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Strengths and risks of the Primary Health Network commissioning model

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ABSTRACT

Objective. To explain how the Primary Health Network commissioning model works, and factors likely to affect its success. **Methods.** The study focuses on the delivery of primary healthcare services by one Primary Health Network (PHN) in Australia. The qualitative case study is informed by a desk top review, interviews ($n = 49$) and observations with key stakeholders involved in commissioning and delivering primary healthcare services in the region. **Results.** The study provides several insights about the PHN model. First, conceptually, the PHN commissioning model is well suited to identifying and meeting local primary healthcare priorities, bringing together a range of stakeholders involved in healthcare provision. Second, although primary healthcare services are difficult to specify and measure, PHN staff use their content knowledge and experience, and relationships with providers and the community, to design services that meet the needs of consumers. Third, the success of this model may be undermined by short funding cycles and short lead-times, a focus on national rather than local priorities, and continual reductions in operational funding. This may result in more procedural forms of contract management, which may mean that changes in service need, provision and quality go unnoticed. **Conclusions.** This study shows that although clever in design, the PHN model may not meet its full potential. Given continual changes to the model, including funding, further independent research should be undertaken to understand how PHNs adjust and whether services continue to meet the needs of the local community.

Keywords: commissioning, contracting, governance, health services management, outsourcing, primary health care, primary care, public administration.

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Introduction

Effective primary health care is an integral part of high-quality health systems.[1] Improving primary health care provides opportunities to improve population health, reduce health inequalities, reduce the cost of health care (reducing the need for more intensive health care), and increase patient satisfaction.[2] Improving primary care coordination is important in the Australian context given the independence of general practice from the broader health system, and the different responsibilities of the Commonwealth, States and Territories, Local Government, and private providers.[3,4]

In Australia, primary healthcare coordination funded by the Australian Government at a systems level has taken several guises, from the introduction of 119 Divisions of General Practice (1992) to coordinate services, their subsequent consolidation into 61 Medicare Locals (2011) to coordinate and provide services, and most recently 31 Primary Health Networks (PHNs; 2015) to coordinate and commission services.[4,5] The current PHN Program was established by the Commonwealth Department of Health (DoH) 'with the key objectives of improving the efficiency and effectiveness of medical services for patients, particularly those at risk of poor health outcomes', and 'to improve the coordination of care to ensure patients receive the right care in the right place at the right time'.[6]

The PHN Grant Programme Guidelines (Version 1.2) establish how the PHNs will achieve these objectives by commissioning primary healthcare services to meet local needs and eliminate service duplication, and supporting GPs and other health practitioners in practice improvement.[6] This study focuses on the commissioning activity. Commissioning aims to introduce efficiencies to service funding, building on experience gained in commissioning of health services overseas, mainly in the UK.[7,8] Commissioning is also being explored to enhance the value of services in other health settings.[9] Understanding how the PHN commissioning model works provides opportunities to inform practice elsewhere. Therefore, this study seeks to explain *how* the PHN commissioning model works, and what factors are likely to affect the model's success.

Method

A qualitative case study was used, using abductive inquiry, given the exploratory nature of the study (Appendix A, COREQ tool).[10,11] The case study was bound around the commissioning activities of a single PHN (hereinafter the CasePHN to maintain confidentiality) operated under contract by an independent entity established to deliver the PHN Program in one of 31 regions in Australia. The CasePHN serves a culturally and socio-economically diverse population in a metropolitan area in NSW. The study commenced in 2019, under ethics approval from UTS Human Research Ethics Committee.

Data were collected about both contracting relations – the DoH–CasePHN relation and the CasePHN–Service Provider relations. Data collection was informed by a theoretical framing using transaction cost economics[12,13] (Appendix B, Theoretical framing); this identified transaction characteristics (asset specificity, uncertainty, frequency and probity) and how they were managed across the PHN Program. Individuals from DoH, the CasePHN and Service Providers were purposely invited to participate in the study. Stakeholders involved in aspects of the PHN program design, research, and evaluation were also invited to participate in the study. The data informing the study included 49 interviews (36 CasePHN staff, 5 service providers, 8 stakeholders), 29 observational days in the organisation, attendance of 15 meetings, and an extensive document review conducted over 18 months (February 2019–November 2020). One participant declined to be interviewed but answered queries by email. Data collection used a strengths-based approach[14] to understand the controls facilitating commissioning and the delivery of primary healthcare services (Appendix C, Discussion guide). Evidence was verified wherever possible using other data sources (*interviews, observations, documentation*).

Data were coded, using NVivo (QSR International), starting with codes generated from PHN program documentation. Using an abductive approach, constructs were presented back to research participants during follow-up interviews and then compared with the theoretical framing to understand what drives the low contractibility of primary health services and how this is managed in this context (Appendix B, Theoretical framing).[10]

Ethics approval

This project was approved by the UTS Human Research Ethics Committee, UTS19-3481HREC, and was undertaken with informed consent of all participants.

Results

The results are disaggregated based on how the commissioning cycle works (to provide the context for the study) and how contracts are managed – specifically, how low contractible services are managed in this case setting. Sources of data are identified by stakeholder or data collection type only (*CasePHN*, *Stakeholder*, *Observation*, etc.) to retain anonymity given of participants.

How the PHN commissioning cycle works

The PHN commissioning cycle (Fig. 1) starts by identifying primary healthcare needs in the region. PHNs then identify existing services, identify gaps, and prioritise areas to contract services where the market has capacity to deliver – formalised in Activity Work Plans.[6] PHNs contract services from the market and report progress to the DoH on services delivered. Each step is carried out in collaboration with key stakeholders, including Local Health Networks/Districts,

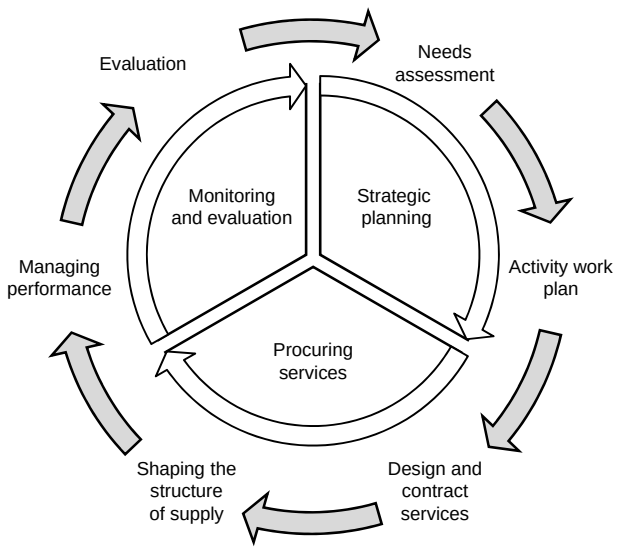

Fig. 1. The PHN commissioning cycle. Source: https://www.health.gov.au/resources/publications/primary-health-networks-phns-planning-in-a-commissioning-environment-a-guide.

service providers, GPs and allied health professionals. The commissioning cycle establishes mechanisms to demonstrate probity across the program.[15] The outputs from the commissioning cycle reflect the quality of data and other information available, both of which are improving in granularity over time and are thus reducing uncertainty (e.g. in the level of detail available in Australian Bureau of Statistics data).[16]

The commissioning cycle is driven by funding schedules issued under the DoH–PHN contract, the duration and specificity of which varies. At the time of data collection, the CasePHN was operating under nine different funding schedules of varying durations (Table 1). Although some funding schedules are now 'rolling' 3-year arrangements, service renewal is still contingent on the timely approval of Activity Work Plans.

Data showed DoH schedules provided varying levels of autonomy to PHNs. They included existing contracts transferred from the DoH to PHNs; activities previously managed by Medicare Locals; new activities that were highly specified; new activities required to meet national policy objectives, with flexibility in how they were delivered; and flexible funding that allowed PHNs to address local health needs.

> [The funding is] fairly much ring-fenced. So [national] priorities need to become the PHNs priorities. … I think our stakeholders don't realise how little of our funding is actually funding that we are able to use flexibly. (*CasePHN*)

Both Needs Assessments and Activity Work Plans require approval from the DoH before being acted upon by the PHN; however, this approval was often delayed.

> [DoH have] significant reporting requirements from us, but don't have the team to do the analysis and to respond in a meaningful timeline. (*CasePHN*)

In 2019, the approval process was streamlined to only require approval for changes to plans. This motivated the CasePHN to simplify both Needs Assessments and Workplans to minimise future changes/approvals.

Factors affecting the success of the commissioning model

New funding schedules are added to PHN contracts to meet emerging needs, providing the DoH with a contracting mechanism that allowed them to respond to new issues as they arise. This was evident in the PHNs' response to health impacts of bushfires and subsequently the coronavirus disease 2019 (COVID-19) pandemic, during which greater flexibility in reporting was also provided (*Observations*).

Schedules were issued and renewed, often with short turnaround times. This affected the financial and operational stability of both the CasePHN and services, created bottlenecks in workflow within the PHN, and ultimately resulted in fluctuations in service delivery.

> When there's less than 6-months left [on the contract]… staff start to leave. … The longer you leave it, the more they start leaving, the bigger the dip [in service delivery] is. … as you re-fund them, it takes probably an equal time plus about 50% to get back up to where you were before… (*CasePHN*)

PHNs hold a relatively small proportion of the health services budget (*CasePHN*). Although the PHN program documentation encourages co-commissioning, to leverage funds from different sources, this is difficult in practice due to different governance requirements in different organisations (*CasePHN*).[7]

Although conceptually the commissioning model is well suited to identify and meet priorities, and facilitate

Table 1. Summary of CasePHN funding schedules, by scope and duration.

Scope/financial year	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022
Contract and Core Funding Schedule	●	●	●	+	+	+	
Primary Mental Health Care (including suicide prevention)	●	+	+	●	+	+	+
Drug and Alcohol Treatment Services (AOD core funding)			●	+	●	●	●
National Ice Action Strategy		●	+	●	+	●	●
Integrated Team Care (Aboriginal Health)	●	+	+	●	●	●	
After-Hours	●	●	+	+	●	●	
National Psychosocial Support Measure				●	●	●	
National Psychosocial Support Transition (Continuity of Support)					●	●	●
Community Health and Hospitals grant				●	●	●	

Note: Each alternate block of symbols denotes a new schedule/duration. For example, core funding was provided in two 3-year schedules. Source (*CasePHN*).

collaboration within a region, the way the model has been contracted by the DoH is likely to affect the model's success.[16] As one participant highlighted:

> There's so much potential for what we could do, if we were given half a minute to stop and think, and do that properly. (*CasePHN*)

Contracting primary healthcare services

Data confirmed primary healthcare services are difficult to contract as they are difficult to specify and measure (i.e. they have low contractibility due to uncertainty; see Appendix B – Theoretical framing). As one CasePHN contract manager said:

> On one hand, it's really important to be able to measure whether a service is really delivering good work or not. On the other, it can be hard to measure. (*CasePHN*)

Prior to going to the market, the CasePHN co-designed service requirements with experts, including consumers, to increase the contractibility of services, maximise outcomes and move beyond occasions of service.[7]

> It's become much more of an ongoing conversation around what does success really mean, at the client level, for this program, and working back from the outcome for the client, and using the program logic to work back to the service model… That's led to more meaningful KPIs. (*CasePHN*).

The CasePHN recognised the need to not be 'too bureaucratic, but bureaucratic enough that things are safe, and things are accountable' (*CasePHN*). This was not an easy task, indicating the high uncertainty associated with contracting primary health services.

> Trying to strike a balance between what is a true measure of impact or reflective of outcomes that matter to consumers and communities versus something that can be measured and ties to the work a provider can reasonably influence and shape … is a really tough thing. (*Stakeholder*)

Managing contracts

Providers highlighted the benefits of working more in 'partnership' with the CasePHN; this was evidenced by the CasePHN working collaboratively to promote services and provide support as services became established (*Observations*). This collaborative relationship 'built trust' and enabled discussions to occur openly 'where problems occurred' (*Provider*) and relied on CasePHN staff having expertise in the service area.

> [People are] much more willing to talk to you if things start to go not to plan. (*CasePHN*)

Relational controls – open and regular dialogue between PHN staff and service providers – facilitated problem solving when services were established to reduce information asymmetry between partners (reducing uncertainty) and ensure the contracted objectives were met. There was also 'some flexibility to change some of the parameters over the life of the contract in a collaborative way … to make it more effective' (*Provider*); these adjustments reflected a greater understanding of the practicality of service delivery and what could be measured (*Observations*). Strong relationships between the CasePHN and providers also offered reassurance when contract renewal was delayed pending confirmation of funding by the DoH.

Service providers, cognisant of needing to show outcomes in the absence of broader health system data (to reduce uncertainty and also to demonstrate probity), were concerned about the impact of the continual measurement of clients on their wellbeing.

> [Clients] can have five or six people asking them the same K-10 survey… and that's without any of the other measures… I don't think it's very recovery orientated. (*Provider*)

Measuring outcomes was problematic where providers received multiple sources of funding, each requiring different KPIs; this made record keeping and 'quarterly reporting quite extensive' (*Provider*).

The CasePHN used relational controls to support contract management due to high uncertainty – this reduced information asymmetry between parties and allowed changes to be made to contracts as uncertainty reduced. Whether this approach to contracting can be maintained may be in doubt. PHNs have experienced a reduction in funding due to the perceived efficiencies that could be achieved once the program was established.[2] Further reductions were implemented in specific schedules (e.g. Drug and Alcohol Treatment Services). As a result, the CasePHN was looking at ways to streamline the contracting process (*Observations*). This may mean that changes in service need, provision and quality go unnoticed.

Discussion

The PHN commissioning model is in many ways agile – used by the DoH to respond to changes in health priorities, addressing problems that 'resist state or federal solutions', including the COVID-19 pandemic.[16,17] However, highly specified funding schedules may mean that the model is less flexible than intended.[16,18,19] Further, high levels of bureaucracy, paired with under-resourcing of program

management by the DoH, may limit the capacity of PHNs to update plans or reconfigure contracts or services. This creates risks to all stakeholders – DoH, PHNs, service providers and clients. In response to the constrained way the model has been implemented, PHNs may need to manage risk by producing less innovative Activity Work Plans and renewing services rather than risking changing providers or updating plans. Without greater flexibility of funding, there is a danger providers will be chosen because of their ability to absorb risk from short-term changes to DoH funding schedules, rather than their capacity to deliver quality services based on local need.

The success of the model can, in part, be attributed to the content knowledge of PHN staff, the culture of staff and the organisation, and the time invested in working collaboratively with providers and the community to ensure services meet the desired objectives – including the active engagement with experts in the region throughout the commissioning cycle, adding to the legitimacy of the PHNs' work.[19] The way services are commissioned enables the CasePHN to continually improve contracts (through ongoing review processes), improve the way services are measured and reported (through relational controls), improve their uptake (through promotion as part of broader PHN responsibilities), and hopefully improve long-term outcomes. This approach is likely to increase the contractibility of services over time. Although other scholars highlight the relational aspect of developing Needs Assessments,[16] we would argue that the strength of the relational capacity of PHNs is required throughout the commissioning cycle. This difference highlights the benefit of government departments using knowledgeable localised intermediaries (in this case PHNs) to contract services on their behalf – benefits that will be lost if the relational approach becomes financially unviable. The model's success is also contingent upon the recruitment and retention of skilled staff.[16] The success of embedding commissioning of primary health care among content experts is not unique to Australia.

Since its inception, the PHN program – all or in part – has been under continual review.[2,20,21] Although reviews enable continuous improvement, from the program level down to individual services, they also create further uncertainty.

Conclusion

This study aimed to explain how the PHN commissioning model works and factors likely to affect the model's success, adding to the literature on the facilitators and barriers to commissioning.[7] Using transaction cost economics as the theoretical framing, we find the model conceptually enables local health priorities to be identified and met, by increasing contractibility of services over time. Consistent with prior studies of commissioning in the UK, we highlight facilitators of commissioning to be knowledge and engagement in the sector and locality, which enable uncertainty to be reduced over time, and barriers to include resourcing.[7] We also show that engagement with the sector extends throughout the commissioning cycle.

This study shows that although clever in design, the PHN model may not be meeting its full potential due to lack of flexibility in its implementation. The model is also under threat from uncertainty created by ongoing reviews and further reductions in funding. Independent research should be supported by health and medical research agencies to understand how PHNs adjust and whether services meet the needs of the local community. The test will be whether the model can be sustained longer-term.

This study is exploratory in nature. We acknowledge that each PHN is unique given its organisational legacy and operating context. This study reflects the experiences of one PHN, but is supported by findings in other studies. We would encourage the study to be replicated in other PHNs in other operating contexts, such as a regional PHN, to see if these findings hold.

References

1 Starfield B, Shi L, Macinko J. Contribution of primary care to health systems and health. *Milbank Q* 2005; 83(3): 457–502. doi:10.1111/j.1468-0009.2005.00409.x

2 UNSW, Monash University, EY. Evaluation of the Primary Health Networks Program Final Report. Prepared for Australian Government Department of Health; 2018. Available at https://www.health.gov.au/resources/publications/evaluation-of-the-primary-health-networks-program

3 Smith J, Sibthorpe B. Divisions of general practice in Australia: How do they measure up in the international context? *Aust New Zealand Health Policy* 2007; 4(1): 15. doi:10.1186/1743-8462-4-15

4 Henderson J, Javanparast S, MacKean T, Freeman T, Baum F, Ziersch A. Commissioning and equity in primary care in Australia: Views from Primary Health Networks. *Heal Soc Care Community* 2018; 26(1): 80–9. doi:10.1111/hsc.12464

5 Horvath J. Review of Medicare Locals. Report to the Australian Government Minister for Health and Minister for Sport. Department of Health; 2014. Available at https://www1.health.gov.au/internet/main/publishing.nsf/Content/review-medicare-locals-final-report

6 Department of Health, Australian Government. Primary health networks: Grant programme guidelines 2016 Version 1.2. 2016. Available at https://www.health.gov.au/resources/publications/primary-health-networks-phn-grant-program-guidelines

7 Gardner K, Davies GP, Edwards K, McDonald J, Findlay T, Kearns R, *et al.* A rapid review of the impact of commissioning on service use, quality, outcomes and value for money: Implications for Australian policy. *Aust J Prim Health* 2016; 22(1): 40–9. doi:10.1071/PY15148

8 PwC (PricewaterhouseCoopers), The Kings Fund, University of Melbourne. Challenges and Lessons for Good Practice: Review of the History and Development of Health Service Commissioning. Prepared for Australian Government Department of Health; 2016.

9 NSW Health. NSW Health Commissioning for Better Value Strategy 2021–24. NSW Ministry of Health; 2020.

10 Blaikie N. Designing Social Research. Cambridge, UK: Polity Press; 2000.

11 Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): A 32-item checklist for interviews and focus groups. *Int J Qual Health Care* 2007; 19(6): 349–57. doi:10.1093/intqhc/mzm042

12 Williamson OE. Transaction-cost economics: The governance of contractual relations. *J Law Econ* 1979; 22(2): 233–61. doi:10.1086/466942

13 Williamson OE. The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting. 1st edn. New York, US: The Free Press (MacMillan); 1985. p. 450.
14 Coghlan D, Brydon-miller M. Strengths-Based Approach. In: The SAGE Encyclopedia of Action Research. Sage; 2014. p. 733–5.
15 Bates S. How an intermediary model manages the tension between low contractibility and probity when outsourcing human services. *Aust J Public Adm* 2022. doi:10.1111/1467-8500.12540
16 Anstey M, Burgess P, Angus L. Realising the potential of health needs assessments. *Aust Health Rev* 2018; 42(4): 370–3. doi:10.1071/AH16262
17 Nankervis R, Alexander H, Briggs D, Turner C, Martin A, Baillie J, *et al.* COVID-19: Perspectives from the experience of one Australian Primary Health Network. *Asia Pac J Health Manag* 2020; 15(3): 1–10.
18 Ritter A, Berends L, Chalmers J, Hull P, Lancaster K, Gomez M. New Horizons: The Review of Alcohol and Other Drug Treatment Services in Australia (Final Report). Drug Policy Modelling Program, National Drug and Alcohol Research Centre UNSW. Funded by Australian Government Department of Health; 2014. Available at https://www.health.gov.au/resources/publications/new-horizons-review-of-alcohol-and-other-drug-treatment-services
19 Perkins N, Coleman A, Wright M, Gadsby E, McDermott I, Petsoulas C, *et al.* The 'added value' GPs bring to commissioning: A qualitative study in primary care. *Br J Gen Pract* 2014; 64(628): e728–34. doi:10.3399/bjgp14X682321
20 Deloitte Risk Advisory. Review of headspace Melton commissioning process. Prepared for Australian Government Department of Health; 2018.
21 Jackson C. Review of After-Hours Primary Health Care. Report to the Australian Government Minister for Health and Minister for Sport. Department of Health; 2014.
22 Dubois A, Gadde LE. Systematic combining: An abductive approach to case research. *J Bus Res* 2002; 55(7): 553–60. doi:10.1016/S0148-2963(00)00195-8

Data availability. The data used to inform this paper are presented in depth in de-identified form in the lead authors PhD thesis which is available from the UTS Library. We have permission to publish from this work.

Conflicts of interest. MW has had multiple primary care appointments with the Royal Australian College of General Practitioners and Primary Health Networks. SB and BHR declare no conflicts of interest.

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Appendix A. COREQ tool

Following Tong *et al.*,[11] the table below provides a comprehensive report about the qualitative study, including the research team, study methods, context, findings, analysis and interpretation.

No	Item	Description
Domain 1: Research team and reflexivity		
	Personal characteristics	
1	Interviewer	Shona Bates
2	Credentials	Bachelor Science, Master of Science
3	Occupation	Research Project Manager, Social Policy Research Centre
4	Gender	Female
5	Experience and Training	Experienced researcher and interviewer, with over 9 years' experience in undertaking social policy research, and 25 years' experience in public policy. Data were collected as part of a PhD candidature.
	Relationship with participants	
6	Relationship established	None of the interviewees were known to the researcher prior to the interviews.
7	Participant knowledge of the interviewer	Most participants were unknown to the researcher at the time the study commenced. As the researcher was based in the case organisation during the fieldwork period, many participants became known to the researcher.
8	Interviewer characteristics	Established researcher in social policy research and evaluation. This study was instigated by the desire to investigate unresolved issues that had appeared in other studies, and led to this PhD study.

(*Continued on next page*)

No	Item	Description
Domain 2: Study design		
	Theoretical framework	
9	Methodological orientation and theory	The study used Transaction Cost Economics as the theoretical lens to identify where costs (hazards) were likely to arise during the contracting of the PHN Program. A qualitative case study was used to inform the study, using an abductive form of inquiry, given the exploratory nature.[10] Abductive reasoning enables us to describe and understand the phenomena in the language of participants, check this understanding with participants, and then redescribe this in the language of the discipline. This approach allows us to iteratively develop findings and theory in a contextual setting.[22]
	Participant selection	
10	Sampling	The case study was selected using both theoretical and purposive sampling. The lead researcher sought a public sector organisation (PSO) responsible for delivering face-to-face human services in the state, known to outsource services. Services were excluded that had been subject to significant structural transformation (such as disability), organisational transformation, which did not support the wider population, or that would be unlikely to share research findings when available. Health was identified at both the state and commonwealth level as a potential setting. An outsourcing arrangement was then identified that was of sufficient size and duration to provide sufficient data for the study, appeared to be working well (evidenced by a recent evaluation), and was accessible to the researcher. Sampling of participants was purposive, identified in consultation with the case organisation and through snowballing.
11	Method of approach	Potential participants were emailed a letter of invitation to the study. This included the participant information statement and consent form approved by the University of Technology Sydney Human Research Ethics Committee (UTS HREC).
12	Sample size	49 interviews, 29 days' observations.
13	Non participation	No potential participants formally declined or withdrew from the study. One invited participant declined an invitation to participate in an interview but answered queries by email.
	Setting	
14	Setting of data collection	Interviews were conducted face-to-face where possible in the workplace (in a private meeting room). Other interviews were conducted by phone or Skype/Zoom/Teams – particularly after March 2020 and the start of the COVID-19 pandemic. Consent was also sought to observe participants in the work place. Observations included attending organisational briefings, practice improvement meetings, contract management meetings, and working groups with key stakeholders in the region.
15	Presence of non-participants	No non-participants were present for the interviews.
16	Description of sample	Data collection involved 49 interviews (36 CasePHN staff (*CasePHN*), five service providers (*Providers*), and eight stakeholders (*Stakeholder*), including one participant with multiple roles), 29 observational days in the organisation (*Observations*), attending 15 meetings, and an extensive document review conducted over an 18-month period (February 2019–November 2020).
	Data collection	
17	Interview guide	A description of the scope of the study was provided in advance with the invitation.
18	Repeat interviews	As part of the abductive approach, a number of repeat interviews were undertaken. Follow-up interviews were also necessary where the interview participant wanted to continue the conversation.
19	Audio/visual recording	Audio
20	Field notes	Yes
21	Duration	Ranged between 16 min and 119 min.
22	Data saturation	Purposeful sampling of each workstream within the CasePHN and three service types provided under contract. To ensure anonymity, all CasePHN staff who were actively involved in the commissioning process were interviewed for the study.
23	Transcripts returned	No
Domain 3: Analysis and findings		
	Data analysis	
24	Number of data coders	All coding was completed by the interviewer.
25	Description of the coding tree	Data were coded, using NVivo. This started with: (1) the contracting relation; (2) the stage of contracting (as specified in the PHN program documentation; (3) steps in the process of each stage of contracting; and (4) additional codes developed in vivo to categorise data. Using an abductive approach, constructs were presented back to research participants during follow-up interviews and then compared with the theoretical framing.[10]

(*Continued on next page*)

No	Item	Description
26	Derivation of themes	As above, the initial coding themes were established by the commissioning process. Additional themes were derived through open coding of interview transcripts and documents
27	Software	NVivo
28	Participant checking	Yes, as part of the abductive approach, initial findings were checked with key staff at the CasePHN.
	Reporting	
29	Quotations presented	Yes, selectively to illustrate findings.
30	Data and findings consistent	Yes, data were triangulated from different sources.
31	Clarity of major themes	Yes.
32	Clarity of minor themes	The focus is on higher-order descriptive findings, given the exploratory nature of the study.

Appendix B. Theoretical framing using transaction cost economics

This study uses transaction cost economic (TCE) theory to understand the costs (hazards) of contracting were likely to arise during the contracting of the PHN Program and how the program was organised to minimise costs.[12,13] TCE assumes contracting hazards will occur because of human nature – rationality may be bounded by cognitive competence, and opportunism may arise. The extent of contract hazards is determined by transaction attributes, identified as asset specificity (specific assets that cannot be redeployed), uncertainty (difficulty specifying and measuring; disturbances), frequency (one-off or recurrent contracts) and probity (integrity).

Primary healthcare services are likely to have low contractibility as they:

- require significant investment in human capital and systems (asset specificity)
- are often idiosyncratic, making them challenging to specify and measure and difficult to program (uncertainty)
- are likely to be subject to disturbances impacting both service needs and service delivery (uncertainty)
- are likely to be contracted for short periods due to government funding cycles (frequency), and
- are likely to be subject to probity requirements arising from the source of funding as well as clinical governance (probity).

Appendix C. Discussion guide

Interviews took the form of open discussions guided by a series of questions (in bold) and prompts as needed.

What is your role in the organisation and how long have you been in that role?

What is the governance structure of the [organisation/CasePHN]?

- What is the structure of the [organisation] and its goals?
- What is the relationship between [DoH/CasePHN or CasePHN/Provider] and how is it managed? (contact, contract, control, review)
- How does the relationship between [organisations] work in practice?

What is the commissioning [procurement] process?

- What is the process from start to finish? (contact, contract, control, review)
- Who is responsible for the process within the [organisation]?
- What is the commissioning process? (from identifying need to contract completion)
- [How does the CasePHN implement the requirements of the DoH when commissioning services?]
- How are contracts managed day-to-day?
- What documents (policies, procedures) govern the process?
- Is there an opportunity to observe all or part of the process?

In relation to managing contracted services between [DoH/CasePHN or CasePHN/Provider]: How was the [service] contracted/commissioned? How is the service being managed?

- What is the service being contracted/commissioned?
- Who at the [funding organisation] was or is involved in contracting/commissioning this service (from going to market through to day-to-day control)?
- How was the contract tailored to the specific service?

- What risks were identified? (type of activity, partner, experience with partner, form/duration of contract, level of specification, governance/monitoring requirements)
- How were the risks managed in the agreement?
- How are the risks managed on a day-to-day basis? (formal/informal controls)
- Does the arrangement include outcome measures?
- What are the resource implications for the [funding organisation]?
- What is working well?
- What is not working well?

What additional controls does [the funder] use to manage services?

- What is the difference between what the DoH requires, what the CasePHN requires, and practice?