Moving regional health services planning and management to a population-based approach: implementation of the Regional Operating Model (ROM) in Victoria, Australia

Jean-Frederic Levesque[A,B,G], *John J. M. O'Dowd*[C], *Éidín M. Ní Shé*[D],
Jan-Willem Weenink[E] *and Jane Gunn*[F]

[A]University of New South Wales, Level 3, AGSM Building, University of New South Wales Australia,
Sydney, NSW 2052, Australia.
[B]Agency for Clinical Innovation, 67 Albert Avenue, Chatswood, NSW 2067, Australia.
[C]University of Glasgow, Greater Glasgow and Clyde NHS Board, Public Health, West House,
Gartnavel Royal Campus, 1055 Great Wester Road, Glasgow, G12 0XH, UK.
[D]UCD School of Nursing, Midwifery & Health Systems, University College Dublin, Belfield, Dublin, 4, Ireland.
[E]Erasmus School of Health Policy & Management, Erasmus University Rotterdam, Burgemeester Oudlaan 50,
NL-3062 PA Rotterdam, Netherlands.
[F]Department of General Practice, University of Melbourne, 200 Berkeley Street, Carlton, Vic. 3053, Australia.
[G]Corresponding author. Email: jeanfrederic.levesque@health.nsw.gov.au

Abstract. Various jurisdictions are moving towards population-based approaches to plan and manage healthcare services. The evidence on the implementation of these models remains limited. The aim of this study is to evaluate the effect of a regional operating model (ROM) on internal functioning and stakeholder engagement of a regional office. Semi-structured interviews and focus groups with staff members and stakeholders of the North West Metropolitan Regional office in Victoria, Australia, were conducted. Overall, the ROM was perceived as relevant to staff and stakeholders. However, creating shared objectives and priorities across a range of organisations remained a challenge. Area-based planning and management is seen as simplifying management of contracts; however, reservations were expressed about moving from specialist to more generalist approaches. A clearer articulation of the knowledge, skills and competencies required by staff would further support the implementation of the model. The ROM provides a platform for public services and stakeholders to discuss, negotiate and deliver on shared outcomes at the regional level. It provides an integrated managerial platform to improve service delivery and avoid narrow programmatic approaches.

Additional keywords: operating models, population health approach, regional health planning.

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Introduction

The interest of policymakers in population health planning and commissioning of services has been growing in the last decade (Armitage *et al.* 2009; Commonwealth of Australia 2013). There is increasing recognition of the need for better integration of healthcare and social care provision (Bogue *et al.* 1997; Lynch *et al.* 2009; Stiglitz 2012; O'Shea and Palmer 2014) and the importance of integrating population health approaches in health system reforms (Shortell *et al.* 2000; Hutchison *et al.* 2011; Keleher 2011). Population-based planning is based on the identification of determinants of health to promote equitable access to services and health outcomes (World Health Organization 2008). The literature points to varying methods, policies and processes, across countries and regions, to base health planning on population approaches,

and highlights tensions and challenges in embedding such a transformation in systems (Dubbs *et al.* 2004; Carter *et al.* 2007; Levesque *et al.* 2011; Breton *et al.* 2013).

As part of this movement, the North and West Metropolitan Regional (NWMR) office of the Victorian Department of Health developed, during 2010, a framework to guide planning of their Health and Aged Care programs towards a population-based approach. The objectives were to focus on key population health goals, to serve as unifier of the regional service strategy, to highlight the complementarities and uniqueness of the region's programs and to provide a basis for developing achievement-based goals and activities for programs, teams and individuals at a time when significant cuts in operating budgets were being implemented at the regional level.

What is known about the topic?

• Various jurisdictions are moving towards a population-based approach to manage public health services. Various models have been proposed to guide the planning of services from a population-health perspective.

What does this paper add?

• This paper outlines the challenges related to the implementation of population-based approaches to the planning and management of health services, and insights from a model implemented in Victoria, Australia.

From an organisational perspective, the model modified the management approach of Health and Aged Care services from a programmatic one (Public Health, Aged Care, Primary Care) to an area-based one (Northern, Inner North and Western areas of the region), where programs would be managed in an integrated way. In the previous approach, programs were managed in silos, with managers ensuring stakeholder engagement on a project-by-project basis within their program. This forced community-based organisations, charged with the delivery of the commissioned projects, to deal with managers from the different programs in an uncoordinated way. It also created a fragmentation of the planning and allocation of funds instead of funds being allocated on a population-needs basis. In addition to the restructure of the management model, the Regional Operating Model (ROM) also outlined the principles that are needed to adopt a population-based approach and an integration of managerial activities and levers that can support the regional office's management of services. It emphasised the required interface with the acute care services sector, outside of the remit of the regional office, and engagement of multiple sectors of social activities as key to a population-based approach to Health and Aged Care services. As such, the ROM aimed at promoting an integrated approach to planning and managing services across various components of primary care systems, ranging from general practice, prevention and health promotion and aged care (Appendix 1).

This study aims to assess the: (1) the contextual relevance of the operating model; (2) the appropriateness of the model for a broad system-wide, population-based planning approach; and (3) the changes in functioning inside the region brought about by the implementation of the operating model. This paper explores the staff and stakeholders' perception of the model and assesses the changes in functioning of the regional body and relationships with stakeholders after implementation of the ROM.

Methods

The evaluation of the implementation of the ROM of the North and West Metropolitan regional office consisted of two interrelated components between July 2011 and April 2012. Other components of the evaluation have been published elsewhere (Levesque *et al.* 2017).

First, it included individual questionnaires (18 respondents), individual interviews (17 staff members and five managers) and focus groups (10 total participants) of NWMR staff and managers. They were asked to reflect on the implementation of the model. A cross-section of interviewees by area responsibility and by job title was selected from willing respondents. Managers were not invited to the staff discussion in order to encourage honest and open reactions to the model. Participants were interviewed using a semi-structured question grid.

Second, a series of NWMR stakeholder interviews (more than 30 participants in three group discussions and 5 individual interviews), using an area-based method for group discussions and a snowballing sampling method starting with the identification of key stakeholders by managers from the regional office, were conducted to document the perceived relevance and appropriateness of the operating model from the perspective of decision-makers and managers having been exposed to the model. By using semi-structured interview methods, a first wave of qualitative data collection was conducted with regional stakeholders who had already had some exposure to the ROM in a group discussion to reflect on the model and its implementation by the regional office. Neither managers nor staffs from the NWMR were invited to this discussion in order to encourage honest and open discussion and reaction to the model. Participants representing a range of organisations from Primary Care Partnerships, including local governments, community health services, general practice divisions and acute health services from across the area, were invited. In addition, selected stakeholders and policymakers were invited to participate in a face-to-face qualitative interview to capture certain components of their experience with the model (five interviews conducted).

All interviews and group discussions were recorded and transcribed for coding by at least two researchers and loaded into NVivo (QSR International, Melbourne, Vic., Australia) for analysis. A constructivist paradigm provided the foundation for each of the components; the researchers understanding that their respective roles and experiences in researching and managing healthcare organisations were instrumental to the selection of tools and design used in this study. The researchers adopted a critical approach to the intervention under study and ensured a participative approach of various stakeholders involved in the implementation of the model under study and a triangulation approach to increase the generalisability of findings. Both phases of data collection were used to assess the saturation of information.

This paper presents the results according to the Standards for Reporting Qualitative Research (O'Brien *et al.* 2014). The present study received ethics approval from The University of Melbourne Research and Ethics Committee. Each study component was subjected to the supervision of a governance committee to ensure probity in conduct of interviews and analyses.

Results

A relevant model to address population issues

Across interviews and focus group discussions, the operational model was seen as accurately identifying the actors within the regional health system who needed to be targeted to bring about the proposed outcomes. It therefore provided a clear understanding of the organisations and sectors with which the

region has to work to produce its effect. However, many observers highlighted the fact that influencing such a broad range of organisations could be the biggest challenge related to the approach. Finally, the levers identified in the model were deemed to be in line with regional goals and an evidence-based approach to influence population health.

> I think one of the most obvious barriers is the fact that you've got acute, primary, aged care, you've got housing, you've got a whole range of sectors in there. They're all focused on different models. . . – they've all got different objectives in terms of what they want to achieve. I think it's an enormous challenge for the department to try and integrate that or find some areas of commonality [Stakeholder].

One aspect that seemed to resonate particularly well with people interviewed was the identification of a continuum of health as a central component of the model. This was seen as a way to bridge prevention, acute care and health promotion perspectives. The fact that the sectors are proposed to be contributing together to the continuum of health, and addressing the needs of more complex patients, was seen has a way to focus the region on outputs/activities that would be better integrated and bridge health promotion and health system management perspectives.

> I liked that you called out complex conditions. At least here, that is certainly something that is driving a lot of our costs and a major issue that we have is with care coordination for such patients that have multiple comorbidities. . . So I thought that that was a very nice, unique contribution there [Expert].

Simplified commissioning and contract management processes

The ROM was considered to be simplifying management of contracts for organisations funded by multiple programs or for those that receive low funding. The previous model involved dealing with many project officers and providing disproportionate accountability to the level of funding received. The area-based perspective solved some of these problems and facilitated the region's planning of funding programs through partnering with agencies bidding for contracts.

> Now they have only one person to deal with and they know who to call for all of their contract management needs [Staff member].

The model redefined the way the organisation was structured, but did not always provide staff with a clear understanding of how their actions would need to change. Participants across most groups articulated a need to clarify the skills, competencies and roles required of staff and stakeholders to deliver the model. Some discussed the value of mentoring to support implementation given the rapid pace of change experienced. There was a feeling that more resources should be devoted to the implementation.

Several participants expressed the fear that the geographic areas might become new silos, which might underpin future inequities. Although improved internal communication ensued,

many participants viewed the loss of programmatic knowledge as a risk and believed that the co-ordination and planning meetings involved in the model did not totally fill this gap. Several participants reported that the area-based approach and the approach where one program advisor provided support to an organisation across all the program areas, was not always respected by stakeholders, who often default to discussion with higher-level managers.

> But in terms of those discussions, I feel it's the managers who will be leading. Because the managers go to those meetings to talk about population health, to talk about the operating model. . . I would go back to the program managers and discuss the day-to-day program activities and performance and governance [Stakeholder].

A specific issue mentioned was the decrease in face-to-face contacts with agencies, as a result of important cuts to the regional office budget. The new model relied, to a great extent, on phone calls to create connections, while previously face-to-face meetings were more frequent. This was seen as a negative effect of the new operating model.

A generalist approach to managing contracts that generate an integrated view of population issues

Within the NWMR Office, the model was seen as having an effect even on individuals initially resistant to the approach. Everyone was considered to have been affected by the new operating model. The interactions between staff were seen to have increased because of the need to talk to other people to capture their content expertise on specific programs in order to permit staff to work across traditional program boundaries.

A challenge that continued to appear throughout the discussions related to the tension between area-based working, underpinned by generalism, and programmatic working, underpinned by specialism. Staffs previously held more programmatic content expertise, but were now facing the challenge of being an expert in a specific field as well as providing a generalist approach for an entire area. Many participants felt that they did not have the time and support to develop additional expertise, which underpinned the new programs with which they were unfamiliar. This forced them to interact a lot more with the prior experts from program perspectives, who are now operating in a more generalist manner within other areas.

An integrated model at the regional level – a siloed approach at the state and local level

The model suggests the regional office has the necessary space to act, while some stakeholders perceived that the region is just an intermediary between them and the State funders. However, multiple lines of accountability to both Region and the central office remained unchanged by the new model. Integrating the structural organisations of the region around a geographic basis instead of project-by-project can therefore be seen as a threat to stakeholders that somehow prefer to deal directly with the State funders or that like to have some room to manoeuvre depending on the specific program of funding or project. There was a consensus that this tension would need to be resolved to promote the sustainability of the model. In addition, many

participants saw the ROM as an attempt to preserve the region from the threat of healthcare reform and the effect of funding cuts to its operating budget.

The ROM was perceived by some as a threat to the status quo in terms of the political and professional networks operating within the health system. The main issue related to the tension between specific program of funding from central agencies and the integration of funding across these streams in a sector-wide perspective on a local basis. Whereas the ROM advocates a cross-program, area-based approach to planning, engagement and system management, many funding streams are structured along program lines (i.e. reflecting a traditional siloed bureaucratic structure).

> Well, it doesn't really relate because they have a different structure. Although they've got an interest in – they say in population health planning. I don't see the – I mean the region relates to the various units in at the department, centrally. But they operate under a very different model [Stakeholder].

Discussion

This evaluation provides evidence that the ROM changed the way regional staff worked and how they interacted with community-based organisations and primary care services. Such an area-based working is seen as improving efficiency, but staff and stakeholders had reservations about the move to a generalist approach and were having difficulties accessing specific content knowledge. Although many were enthusiastic about the opportunities created by the ROM, a number expressed reservations about the loss of specialist content knowledge within the appointed contract managers. There was little evidence that the ROM was developing more effective tailored activity with stakeholders at this stage of implementation.

Our findings highlight the interactions between area-based models and their internal and external contexts to support integrated planning and management (Exworthy and Peckham 1998). It also provides evidence about the importance of factors that facilitate implementation, including shared goals to support accountability mechanisms (Denis 2014). Uncertainty about the role of the region, within the context of state and local organisations' relationship, and agreement on the governance processes required, were raised as major barriers to implementation. This theme was linked to a perceived lack of flexibility across staff, hierarchies and stakeholders to engage with change because it was seen as threatening to the status quo. In addition, significant reductions in resources were seen as a further barrier to implementation because the new model and the process of change were both seen as time-intensive. However, mentions of the fact that the operating model adopted by the region was also a means to accommodate cuts in funding, highlighted a paradoxical relationship between the context of implementation and the purpose of the implementation. New models can be adopted, in part, to address external pressures, and these external pressures can reduce the capacity to implement such models. This paradoxical iterative relationship has also been seen in the implementation of Clinical Commissioning Groups in the United Kingdom

with regards to monitoring functions and need for innovation (Coleman *et al.* 2015).

Creating specific, measurable proximal outcomes to drive implementation and evaluation could also have enhanced the implementation of the ROM. However, the evaluation does point to certain tensions with key stakeholders that relate to this monitoring, or lack thereof, of the implementation. The certain lack of clarity and uncertainty with external stakeholders, as in many real-life implementations, needs to be understood within the political context of implementation (Fleury *et al.* 2003; Marks *et al.* 2015).

Given the highly pluralistic nature of health and health care in Australia, relational processes are central to the smooth running of systems. The ROM could provide a platform for dialogue between multiple stakeholders about problems that cut across the traditional boundaries of specific projects or programs, as suggested in studies of regionalisation in Canada (Touati *et al.* 2007; Bergevin *et al.* 2016). By changing the way project officers would be clustered, on an area basis, and by mixing specialist approaches in a context of generalist responsibilities across many programs, the model could be seen as blending traditionally narrow programmatic streams to provide more holistic approaches. A recent assessment of the integration of public health functions into local authorities in England also found an increased capacity to influence across sectors (Jenkins *et al.* 2016).

This study also provides insights with regards to the benefits and pitfalls of integrating the management of programs that span primary care services on a regional basis. Although the ROM was seen as supporting an integrated approach to funding programs of first-contact care, aged care and prevention and health promotion, this came at the cost of losing specialisation and content expertise. As such, this potentially highlight aspects of siloed approaches that integrated approaches should aim at preserving. In addition, the important challenges for the region in generating this integration in a context where state-wide programs remained siloed also highlights how primary care integration requires integrative processes at policy level to be fully effective at the delivery level.

Finally, an important learning from the implementation of the ROM relates to the relative lack of effect of the regional model on services provided by GPs and hospital care. Although the model acknowledges the importance of co-ordinating services between all the sectors, the biggest effect of the new operating systems mostly affected the services that the region was funding directly. Co-ordinating general practice and hospital care with the services provided through the commissioning of the region relied on the establishment of relationships and regional planning platforms that lied outside of the remit of the ROM.

Strengths and limitations

The main strength of this evaluation was its embedded nature, which enabled the team of researchers to closely explore the effects related to this novel way of organising regional planning and management. Comprehensive qualitative interviews could be realised with staff, stakeholders, as well as the policymakers responsible for redesigning the operating

model and making it an explicit statement and business proposition. A broad range of stakeholders have provided their views on the model and enabled an in-depth assessment of the model. This study remains one of a kind internationally, with few population-based approaches having been evaluated. However, this study also has limitations given the fact that only the effects of the intervention on the region's functioning and its relationship with stakeholders could be assessed. Longer-term effects of the model could not be evaluated during the timeframe available.

Conclusion

This paper reports on the results of the evaluation of the Regional Operating Model implemented in one region of Victoria, Australia. The objectives of this model were to promote an integration of population and system perspectives into the planning and management of contracts of the regional office responsible for programs in various health and social care sectors. We found that the ROM had face validity for stakeholders, which resulted in changes with regards to how the regional office worked and managed contracts. However, while having an operating plan supports changes in work processes and relationships, the real challenge remains in implementing it despite changes in regional governance structures and funding levels. This study highlighted benefits for organisations with population health responsibilities, to articulate their policy, strategy, tactics and operational issues in a coherent manner, in order to re-orient planning and management of contracts at the regional level from a more integrated perspective and to refine inter-sectoral action.

Conflicts of interest

The authors declare that they have no conflicts of interest.

Acknowledgements

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Appendix 1.   The North and West Metropolitan Region (NWMR) regional operating model