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Collaborative governance in a primary health care partnership in Papua New Guinea

Georgina Dove^{1,2}  | Adam Craig³  | Jethro Usurup⁴ |
Annmaree O’Keeffe⁵ | Geoff Scahill¹ | Ben Harris-Roxas²  |
Angela Kelly-Hanku^{2,6} 

¹Abt Global, Brisbane, Queensland, Australia

²University of New South Wales, Sydney, New South Wales, Australia

³University of Queensland, Sydney, New South Wales, Australia

⁴Abt Global, Port Moresby, Papua New Guinea

⁵The Lowy Institute, Sydney, New South Wales, Australia

⁶PNG Institute of Medical Research, Goroka, Papua New Guinea

Correspondence

Georgina Dove.

Email: g.dove@student.unsw.edu.au;

Georgina.Dove@abtglobal.com

Abstract

Introduction: Collaboration in primary health care is recommended to achieve global health goals. Public-private partnerships (PPP) are one means of collaboration. Our study examined collaboration in a case study PPP for primary health care in Western Province, Papua New Guinea (PNG).

Methods: Interviews with key informants involved in the PPP were conducted and key programme documents were reviewed. Data were coded and deductively analysed using the collaborative governance model developed by Emerson, Nabatchi and Balogh.

Results: The key features of the case study PPP that were highlighted by the collaborative governance model were: identification of partners, trust, procedural arrangements, and leadership.

Discussion: We identified four lessons of significance in the practical establishment and implementation of a partnership in a complex and challenging setting such as PNG: the need to (i) prioritise in-person collaboration and communication, (ii) engage dynamic individuals to lead the

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Adam Craig and Angela Kelly-Hanku contributed equally.

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partnership, (iii) encourage relationships across all sectors and actors, and (iv) remain flexible and adapt to local cultural and context.

Conclusion: Collaborative governance offers a practical framework to understand, assess and strengthen collaboration in multi-stakeholder partnerships in the health sector.

KEYWORDS

collaboration, collaborative governance, Papua New Guinea, partnership, primary health care, public-private partnership

Highlights

- Collaboration through public-private partnerships (PPP)
- Key features of the case study PPP that were highlighted by the collaborative governance model were: identification of partners, trust, procedural arrangements, and leadership.
- The practical establishment and implementation of a partnership in a complex and challenging setting such as PNG: the need to (i) prioritise in-person collaboration and communication, (ii) engage dynamic individuals to lead the partnership, (iii) encourage relationships across all sectors and actors, and (iv) remain flexible and adapt to local cultural and context.
- The collaborative governance model offers a practical framework to understand, assess and strengthen collaboration in multi-stakeholder partnerships in the health sector.

1 | INTRODUCTION

Collaboration in primary health care is recommended for achieving health-related Sustainable Development Goals.^{1–3} One example of effective collaboration in the health sector is public-private partnerships (PPP), in which public and private sector organisations work together with shared objectives, efforts, and benefits.⁴ PPP partners bring differing values, resources, and expectations, and while divergences can add value to collaboration,^{5,6} effective partnerships require coordination and balance.^{2,7,8} Robust and effective governance mechanisms foster this through mediation, facilitation, and negotiation between partners.^{2,9}

Health system governance is defined by the WHO as 'ensuring strategic policy frameworks exist and are combined with effective oversight, coalition-building, the provision of appropriate regulations and incentives, attention to system-design, and accountability'.¹⁰ Other definitions of governance incorporate structures, oversight, accountability, systems, processes, rules, and relationships.^{11–13} There are many approaches to governance. One framework applicable to primary health care PPPs is 'collaborative governance.' While there are several definitions of collaborative governance, the core elements overlap: that it is used to inform and guide multi-stakeholder engagement for decision-making for complex issues.¹⁴ For the purpose of this paper we adopt Emerson, Nabatchi and Balogh's definition of collaborative governance which is 'the processes and structures of

public policy decision making and management that engage people across the boundaries of public agencies, levels of government and/or the public, private and civic spheres to carry out a public purpose that could not otherwise be accomplished'.¹⁵

In the health sector, the collaborative governance model has been applied in low- and middle-income countries,^{9,16} highlighting strengths and challenges of adopting the model,^{9,14,16} including that collaborative governance can be resource-intensive and difficult to implement when resources are scarce.^{9,16} There is also a call for further research and more examples of the approach.¹⁶

There are few examples of collaborative governance from the Pacific region. Exceptions include McNaught et al.¹⁷ who examined local collaborative governance practices related to climate and disaster resilient development in multiple Pacific Island countries finding that applying and practising collaborative governance is highly culturally and context dependent; and Eldridge et al.¹⁸ who explored collaborative governance in the higher education sector in Papua New Guinea (PNG) and concluded that specific cultural, social, historical, political, and economic circumstances are likely to present challenges to introducing collaborative governance approaches.

To the best of our knowledge, these studies are the only concerning the application of the collaborative governance approach in the Pacific region. Because collaborations are recommended in the health sector, we wanted to understand what practical lessons could be learnt from the collaborative governance approach to improve collaboration in primary health care. To achieve this, we applied Emerson et al.'s¹⁵ model of collaborative governance to a case study PPP for primary health care in PNG.

2 | METHODS

2.1 | Setting

A PPP for primary health care was implemented through two programmes in the three districts in Western Province, PNG from 2009 to 2018. From 2009 the PPP implemented one programme in North Fly District, with a second programme in Middle Fly and South Fly Districts commencing in 2013. The programmes then merged in 2016 to operate as a single programme. The aim of the partnership was to strengthen primary health care services in the programme catchment area,¹⁹ which was estimated to account for 59% of the total Western Province population (~315,200).^{19,20} Health services provided through the partnership included maternal and child health, and communicable disease prevention and control. In addition, strengthening health care enablers such as infrastructure and assets, health worker training, and medical supply chain was a component of the partnership.²¹ Western Province has the country's largest area and most dispersed population. At the time of implementation, there was one road outside townships in the province, a 137 km gravel road from the mining town of Tabubil in the north to the port in Kiunga; two further roads on the mainland were being planned. Given the extremely limited roads, communities rely on river transport in motorised dinghies and traditional canoes, flights on commercial and charter airlines, and walking to commute.

The five core partners of the partnership were locally operating government and faith-based health service organisations, Ok Tedi Mining Limited (Ok Tedi) as the funding partner, and Abt Global as the contracted implementing partner.¹⁹ The programme was designed by Abt Global (at that time known as JTA International) with partnership and coordination as key elements, and with a governance structure in place. Monitoring and evaluation was conducted throughout the implementation of the partnership, including a baseline assessment in 2009 and mid-term reviews in 2011 and 2014 for the programme in North Fly district; while for the programme in the Middle and South Fly districts, a baseline was undertaken in 2013 and mid-term review in 2015. An endline evaluation of the combined programmes was conducted in 2018.

2.2 | Conceptual framework

Collaborative governance stems from public administration^{16,22,23} and there are various models of collaborative governance, each with a different focus. In their seminal paper, Ansell and Gash limit collaborative governance to formal partnerships that are government initiated.^{15,24} In contrast, the Emerson et al.¹⁵ model provides a broad definition that offers wider applicability.

The Emerson et al.¹⁵ model is layered and firmly places governance concepts and mechanisms within the broader context and system of operation. The model identifies drivers and actions, and the three dynamics at play in between. The layers of the model can be examined independently. In this study, we focused on the three collaboration dynamics in the model: principled engagement, shared motivation, and capacity for joint action. These dynamics are interlinked components that lead to action towards the shared goals of the collaboration or partnership. The features of each dynamic are summarised in Table 1.

2.3 | Data collection

Data collection for the study comprised semi-structured interviews with representatives of organisations in the partnership and a review of various programme documents. The interviews were conducted in 2018 during an endline evaluation of the programme. Participants were purposefully selected based on their roles. Interviews were audio recorded and transcribed verbatim. The document review included design, planning, and partnership documents, and partnership monitoring or evaluation reports. Interviews were conducted by AO and the document review was conducted by GD.

2.4 | Data analysis

The interview transcripts and documents were analysed deductively, where data were coded and extracted according to the three collaboration dynamics components^{25,26} of the Emerson et al.¹⁵ model mentioned above. Extracted data were recorded in Microsoft Excel.²⁷ In addition, transcripts and documents were coded inductively to identify and capture emergent concepts. Analysis was led by GD with input provided by other authors.

3 | RESULTS

Twenty key informants representing partner organisations (Table 2) participated in 18 semi-structured interviews, and 19 programme documents were reviewed. The reviewed documents included programme design (*n* = 2), baseline assessments (*n* = 2), mid-term reviews (*n* = 3), endline evaluation (*n* = 1), annual reports (*n* = 8), transition plan (*n* = 1), and the partnership charter (*n* = 2). The results are presented according to the three collaboration dynamics from the Emerson et al.¹⁵ model.

TABLE 1 Features of collaboration dynamics in the case study.

Collaboration dynamic	Element of focus	Features of note in this study
Principled engagement	Behavioural	Who are the partners, are they the right partners?
Shared motivation	Interpersonal	Trust, levels of engagement
Capacity for joint action	Functional	Institutional arrangements, leadership

TABLE 2 Interview participant demographics.

Characteristic	% (number of participants) <i>n</i> = 20
Sex	
Female	30% (6)
Male	70% (14)
Nationality	
Papua New Guinean	80% (16)
Non-Papua New Guinean	20% (4)
Employee/organisation affiliation	
Provincial government administration	15% (3)
Government health service	10% (2)
Faith-based health service	25% (5)
Ok Tedi	20% (4)
Abt Global	30% (6)

4 | COLLABORATION DYNAMIC: PRINCIPLED ENGAGEMENT

In the Emerson et al. model, principled engagement is concerned with behavioural elements of collaborative governance.¹⁵ The authors explain that a central issue in principled engagement is ‘Who the participants are and who they represent’.¹⁵

In the design documents for each programme, the proposed partners were identified as provincial and district health services, district administration, faith-based health services, Abt Global, and Ok Tedi Mining Limited.^{21,28} These partners were documented in the programme charter in 2009, and again in the updated charter in 2014 when the second programme commenced.²¹ The programme designs and partnership charters allowed for additional partners to join the programme, which occurred and was reflected in the updated charter, and the endline evaluation report. The new partners were other district health services, non-government, and faith-based health services.

Overwhelmingly, interviewees felt that the right partners were involved in the partnership, and further, that Abt Global was the most suitable implementation partner. This was because Abt worked within government plans rather than establishing new systems and processes, which was seen as ‘fitting in’; and because interviewees considered that Abt had experience in PNG and had a commitment to making the partnership work. One Abt interviewee recalled that the concept of partnership was new and the partnership posed a threat to the local health service organisations due to changes in Ok Tedi’s funding to health services. This view was supported by another interviewee, with the qualification that perceptions changed over time; ‘Some partners felt Abt were not the right people to coordinate activities, so they didn’t engage. That changed when they saw things start to happen’ (Abt Global representative).

Interviewees’ perspectives differed about whether all possible stakeholders were involved in the PPP during its implementation. Those who believed that there were stakeholders missing named two health service organisations working in Western Province, and others identified that more than 28 organisations attended the final partnership meeting in 2018, yet the majority had not been part of the partnership. Interviewees did not identify other funding donors that could have joined the partnerships, despite significant aid funding from multilateral or bilateral partners channelled into Western Province.

5 | COLLABORATION DYNAMIC: SHARED MOTIVATION

Shared motivation in the Emerson et al. model is focused on elements such as mutual trust, mutual understanding, internal legitimacy, and shared commitment.¹⁵ Of these, trust was the most prominent element found in our analysis.

Overall, interviewees said there was trust within the partnership; this trust was among organisations, between organisations and communities, and trust in the implementation partner to do the job. 'We trust each other. We see they know what they're doing here, so we feel they can do it' (Faith-based partner). This was the sentiment at the conclusion of 10 years of partnership; some partner organisations noted that trust between partners was lacking at the start of the programme in 2009. These interviewees went on to say that the leadership of the programme manager was instrumental in building trust between partners, to a level that all interviewees reported trust existing within the partnership. Communities' trust in the programme was considered to be leveraged from Ok Tedi's existing trust with the communities, which had been built over time through established platforms for engaging with organisations and communities.

While the presence of trust was noted by most interviewees, these interviewees also mentioned differing levels of trust between different organisations, and that the levels of trust had a bearing on the engagement between partners. Most interviewees considered the level of engagement between partners to be positive and collaborative, even in the event of disagreements on specific issues such as resource allocation. The interviewees who commented on this went on to say that partners worked together to resolve disagreements to maintain the partnership. In contrast, there was a view that partners were not working together strongly, and instead did things independently, and another view was that there was room for improvement in the engagement and collaboration between partners. The weakest engagement was reported between Abt and the government health services, and this was also implied through comments such as 'engagement with churches has been solid', and '[Abt has a] good relationship with churches'.

A final perspective on engagement was that existing relationships and engagement between partners outside of the partnership programme had an impact on the engagement between partners inside the partnership; 'Abt and Ok Tedi are working well together, and everything is ok in the field, but at the management level there are government issues with Ok Tedi, and maybe that spills over to the partners' (Donor partner).

This comment reflects the long-standing and complex relationship between the provincial and district governments and Ok Tedi that covered much more than health services.

6 | COLLABORATION DYNAMIC: CAPACITY FOR JOINT ACTION

The third collaboration dynamic in the Emerson et al.¹⁵ model, capacity for joint action, is concerned with the functional elements of collaborative governance. These elements include procedural or institutional arrangements, leadership, knowledge, and resources. Institutional arrangements and leadership were the most frequently occurring themes found in our analysis.

6.1 | Procedural arrangements

The first procedural arrangement was a programme charter. This document was signed in 2009 by partner organisations on commencement of the first programme.²¹ The charter detailed the background and purpose of the programme and partnership, the roles and responsibilities of each partner organisation, and the meeting structure. The charter was reviewed in 2014 on commencement of the second programme and changes to the document

included the addition of new partner organisations, revisions to the meeting structure, and terms for future reviews of the charter.

The second procedural arrangement was a three-tiered governance structure detailed in programme design documents, consisting of a Steering Committee, Implementation Coordinating Committee, and Programme Activity Groups (Figure 1.). The structure mirrored the aspirational PNG model set out in the health services standards, and was designed by Abt and the donor partner on commencement of the first programme in 2009, and then replicated for the second programme in 2013. The structures were later combined and operated as a single structure to cover both programs from 2016 to 2018. While the initial structure had little or no input from other partners, modifications during implementation were made through collaborative decision-making. Further changes to the governance structure were collaborative; for example, changes to the structure of the district level implementation coordinating committee in preparation for anticipated health sector reform in the province, and combining Programme Activity Groups so that they had participation from all districts.

While several interviewees stated that the Programme Manager 'pushed' committee meetings, this was only considered negatively by one interviewee, who stated that 'it wasn't Abt's role to organise the meetings, it was the Provincial Health role'. As the implementation partner, interviewees considered Abt to be the organiser and the liaison point for all organisations and communication.

Most interviewees stated that district level committee meetings were convened regularly as planned and considered them effective arrangements to 'share knowledge', to bring partners together, and to 'share and raise issues and find a solution'. These comments reflect the purpose of the meetings as they were set out in the design documents. The efficacy of the meetings was elaborated on with examples such as 'we saw results because of the management structure' and that the meetings 'enabled partnership and broader organisational thinking. It's imperative for partners to come together'. Decision-making, contested discussion, and holding other partners to account were further reflections provided of the meetings' efficacy. The only negative reflection on these meetings was from one interviewee who said that the stakeholder meetings were 'Good, but the wrong people [from my organisation] were invited' (Faith-based partner), describing an instance when the invitation was issued to the central office of a health service organisation, rather than to the local office in Western Province.

The next level down in the structure was the Programme Activity Groups, which were considered a 'good model for coordination', consultative processes and collaborative decision-making. Of note, the Programme Activity Groups were considered most active in North Fly district 'because they have roads and can meet in person'.

Two interviewees stated that there was a risk that the management structures such as the committee meetings and Programme Activity Groups would not continue after the programme's completion. This was attributed to Abt pushing the meetings and 'because the government has no funding to bring stakeholders together'.

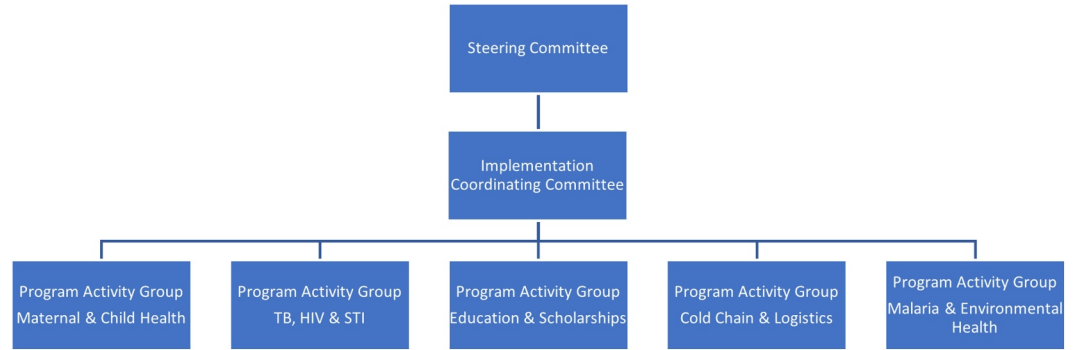


FIGURE 1 Partnership governance structure. [Colour figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com/doi/10.1002/jpm.3808)]

6.2 | Leadership

Leadership as a functional element was evident in two ways: leadership by organisations, and leadership by individuals. Interviewees reflected on organisational leadership, in particular, the leadership and support provided by the funding partner, Ok Tedi. For example, 'there has been support and encouragement from Ok Tedi in the background. They had established systems that we could use'. The style of Ok Tedi's leadership was considered 'not overly directive' as 'Ok Tedi didn't dictate spending'. The importance of organisational leadership was highlighted by an Ok Tedi representative who commented that 'we need a leader for [the partnership] to continue. It has to be the Provincial Government, otherwise the churches will do it alone and not speak to others'.

Leadership by individuals was considered a key driver of the programme by five interviewees. The leadership of two individuals in particular—one from the implementation partner and one from the donor partner organisation, and neither with cultural heritage from Western Province—were emphasised, with examples such as 'There has been leadership from [name], he is a good friend to us'.

In a crossover with the principled engagement element—concerned with having the right people—the partnership was seen to have the right people in leadership roles and those individuals had the right personalities. Examples included the engagement of Papua New Guineans who were senior and experienced health workers, who stayed in the roles for 5–10 years and displayed enthusiasm and willingness to lead the collaboration. For example, '[Name] is committed, a shining light, they have spirit and commitment, got passion'.

The interview transcripts and programme documents provided rich evidence and examples for each collaboration dynamic, with emphasis on the functional elements that made up the capacity for joint action dynamic.

7 | DISCUSSION

We applied Emerson et al.'s¹⁵ model of collaborative governance to a PPP for primary health care in PNG, with a focus on the collaboration dynamics. The collaboration dynamics are considered interactive by the model's authors¹⁵ and our analysis found features that crossed over between dynamics. While these features may not be unique to PPPs or primary health care, when collaborating in PNG there must be consideration of and attention to culture and context.

The first lesson identified in our analysis was that having broad and accurate representation of partners was of critical importance to the case study. Collaboration with the right partners generated principled engagement, and that engagement helped foster trust. Further, having partners who had existing trustful relationships, for example, Ok Tedi with communities, facilitated smoother engagement between partners. In a further crossover between collaboration dynamics, partner representation had an impact on the capacity for joint action, in that the existence of trust between partners allowed leadership to be asserted and accepted. It is interesting to note that the issues of trust related to Abt and health service providers, and were not between other partners. This may have been an issue of reporting bias, because the interviews were conducted as part of the programme's endline evaluation and arranged by Abt. These findings suggest that practitioners establishing and implementing partnerships should look broadly to all potential partners and donors, and not limit the partnership to those with a direct relationship to the funding partner or the health sector. Based on our findings, practitioners should be encouraged to strengthen relationships and communication across sectors as this will promote greater organisational and community buy-in to contribute to more effective and sustainable outcomes.

The second lesson identified from the case study related to building trust. The PPP was implemented in a geographically challenging location. In PNG, in-person relationships and meetings are important,^{18,29,30} yet in Western Province, geography and practicalities often prohibit this. Telecommunications during PPP implementation were limited; even if the infrastructure was available and accessible, it depended on money for data.³¹ In a post

COVID environment, videoconferencing is now an acceptable means of meeting and communicating, yet in Western Province, it is unlikely that the partnership could have survived on this at the time.

Meeting in-person, both formally and in-formally, has been identified as critical for building trust.³² Our findings suggest that in Western Province, people need to meet in person to collaborate effectively. For practitioners establishing PPP in PNG and other challenging geographies, we recommend that opportunities for in-person collaboration and communication are prioritised. Practical examples would be to incorporate in-person collaboration and communication into partnership design, in indicators in monitoring and evaluation frameworks, and to allocate budget for face-to-face collaboration.

The third lesson learnt was the critical importance of leadership to strengthen both shared motivation and the capacity of joint action dynamics. Leadership was demonstrated by individuals and organisations in the partnership, and interviewees identified that organisational leadership was strongest from Ok Tedi as the donor funding partner, and from Abt Global as the implementation partner. These are the two organisations where a contractual relationship existed, so it is perhaps to be expected that these organisations would take on a leadership role, particularly as the source of funding. Power dynamics aside, it is interesting to note that Abt appeared to be accepted as a leader in the partnership. This could be because the organisation had prior relationships and experience in PNG, albeit very limited in Western Province prior to the partnership. An alternative or complementary explanation is that the interviews with key informants were held at the end of a 10-year relationship.

Relationships are an important contextual factor in PNG. PNG is a country of over 800 languages,³³ where clan and cultural identity can have primacy over national identity.^{34,35} We found no overt demonstration of discontent that leadership of the partnership came from individuals from who were not from Western Province. There were also no findings that kinship negatively influenced relationships or leadership, as cautioned by Eldridge et al.¹⁸ The final finding of our study suggests that a PPP can be led by leaders who are not necessarily local to the province or specific location; however, they need to have cultural awareness and sensitivity, and the ability to respect and work within the local context.

7.1 | Strengths and limitations

This study is not without limitations. First, is it a case study and therefore the findings may not be transferable to other contexts. Second, the collaborative governance model was applied retrospectively, and only the collaboration dynamics part of the model was used in the analysis. A strength of the study is that the interviews were conducted by an independent evaluator (AO). In contrast, the analysis was conducted by the lead author, who was a member of partnership implementation and evaluation teams; and while this dual role enabled some insights, it potentially introduced some bias. This bias was managed by ensuring only coded data were included in the analysis. Despite these limitations the research is valuable as it provides contextual detail on the governance and implementation of a PPP for primary health care in PNG, and applies a suitable model for a partnership analysis. Overall, we consider the strengths outweigh the limitations, and that the study will be of interest to partnership practitioners establishing or implementing programmes in PNG's health sector.

8 | CONCLUSION

Collaborative governance offers a practical framework for understanding how organisations collaborate in partnership. Our study examined collaboration dynamics in a case study partnership for primary health care in Western Province, PNG. We identified four lessons of significance in the practical establishment and implementation of a partnership in a complex and challenging setting such as PNG. We suggest practitioners prioritise in-person

collaboration and communication, engage dynamic individuals to lead, encourage relationships across all sectors and actors, and, critically, pay attention to local cultural and context.

AUTHOR CONTRIBUTIONS

Georgina Dove, Angela Kelly-Hanku and Adam Craig conceptualised the paper. Annmaree O'Keeffe conducted key informant interviews. Georgina Dove analysed data and developed the first draft of the manuscript. Angela Kelly-Hanku, Ben Harris-Roxas, Geoff Scahill and Adam Craig contributed to subsequent drafts. Jethro Usurup was the lead investigator of the end-line evaluation from which this data is drawn, and passed away during preparation of the manuscript. All other authors reviewed and approved the final manuscript.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

ETHICS STATEMENT

Ethics approval for the research study was granted by PNG Institute of Medical Research (IMR 1717), PNG National Department of Health (MRAC 17.49), and UNSW Sydney's Human Research Ethics Committee (HC 180124). Written informed consent was received from all participants.

ORCID

Georgina Dove  <https://orcid.org/0009-0006-5211-8571>

Adam Craig  <https://orcid.org/0000-0002-9287-8755>

Ben Harris-Roxas  <https://orcid.org/0000-0003-1716-2009>

Angela Kelly-Hanku  <https://orcid.org/0000-0003-0152-2954>

REFERENCES

1. World Health Organization. Strategy Report: Engaging the Private Health Service Delivery Sector through Governance in Mixed Health Systems; 2020.
2. Rasanathan K, Bennett S, Atkins V, et al. Governing multisectoral action for health in low- and middle-income countries. *PLoS Med*. 2017;14(4):e1002285. <https://doi.org/10.1371/journal.pmed.1002285>
3. Florini A, Pauli M. Collaborative governance for the sustainable development goals. *Asia Pac Policy Stud*. 2018;5(3):583-598. <https://doi.org/10.1002/app5.252>
4. Reich MR. Public-private partnerships for public health. *Nat Med*. 2000;6:617-620. <https://doi.org/10.1038/76176>
5. Kostyak L, Shaw DM, Elger B, Annaheim B. A means of improving public health in low- and middle-income countries? Benefits and challenges of international public-private partnerships. *Publ Health*. 2017;149:120-129. <https://doi.org/10.1016/j.puhe.2017.03.005>

6. Whyte EB, Olivier J. Models of public-private engagement for health services delivery and financing in Southern Africa: a systematic review. *Health Pol Plann*. 2016;31(10):1515-1529. <https://doi.org/10.1093/heapol/czw075>
7. Warsen R, Greve C, Klijn EH, Koppenjan JFM, Siemiatycki M. How do professionals perceive the governance of public-private partnerships? Evidence from Canada, The Netherlands and Denmark. *Publ Adm*. 2020;98(1):124-139. <https://doi.org/10.1111/padm.12626>
8. Rasanathan K, Atkins V, Mwansambo C, Soucat A, Bennett S. Governing multisectoral action for health in low-income and middle-income countries: an agenda for the way forward. *BMJ Glob Health*. 2018;3(Suppl 4):e000890. <https://doi.org/10.1136/bmjgh-2018-000890>
9. Bennett S, Glandon D, Rasanathan K. Governing multisectoral action for health in low-income and middle-income countries: unpacking the problem and rising to the challenge. *BMJ Glob Health*. 2018;3(Suppl 4):e000880. <https://doi.org/10.1136/bmjgh-2018-000880>
10. World Health Organization. *Everybody's Business—Strengthening Health Systems to Improve Health Outcomes: WHO's Framework for Action*. World Health Organization; 2007.
11. OECD. G20/OECD Principles of Corporate Governance 2023; 2023.
12. OECD, Organization WH, Systems EOoH, Policies. Assessing Health System Performance; 2023.
13. World Health Organization, United Nations Children's Fund. *Primary Health Care Measurement Framework and Indicators: Monitoring Health Systems through a Primary Health Care Lens*. Technical series on primary health care. World Health Organization; 2022.
14. Beran D, Perone SA, Alcoba G, et al. Partnerships in global health and collaborative governance: lessons learnt from the division of tropical and humanitarian medicine at the Geneva university hospitals. *Glob Health*. 2016;12(1). 14-14. <https://doi.org/10.1186/s12992-016-0156-x>
15. Emerson K, Nabatchi T, Balogh S. An integrative framework for collaborative governance. *J Publ Adm Res Theor*. 2012;22(1):1-29. <https://doi.org/10.1093/jopart/mur011>
16. Emerson K. Collaborative governance of public health in low- and middle-income countries: lessons from research in public administration. *BMJ Glob Health*. 2018;3(Suppl 4). e000381-e000381. <https://doi.org/10.1136/bmjgh-2017-000381>
17. McNaught R, Kalara M, Kensen M, Hales R, Nalau J. Visualising the invisible: collaborative approaches to local-level resilient development in the Pacific Islands region. *Commonwealth J Local Govern*. 2022(26):28-52. <https://doi.org/10.5130/cjlg.vi26.8189>
18. Eldridge K, Larry L, Baird J, Kavanamur D. A collaborative governance approach to improving tertiary education in Papua New Guinea. *Asia Pac J Educ*. 2018;38(1):78-90. <https://doi.org/10.1080/02188791.2018.1423949>
19. Abt Associates. North Fly Health Services Development Program and Community Mine Continuation Middle and South Fly Health Program: End-Line Evaluation Report; 2019.
20. Government of Papua New Guinea. National Population Estimate; 2021. <https://www.nso.gov.pg/statistics/population/>
21. Georgina D, Angela K-H, Jethro U, Annmaree OK, Geoff S, Adam C. Collaboration in a partnership for primary health care: a case study from Papua New Guinea. *Glob Health Sci Pract*. 2024;12(1):e2300040. <https://doi.org/10.9745/GHSP-D-23-00040>
22. Voets J, Brandsen T, Koliba C, Verschuere B. *Collaborative Governance*. Oxford Research Encyclopedia of Politics. Oxford University Press; 2021.
23. McNaught R. The application of collaborative governance in local level climate and disaster resilient development—a global review. *Environ Sci Pol*. 2024;151:103627. <https://doi.org/10.1016/j.envsci.2023.103627>
24. Ansell C, Gash A. Collaborative governance in theory and practice. *J Publ Adm Res Theor*. 2007;18(4):543-571. <https://doi.org/10.1093/jopart/mum032>
25. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol*. 2006;3(2):77-101. <https://doi.org/10.1191/1478088706qp063oa>
26. Terry G, Hayfield N, Clarke V, Braun V. Thematic analysis. In: Willig C, Rogers WS, ed. *The SAGE Handbook of qualitative research in psychology*. SAGE Publications Ltd; 2017:17-36. chap 2. <https://doi.org/10.4135/9781526405555.n2>
27. Bazeley P. *Qualitative Data Analysis: Practical Strategies*. SAGE; 2013.
28. Field E, Abo D, Samiak L, et al. A partnership model for improving service delivery in remote Papua New Guinea: a mixed methods evaluation. *Int J Health Pol Manag*. 2018;7(10):923-933. <https://doi.org/10.15171/IJHPM.2018.50>
29. Kelegai L, Middleton M. Factors influencing information systems success in Papua New Guinea organisations: a case analysis. *Australas J Inf Syst*. 2004;11(2). <https://doi.org/10.3127/ajis.v11i2.116>
30. Kavanamur D. The Interplay between Politics and Business in Papua New Guinea; 2001.
31. Watson AHA, Duffield LR. From garamut to mobile phone: communication change in rural Papua New Guinea. *Mobile Media Commun*. 2016;4(2):270-287. <https://doi.org/10.1177/2050157915622658>

32. Grootjans SJM, Stijnen MMN, Kroese MEAL, Ruwaard D, Jansen MWJ. Collaborative governance at the start of an integrated community approach: a case study. *BMC Publ Health*. 2022;22(1). 1013-1013. <https://doi.org/10.1186/s12889-022-13354-y>
33. Grundy J, Dakulala P, Wai K, Maalsen A, Whittaker M. Independent State of Papua New Guinea Health System Review; 2019. 9789290226741. 2019. <https://apps.who.int/iris/handle/10665/280088>
34. Feeny S, Leach M, Scambary J. Measuring attitudes to national identity and nation-building in Papua New Guinea. *Polit Sci*. 2012/12/01 2012;64(2):121-144. <https://doi.org/10.1177/0032318712466762>
35. Iamo W, Simet J. *Cultural Diversity and Identity in Papua New Guinea: A Second Look. From Beijing to Port Moresby*. Routledge; 2014:189-204.

AUTHOR BIOGRAPHIES

Georgina Dove has 20 years' experience in managing public health programmes, leading community engagement and consultation, and programme planning and evaluation. Her experience spans both the Australian and Pacific Islands contexts, and public, private and community-based clients. Georgina was Technical Director of the case study partnership programme examined in this paper, and is currently Senior Consultant at Abt Global.

Adam Craig (PhD) has a background in field epidemiology, with specialisation in early warning surveillance system design for low-resource settings. Adam is currently a Senior Research Fellow with the Operational Research and Decision Support for Infectious Diseases Programme at The University of Queensland.

The late Jethro Usurup was a highly skilled and experienced senior medical officer with a long history of clinical and managerial experience in health policy, institutional development and strengthening, and monitoring and evaluation. He held a number of executive roles in both the private and public health sectors in Papua New Guinea from 1978 until his unexpected passing in 2022. Dr Usurup was Senior Medical Adviser to the case study partnership programme examined in this paper.

Annmaree O'Keeffe AM has extensive experience in international relations and development working in various roles including as Australia's ambassador to Nepal, head of Australia's official aid programme in Papua New Guinea, Australia's first ambassador for HIV/AIDS and Deputy Director-General of AusAID. Since leaving the Australian Government, she has been attached to the Lowy Institute for International Policy in Sydney and has been on a number of boards including as chair of Australia's national commission for UNESCO. She is currently chair of the Foundation for Development Cooperation and the Panguna Legacy Assessment Company.

Geoff Scahill has over 20 years' of experience delivering and strategic management of international development programmes across the Asia-Pacific region, including in the public and private sector in Papua New Guinea. As Vice President Programme Delivery at Abt Global Geoff has executive accountability for the quality of delivery across the Abt portfolio of programmes. He is responsible for ensuring that the right mix of strategic, technical, and operational resources are available to programmes. Geoff was Programme Director of the case study partnership programme examined in this paper.

Ben Harris-Roxas (PhD) is a researcher, impact assessor and evaluator with more than 20 years of experience. He has worked with government, health services, NGOs and universities, and has research interests in the intersection of health equity, decision support, and health services. Ben is currently senior lecturer at UNSW, specialising in primary health care.

Angela Kelly-Hanku (PhD) is a Scientia Associate Professor at the Kirby Institute, UNSW Sydney and since 2007 has held a joint academic appointment with Papua New Guinea Institute of Medical Research. As Lead, Global Health Equity and Justice Research group she oversees a vibrant and cohesive programme of social and public health research in the Pacific, South East Asia and Australia.

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