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Review

Systems levers for commissioning primary mental healthcare: a rapid review

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Abstract. Primary Health Networks (PHNs) are a new institution for health systems management in the Australian healthcare system. PHNs will play a key role in mental health reform through planning and commissioning primary mental health services at a regional level, specifically adopting a stepped care approach. Selected PHNs are also trialling a healthcare homes approach. Little is known about the systems levers that could be applied by PHNs to achieve these aims. A rapid review of academic and grey literature published between 2006 and 2016 was undertaken to describe the use of systems levers in commissioning primary care services. Fifty-six documents met the inclusion criteria, including twelve specific to primary mental healthcare. Twenty-six levers were identified. Referral management, contracts and tendering processes, and health information systems were identified as useful levers for implementing stepped care approaches. Location, enrolment, capitation and health information systems were identified as useful in implementing a healthcare homes approach. Other levers were relevant to overall health system functioning. Further work is needed to develop a robust evidence-base for systems levers. PHNs can facilitate this by documenting and evaluating the levers that they deploy, and making their findings available to researchers and other commissioning bodies.

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Introduction

Primary Health Networks (PHNs) began operation in Australia on 1 July 2015. PHNs have been tasked with increasing the efficiency and effectiveness of medical services for patients, particularly those at risk of poor health outcomes, and improving coordination of care to ensure that patients receive the right care in the right place, at the right time (Australian Government Department of Health 2015*a*). PHNs are to play a key role in mental health reforms, particularly through the planning and commissioning of primary mental health services at a regional level (Australian Government Department of Health 2015*b*). This will be supported by a flexible funding pool for mental health and suicide prevention services (Australian Government Department of Health 2015*b*).

The Australian Government expects PHNs to undertake capacity building in, and implementation of, systems and processes that will support effective commissioning of services in the future. Commissioning is defined by the Department of Health as: 'a strategic approach to procurement that is informed by the baseline needs assessment and associated market analysis [...]. Commissioning is further characterised by ongoing assessment to monitor the quality of services and ensure that relevant contractual standards are fulfilled' (Australian Government Department of Health 2016, p. 10). Dawda *et al.* (2016, p. 5) elaborate on this definition and emphasise that commissioning includes 'a range of actions including strategic needs assessment; prioritisation; planning and designing services; options appraisal; sourcing; delivery; and monitoring and review'.

With respect to primary mental healthcare, the ultimate aims of reform are to alleviate the burden of mental illness and improve the quality of life for those who experience mental ill-health. With respect to the implementation of reforms, the Australian Government has identified that PHNs will play a role in implementing a stepped care approach to delivering primary mental healthcare services (National Mental Health Commission 2014; Australian Government Department of Health 2015*b*). Stepped care involves a continuum of mental health services

that facilitates the delivery of least intensive, most appropriate, evidence-based treatments to patients according to their level of need (National Institute for Health and Care Excellence 2011; Australian Government Department of Health 2015*b*). In addition, following recommendations from the Primary Health Care Advisory Group in 2016, and as part of broader primary healthcare system reforms, a healthcare homes approach is being trialled in selected practices across 10 PHNs (Health Care Homes Implementation Advisory Group 2016; Primary Health Care Advisory Group 2016). Healthcare homes are a model of integrated, technologically enhanced, primary healthcare service, where co-located providers take responsibility for coordinating care and providing multidisciplinary services for eligible patients (Cummins *et al*. 2007; Ferrante 2010; Moore *et al*. 2014; Wilks *et al*. 2015; Primary Health Care Advisory Group 2016).

Systems levers

Systems levers are a means by which PHNs can fulfil the imperative to influence the Australian health system (Australian Healthcare and Hospital Association 2015*a*, 2015*b*). No bespoke definitions or frameworks exist to guide PHNs in effectively using levers to achieve health system change.

One framework for understanding the levers that governing bodies have at their disposal is provided by Roberts *et al.* (2009, p. 127), who defined policy levers as: 'features of the system and strategies that governments can use in each arena to improve health sector performance'. They proposed a typology of five levers that can be applied by governments to deliver reform. The framework proposed by Roberts *et al.* (2009) has been successfully adapted for analysing Australian mental health reforms at a national level (Whiteford 2011; Grace *et al*. 2015; Meurk *et al*. 2016), and is potentially extensible to describing levers that can be employed by local health organisations (Table 1).

Table 1. Definition of five policy lever types relevant to national level mental health reforms
Source: Grace *et al.* 2015

Lever type	Description
Organisation	Macro-level changes in location, magnitude, co-ordination and diversity of human and physical capital
Regulation	Enforced changes in behaviour
Community education	Spreading of information to influence changes in behaviour
Finance	Revenue generation and the allocation or distribution of funds
Payment	System of incentives for health providers

Aims

The primary aim of this rapid review was to identify and describe the systems levers that could be used to commission primary mental healthcare in a way that supports stepped care and healthcare homes approaches. The secondary aim was to adapt typology of policy levers proposed by Roberts *et al.* (2009) to describe systems levers relevant to regional level health governance.

Methods

Search strategy

The search comprised an academic database search and a grey literature search. Academic databases searched were: ProQuest Social Science, and Medline and PsycINFO (by Ovid). Search strings using Boolean operators took the form of 'lever terms' AND 'primary mental healthcare model terms' AND 'country terms' (Table 2). Lists of terms were internally connected by an OR operator. For the grey literature search, source documents were obtained from a pre-defined list of websites of government health departments, think tanks, online repositories and mental health professional bodies in countries with health systems comparable to those in Australia (Appendix 1). Health-specific websites were searched for the terms lever(s). Generalist sites were searched by adding the term 'health' to the search string, in order to restrict search results to health topics only. Reports that could be downloaded in PDF or DOC or DOCX formats were included for screening. Additional sources were identified through reference lists, citation searches and materials known to the authors.

Inclusion criteria

Following initial scoping of the literature available, we decided to take an inclusive approach. Documents were included if they explicitly or implicitly discussed levers, as defined by Roberts *et al.* (2009), and related to the commissioning of any healthcare services in a way that was relevant to primary mental healthcare. Inclusion criteria were: (1) the document was in English and about

Table 2. Search terms used
Wildcard keywords were used as appropriate in order to capture variations in suffixes as well as plural and possessive forms of search terms

Term type	Keywords
Primary mental healthcare model	Primary healthcare, primary healthcare, primary care, primary mental healthcare, primary mental healthcare, general practice, general practitioner, general practitioners, GP, GPs, psychological therapy, psychological therapies, headspace, IAPT, Improving Access to Psychological Therapies, Better Access, ATAPS, Access to Allied Psychological Services, NewAccess, consultation liaison, collaborative care, integrated care, comprehensive care, continuity of care, stepped care
Levers	Commission, CCG, policy analysis, performance management, performance monitoring, lever, clinical governance
Country	Australia, Victoria, New South Wales, Queensland, Tasmania, South Australia, Western Australia, Northern Territory, Australian Capital Territory, New Zealand, Canada, Canadian, Great Britain, Ireland, United Kingdom, UK, Wales, England, Scotland, Netherlands, Holland, Dutch, Quebec, Ontario, British Columbia, Alberta, Manitoba, Saskatchewan, Nova Scotia, New Brunswick, Newfoundland, Labrador, Prince Edward Island, North-west Territories, Yukon, Nunavut

a high-income country or countries with health systems that are comparable to Australia's in terms of governance, financing and the organisational role played by primary care, and are known to have implemented or piloted primary mental healthcare models at a national or state or provincial level. These included, but were not limited to, the United Kingdom, Canada, New Zealand and the Netherlands (Bywood *et al*. 2015; Mossialos *et al*. 2016); (2) the document was published between 2006 and 2016; (3) the document described, implicitly or explicitly, the application of any levers in the context of commissioning any healthcare services, except as identified in the exclusion criteria below; and (4) the document presented an analysis of primary data or described or reviewed previous or current approaches. Exclusion criteria were: (1) analysis of levers focused on national level reform or levers outside the sphere of PHN influence (e.g. local health networks as a lever of national reform, national responses to workforce issues); and (2) documents focused on levers relevant to laboratory testing, aged care homes, end-of-life care, prison care, population-level prevention and promotion, secondary care, integration between health and social services, or prescribing and pharmacy.

Screening and data extraction

Documents were initially excluded through title and abstract screening (title and executive summary screening for reports). Further exclusions occurred as analysis proceeded. Basic characteristics of each document were extracted from each source, specifically: Author/Year; Study type; Area of health; Levers identified; and Brief summary of the document, including information about country of focus and specifics of models or programs where levers were discussed. Classifications for area of health were: Primary mental healthcare; Primary healthcare; Mental health, other; and Health, other. Evidence regarding the outcomes of applying levers was extracted, if reported.

Document classification

Documents were classified according to their methods: qualitative, quantitative, mixed methods, review or position paper (categories adapted from Gardner *et al*. 2016). One descriptor was allocated per document. Given that the aim of this article was to identify levers, we did not apply quality criteria or bias assessment tools.

Analysis

A deductive–inductive approach to classifying lever types and sub-types was undertaken, as follows: C. Meurk sorted literature into categories according to each of the five lever types given in Table 1 (deductive analysis). This typology was adapted as new categories of lever became apparent and initial ones were identified as irrelevant to regional health governance (inductive analysis). As this process unfolded, previously categorised literature was re-read and re-sorted as necessary. This process was interpretive and occurred in tandem with the extraction, analysis and synthesis of lever descriptions, and descriptions of their significance and use. Where levers could be multiply assigned, they were classified according to a primary mechanism – what has been termed a 'leading edge' approach to classification (Grace *et al*. 2015). Supporting levers were documented. A sample of 10 references was cross-checked by E. Wright and discrepancies in the classification of levers were resolved through negotiation between C. Meurk and E. Wright.

A narrative synthesis of results included an appraisal of the relevance of levers with respect to key challenges for implementing stepped care, such as service integration, team-based care and continuity of care, where possible. Priority in interpretation was given to documents that evaluated the use of levers most relevant to the primary mental healthcare context and to an Australian context.

Results

Search results

The search resulted in 56 documents being included in the narrative synthesis (Fig. 1).

In total, 39 of the 56 documents focussed on primary healthcare, 12 on primary mental healthcare, 1 focussed on other areas of mental health, and 4 focussed on other areas of health (Table 3). Twenty-seven documents were classified as using qualitative methods, nine as using quantitative methods and five as using mixed methods. A further 13 documents were classified as reviews and 2 as position papers.

Classification of systems levers

Six lever types and twenty-six different levers were identified. Organisation levers were identified in 19 documents, engagement levers in 17 documents, enforcement levers in 9 documents, information levers in 18 documents, technology levers in 11 documents, and finance and payment levers in 14 documents. Table 4 defines and identifies these lever types, the correspondence between the new typology and the typology proposed by Roberts *et al.* (2009), a justification for the changes made, and a list of specific levers that were mapped to each lever type.

Use of systems levers for commissioning mental healthcare

For each lever, Table 5 summarises its application(s) in the context of primary mental healthcare, its significance and use, and supporting levers (i.e. levers that are used in conjunction with the principle lever). Additional detail is given below.

Organisation

Organisation levers aim to directly influence the structure of healthcare organisations, the workforce, the organisation of help seekers with respect to available services in time and space, and features that facilitate effective organisational cultures. Several of the organisation levers that were identified in the review (namely, leadership, nursing and contracting external support) were considered to be important to health systems functioning and primary care, as opposed to being only relevant to mental healthcare.

Referral management was identified as being particularly important to implementing a stepped care approach to mental healthcare (Bywood *et al*. 2015). Within Australia, GP referrals and mental health treatment plans are the most common referral pathways used to facilitate primary mental healthcare (Harris *et al*. 2010; Bassilios *et al*. 2013). GP mental health plans followed by vouchers and third party brokers have been the

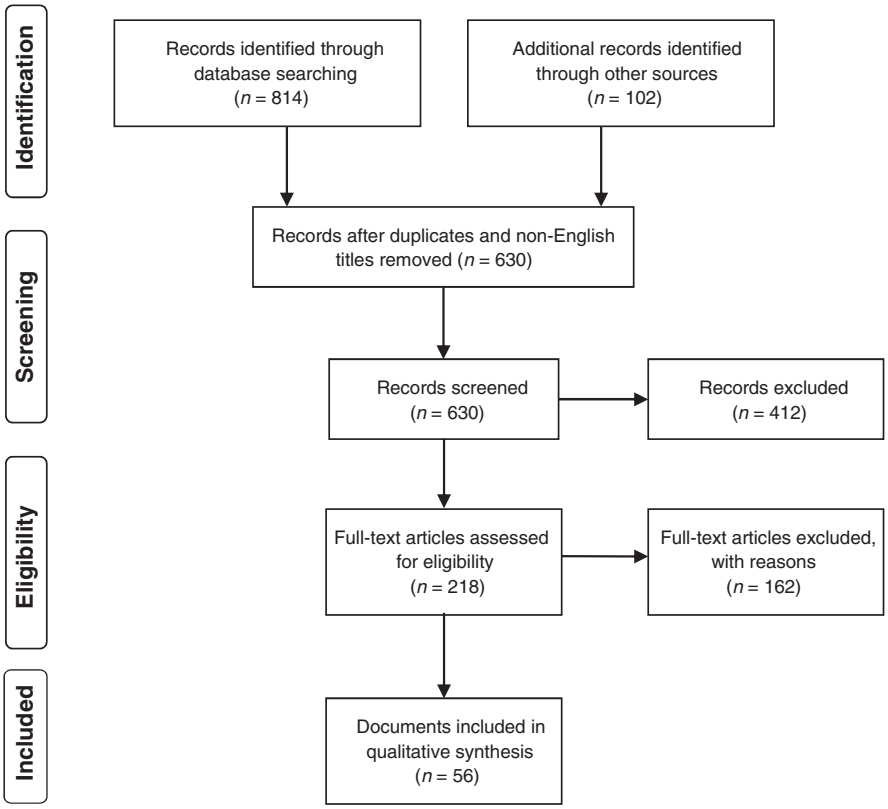

Fig. 1. PRISMA flowchart. Adapted with permission from Moher *et al*. (2009).

most common way to facilitate referrals to psychologists (Bassilios *et al*. 2013; Bywood *et al*. 2015). More recent innovations are technological and include web-based portals that can assist GPs to assess, manage and appropriately refer patients (WentWest Ltd 2015).

Enrolment with a primary care provider was identified as relevant to implementing a healthcare homes model, and a potential facilitator of achieving improved outcomes for people with complex needs (e.g. people with serious mental illness) (Douglas *et al*. 2009; Bywood *et al*. 2015).

Engagement

Engagement refers to the activities of fostering and maintaining relationships, and dialogue, among the actors that comprise the health system. Engagement may refer to the interactions *within* commissioning organisations and *between* commissioning organisations and service providers, clinicians and public and patient groups (Naik *et al*. 2013; Perkins *et al*. 2014). Engagement was described as a means by which commissioners could influence provider behaviour in order to improve performance (Grant *et al*. 2015). Franx *et al.* (2013) identified power sharing, mutual respect and two-way capacity building as key elements of engagement. Bywood *et al.* (2015) describe the key goals of engagement as identifying shared goals and achieving mutual benefit. Effective engagement was noted as important for enabling health professionals to act autonomously; conversely, poor relationships and communication may undermine this, creating uncertainty, frustration and inefficiency (Checkland *et al*. 2009; McCafferty *et al*. 2012; Checkland *et al*. 2013; Zachariadis *et al*. 2013).

Successful engagement depends on stakeholder buy-in and trust, and is undermined where time pressures preclude stakeholder involvement (Naik *et al*. 2013; Ashman and Willcocks 2014; Smiddy *et al*. 2015). Financial incentives or contractual obligation may be required to facilitate engagement (Box 2009; Smiddy *et al*. 2015). Engaging people with lived experience of mental illness was highlighted as being particularly important to implementing integrated care (Bywood *et al*. 2015). Effectively engaging referrers (e.g. GPs, emergency departments) was a key facilitating factor in the successful operation of Australia's Access to Allied Psychological Services (ATAPS), a major primary mental healthcare program implemented from 2001 to 2016 (Bassilios *et al*. 2013).

Enforcement

Engagement may be viewed as dovetailing with and offsetting the excesses of the so-called 'hard' levers (i.e. enforcement levers) (Chambers *et al*. 2013; Grant *et al*. 2015). In contrast to 'soft' levers like engagement – that are used to improve performance but do not possess sufficient power to hold underperforming organisations to account – 'hard' levers provide a sanction-backed means of compelling action by

Table 3. Characteristics of documents reviewed

PMHC, Primary Mental Health Care; PHC, Primary Health Care; MH, Mental Health, Other; H, Health, Other; Org, Organisation; Eng, Engagement; Enf, Enforcement; Info, Information; Tech, Technology; Fin&Pay, Finance and Payment

Author(s)	Document type	Area of health	Article description	Lever types identified					
				Org	Eng	Enf	Info	Tech	Fin&Pay
Addicott (2014)	qualitative	PHC	Report by the King's Fund on contractual approaches for commissioning integrated care. Includes illustrative case studies from England and lessons for commissioners.			X			
Ashcroft *et al*. (2014)	review	PMHC	Literature review of incentives and disincentives for enhancing the treatment of depression and anxiety (literature drawn from various geographical regions).	X			X		X
Ashman and Willcocks (2014)	quantitative	PHC	Findings of a survey examining English General Practitioners' engagement in commissioning, and factors that influence engagement.		X				
Ashton (2015)	review	PHC	Literature review discussing the approach taken to quality improvement and accountability in the New Zealand healthcare system.				X		
Ball *et al*. (2016)	qualitative	PHC	Findings of a qualitative study of English health professionals' and commissioners' views on benefits and limitations of referral management centres.	X			X		
Bassilios *et al*. (2013)	mixed methods	PMHC	Report detailing evaluation of Access to Allied Psychological Services (ATAPS) program in Australia.	X	X	X	X		
Box (2009)	quantitative	PHC	Findings of a survey of the views of United Kingdom (UK) General Practices who have, and do not have, patient participant groups.		X				
Breton *et al*. (2011)	qualitative	PHC	Description and comparison of two models of primary healthcare operating in two Canadian provinces.	X			X		X
Breton *et al*. (2014)	qualitative	PHC	Description of the functioning of primary healthcare organisations in relation to local health networks in the Canadian Province of Québec.	X	X				X
Buetow (2008)	qualitative	PHC	Description and analysis of the introduction of pay-for-performance in primary healthcare in New Zealand and England.						X
Bywood *et al*. (2015)	review	PMHC	Review of literature on issues and approaches to improving the integration of mental health services in primary healthcare and across the system broadly. Focus is on macro-level factors (literature drawn from various geographical regions, selected for comparability with Australia).	X	X		X	X	
Campbell *et al*. (2008)	qualitative	PHC	Qualitative study exploring the views of family physicians and nurses on the effect of pay-for-performance schemes to family healthcare in the English National Health Service (NHS).						X

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Table 3. (*continued*)

Author(s)	Document type	Area of health	Article description	Lever types identified					
				Org	Eng	Enf	Info	Tech	Fin&Pay
Chambers *et al*. (2013)	qualitative	PHC	Qualitative study examining the dynamics relating to public–private partnerships in healthcare in England. Provides lessons regarding the strategies commissioners use to influence external organisations.			X			
Chan *et al*. (2010)	quantitative	PMHC	Study investigating the utility of longitudinal analysis of routine data collected in England on common mental health problems for informing commissioning decisions.				X		
Checkland *et al*. (2009)	qualitative	PHC	Qualitative study describing barriers to the successful implementation of practice-based commissioning in England.		X				
Checkland *et al*. (2013)	qualitative	PHC	Qualitative study describing the evolution of clinical commissioning groups in England; draws out lessons regarding effective commissioning practices.		X				
Douglas *et al*. (2009)	qualitative	PHC	Findings of a roundtable discussion among Australian primary healthcare workers, academics and policymakers regarding building a sustainable primary health workforce.	X					X
Edwards *et al*. (2015)	mixed methods	PMHC	Report detailing evaluation of NewAccess program in Australia.	X					
Elston and Stein (2007)	qualitative	PHC	Critical analysis of the use of Health Technology Assessment to inform decision-making by local health organisations in the English NHS.					X	
Flodgren *et al*. (2011)	review	H	Cochrane systematic review on the effectiveness of external inspection on compliance with standards in improving healthcare organisations' behaviour, professional behaviour or patient outcomes (literature included in review is from England and South Africa).			X			
Franx *et al*. (2013)	review	PMHC	Literature review of strategies to support the implementation of collaborative primary care mental health models (literature drawn from various geographical regions).		X		X	X	X
Gask *et al*. (2008)	qualitative	PMHC	Qualitative study describing the development of clinical governance of primary mental health services in England.	X			X		
Goodwin and Frew (2013)	qualitative	PHC	Description and evaluation of the use of Program Budgeting and Marginal Analysis (PBMA) to inform priority setting within an English Primary Care Trust.					X	
Grant *et al*. (2015)	qualitative	PHC	Investigation of the effects of the new General Medical Services contract from the point of view of health professionals, practice managers and administrative staff in primary care organisations in England and Scotland.		X	X	X		

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Table 3. (*continued*)

Author(s)	Document type	Area of health	Article description	Lever types identified					
				Org	Eng	Enf	Info	Tech	Fin&Pay
Gyani *et al*. (2011)	quantitative	PMHC	Analysis of 12-month outcome data on the Improving Access to Psychological Therapies program (IAPT) patients in England.	X					
Ham *et al*. (2015)	review	PHC	Review of performance measurement of local health systems (literature drawn from various geographical regions).				X		
Harris *et al*. (2010)	quantitative	PMHC	Evaluation of Australia's Better Access scheme.	X					
Hilferty *et al*. (2015)	mixed methods	PMHC	Report detailing independent evaluation of the headspace program in Australia.	X					
Jacobs *et al*. (2006)	quantitative	PHC	Regression analysis on performance rating system used by the English NHS.				X		
Ludwick *et al*. (2010)	qualitative	PHC	Qualitative study investigating the effect of remuneration to successful implementation of electronic medical records in Canada.					X	X
Marshall *et al*. (2014)	review	H	Literature review and critical appraisal of different approaches to payment for healthcare in the English NHS.						X
May *et al*. (2008)	qualitative	PHC	Account of the authors' experiences of three integrated primary healthcare entities in New South Wales, including lessons learned.	X	X				
McCafferty *et al*. (2012)	qualitative	PHC	A qualitative evaluation of the implementation of World Class Commissioning in the English NHS.	X	X				
McDonald *et al*. (2008)	review	PHC	A systematic review of literature from England, New Zealand and Australia on the implementation and effect of different funding initiatives on access to multidisciplinary primary healthcare.						X
Naik *et al*. (2013)	qualitative	H	Examination of the benefits and limitations of including the views of specialists in clinical commissioning in the English NHS.		X				
Naylor and Goodwin (2011)	mixed methods	PHC	Investigation of factors that facilitate optimal use of external support by commissioners in the English NHS.	X					
Noble *et al*. (2012)	quantitative	PHC	A feasibility study of the use of geospatial mapping as a technique to assist commissioning decisions in the English NHS.					X	
Nolan and Hewison (2008)	qualitative	PMHC	Review and critical analysis of English policy documents that effect the delivery of team-based mental healthcare.	X					
O'Cathain *et al*. (2015)	quantitative	H	Controlled before and after study on the effects of targeted marginal investment by English local healthcare commissioners on intended outcomes.						X
Pearce *et al*. (2013)	review	PHC	Appraisal of computerized medical records with respect to their role in supporting clinical governance in Australian Primary Care.					X	
Perera *et al*. (2013)	mixed methods	PHC	Describes the findings of a mixed-methods study that was used to inform the development of framework for quality activity in primary care in New Zealand.				X		

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Table 3. (*continued*)

Author(s)	Document type	Area of health	Article description	Lever types identified					
				Org	Eng	Enf	Info	Tech	Fin&Pay
Perkins *et al*. (2014)	qualitative	PHC	Qualitative study interrogating the value that GPs bring to commissioning in the English NHS.		X		X		
Petsoulas *et al*. (2014)	qualitative	PHC	Qualitative investigation of the views of English NHS commissioners on the use of external support.	X					
Petsoulas *et al*. (2015)	review	PHC	Critical literature review of past initiatives aimed at supporting public and patient involvement in healthcare commissioning in the English NHS.		X				
Phillips *et al*. (2010)	review	PHC	A systematic review of the effect of clinical governance on quality improvement in Australian general practice and primary care.			X	X		
Robinson *et al*. (2012)	quantitative	PHC	Survey of the tools and techniques used by English commissioners to inform priority setting and decision-making.					X	
Salway *et al*. (2016)	qualitative	PHC	Qualitative study discussing barriers to overcoming 'race' inequalities in the English NHS, including lack of capacity among commissioners.				X		
Samra *et al*. (2015)	qualitative	PHC	A qualitative investigation of how information and data are used to monitor safety and quality of primary care at a site in London.				X		
Schwartzkoff and Sturgess (2015)	review	MH	Report commissioned by Mental Health Australia. Includes review of literature and results of stakeholder consultation. Focussed principally on commissioning community-based mental healthcare, and its implications for the not-for-profit sector (literature drawn from various geographic regions).			X			X
Scott *et al*. (2011)	review	PHC	Cochrane systematic review on the effect of financial incentives on the quality of healthcare provided by primary care physicians.						X
Shepperd *et al*. (2013)	qualitative	PHC	Qualitative study discussing barriers to using systematic review evidence to inform decommissioning of ineffective services (literature in review is from North America, UK and Germany).				X		
Silvester and Carr (2009)	qualitative	PHC	Qualitative study describing learnings from an exercise in implementing electronic health records in Australia.					X	
Smiddy *et al*. (2015)	qualitative	PHC	Qualitative study examining the effect of patient participation on decision-making within general practice, the role of financial incentives in facilitating patient participation, and engagement with clinical commissioning groups (CCGs) in England.		X				
WentWest Ltd (2015)	position papers	PMHC	Options paper by Western Sydney Primary Health Network (PHN), describing the desired approach to integrating mental and physical health.	X		X		X	
WentWest Ltd (2016)	position papers	PHC	Western Sydney Commissioning Framework for Primary Care.		X	X		X	X

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Table 3. (*continued*)

Author(s)	Document type	Area of health	Article description	Lever types identified					
				Org	Eng	Enf	Info	Tech	Fin&Pay
Zachariadis *et al*. (2013)	qualitative	PHC	Qualitative study investigating and identifying aspects of leadership that support healthcare innovation within commissioning organisations in the English NHS.	X	X				

incentivising compliance and deterring deviance (Addicott 2014; Grant *et al*. 2015; Schwartzkoff and Sturgess 2015; WentWest Ltd 2015). Hence, enforcement is also linked with finance and payment levers. Although legally backed agreements are necessary in enabling commissioning organisations to hold underperforming organisations to account, competitive approaches (defined as 'rivalry in the market, striving for custom between those who have the same commodities to dispose of' (OED Online 2017)) or overly legalistic approaches to management were seen to run the risk of undermining engagement, goodwill and cooperation (Addicott 2014; Grant *et al*. 2015; Schwartzkoff and Sturgess 2015). Having an emphasis on contestability ('the credible threat or possibility of competition'; Schwartzkoff and Sturgess 2015, p. 31), rather than competition, was described as a means to offset these negative effects (Grant *et al*. 2015; Schwartzkoff and Sturgess 2015).

An evaluation of the ATAPS program found that retention of mental health professionals by contractual arrangements was viewed as disadvantageous, relative to retention by employment, from the point of view of mental health professionals (Bassilios *et al*. 2013). In particular, retention by employment was believed to offer greater continuity of care in comparison to contracting (Bassilios *et al*. 2013). Retention by contracting was deemed to be cheaper for commissioners of services as it allowed them to externalise costs to mental health professionals and was seen to be advantageous in offering greater choice of provider to referrers and patients (Bassilios *et al*. 2013).

Information

The information lever encompasses the collection, analysis, dissemination and exchange of information. Information can influence a system in multiple ways and is critical to evidence-based practice, performance management, accountability and quality improvement (Perera *et al*. 2013; Ashton 2015; Ham *et al*. 2015). Information is also important to making resource allocation decisions, fostering inter-organisation engagement, and engaging and fostering trust among stakeholders and the broader community (Franx *et al*. 2013; Perkins *et al*. 2014; Bywood *et al*. 2015; Ham *et al*. 2015). Information levers link with technology levers and payment levers, especially pay-for-performance approaches.

Successful use of data to inform commissioning is dependent in equal measures on technical skill and stakeholder support of data collection activities (Perera *et al*. 2013; Ashton 2015; Samra *et al*. 2015; Ball *et al*. 2016); poorly selected performance indicators run the risk of negatively affecting performance (Jacobs *et al*. 2006). Tremendous effort has been expended in Australia to establish high-quality routine data collection of mental healthcare processes and outcomes, as well as to develop the mental health research workforce (Bywood *et al*. 2015).

Information overload was described as posing a key barrier to implementing evidence-based practice, including decommissioning ineffective practices (Shepperd *et al*. 2013). To address this issue, systems to effectively manage the quantity of evidence, and monitor and implement evidence-based practice are needed (Shepperd *et al*. 2013). Lack of knowledge and skills have disproportionately negative effects on addressing the health needs of marginalised groups and minorities (Salway *et al*. 2016). It was noted that dissemination activities that involve providing negative feedback may cause hostility, and should be approached with sensitivity (Ball *et al*. 2016).

Technology

Technology is a lever for improving the efficient and effective functioning of the health system. It is closely related to the information levers and a necessary pre-requisite for the successful use of several other levers (e.g. organisation, enforcement, and finance and payment levers). Technology includes the use of health information systems, web portals, data visualisation tools and decision support tools. Health information systems, including electronic medical records, are a tool for improving data collection and increasingly a part of facilitating effective referral management, thus they are important to promoting service integration and continuity of care (Franx *et al*. 2013; Bywood *et al*. 2015).

Effective use of health information systems was described as enabling GPs to occupy the centre of a healthcare home model, even when services are not co-located, thus facilitating patient choice of provider (WentWest Ltd 2015). Decision support tools include the technologies mandated for use by the Australian Government (e.g. needs assessment), but can include several other tools – such as health technology assessment – which, although less often used, may enable effective commissioning (Elston and Stein 2007; Robinson *et al*. 2012; Goodwin and Frew 2013).

Finance and payment

Finance and payment act as levers by providing the resources necessary to fund healthcare activities. Several mechanisms for financing and payment were identified, including targeted marginal investment, block funding, case-based funding, capitation, fee-for-service and pay-for-performance (also referred to as payment by outcomes). Different models of payment reflect different trade-offs between administrative simplicity and target

Table 4. Lever types identified in the included documents

Source for National level lever types is Grace *et al*. (2015), adapted from Roberts *et al*. (2009)

National level lever types	Regional level lever types	Reason for change in classification	Definition	Example(s)	Levers
Organisation	Organisation	The engagement lever did not meet the original definition of an organisation lever. Whereas organisation levers focus on structural characteristics, engagement	Changes in the location, size or structure of human and physical resources	Co-location of services	• Location[A] • Enrolment[A] • Referral management[B] • Nursing • Leadership • Contracting external support
	Engagement	levers focussed on interpersonal and inter-sectoral relationships.	Elicitation of input from stakeholders	Co-design activities	• Site visits • Meetings and focus groups • Advisory groups
Regulation	Enforcement	Name change reflects differences in the means of influence that national and state-level regulators have in comparison to regional health organisations.	Legally enforced requirements	Contractual agreements, professional registration and compliance requirements	• Contracts[B] • Tendering[B] • Soft governance
Community Education	Information	Information and technology lever types include a broader range of levers than meet the definition of 'community education'. The original typology proposed by Roberts *et al.* (2009) did not include information on communication	Collection, analysis or dissemination of information	Training of service providers with regards to best practice healthcare and administration; direct-to-patient advertising regarding service availability; establishing and reporting routinely collected data	• Data collection and analysis • Literature reviews • Dissemination and training • Publication of results
	Technology	technologies or health information systems.	Implementation and regulation of information communication technologies	Establishing standards for interoperability to facilitate data linkage of routinely collected data	• Health information systems[A,B] • Portals • Data visualisation tools • Decision support tools
Finance Payment	Finance and Payment	Finance levers were not identified in the review; however, it was deemed prudent to maintain the concept of finance within the typology.	How revenue is raised or spent	Investment decisions; financial incentives or rewards	• Targeted marginal investment • Block funding • Case-based funding • Capitation[A] • Fee-for-service • Pay-for-performance

[A]Levers that have unique significance to the implementation of a healthcare homes model.

[B]Levers that have unique significance to the implementation of stepped care within primary mental healthcare.

Table 5. Summary of levers for commissioning primary mental healthcare
En-dashes indicate that descriptions of key findings are intentionally left blank

Lever type	Lever		Key findings
Organisation	Location[A]	Description	Encompasses the co-location of healthcare services, location of these services in easily accessible areas (e.g. close to public transport) and appropriate opening hours tied to location factors (Breton *et al*. 2011; Bassilios *et al*. 2013; Bywood *et al*. 2015). For example, headspace is a model of mental health services delivery based on co-location (Hilferty *et al*. 2015).
		Significance and use	Necessary but not sufficient to achieve shared care, integrated services, continuity of care and referral (Bywood *et al*. 2015). Co-location of headspace with other youth services may encourage service access (Hilferty *et al*. 2015). Conversely, separation of GPs from other mental health professionals facilitates greater patient choice of mental health professional and is appropriate for those concerned with privacy or stigma (Bassilios *et al*. 2013).
		Supporting levers	*Engagement*. Collegial and collaborative relationships among service providers who are co-located must exist (Bywood *et al*. 2015). *Finance and payment*. Incentives, including financial incentives (Breton *et al*. 2011; Bywood *et al*. 2015), have been used to encourage healthcare professionals to relocate as needed (McDonald *et al*. 2008). *Enforcement*. Contracts can be used to codify the agreed-upon organisational make-up of primary care organisations and to retain mental health professionals (Breton *et al*. 2011; Bassilios *et al*. 2013).
	Enrolment[A]	Description	Registration of patients with a primary care practice (Douglas *et al*. 2009).
		Significance and use	Facilitates a healthcare homes model, encourages continuity of care and makes GPs key gatekeepers to other mental health professionals (Bywood *et al*. 2015).
		Supporting levers	*Engagement*. Enrolment may be facilitated through direct contact of non-enrolled help seekers (i.e. by phone, email, post or emergency room consultation) (Breton *et al*. 2014). *Finance and payment*. Financial incentives can encourage enrolment. For example, payments for successful enrolment (Breton *et al*. 2014). *Finance and payment*. Capitation facilitates enrolment (Bywood *et al*. 2015). Capitation tied to patient outcomes and weighted according to case complexity, may be beneficial for patients with chronic or complex needs (Douglas *et al*. 2009). *Organisation*. Task shifting to nurses (and other allied health professionals) can free up physician time so that clinics can increase patient load (Breton *et al*. 2011).
	Referral management[B]	Description	Includes direct referral by a GP to a mental health professional (e.g. psychologist), use of mental health plans, vouchers, self-referral and third party referral management systems (Gyani *et al*. 2011; Bassilios *et al*. 2013; Bywood *et al*. 2015; Edwards *et al*. 2015; Ball *et al*. 2016).
		Significance and use	Central to implementing a stepped care approach (Bywood *et al*. 2015). Provides a point of data collection that is valuable to commissioners (Ball *et al*. 2016). Self-referral may be advantageous in facilitating access to evidence-based low-intensity therapies (such as self-guided, Internet-delivered cognitive behavioural therapy) and in stimulating mental health service use among underserved populations (e.g. people living in rural areas or cultural minorities; Gyani *et al*. 2011). GPs may refer patients because of perceived lack of skills in mental healthcare rather than patient need (Gask *et al*. 2008). Benefits of referral management centres are time savings, resulting from outsourcing the administration of referral but lack of evidence to support their cost-effectiveness (Ball *et al*. 2016). Referral management centres can undermine clinician autonomy and cause delays (Ball *et al*. 2016).
		Supporting levers	*Information*. Referral data can influence GP referral behaviour by feedback and improve future commissioning (Ball *et al*. 2016). *Engagement*. Stakeholder buy-in, including effective communication, is important to the success of referral management centres (Ball *et al*. 2016). *Technology*. Effective health information systems can support referral management activities (Ball *et al*. 2016).

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Lever type	Lever		Key findings
			Organisation. Nurse practitioners can assist in referral management (Breton *et al*. 2014).
	Nurses	Description	Employment and utilisation of nursing staff within primary mental healthcare. Can include mobile help and coordination to facilitate monitoring, referral management and patient engagement for those who may struggle to organise or access mental healthcare (Bywood *et al*. 2015).
		Significance and use	Nurses play liaison roles between GPs and patients, and facilitate referral management, including follow up (May *et al*. 2008; Breton *et al*. 2014; Ball *et al*. 2016).
		Supporting levers	*Organisation*. Clinical care coordinators can facilitate collaboration between physicians and nurses in mental healthcare (Franx *et al*. 2013). *Information*. Providing training to nurses is important if requiring them to change roles (Franx *et al*. 2013). *Technology*. Nursing involvement is facilitated through care protocols, including collective prescription that specify delegated acts for nurses within primary practice (Breton *et al*. 2011). *Finance and payment*. Central funding dedicated to nursing roles and capitation models of payment has been used to facilitate nursing involvement (McDonald *et al*. 2008; Douglas *et al*. 2009; Breton *et al*. 2011). Fee-for-service models may create barriers to implementing interdisciplinary care involving nurses (Douglas *et al*. 2009). *Enforcement*. Lack of clarity regarding matters of liability can prevent use of nurses (and allied health) in primary care (May *et al*. 2008).
	Leadership	Description	The qualities of providing clear direction, fostering organisational stability, teamwork, helping system employees navigate instability and flux, and encouraging dialogue and knowledge exchange (Nolan and Hewison 2008; Zachariadis *et al*. 2013).
		Significance and use	Important to achieving service integration and enhancing team-based primary care, driving innovation and change, and fostering effective organisational cultures within commissioning groups and across the health system (Ashcroft *et al*. 2014; Bywood *et al*. 2015). Several references describe the importance of 'champions' (e.g. May *et al*. 2008; Ashcroft *et al*. 2014). Competitive and hierarchical dynamics discourage effective commissioning (McCafferty *et al*. 2012). Job insecurity and workforce flux hinders clinical governance (Gask *et al*. 2008; McCafferty *et al*. 2012; Bywood *et al*. 2015).
		Supporting levers	*Information*. Clear definitions, guidelines, objectives and protocols are important to team-based primary mental healthcare (Nolan and Hewison 2008). However, over-management through delineating management protocols too sharply risks reinforcing siloing and thus works against effective team-based care (Nolan and Hewison 2008). *Organisation*. Integration managers and boards of governance, comprising key stakeholders (cf. engagement), may facilitate effective clinical governance (May *et al*. 2008). *Engagement*. Relationships are fundamental to leadership (McCafferty *et al*. 2012). Lack of engagement with frontline staff can generate uncertainty and inefficiency (Zachariadis *et al*. 2013).
	Contracting external support	Description	Use of external providers to deliver services to commissioning organisations.
		Significance and use	Enhances the knowledge, skills and operation of commissioning groups. This lever is currently used by PHN organisations to support evaluation (WentWest Ltd 2015). External support is most effectively utilised when there is clarity of purpose, and providers are used to implement new ideas, skills, tools or processes (Petsoulas *et al*. 2014). Tendering prior or in order to clarify aims, using consultants to fill core roles, and lack of capacity (i.e. skills and expertise) among contractors undermines the value of external support (Naylor and Goodwin 2011; Petsoulas *et al*. 2014). Concern for loss of institutional memory and relationships is a barrier to using external support (Naylor and Goodwin 2011; Petsoulas *et al*. 2014). Effective performance management is necessary (Petsoulas *et al*. 2014).

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Lever type	Lever		Key findings
		Supporting levers	*Organisation*. Co-location of external contractors with commissioning organisations facilitates better use of external support (Petsoulas *et al*. 2014). *Engagement*. Lack of trust between stakeholders and external organisations may generate anxiety and insecurity, and undermine the value of external support (Petsoulas *et al*. 2014).
Engagement	Site visits	Description	Clinic visits by managers (commissioners).
		Significance and use	Allows managers to exercise effective leadership and familiarise themselves with the day-to-day running of services. Enables quality improvement activities and provides opportunities for commissioners to listen to service provider concerns (McCafferty *et al*. 2012; Zachariadis *et al*. 2013; Breton *et al*. 2014; Perkins *et al*. 2014; Grant *et al*. 2015).
		Supporting levers	–
	Meetings and focus groups	Description	–
		Significance and use	Method for facilitating engagement with commissioning, especially GPs and specialists (Naik *et al*. 2013; Perkins *et al*. 2014). Medical specialists are often time poor and appreciate if the purpose of meetings is made clear (Naik *et al*. 2013). Terms of reference and providing a larger number of smaller meetings maximises opportunities to participate (Naik *et al*. 2013).
		Supporting levers	–
	Advisory groups	Description	Consultative committees comprising clinicians or patients (Smiddy *et al*. 2015).
		Significance and use	Clinician advisory groups can provide expert opinion to support treatment delivery and services planning (Franx *et al*. 2013). Public and patient involvement (PPI) can facilitate services design (Box 2009). Patient Participation Groups (PPGs) that operate at an individual service level can carry out health promotion activities, provide patient perspectives and, in some cases, influence commissioning (Box 2009). There is little evidence to support the purported benefits of public and patient involvement (Petsoulas *et al*. 2015). Perceived capacity and capability can hinder GP engagement (Ashman and Willcocks 2014). Opportunity and attitudes can facilitate engagement (Ashman and Willcocks 2014). Some primary care organisations include patient and clinician representatives, along with other stakeholders, on boards of governance (May *et al*. 2008). Within Australia, some PHNs have established similar models, such as the Clinical Council and Community and Consumer Advisory Committee (WentWest Ltd 2016). A challenge to PPI is attracting willing participants, although patient interest may exceed participation in commissioning (Box 2009). The effectiveness of PPI may be undermined by lack of clarity or direction and lack of opportunity to engage meaningfully with organisational issues (Smiddy *et al*. 2015).
		Supporting levers	*Finance and payment*. Commissioning organisations can incentivise enlistment of patient representatives on their board of governance (Box 2009; Smiddy *et al*. 2015). PPI needs to be appropriately resourced (Petsoulas *et al*. 2015).
Enforcement	Contracts[B]	Description	Legally backed agreements between commissioners and service providers. A variety of contract types exist, including: prime contracts, alliance contracts, high-trust contracts and partnership contracts (Addicott 2014; Schwartzkoff and Sturgess 2015; WentWest Ltd 2016).
		Significance and use	Different contract types may have distinct influences on the system. They vary according to: the extent to which they encourage collaboration versus competition between service providers; the obligations the contract creates between commissioner and supplier (e.g. delivery of activities, outcomes or financial accountability); the way that they distribute risks, control and responsibility between and across commissioners and providers, and; the levels of administrative burden they place on commissioners or providers (Addicott 2014; Schwartzkoff and Sturgess 2015). Overly detailed or legalistic contracts, and those that are unduly focussed on financial

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Lever type	Lever		Key findings
			accountability, can be burdensome in terms of costs to both service providers and commissioners (Schwartzkoff and Sturgess 2015). Poor use or overuse of the contract lever may lead to loss of trust and work-to-rule, thus having detrimental effects on sector performance (Schwartzkoff and Sturgess 2015). Short-term contracts may generate instability and volatility in the workforce that could have negative effects on performance (Schwartzkoff and Sturgess 2015). Alliance contracts and high-trust contracts may be most suitable to improving mental health systems (Addicott 2014; Schwartzkoff and Sturgess 2015).
		Supporting levers	*Engagement*. To mitigate the negative effects of contracts, contract levers should be used within a context of effective relationship management and communication (Addicott 2014). *Information*. Contracts based on achieving particular throughputs or outputs require that appropriate data collection and analysis takes place (Schwartzkoff and Sturgess 2015).
	Tendering[B]	Description	Competitive application processes by which services are procured.
		Significance and use	Used as a means to improve cost-effectiveness of services delivered. One qualitative study indicated that managers believed competition enhanced quality of care (Grant *et al*. 2015). However, another study highlighted the risk that competitive tendering may create instability and other negative effects, if short-term competitive contracts are issued (Schwartzkoff and Sturgess 2015). Short-term tenders may result in a rapid cycling of providers and cause confusion on the part of patients when navigating the mental health system (Schwartzkoff and Sturgess 2015). Focussing on contestability – 'the credible threat or possibility of competition' – rather than competition, may offer a better foundation for procurement (Schwartzkoff and Sturgess 2015; p. 31).
		Supporting levers	*Technology*. Tendering processes require effective and transparent contract management systems (WentWest Ltd 2016).
	Soft governance	Description	Formal and informal surveillance and influencing activities.
		Significance and use	Generally, focussed on performance improvement and management (Chambers *et al*. 2013; Grant *et al*. 2015). A Cochrane review found insufficient evidence from which to assess the effectiveness of external inspection on compliance with systems, behaviour or patient outcomes (Flodgren *et al*. 2011). Additional strategies that commissioners can use, include task sharing, 'appeal to authority', and strategic selection of stakeholder involvement and commissioning frameworks (Chambers *et al*. 2013). Targeted feedback and supported reflection can also be used as part of quality management initiatives (Phillips *et al*. 2010).
		Supporting levers	*Engagement*. Site visits, as a form of soft governance, allows for constructive rather than punitive measures to be taken in response to poor performance, although too much surveillance may erode provider autonomy (Grant *et al*. 2015). Negotiation, conflict management and high-trust relationships are necessary skills and qualities (Chambers *et al*. 2013). *Information*. Information exchange and publishing performance indicators can influence provider behaviour (Chambers *et al*. 2013; Grant *et al*. 2015). *Enforcement*. Soft governance may be ineffective if not sanction-backed through contractual mechanisms (Chambers *et al*. 2013; Grant *et al*. 2015).
Information	Data collection and analysis	Description	Data collection and analysis focused on safety, outcomes, efficiency or equity.
		Significance and use	Useful for improving efficient communication and monitoring expenditure, safety and resource use. Thus, it may be used to enhance the cost-effectiveness of commissioning and equity (Chan *et al*. 2010; Breton *et al*. 2011; Perera *et al*. 2013; Bywood *et al*. 2015; Salway *et al*. 2016); it is also a key part of performance measurement, management and improvement, and clinical governance (Phillips *et al*. 2010; Bassilios *et al*. 2013; Bywood *et al*. 2015; Ham *et al*. 2015). Effective use of this lever is undermined by time pressures, duplication of effort, unclear or excessive data collection or reporting requirements and poorly aligned indicators (Phillips *et al*. 2010; Perera *et al*. 2013; Ham *et al*. 2015; Samra *et al*. 2015).

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Lever type	Lever		Key findings
		Supporting levers	*Engagement*. Successful implementation requires stakeholder support of, including clinician engagement with, data collection activities (Ashton 2015). *Technology*. Well-designed, standardised and user-friendly health information systems support data collection and analysis activities (Phillips *et al*. 2010; Ashton 2015; Ham *et al*. 2015). *Organisation*. Clear delineation of roles and responsibilities for data collection and use is important (Samra *et al*. 2015).
	Literature reviews	Description	Includes systematic reviews.
		Significance and use	Provide the best evidence regarding which treatments and services are effective. Systematic reviews should play a central role in decision-making, regarding both commissioning and de-commissioning activities (Shepperd *et al*. 2013). Limitations to applying systematic review evidence include difficulties in applying evidence within a local context, policy contexts that constrain the implementation of evidence-based practice, and patient and industry influence (Shepperd *et al*. 2013).
		Supporting levers	*Organisation*. Leadership is important for change management (Shepperd *et al*. 2013). Organisational inertia can be a barrier to implementing evidence-based care (Phillips *et al*. 2010; Ashcroft *et al*. 2014). *Engagement*. Good relationships are necessary for change management (Shepperd *et al*. 2013). *Information*. Data on existing practices are important for change management (Shepperd *et al*. 2013). *Finance and payment*. Recommended commissioning and de-commissioning activities require appropriate funding (Shepperd *et al*. 2013).
	Dissemination and training	Description	Encompasses the delivery of tailored feedback, distribution of newsletters, guidelines and intensive training initiatives, and capacity building (Franx *et al*. 2013; Perera *et al*. 2013; Ashcroft *et al*. 2014; Bywood *et al*. 2015; Salway *et al*. 2016).
		Significance and use	Enable engagement and knowledge exchange within a community of practice and facilitate integration and continuity of care (Franx *et al*. 2013; Perkins *et al*. 2014; Bywood *et al*. 2015). Dissemination and training ensures that individuals have the information they need to implement new strategies and perform and comply with changing requirements and evolving evidence to deliver safe, effective and equitable care (Franx *et al*. 2013; Perera *et al*. 2013; Ashcroft *et al*. 2014; Bywood *et al*. 2015; Salway *et al*. 2016). Providing meaningful feedback to clinicians regarding their performance, and publicising performance indicators are an important part of fostering trust in the system and ensuring stakeholder buy-in (Samra *et al*. 2015; Ball *et al*. 2016). However, there is a risk that negative feedback may result in disengagement (Ball *et al*. 2016). Disseminating information is not equivalent to or sufficient for implementation (Gask *et al*. 2008; Franx *et al*. 2013).
		Supporting levers	*Organisation*. Clear delineation of roles and responsibilities for reporting is necessary (Samra *et al*. 2015). *Finance and payment*. Appropriate resourcing is required to support dissemination and training activities (Bywood *et al*. 2015).
	Publication of results	Description	Publication is a special case of dissemination and is part of the 'transparency agenda' (Ashton 2015; Ham *et al*. 2015).
		Significance and use	Publishing performance data can facilitate behaviour change by stimulating underperforming individuals and services to improve their performance relative to higher performing individuals (Ashton 2015; Grant *et al*. 2015; Ham *et al*. 2015). One study indicated that publicising performance may result in system performance reverting to the mean, as professionals seek to avoid the scrutiny associated with being an over or under achiever (Grant *et al*. 2015). It is important that entities (individuals or services) are only held publically accountable for that which they are responsible (Jacobs *et al*. 2006; Ham *et al*. 2015). Reporting on performance in an overly simplistic manner may have negative consequences for public trust and provider performance (Jacobs *et al*. 2006; Ham *et al*. 2015).

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Lever type	Lever		Key findings
		Supporting levers	*Technology*. Publication requires appropriate health information systems to facilitate reporting and aid consumption of results (Ham *et al*. 2015).
Technology	Health information systems[A,B]	Description	Includes electronic health or medical records and shared-care tools.
		Significance and use	Tools with multiple effects. Health information systems can improve data collection and are increasingly a part of facilitating effective referral management and thus in promoting service integration and continuity of care (Franx *et al*. 2013; Bywood *et al*. 2015). They enable GPs to occupy the centre of healthcare homes (WentWest Ltd 2015). Studies indicate an almost complete adoption of computerised medical records among Australian GPs (Ludwick *et al*. 2010). Nevertheless, the use of health information systems is suboptimal and difficulties exist regarding system compatibility and standardisation (Pearce *et al*. 2013). Factors that impede the effective use of health information systems are a lack of standardisation of coding systems for diagnosis, lack of standards governing different information systems, lack of patient access to their records, inadequate backup systems, and poor quality control (Pearce *et al*. 2013).
		Supporting levers	*Organisation*. Effective leadership and change management is necessary for successful implementation (Silvester and Carr 2009). *Information*. Training and support is necessary for uptake of health information systems (Ludwick *et al*. 2010). *Engagement*. Professional networks support implementation (Ludwick *et al*. 2010). *Finance and payment*. Incentives have been used to implement computerised medical records (Breton *et al*. 2011; Pearce *et al*. 2013). One study found that the type of remuneration approach used was not associated with uptake (Ludwick *et al*. 2010).
	Web portals	Description	Online systems that provide central repositories of information or facilitate point of contact between commissioners, providers or patients.
		Significance and use	Can be utilised to facilitate electronic referrals, information exchange and contract management. Web portals are currently utilised by some PHNs within Australia (WentWest Ltd 2015; 2016).
		Supporting levers	–
	Data visualisation tools	Description	A means to consolidate complex information into simple and readable formats.
		Significance and use	Geospatial analysis has been investigated as a means to visualise routinely collected health service data to inform commissioning (Noble *et al*. 2012). Visualisations were found to be useful in representing data but were technically difficult to produce (Noble *et al*. 2012).
		Supporting levers	–
	Decision support tools	Description	Tools and protocols that assist commissioners in strategic, data-driven priority setting and decision-making. Decision-support technologies include: needs assessment, program budgeting and marginal analysis (PBMA), and Health Technology Assessment (HTA).
		Significance and use	Decision support tools improve the cost-effectiveness as well as transparency of the decision-making process. Needs assessment, utilising epidemiological data, followed by predictive modelling were the most commonly reported tools used for making investment and disinvestment decisions in a survey of primary care trusts in England (Robinson *et al*. 2012). Program budgeting and marginal analysis (PBMA) is another decision support tool that uses past resource allocation in conjunction with cost-benefit analysis to make future expenditure decisions. PBMA was identified as one of the least used decision-making tools, in the context of commissioning; however, it is argued that PBMA presents a satisfactory approach to priority setting (Robinson *et al*. 2012; Goodwin and Frew 2013). Health Technology Assessment is mostly used to conduct assessments of pharmaceuticals, rather than to assess medical devices or other health technologies (Elston and Stein 2007). HTAs tended to be of variable quality and often do not consider value for money (Elston and Stein 2007).

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Lever type	Lever		Key findings
		Supporting levers	*Engagement*. Successful use of these tools requires effective engagement with stakeholders (Robinson *et al*. 2012). *Information*. Use of decision-support tools depends on the existence of appropriate data as well as appropriate training or capacity building (Elston and Stein 2007).
Finance and payment	Targeted marginal investment	Description	Provides targeted funding for initiatives aimed at improving or reconfiguring services, including disinvestment (O'Cathain *et al*. 2015). Can include investment in patient enrolment with a primary care practice, professional development, attracting and retaining a skilled workforce, information technology (IT) system upgrade, implementation and decommissioning activities, and data collection (McDonald *et al*. 2008; Ashcroft *et al*. 2014; Breton *et al*. 2014; WentWest Ltd 2016).
		Significance and use	Providing one-off lump sum payments may be useful for providing the necessary capital to implement transformative changes aimed at achieving long-term gains (Franx *et al*. 2013).
		Supporting levers	*Technology.* Decision-support tools can be used to inform targeted investment.
	Block funding	Description	Payment of fixed amounts in 'blocks' to service providers for service provision.
		Significance and use	The provider is responsible for delivering care to patients within the assigned budget (Marshall *et al*. 2014). Block funding has low transaction costs, facilitates budgetary control, provides financial stability for providers, and allows for providers to innovate within the assigned budget (Marshall *et al*. 2014). Drawbacks include lack of accountability for expenditure and reduced commissioner influence over providers. This model is criticised for discouraging activity (throughputs), costly innovation, and care for 'costly' patients (such as those with complex needs or chronic conditions; e.g. severe and persistent mental illness) (Marshall *et al*. 2014).
		Supporting levers	–
	Case-based or pathway-based funding	Description	Funding paid for an episode of care.
		Significance and use	Case-based funding facilitates patient choice (Marshall *et al*. 2014), encourages efficiency in care per episode and incentivises increased throughput (activity). Case-based funding enables performance monitoring across providers (Marshall *et al*. 2014). Disadvantages to case-based funding include that it risks stimulating unnecessary demand, it presents difficulties in capping expenditure and has higher transaction costs than block funding. Case-based funding may foster a decline in quality care, and there is a risk of petty fraud – where providers classify patients into more lucrative categories (Marshall *et al*. 2014).
		Supporting levers	–
	Capitation[A]	Description	A fee paid to practices according to the number of enrolled patients.
		Significance and use	Capitation is an administratively simple form of payment. It facilitates enrolment with a service provider, and so is consistent with a healthcare homes model. Capitation can also offset the shortcomings of fee-for-service models (see below) (Douglas *et al*. 2009). Capitation may reduce inter-professional competition and thus improve collaborative care (McDonald *et al*. 2008; Breton *et al*. 2011). Capitation is often weighted according to case complexity in order to overcome disincentives to care for more complex cases (Marshall *et al*. 2014).
		Supporting levers	–
	Fee-for-service	Description	A form of activity-based funding, where payment is made to perform a service.
		Significance and use	Fee-for-service is simpler to administer than pay-for-performance approaches (Marshall *et al*. 2014), enables patient choice of care provider (Marshall *et al*. 2014), incentivises uptake of technologies and services that are remunerated under a fee-for-service scheme and creates no incentives to withhold care. Key drawbacks are that it can be difficult to constrain budgets, it rewards total throughput rather than quality of care, it may result in unnecessary consultations, and it can stimulate interprofessional

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Lever type	Lever		Key findings
			competition rather than collaboration (Breton *et al*. 2011; Marshall *et al*. 2014). Rates of remuneration provided may be insufficient to provide adequate care for patients with complex needs (Douglas *et al*. 2009).
		Supporting levers	–
	Pay-for-performance or payment by outcomes	Description	A model of payment that links financial incentives to the achievement of desired outcomes.
		Significance and use	Pay-for-performance rewards the desired outcome directly and facilitates a high degree of commissioner control over health system outcomes (Buetow 2008). A key limitation of pay-for-performance is its administration costs. Providers may incur substantial financial risks if payment is likely to be delayed or withheld unless and until outcomes are demonstrated (Schwartzkoff and Sturgess 2015). Identifying suitable indicators may be challenging in mental health (Schwartzkoff and Sturgess 2015). Pay-for-performance may be appropriate where the relationship between inputs, throughputs and outcomes are clear and accepted (Marshall *et al*. 2014; Schwartzkoff and Sturgess 2015). Negative consequences may result from a misalignment between performance indicators and stakeholder goals and values. Pay-for-performance discourages elements of care that cannot be measured and it may discourage intrinsic motivation and ownership, particularly if the system of rewards is perceived as being unfair (Buetow 2008; Marshall *et al*. 2014). Some studies report that pay-for-performance can improve quality of care, with respect to incentivised indicators, in the short term (Campbell *et al*. 2008; Franx *et al*. 2013; Grant *et al*. 2015). In one case study, Grant *et al*. (2015) highlighted that there were few instances of commissioners withholding payments entirely. Cautious and staged implementation of pay-for-performance approaches within Australia's mental health sector has been recommended (Schwartzkoff and Sturgess 2015). One study warned of detrimental effects on continuity of care (Campbell *et al*. 2008).
		Supporting levers	*Engagement*. Pay-for-performance should be mixed with constructive quality improvement initiatives to help troubleshoot performance issues (Grant *et al*. 2015). *Information*. The ability to implement a pay-for-performance scheme depends on the existence of suitable performance indicators that can measure performance over a timeframe that fits with the practical need to disburse funds for a contract (Ashton 2015; Schwartzkoff and Sturgess 2015). *Technology*. Suitable health information systems are a necessary pre-condition for use of payment by outcomes (Marshall *et al*. 2014). *Enforcement*. Payment by outcomes fuses contractual and payment mechanisms (Addicott 2014; Grant *et al*. 2015).

[A]Levers that have unique significance to the implementation of a healthcare homes model.
[B]Levers that have unique significance to the implementation of stepped care within primary mental healthcare.

specificity, and engender different distributions of financial risk and responsibility between commissioning organisations and service providers (Marshall *et al*. 2014). In practice, blended arrangements are often used (Marshall *et al*. 2014). The pay-for-performance approach, which fuses financial and contractual mechanisms, was the most commonly discussed payment model in the literature reviewed, with several commentators expressing the need for caution in utilising this approach in terms of its possible deleterious effects on intrinsic motivation and continuity of care (Buetow 2008; Campbell *et al*. 2008; Marshall *et al*. 2014; Schwartzkoff and Sturgess 2015). The success of pay-for-performance approaches depends on the ability to select and monitor performance indicators that align with, and therefore incentivise, desirable activities and outcomes that are within a provider's control and can be measured over the period of a contract (Schwartzkoff and Sturgess 2015). Implementation of payment by outcomes that result in delays in payment or present a significant financial risk to the contractor may be detrimental to the mental health system (Schwartzkoff and Sturgess 2015).

A Cochrane review of evidence on the effect of financial incentives on the behaviour of primary care practitioners found insufficient studies to judge the effectiveness of incentives (Scott *et al*. 2011). Ludwick *et al.* (2010) found that mode of remuneration did not affect the implementation of electronic medical records in Canada, whereas a review by McDonald *et al.* (2008) found inconclusive evidence linking mode of remuneration to improvements in team-based primary care.

Discussion

Effective primary mental healthcare depends on creating a system that patients can easily navigate and that is flexible to the way that

symptoms and needs fluctuate. Facilitating service integration, multidisciplinary team-based care, and continuity of care are of paramount importance to achieving this. Although all levers identified in this review have applicability to PHNs with respect to their roles in improving health system functioning and primary care in general, the use of referral management, contracts, tendering and health information systems have specific implications to improving the performance of mental health systems.

Effective referral management, which focusses on mechanisms for facilitating patient access to the most appropriate, least restrictive care for their symptoms, will likely be critical to achieving better system integration and continuity of care. Contractual and payment approaches, specifically those that focus on contestability rather than competition, may help foster constructive and supportive relationships across providers that are critical to achieving system stability, integration and continuity.

Health information systems can be supportive of both mental health services and a healthcare homes model of primary care. In particular, the adoption of single multi-agency care plans may be an important facilitator of integration and continuity of care (Department of Health 2016).

Importantly, lever use is context-specific and multiple levers often work together. This is important to recognise for their successful application. However, it also raises methodological challenges in terms of how levers can be evaluated in order to build a much-needed evidence base to support their use (Greenhalgh *et al*. 2009; Cartwright and Hardie 2012; Grace *et al*. 2017).

Strengths and limitations

The key strength of this review is that it describes a range of levers from health systems that are similar to those in Australia. There are four key limitations to note. First, the classification of content according to levers relied on judgement and interpretation. Other researchers could have classified content differently. We do not think this potential variability undermines our analysis, given that it is based on an existing framework and that we undertook cross-checking of a sample of documents. Second, in the documents included in this review, only one profession (nursing) was considered as a 'lever' (see Table 5). Further work needs to be done to establish where and when health professionals and the workforce should be viewed as 'levers'. Third, the literature was sparse and not necessarily based on robust evaluation methods. There is a need for further research to develop an evidence base for policy (Gardner *et al*. 2016). Finally, although this review focussed on the use of levers at a single level of governance (i.e. at a regional level), in practice, levers can be enacted across multiple levels of governance. Future research on levers that cross levels is warranted.

Conclusion

This review identified 26 different levers that could be used by Primary Health Networks to influence the mental health system. Although all of these levers play an important role in health system functioning in general, referral management, health information systems, contracts and tendering models may be uniquely relevant to achieving the appropriate streaming of help seekers, service integration and continuity of care – critical success factors for a stepped care model. Enrolment, location, health information systems and capitation may be particularly important for implementing a healthcare homes model. Further reviews and primary research are needed to evaluate the use of systems levers in commissioning primary mental healthcare by local health organisations. PHNs can help build an evidence base for levers by documenting the levers that they use, evaluating their use, and making this information available to researchers and other commissioning bodies for further analysis and synthesis.

Conflicts of interest

The authors declare that they have no conflicts of interest.

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Appendix 1. List of websites searched for grey literature

A. Government bodies

Australia

Commonwealth

www.health.gov.au; Australian Government Department of Health website

http://www.aihw.gov.au/mental-health/; the Australian Institute of Health and Welfare (AIHW) develops, maintains and reports on national mental healthcare data, including four mental health National Minimum Datasets, to provide a picture of mental health-related service provision in Australia.

http://www.mentalhealthcommission.gov.au/; Australian Mental Health Commission

http://mhsa.aihw.gov.au/home/; mental health services in Australia: useful for document preparation and background – including service data, workforce descriptors, KPIs for Australian public mental health services and a publications page: http://mhsa.aihw.gov.au/committees/publications/

New South Wales

http://nswmentalhealthcommission.com.au/; NSW Mental Health Commission

http://www.health.nsw.gov.au/mentalhealth/pages/default.aspx; NSW Department of Health

Western Australia

http://www.mentalhealth.wa.gov.au/Homepage.aspx; WA Mental Health Commission, including Mental Health Advisory Council

http://ww2.health.wa.gov.au/About-us/Mental-Health; Office for Mental Health within WA Health

Victoria

https://www2.health.vic.gov.au/mental-health

South Australia

http://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/health+topics/health+conditions+prevention+and+treatment/mental+health+and+mental+illness/mental+health+and+mental+illness

Northern Territory

http://www.health.nt.gov.au/Mental_Health/index.aspx

Tasmania

http://www.dhhs.tas.gov.au/mentalhealth

ACT

http://www.health.act.gov.au/our-services/mental-health

New Zealand

http://www.health.govt.nz/your-health/services-and-support/health-care-services/mental-health-services; Ministry of Health/mental health

http://www.hdc.org.nz/; the Health & Disability Commissioner, NZ

Canada

http://www.mentalhealthcommission.ca/English

Canadian provinces

http://cmha.ca; Canadian Mental Health Association; separate pages for each province

http://www.mentalhealthns.ca/; Mental Health Foundation for Nova Scotia

https://www.gnb.ca/0055/mental-health-e.asp; New Brunswick

http://www.msss.gouv.qc.ca/sujets/prob_sante/sante_mentale/index.php?accueil_en; Health and Social Services Quebec

http://novascotia.ca/dhw/mental-health/ Nova Scotia; Department of Health and Welfare/Mental Health

http://www.health.gov.nl.ca/health/mentalhealth/ Newfoundland; Department of Health and Community Services

http://www.children.gov.on.ca/htdocs/English/topics/specialneeds/mentalhealth/index.aspx; Ontario youth MH services

http://www.health.alberta.ca/health-info/addiction-mental-health.html; Alberta health services, including information on recent MH review process at: http://www.health.alberta.ca/initiatives/Mental-Health-Review.html

http://www.albertahealthservices.ca/amh/amh.aspx
Alberta mental health and addiction services

http://www.phsa.ca/our-services/agencies/bc-mental-health-substance-use-services; British Columbia (BC) Department of Health MH services; includes 10-year plan for mental health services at http://www2.gov.bc.ca/gov/content/health/managing-your-health/mental-health-substance-use/healthy-minds-healthy-people and guidelines for primary mental healthcare https://www.cmha.bc.ca/get-informed/public-issues/primarycare

http://www.healthpei.ca/mentalhealth; Prince Edward Island Department of Health/mental healthcare

https://www.saskatchewan.ca/residents/health/accessing-health-care-services/mental-health-and-addictions-support-services Saskatchewan mental health services

United Kingdom

https://www.england.nhs.uk/ccg-details/
Contains list of clinical commissioning groups (CCGs). All CCGs searched.
http://www.nhsconfed.org/networks/mental-health-network
http://www.hra.nhs.uk/
https://www.nice.org.uk/
www.england.nhs.uk
www.show.scot.nhs.uk
http://www.wales.nhs.uk/healthtopics/conditions/mentalhealth
http://www.hse.ie/eng/services/list/4/Mental_Health_Services/

Netherlands

https://www.government.nl/topics/mental-health-services; Dutch Ministry of Health – mental health segment
https://www.government.nl/topics/mental-health-services/contents/primary-and-secondary-mental-health-care

B. (Health) policy think tanks and online repositories

Australia

https://grattan.edu.au
www.saxinstitute.org.au
http://www.phcris.org.au
apo.org.au

United Kingdom

nuffieldtrust.org.uk
www.kingsfund.org.uk
coalitionforcollaborativecare.org.uk
http://mentalhealthpartnerships.com/

Canada

http://www.canadianhealthpolicy.com/about-chpi.html
https://www.fraserinstitute.org/studies/health-care
https://www.cihi.ca/en

Netherlands

http://www.cpb.nl/

New Zealand

http://nzinitiative.org.nz/

C. Mental health professional bodies

Australia

http://www.mhcc.org.au
Mental Health Coordinating Council (based in NSW); resources include literature review on mental health service coordination (2011), ID of workforce competencies (2012)
http://www.acmhn.org; Australasian College of Mental Health Nurses
https://ahha.asn.au; Australian Healthcare and Hospitals Association (AHHA)
http://www.psychology.org.au/; Australian Psychological Society
http://www.racgp.org.au/Home; Royal Australian College of GPs

New Zealand

http://www.rnzcgp.org.nz/; College of GPs – NZ

United Kingdom

http://www.bps.org.uk/; British Psychological Society
http://www.rcgp.org.uk/; Royal College of GPs – UK
www.rcpsych.ac.uk
http://www.jcpmh.info/
http://www.cypiapt.org/site-files/jcpmh-camhs-guide.pdf

Canada

http://www.cfpc.ca/Home/; College of Family Practitioners – Canada
http://www.cpa.ca/; Canadian Psychological Association
http://cfmhn.ca/; Canadian Federation of Mental Health Nurses

Netherlands

http://www.ggznederland.nl/pagina/english; Dutch association of mental health and addiction care – sector peak body; reports and reviews on care systems

D. Primary mental healthcare providers

http://headspace.org.au/; Youth mental health program Australia wide
http://www.barwonhealth.org.au/primary-mental-health-partners; Services of PH mental healthcare network in Barwon (Vic)
https://www.easternhealth.org.au/services/item/414-primary-mental-health-team; Eastern (Vic) Health network – descriptor of services, model of care, etc. including Service Coordination Alliance
http://www.wuc.org.au/programs-services/mental-health?gclid=CI6tta2I9MsCFRJxvAodbO4NZQ; Wimmera Uniting Care Mental Health services
http://www.turning-point.co.uk/; UK: mental healthcare provider
http://www.mdsc.ca/; Canada NGO for mood disorder services
http://www.kidsmentalhealth.ca/professionals/introduction.php; Canada (Ontario) specialist provider for youth mental health
http://www.bcmhsus.ca/; BC tertiary teaching psychiatric hospital; includes research groups http://www.wrha.mb.ca/prog/mentalhealth/; Winnipeg Primary Mental Health services
http://umanitoba.ca/faculties/health_sciences/medicine/units/psychiatry/programs/community_psychiatry.html; University of Manitoba Community primary mental healthcare

E. Primary care and mental healthcare research centres and agencies

http://aphcri.anu.edu.au/aphcri-network/research-completed/improving-%E2%80%98network-planning-and-management%E2%80%99-integrated-primary; ANU – Primary Healthcare Research Institute
www.healthinfonet.ecu.edu.au/key-resources/organisations?oid=1215; Health Info Net – repository of information/research relating to Indigenous health including mental health
https://www.youngandwellcrc.org.au/about/; Young and Well Cooperative Research Centre: Australia-based, international research centre that unites young people with researchers, practitioners and policymakers from over 75 partner organisations across the non-profit, academic, government and corporate sectors.
http://www.scp.nl/english/; Netherlands Institute for Social Research
https://www.nice.org.uk/; UK: the National Institute for Health and Care Excellence (NICE) provides national guidance and advice to improve health and social care.
http://www.kcl.ac.uk/ioppn/index.aspx; UK: Kings College/Institute of psychiatry, psychology and neuroscience
http://www.centreformentalhealth.org.uk/; community-based organisation; inform policy and practice based on high-quality evidence, presented impartially, and often collaboratively.
http://www.hra.nhs.uk/; UK: providing policies and guidance for health and social care research
http://www.douglas.qc.ca/section/about-us-345; Canada: Mental health services research