They recognized funding models are very dynamic and highlighted the need to measure and evaluate funding models, as well as innovation and experimentation, based on clearly defined and

shared measures aligned to the strategy or legislation. Interviewees described innovation and experimentation as means to find creative ways to link funding mechanisms to integrated population-based health care that best respond to the context in which they are implemented, and to validate what works and what does not.

Linking governance to funding mechanisms requires thinking innovatively through experimental and staged projects. Indeed, understanding where integrated population-based services and funding models might work best, as well as fostering new forms of profit aimed at innovation and sustainability may become critical to the success of these interventions. As explained by a participant:

“You can have a funding formula, but if you don’t have [...] the service priced, or the procedure priced correctly, it’s fundamentally flawed. And then, and then that the resource allocation is sufficient, at the, who gets the money and how much money each organization gets is structured in a way that not only covers good evidence-based care, but also allows for, and this is a problem with the current system, allows for some margin. I won’t call it profit, but some margin for reinvestment and, and reinvestment specifically for innovation.” (P8)

4.4.1. Data collection

Experts stressed the importance of not only measuring and collecting data, but of using that information to improve the value of integration from an outcomes perspective. Managers stressed the importance of having the data at the local level, while policy-makers need to be able to measure the system, yet be aware of how various regions are doing. Data collection needs to be conducted at various levels and used to innovate within local contexts. Data collection also needs to include data on social determinants of health so that innovations are not limited to funding medical technologies. Reflecting on what to data to collect and how to use the data collected is crucial. As explained by an expert from Canada:

“As an industry we, we kill ourselves on indicators, we measure far too much. What’s interesting is we measure, a lot and do nothing with it. You know, healthcare is just perfect for that, let’s track 7,000 indicators and we’ll use three. (...) So, I think part of this is, as you start to look at, we’re going to stick on the theme of integration and population health is what is the data and indicators, (...) what are the key data and indicators that we’re going to focus on? And, more importantly, can we set, what is the target we’re trying to achieve, that we’re monitoring against, and use that as the focal point to drive change that you know is going to improve value. If you can get those three or four statements to stick and you track them very specifically, then you will make significant outcome improvements.” (P9)

4.4.2. Evaluation

While participants stressed innovation as a core value, evaluation was a repeated concern. Innovation in integrated funding models also do not need to be across the board, but instead be experimented and tested in small scales to then decide on expanding to other services, or other populations. As explained by two participants:

“In the context of what’s needed in each of those regions, you need that local context to determine the right solution. Rolling out a cookie cutter is a disaster it just won’t work.” (P9)

“I say that we’re going to do it in stages and it’s important to do it in stages, but if ... don’t think that we’re going to cover all the care. We can’t think that we’re going to cover all the care. Okay? We have to mark out the areas where we can do it. I think it can be done, but it’s in the areas where there’s integration that it’s going to be easiest to do.” (P11)

5. Discussion

Results of this study provide an overview of the values that health policy and decision makers, health administrators, and researchers attribute to population-based integrated care funding policies, how these experts conceptualize those values, and how they ultimately can guide integrated care funding policies. Overall, four values appear to guide population-based integrated funding mechanisms, namely: transparency, accountability & integrity, equity, and innovation.

We consider the identification of these values as a critical building block to answering questions raised about designing funding for integrated healthcare. The literature discusses challenges related to formula-based allocation [29,30]. In the context of increasing patient complexity, the funding allocation and the incentives need to consider that multimorbidity requires care coordination and integration, and that the governance structures need to be in place for implementing new payment models [30]. Integrated care is considered as necessary to treat people living with multimorbidity, and a European consortium of researchers have developed an evaluation framework for integrated care which was tested on programs of the eight countries represented in the consortium [31,32]. One of the six components of their framework is financing, which appears to be represented in terms of costs to the system. However, financing of integrated care programs need to be considered not only as the costs but also in terms of the characteristics of the funding mechanisms and that these characteristics need to align with values. Values for integrated care have been identified through a systematic review with the most common being collaborative, coordinated, transparent, empowering, comprehensive, co-produced, and shared responsibility and accountability [22]. We can note that there are some similarities with our findings although some values for integrated care may not apply to the funding models.

There is currently a gap in examining underlying values which our study attempts to fill. There is a rich literature on the values to guide what services ought to be funded, particularly in a context where health technologies have exponentially growing price tags,

with studies from Australia [33,34], or Canada [35–38]. Because of their focus on what to fund, identified values are centered around the benefits or effectiveness of health technologies and their safety or risks [39]. Although relevant to funding decisions, such studies are limited to coverage decisions and do not consider that *how* healthcare is funded, and the incentives that are built into funding models will affect how healthcare is delivered, how healthcare organizations work in collaboration, or compete with one another, or how they structure the transitions of care amongst themselves. As governments aim to implement integrated care [40], it is critical to determine *how* to fund healthcare so that funding models are aligned with the objective of delivering integrated healthcare. The current literature suggests that financial schemes can represent a critical barrier to the implementation of integrated care [41–43]. Traditional funding models may have been designed with other objectives, such as incentivising a high productivity, rather than integration. As the healthcare needs of the populations shift, health systems are being transformed. In these transformations, stakeholders need to consider how to design funding models so that they do not hinder quality of care and the objective of delivering integrated care.

In their critique of UK's market-based reform of the National Health Services (NHS), Gilbert et al. (2014) propose a values-explicit approach, where a tight regulation based on explicit values could enable achieving the benefits of a market-approach without plunging the NHS into “unbridled capitalism”. Although examining regulation and market-based approaches were not within the scope of our study, Gilbert et al.'s study complements ours by outlining that it is critical to identify values and ensuring that they are embedded in the regulations of the healthcare market [44]. Gilbert uses the example of the NHS as an organization that has been loyal to its original values of equity and autonomy despite changes in the environment.

While exploratory, this work advances the understanding of values in integrated care funding policies, information that is critical to increase the transparency, explicitness, and consistency of healthcare funding decisions, and to ensure that these align with the policy objectives of high-quality integrated care health system. Indeed, with the international push towards paying for value, policymakers ought to consider what values and guiding principles guide integrated population-based funding mechanisms. In that sense, our findings indicate that funding mechanisms can incentivize population-based integrated care when the following conditions are met: a) governance is informed by a shared political will, collaboration across health system partners, organizations and institutions, and dedicated population-based infrastructures; b) regulatory and evaluative frameworks support accountability; c) funding is evidence-based; d) funding mechanisms provide fair and accessible health care; and e) funding mechanisms design and implementation include innovation enabling change.

However, because values and principles are collectively generated and held [45,46], dominant values are expected to vary across jurisdictions [47]. As such, what constitutes a problem and what strategies are deemed acceptable to address them could be influenced by the social and political contexts in which decisions-makers and organizations are embedded. While we did not aim to examine differences in the prioritization of prevailing values across jurisdictions, nor unpack the decision-making process *itself*, such variation could be present and be in part responsible for variation in the timing of introduction and in the characteristics of integrated care funding policies implemented across jurisdictions. Further comparative studies are thus warranted to better understand the mechanisms behind the development of integrated care funding policy, as well as to explore barriers and enablers to their implementation (as already available for other funding approaches [48]).

To the authors' knowledge, this is the first study to have examined what health policy and decision makers, health managers, and researchers value in population-based integrated care funding policies. As such, it provides unique findings generated from analyzing data collected from experts. These experts were carefully chosen for their expertise and their experience, and for some, for their role in designing funding models and implementing them. The results provide an overview of values that could be used to guide the design of funding models for integrated care. However, this study has limitations. First, values elicited by the small number of participants may not be representative of the prevailing values among healthcare stakeholders at the international level. Yet, our aim was not to map dominant values at a global level, but to explore and to gain a deeper understanding of what stakeholders from various groups and jurisdictions considered important in this type of funding mechanisms. Second, whilst we explored the views of key healthcare stakeholders, we did not explore those of the system users, the patients. Although this is in line with our study objectives, our findings do not represent this perspective. Further work should examine if what is valued by those at the decision-making table is thus in line with what patients, and the society at large, consider important when it comes to the funding of healthcare. Third, we only used one data collection method, key informant interviews. Although this does not represent a limitation on itself, the use of additional data sources (e.g., document analysis, observation) could have allowed for triangulation of information, increasing the credibility of our findings and conclusions. Yet, it is likely that documents contained only limited information on the values underlying decisions (if any), and that the observation of decision-making processes would not have been feasible within the time and resources limitations of our exploratory study.

6. Conclusion

While this investigation represents only a start in the examination of this complex issue, four values appear to guide population-based integrated funding mechanisms, namely: accountability & integrity, transparency, equity, and innovation. Further comparative studies are warranted to better understand how these values are ultimately prioritized and what other mechanisms influence variation in the timing of introduction and in the characteristics of integrated care funding policies implemented across jurisdictions.

Data availability statement

As data were collected and stored, they were all de-identified using anonymous identifiers to ensure confidentiality. The Research

Ethics Committee approved the collection and analysis of the data only for the specific study and not for other purposes. As such, the raw data are not available for other purposes. We report all data relevant to answer our research question in the paper. No further data are available publicly other than what those reported in the results.

Ethics statement

This study was reviewed and approved by Université Laval's Research Ethics Board with the approval number: 2020-405/02-02-2021. All participants provided informed consent to participate in the study.

Additional information

No additional information is available for this paper.

CRediT authorship contribution statement

Maude Laberge: Writing – review & editing, Validation, Supervision, Resources, Project administration, Methodology, Investigation, Funding acquisition, Data curation, Conceptualization. **Francesca Brundisini:** Writing – review & editing, Validation, Methodology, Formal analysis, Data curation, Conceptualization. **Imtiaz Daniel:** Writing – review & editing, Validation, Resources, Conceptualization. **Maria Eugenia Espinoza Moya:** Writing – review & editing, Writing – original draft.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.heliyon.2024.e24904>.

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