

Models of public–private engagement for health services delivery and financing in Southern Africa: a systematic review

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Abstract

In low- and middle-income countries (LMICs), the private sector—including international donors, non-governmental organizations, for-profit providers and traditional healers—plays a significant role in health financing and delivery. The use of the private sector in furthering public health goals is increasingly common. By working with the private sector through public–private engagement (PPE), states can harness private sector resources to further public health goals. PPE initiatives can take a variety of forms and understanding of these models is limited. This paper presents the results of a Campbell systematic literature review conducted to establish the types and the prevalence of PPE projects for health service delivery and financing in Southern Africa. PPE initiatives identified through the review were categorized according to a PPE typology. The review reveals that the full range of PPE models, eight distinct models, are utilized in the Southern African context. The distribution of the available evidence—including significant gaps in the literature—is discussed, and key considerations for researchers, implementers, and current and potential PPE partners are presented. It was found that the literature is disproportionately representative of PPE initiatives located in South Africa, and of those that involve for-profit partners and international donors. A significant gap in the literature identified through the study is the scarcity of information regarding the relationship between international donors and national governments. This information is key to strengthening these partnerships, improving partnership outcomes and capacitating recipient countries. The need for research that disaggregates PPE models and investigates PPE functioning in context is demonstrated.

Key words: Donor reliance, health system strengthening, public–private engagement, public–private sector partnership, Southern Africa

Key Messages

- A wide range of models of public–private engagement (PPE) is apparent in the Southern African literature.
- The available literature is over-representative of engagements with for-profit partners, engagement with international partners and PPE initiatives in South Africa, while substantial gaps in the literature include state engagement with the informal sector, in-country not-for-profit organizations and PPE for health financing.
- Factors influencing the success of PPE initiatives include organizational particularities, interpersonal relationships between partners, and the suitability of the PPE model to the context.
- In evaluating PPE initiatives, it is vital to recognize the differences between various models and the appropriateness of different models to different contexts. Further research is suggested in this regard.

Introduction

The global burden of disease falls most heavily on low-income countries, which struggle to manage this burden with weak health systems (Hanson *et al.* 2008). Engagement between the public and private sectors is increasingly common and has developed into a general approach to ‘improving efficiency, effectiveness and responsiveness’ of the public sector (Kernaghan 1993). The focus of policy-makers and analysts is no longer devoted solely to how governments can finance and deliver all health services, but now includes how the private sector can be managed so that their activities help meet national health objectives (Mills *et al.* 2002; Smith *et al.* 2008).

Despite the rising popularity of public–private engagement (PPE) for health, in-depth empirical investigations and conceptualizations of PPE remain rare (Kernaghan 1993; Roehrich *et al.* 2014). There are various models for engagement with the private sector (Buso 2004). However, policy-makers give little attention to the question of the best mechanisms by which to utilize private healthcare to achieve national public health goals (Berman 1996). The evidence base on private sector engagements remains weak, and efforts must be made to strengthen it (Hanson *et al.* 2008).

The limited extent of existing evidence, particularly addressing PPE in the Southern African context, combined with the scope of this study, precludes the possibility of establishing the relative effectiveness of various models of PPE. The aim of the study reported here is to explore the various models of PPE for health financing and delivery that are being utilized in the Southern African context (as a foundation for future evaluative work assessing the effectiveness of various models). This requires a disaggregation of PPE models. As such, a systematic literature review was conducted and the results analysed in accordance with a typology of models of PPE developed on the basis of a preceding scoping review. The systematic review aimed to explore the evidence on the types and quantity of PPE initiatives in Southern Africa. This facilitated an analysis of the trends in PPE with respect to its prevalence, the models being utilized, and the range of partners being engaged with, as well as the identification of gaps in the available evidence and the need for further research. It is hoped that this work will facilitate studies assessing the effectiveness of various forms of PPE, the organizational choices that impact PPE effectiveness and sustainability, and the suitability of different PPE models to various contexts. In addition, this typology of PPE should illuminate the wide range of mechanisms through which public sector actors can utilize private resources, and private sector actors can contribute to public health goals.

Background

Delivery and financing of healthcare is commonly considered to be the sole responsibility of the state, despite the fact that in low- and middle-income countries (LMICs) a lack of resources hampers governments’ capacity to fulfil this role (Asante and Zwi 2007). The health systems of many LMICs are ‘mixed health systems’ in which public health systems operate alongside a non-state health sector, with market systems often playing a dominant role (Nishtar 2010; Kula and Fryatt 2014). In such systems, insufficient state funding and under-regulation of the private sector combine to undermine the equity and efficiency of the system as a whole (Nishtar 2010).

In most Southern African countries, inadequate public health infrastructure, medicine shortages, and insufficient financial and human resources undermine the state’s capacity to meet population

health needs, and low quality of care characterises public sector provision (Asante and Zwi 2007; Foster 2012; Rao *et al.* 2011; Sekhri *et al.* 2011). Historically, the state was viewed as the appropriate sole provider of health care, and interaction and collaborations between the public and private sectors was limited (Buso 2004; Kula and Fryatt 2014). The structural adjustment programmes driven by the World Bank/International Monetary Fund in the 1980s and 1990s, combined with international concern about the government’s capacity to deliver adequate health services, and economic theory regarding the increased efficiency of the private sector, saw cuts in public spending which undermined public sector health provision and resulted in an increased role for the private sector in health care (Buso 2004; Pfeiffer 2004; Unger *et al.* 2006; Pfeiffer *et al.* 2008; Marriott 2009; Munyuki and Jasi 2009; Mussa *et al.* 2013). Many LMICs, including Zambia, Mozambique and Malawi, implemented reforms along these lines (Buso 2004). For these, and other historical reasons, public healthcare provision in sub-Saharan Africa has, since the early 1980s, been largely characterized by resource scarcity and a contraction of service delivery (Streefland 2005). Only three of the ten countries included in the review—Malawi, Swaziland and Zambia—have met the Abuja target to devote 15% of government expenditure to health (Foster 2012). These shortages are exacerbated by increasing demand for services driven by new health challenges such as HIV (Rao *et al.* 2011).

In many Southern African countries health spending is supplemented by external donor funding, which flows either through government or private channels (Foster 2012). While South Africa and Angola receive very little donor funding, Malawi and Mozambique are heavily reliant on external funds (Foster 2012). Figure 1 demonstrates the significance of the private sector across Southern Africa.

The private sector plays a large role in the provision of health services in LMICs (Bennett *et al.* 2005; Peters *et al.* 2004; Montagu *et al.* 2011; Mills 2014) and constitutes an important source of care for the poor (Patouillard *et al.* 2007). The private health sector consists of a heterogeneous mix of for-profit providers (predominantly formal, accredited in-patient and out-patient providers but also including informal providers operating outside of government regulation such as traditional healers and drug sellers), non-governmental organizations (NGOs) and not-for-profit organizations (NPOs), both local and international (Waters *et al.* 2003; Hanson *et al.* 2008).

Although the appropriateness of mechanisms for private sector engagement is dependent on the type of private provider in question, the focus of this paper is on PPE organizational models, which can be used to engage with for-profit and not-for-profit partners alike. As such, distinctions between types of private-sector partners will not be drawn out. Nonetheless, it is important to bear in mind that the poor are more likely to access lower-quality and informal private health services, and that PPE is less commonly undertaken with private partners that service the poorer segments of the population (Hanson *et al.* 2008).

Private providers serve populations in both rural and urban areas, are often more geographically accessible than public facilities, are perceived to be more responsive to user preferences, and offer shorter waiting times and greater confidentiality (Berman 1996; Bennett *et al.* 2005; Montagu *et al.* 2011; Patouillard *et al.* 2007). In Africa, half of all people seeking care turn to private providers (Hanson *et al.* 2008). About 60% of the total health expenditure in Sub-Saharan Africa is private, predominantly out-of-pocket and about half is spent on private providers (Hanson *et al.* 2008).

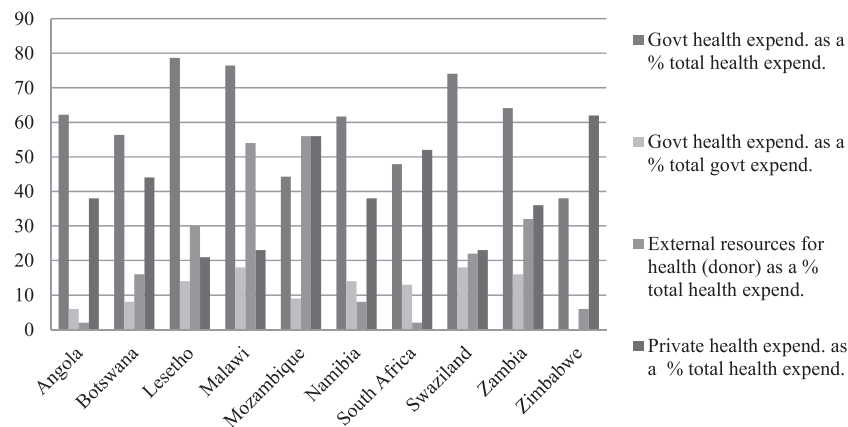


Figure 1. Health financing indicators for Southern Africa (Source: Foster 2012; WHO 2015).

It is apparent from the literature that the private sector presents both strengths and weaknesses with regard to health service provision. An effective private health sector can relieve the burden on the public sector and allow more resources to be spent on the very poor and vulnerable segments of society (Sharma and Dayaratna 2005; Dambisa and Modipa 2009; International Finance Corporation (IFC) 2011). However, left unchecked, private provision of health services can increase costs, decrease affordability, lead to a deterioration in quality of services (in both sectors), increase inequity in access to services and, ultimately, undermine population health and social justice objectives (Buso 2004; Streefland 2005; Doherty 2011; Rao *et al.* 2011; Foster 2012; Reddy and Mary 2013).

Despite these concerns, the size and capacity of the private sector in the region is representative of a significant store of health system resources that can be utilized for health system strengthening across the dimensions of access, equity and quality. While there is no doubt that market failures occur in the private provision of healthcare, policy-makers can use PPE to attempt to eliminate these failures, so that private resources can be harnessed for public good (Hanson *et al.* 2008; Marriott 2009).

Policy-makers are increasingly acknowledging the private sector as a resource, and exploring and implementing mechanisms for engaging with the private sector to increase coverage and the quality of services by harnessing private financing and expertise to target vulnerable populations and mitigate the harm that arises from ill-regulated private provision and financing of healthcare (Peters *et al.* 2004; Bennett *et al.* 2005; Asante and Zwi 2007; Patouillard *et al.* 2007; Sekhri *et al.* 2011). ‘The public and private sectors have different strengths and weaknesses, and a judicious blending of the two can produce optimal results’ (Hanson *et al.* 2008, p. e233). Locally relevant public policies can ensure that private providers make a positive contribution to the system (Nishtar 2010).

A common objective of PPE is to maximize population benefits given existing limited resources (Buso 2004). However, knowledge and understanding on the mechanisms for engaging with the private sector that work best to improve quality and/or coverage of services is limited (Peters *et al.* 2004), especially in LMICs (Mills *et al.* 2004).

Method

This systematic literature review was undertaken to explore the available literature addressing the range and quantity of PPE mechanisms being utilized in Southern Africa. Figure 2 presents a

summary of the review process.¹ The systematic review process was strengthened by a preceding scoping review which was undertaken to better define the field and ensure that search terms covering the entire spectrum of PPE models were included. In addition, an iterative process, in which the search strategy was refined on the basis of previous searches, was used (Hammerstrøm *et al.* 2010; Lefebvre *et al.* 2008). Both natural language terms and standardized subject terms (controlled vocabulary search terms) were included to ensure that relevant documents employing different terminology for the same concept were identified (Hammerstrøm *et al.* 2010; Lefebvre *et al.* 2008).

For the systematic literature review presented here, a Campbell Systematic Review methodology was followed to minimize bias in identifying and analysing documents for inclusion and to facilitate the inclusion of a wide variety of evidence types. This review seeks to synthesize the available information on PPE with respect to organizational models and does not aim to establish the effectiveness of these various models. As such, methodological rigour was not considered as a criterion for inclusion.

Because the goal of the study was to investigate various mechanisms for government engagement with the non-state health sector, broad definitions of the non-state sector and of what constitutes engagement were used. Engagement between public and private health sectors can be defined as ‘the deliberate, systematic collaboration of the government and the private health sector according to national health priorities, beyond individual interventions and programmes’ (IFC 2011). This paper assumes a broadly inclusive definition of the private sector. The private sector is taken to include for-profit and not-for-profit providers and funders, as well as organizations operating at a global level. The review is intended to synthesise evidence on models of engagement to harness private sector health resources for the public good. As such, while the review is focused largely on market-based approaches to PPE—initiatives intended to influence the behaviour of the private sector to promote the public interest (Peters *et al.* 2004)—dual practice (DP) regulation, a type of regulatory engagement, has been included by virtue of its importance in the Southern African context, where human resources for health are severely limited, as a mechanism for harnessing private sector human resources for public gain. The private sector was taken to include any non-state actor in the health system excluding health system users, and therefore

1 Ethical approval was granted by the author’s institute.

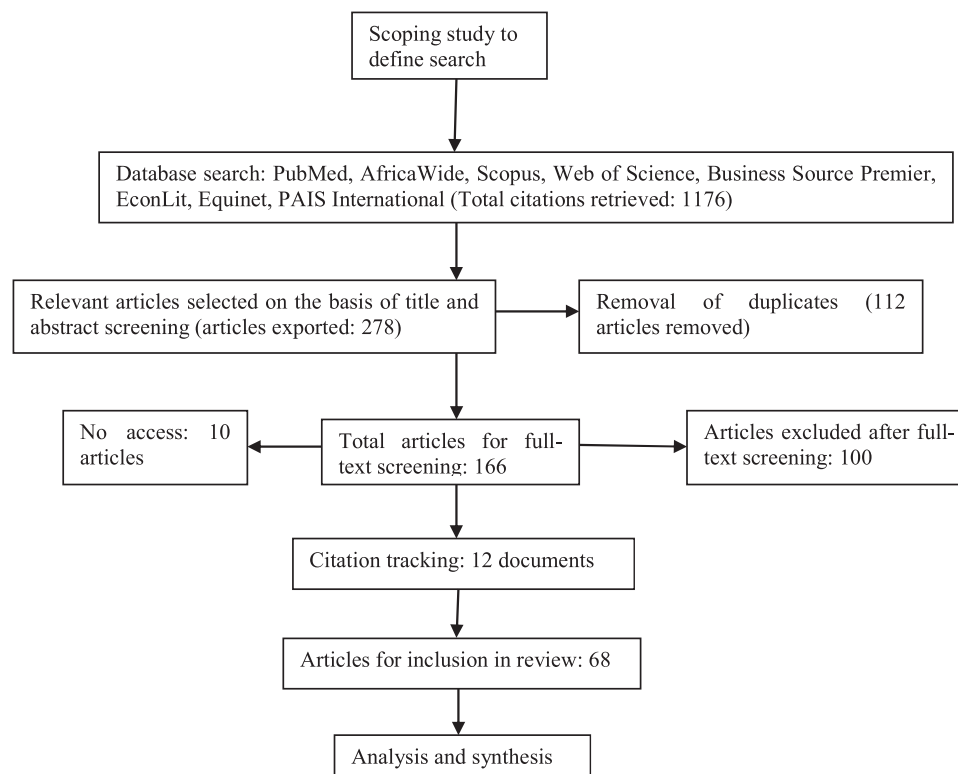


Figure 2. Systematic review process (Source: Author).

included international and national, for-profit and not-for-profit, formal and informal, individuals and organizations. Following Kernaghan, engagement was taken to include any ‘relationship involving the sharing of power, work, support and/or information with others for the achievement of joint goals and/or mutual benefits’ (1993, p. 61).

To capture all current Southern African PPE initiatives for health and minimize bias (see [Hammerström et al. 2010](#)), a range of databases, both medical- and business-related, were searched, including: PubMed, Scopus, AfricaWide, EconLit, Web of Science, Business Source Premier, Equinet and PAIS International. The decision to include business-related databases as well as medical databases is justified by the need to ensure that the review includes the full range of available evidence. Some PPE initiatives for health are undertaken as business ventures and are not presented in medical journals. A detailed account of the search criteria for each database can be found in [Supplementary Appendix S2](#). Search terms and MESH terms were grouped into three categories using Boolean operators to ensure adequate sensitivity and specificity. The first category included ‘Southern Africa’ as well as the names of all individual countries within Southern Africa. To ensure a manageable number of search results, the first category of search terms was restricted to titles and abstracts in the larger databases. Trial searches were conducted in each database to establish the necessity of this approach. The second group of search terms included terms relating to the financing and delivery of health care, and the third, terms describing the range of PPE models identified in the scoping review.

The review is limited to PPE initiatives for health financing and delivery (including human resource management), and excludes PPE initiatives for drug development, research or human resource

training. To be included in the review, the document had to be in English, and discuss at least one particular PPE in Southern Africa. The review focused on literature published since 2004. Documents discussing PPE in general were excluded, as were documents discussing PPE initiatives in areas other than health service delivery or financing, and those in which the state partner was other than a national or provincial ministry of health (MoH), or local government health authority. In keeping with the Campbell review methodology, the review included both peer-reviewed and grey literature ([Campbell Collaboration 2014](#)). The inclusion of grey literature in this study served to guard against publication bias, and to ensure that PPE initiatives that do not have an academic component are nonetheless included in the review. An objective inclusion criterion was used.

It is not uncommon for PPE initiatives that met the inclusion criteria (i.e. were described in documents published after 2004) to have been initiated before then. Furthermore, the most detailed account of the organizational structure of a PPE is commonly reported at or around the time of its inception. As such, it was necessary to expand the scope to include some key documents published prior to 2004 (the oldest document included in this review was published in 1996).

A data extraction form was used to record and synthesize extracted data, and to minimize human error and bias in the data extraction process (see [Tranfield et al. 2003](#)). The process of categorizing the codes under themes was enhanced by locating the codes within the original texts during thematic analysis. This facilitated more accurate categorization of codes, and ensured that each theme is sufficiently representative of all the codes subsumed within it (see [Aveyard 2010](#)). Data synthesis was conducted according to a typology of PPE models, developed on the basis of an earlier scoping

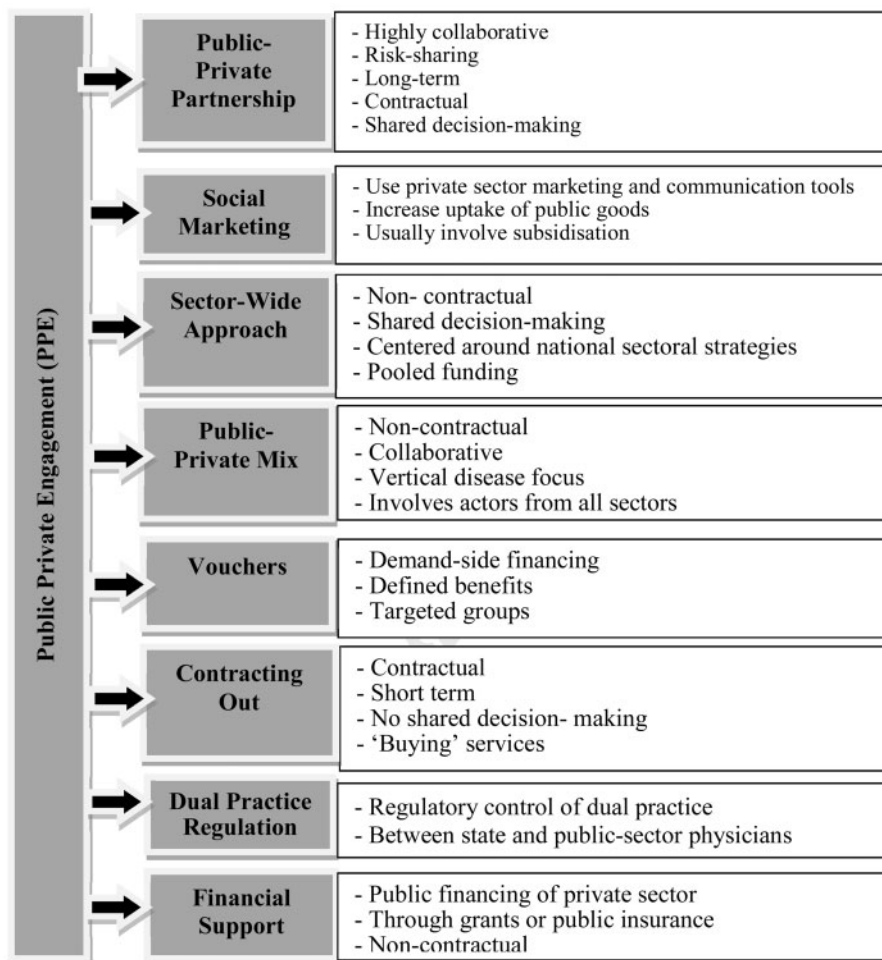


Figure 3. Public–private engagement typology (Source: Author).

review of PPE throughout the world (mentioned above). This typology, including definitions and key features, is presented in [Supplementary Appendix S1](#).

The typology can be usefully understood as a conceptual framework in that it is an organizational device comprised of abstract representations, or ideal types that do not necessarily exist in reality—real-world PPE initiatives may differ significantly from the model. The usefulness of the typology is dependent on the ways in which individual PPE initiatives can be categorized according to how closely they resemble these ideal types, thus elucidating the differences between existing cases ([Wendt *et al.* 2009](#)). The term ‘typology’ was chosen to highlight the importance of the systematic classification of PPE initiatives as it is this process that is intended to facilitate comparative research ([Wendt *et al.* 2009](#)) and improve understanding more generally.

[Figure 3](#) gives a diagrammatic representation of the typology. Although the original typology excluded regulation of DP on the grounds that it is a not a market-based PPE model, given the importance of DP and its appropriate regulation in the Southern African context, this type of PPE was included in the systematic review, and the original typology was augmented to include regulation of DP. The typology facilitated a disaggregation of PPE initiatives such that, in keeping with the aim of this paper to facilitate a thorough investigation of modes of engaging with non-state partners for health,

an understanding could be garnered of the current state of PPE in Southern Africa regarding the various types and models that are in place.

Results

The initial database search identified 1276 documents across all databases. After screening the title and abstracts of each result, 278 documents were selected and exported to EndNote citation manager. Duplicates were removed resulting in a subtotal of 166, 10 of which were excluded as a result of the unavailability of full texts. The remaining documents were assessed for appropriateness. Excluded documents fell predominantly into one of five categories: the PPE in question was not for health care financing or provision, the article was hypothetical or mentioned PPE as a recommendation only, the document provided a general discussion but did not reference any particular PPE initiative, the project in question had no explicit state partner, or the article reported an academic study or pilot project not an implemented PPE initiative. A total of 56 documents met the inclusion criteria. An additional 12 were located using citation tracking, resulting in a total of 68 documents for inclusion.

The included documents were all from peer reviewed sources and included journal articles, internally reviewed reports, and book chapters. For the most part the articles presented findings from

Table 1. Prevalence and geographic location of PPE models in the available literature

PPE model	Number identified	Countries
Social marketing	12	Angola, Malawi, Mozambique, Namibia, South Africa, Zambia, Zimbabwe
Contracting out	8	Botswana, Lesotho, Malawi, Mozambique, South Africa, Zimbabwe
Global PPP ^a	7	Botswana, Lesotho, South Africa, Swaziland, Zambia
PPM approach	5	Angola, Malawi, South African, Zimbabwe
Co-location PPP ^a	4	South Africa
SWAp	3	Malawi, Mozambique, Zambia
PFI ^a	3	South Africa
DP regulation	3	Mozambique, South Africa, Zambia
Voucher Programme	2	Zambia, Malawi
Financing	2	South Africa
PPIP ^a	1	South Africa
Alzira model PPP ^a	1	Lesotho
Franchise ^a	1	Zimbabwe

(Source: Author).

^aPPP sub-types.

qualitative (38) and mixed methods (24) studies, using a variety of methods including survey, case study, ethnography, interview, focus group discussion, literature review, economic evaluation and situation analysis. A table of PPE initiatives identified and sources of evidence for can be found in [Supplementary Appendix S3](#).

Definitions of the various PPE mechanisms, along with key explanatory and conceptual characteristics can be found in [Supplementary Appendix S1](#). While definitional and conceptual overlap exists between some models, each PPE type is identified by key characteristics and are distinguishable. A diagrammatic representation of the PPE typology can be seen in [Figure 3](#).

Prevalence and geographic location of PPE models in the literature

In total 52 individual PPE initiatives, representing 8 distinct PPE models, were identified in Southern Africa. PPE models included: social marketing, sector-wide approach (SWAp), contracting out, voucher programmes, public-private mix (PPM) approach, DP regulation, financing, and public-private partnership (PPP). In addition, six PPP sub-types were identified, including franchising, global PPP (GPPP), public-private integrated partnership (PIPP), Alzira model PPP, co-location PPP and private finance initiative (PFI). This entails that all PPE models identified through the global scoping review are apparent in Southern Africa. [Table 1](#) presents the number of PPE initiatives within each model, and the countries in which they have been identified. This table also gives the number of PPE initiatives identified in each country with international donor or global health initiative (GHI) support.

The systematic review revealed that the extent to which engagement with non-state partners for health is reported in the literature varies dramatically between Southern African countries. In Namibia and Swaziland, only one PPE project was identified in each country, while at the other end of the scale, in South Africa a high number of

PPE initiatives are reported—with 19 South African PPE initiatives identified through the search. It is clear from this systematic review that the number of reported PPE initiatives in Southern Africa with external input in the form of funding or technical assistance is high.

The PPE model most extensively reported in the literature was the social marketing model, of which 12 examples were identified in six countries throughout Southern Africa. However, all except one of these PPE initiatives—the Soul City PPE—are driven by international social marketing NGO Population Services International (PSI), or an affiliate, Society for Family Health (SFH) ([Agha 2001b](#); [Meekers and Richter 2005](#); [Mathanga et al. 2006](#); [Van Rossem and Meekers 2007](#); [Omona 2009](#); [Beksinska et al. 2012](#); [Chapman et al. 2012](#); [Wood et al. 2012](#)). The Soul City social marketing campaign is predominantly supported by the South African National Department of Health (DoH), but also receives funding from the Global Fund to Fight AIDS, Malaria and TB (GFATM); the President's Emergency Plan for AIDS Relief (PEPFAR) and the United States Agency for International Development USAID. As such, none of the social marketing campaigns identified was independent of external support.

Social marketing initiatives use commercial communication and marketing techniques to increase uptake of a product with a public health benefit or to change health-related behaviours ([Meadley et al. 2003](#); [Peters et al. 2004](#); [Madhavan and Bishai 2010](#)). The social marketing PPE initiatives identified were predominantly directed at behaviour change associated with condom use and safe sexual practices for HIV/AIDS prevention. These included various branding and advertising techniques for male and female condoms ([Agha 2001](#); [Pfeiffer 2004](#); [Van Rossem and Meekers 2007](#); [Beksinska et al. 2012](#)), as well as television programmes aimed at socially desirable behaviour change ([Goldstein et al. 2005](#)). Of the 12 social marketing initiatives identified, only 4 were not HIV/AIDS-related. These included three campaigns to increase access to- and use of- insecticide-treated bed-nets, and one campaign, aimed at new mothers, to increase the use of water-treatment products. The prevalence of social marketing PPE initiatives in the literature is in keeping with broader trends through which 'social marketing has emerged as the dominant approach to health education and communication in the developing world' ([Pfeiffer 2004](#), p. 77). Condom social marketing, in particular, has become the cornerstone of many AIDS education and prevention campaigns in sub-Saharan Africa ([Pfeiffer 2004](#)).

Contracting out was the second most prevalent PPE type reported in the literature, with eight contracting out initiatives identified in six countries. Contracting out consists of the delegation of a health-related responsibility by the state to a private partner in exchange for a fee ([Mills and Broomberg 1998](#); [Lagarde et al. 2009](#)). A contract is used to specify the type, quantity, quality and duration of the services contracted-out ([Mills and Broomberg 1998](#); [Lagarde et al. 2009](#)). The contracted out services mentioned in the literature were primarily medical services in hospitals, clinics and through private physicians, but also included medical services contracted out to mining companies and NGOs.²

Another PPE type prevalent in the literature is the GPPP. A GPPP is a collaborative, three-way partnership, including international donors and recipient governments, usually funded by a multinational health initiative through a substantial disbursement of

- It is important to note that contracting out for non-clinical services, such as laundry, security and housekeeping services, is common (IFC 2008), but such initiatives are excluded from this review which focuses on PPE for health service delivery and financing.

Table 2. Prevalence of international partners in Southern African PPE initiatives (Source: Author)

Country	No. of PPE initiatives identified	No. and % with external partners
South Africa	19	5 (26%)
Malawi	7	7 (100%)
Zambia	7	6 (86%)
Zimbabwe	5	4 (80%)
Mozambique	4	3 (75%)
Botswana	3	3 (100%)
Lesotho	3	2 (66%)
Angola	2	2 (100%)
Namibia	1	1 (100%)
Swaziland	1	1 (100%)

funds, in which both government and non-government entities participate in decision-making through a mutually agreed upon and well-defined division of labour (Buse and Walt 2000a; Widdus 2005; Ciccone 2010). The GPPPs identified in the Southern African literature are predominantly aimed at HIV prevention and care—such as the African Comprehensive HIV/AIDS partnership (ACHAP), and the Khayelitsha ART programme (with Medicine Sans Frontiers and the Global Fund)—or at the detection and treatment of women’s cancers—Pink Ribbon, Red Ribbon (with PEPFAR and the Gates Foundation). A particularly interesting GPPP identified in the literature is the Apparel Lesotho Alliance to Fight AIDS, in which the Lesotho MoH, along with USAID, DFID and international clothing companies, partnered with the Lesotho garment industry to provide HIV services and improve working conditions within the industry, and boost sales through ‘fair-trade’ marketing campaigns.

The Alzira model example identified through the review, in which the Lesotho Government contracted with Tsepong (a private consortium) is noteworthy as being reportedly the first of its kind in Africa and presented as a flagship PPP model by the IFC (Marriott 2014). The Alzira model is characterized by a contractual arrangement that combines the building of facilities with the operating of non-clinical services and clinical services including primary care provision for a defined population in return for capitated payment (Barlow *et al.* 2013; Cruz and Marques 2013).

The levels of involvement of out-of-country partners in Southern African PPE initiatives reported in the literature

A particularly interesting issue brought to light by the review is the extent to which reported PPE initiatives in Southern Africa are driven by out-of-country partners. Table 2 presents the prevalence of international partners in Southern African PPE initiatives. Of the 52 PPE initiatives identified, 18 (35%) were independent of support from international partners.

South Africa is an outlier to this trend with only 5 of the 19 PPE initiatives identified having out-of-country partners. This indicates that the South African PPE initiatives reported in the literature tend to be more self-sufficient than elsewhere in Southern Africa. Of the 33 PPE initiatives identified in Southern African countries excluding South Africa, only 4, or 12%, did not receive financial or technical support from out-of-country partners.

Public–private engagement initiatives independent of out-of-country support

The South African example indicates that a wide range of PPE models can be implemented in the Southern African context without external support—given the right health systems environment. South Africa’s reported in-country PPE initiatives include two contracting out arrangements (the part-time district surgeon approach and public–private work–place partnerships), four co-location PPPs, three PFIs, a PPM approach to child survival, two financing arrangements, one PPIP and the remunerated work outside the public sector (RWOPS) approach to management of DP.

Co-location arrangements represent a particularly useful mechanism for private-sector engagement. A co-location arrangement is a long-term partnership through which a portion of a public hospital’s premises is granted for use by a private provider, in return for payment and specified benefits to the public party (Hellowell 2013; Shuping and Kabane 2007). These types of arrangements present an opportunity for revenue generation as well as infrastructural management for public hospitals (Marek *et al.* 2005). The arrangement also facilitates private hospital provision to those who can afford it, easing the burden on the public hospital. The literature revealed four co-location PPPs in South Africa, while none was reported in the rest of Southern Africa although similar arrangements are known to exist.

Similarly, no private-finance arrangements were reported outside of South Africa. A PFI is a long-term contract in which the design, building financing and non-clinical operation of a facility is contracted to a private consortium (Hellowell 2013; McKee *et al.* 2006). PFIs offer an opportunity to shift the risk of the construction of new health infrastructure onto a private partner, as well as make the cost of the project on the public sector easier to bear by distributing payments over the course of the contract (Hellowell 2013). In addition, by bundling constructing and facility maintenance, the arrangement can create positive incentives and improve efficiency.

Contracting out, discussed above as a model prevalent in the literature throughout the region, is another model that is found to be commonly employed without the support of out-of-country partners. In addition to the South African examples—which include the delegation of service provision to NGOs, mining companies, and private physicians—contracting out arrangements independent of out-of-country support, were found to be used in Zimbabwe and Lesotho. In South Africa, part-time district surgeons are commonly used to provide care in remote or rural locations (Palmer 2003). Contracting of individual physicians was also found in Mozambique where the state contracts with expatriate doctors to supplement inadequate human resources for health (Vio 2006). As such, contracting with private physicians to provide services in underserved areas is an important mechanism of improving service coverage and access to care.

The regulation of DP, identified in South Africa, Zambia and Mozambique, can similarly increase the number of doctors willing to work in remote or rural locations (Berman and Cuizon 2004). As such it is surprising that the contracting of individual physicians, and regulations facilitating and controlling DP are not more common in the Southern African context.

Involvement of international organizations in Southern African PPE initiatives reported in the literature

Most of the PPE initiatives identified received either financial or technical support from GHIs or international donors. The systematic review identified a wide range of international donors and

Table 3. International organizations involved in Southern African PPE initiatives (Source: Author)

Organization	Occurrence of PPE involvement identified
Population Services International	12
Department for International Development	6
United States President's Emergency Plan for AIDS Relief	5
The Global Fund to Fight AIDS, Tuberculosis and Malaria	4
Bill and Melinda Gates Foundation	3
Roll Back Malaria	2
SFH	2
World Health Organization	2
George W. Bush Foundation	2

organizations contributing financial and technical support to PPE initiatives in Southern Africa. Table 3 presents the most prevalent of these organizations and the number of PPE initiatives they are reportedly involved with. By far the most prevalent global health partner is PSI. PSI is a global health organization focusing on family planning, HIV/AIDS, and maternal and child health (PSI 2015). The organization is characterized by a belief that services and products are most effective when combined with robust communication and distribution efforts (PSI 2015). PSI was identified as a global partner in 12 Southern African PPE initiatives—11 social marketing initiatives and 1 voucher programme for insecticide treated bed-nets. PSI lists large international donor organizations—including USAID, DFID, GFATM, the Bill and Melinda Gates Foundation, and the United Nations International Children's Emergency Fund (UNICEF)—among its key development partners.

A noteworthy result of the review is the apparent lack of formal contracting arrangements in PPE initiatives supported by international donors. Thirty-four of the PPE's identified in the review received support from international organizations. However, in only 9 of these (27%) was a formal contract or memorandum of understanding apparent from the evidence. By way of comparison, of the 18 PPE initiatives without out-of-country partners identified in the literature, 14, or 78%, involved formal contractual agreements or memoranda of understanding between primary partners. While this is not to say that no formal or informal contractual mechanisms were utilized in the externally supported PPE initiatives identified, it does entail that information on the details of the relationship, the degree of accountability between partners, and the mechanisms used to achieve an appropriate level of accountability, is not available for use by future policy-makers and implementers.

Discussion: mapping the evidence and exploring the gaps

The systematic review presented here reveals a disproportionate amount of evidence on PPE according to geographic location and types of partners; the evidence on PPE in South Africa was found to be disproportionately large, and PPE initiatives with for-profit partners, and those with international NGO partners, were found to be more commonly reported than examples of state engagement with in-country not-for-profit and informal provider partners. A surprising lack of evidence on state support for health financing initiatives aimed at the poor was also identified. Further research is suggested on topics including the nature of the relationship between

governments and international partners, and the viability of particular PPE models in the Southern African context. In keeping with the ultimate aim of this review to enable further research regarding the models of PPE that are best suited to various contexts, evaluative research is suggested that disaggregates PPE types and investigates PPE functioning in context. Key findings of this review include the wide range of potential partners in PPE for health and the resources they contribute, the context-dependent nature of PPE models, and the importance of trust and interpersonal relationships to PPE success.

Potential partners and the resources they contribute

At the outset of this review potential non-state partners for PPE initiatives were presumed to be for-profit or not-for-profit health sector actors. However, the review suggests that the range of potential partners in PPE for health includes actors not traditionally considered part of the health sector. These include academics, community-based organizations (Flynn 1996; Stren and Green 2005) and churches (Mazzeo and Makonese 2009); as well as industry actors, such as mining companies (Sinanovic and Kumaranayake 2006; Sinanovic and Kumaranayake 2010), the garment industry (Kenworthy 2014), and telecommunication and consultancy companies (Ndlovu *et al.* 2014).

In addition, although much of the available literature focuses on the material and technical resources that can be harnessed through PPE, the review revealed that private partners also represent a source of intangible resources that can be harnessed for the public good. These include the increased privacy and anonymity offered by certain types of private providers (Skibiak *et al.* 2001), and cultural acceptability, such as is presented by traditional healers (Ae-Ngibise *et al.* 2010). These intangible resources present a significant potential contribution to PPE initiatives. Collaboration with such providers can allow the public sector to wield these important resources in the public interest and policy-makers should remain cognisant of both the tangible and intangible capital that can be harnessed through PPE.

Geographic distribution of available literature

While the literature reports on 19 individual PPE initiatives in South Africa, evidence of PPE initiatives elsewhere is less prevalent, and, in some cases, starkly so. In both Namibia and Swaziland, the systematic review revealed only one PPE initiative in each country, and only two PPE initiatives were reported in Angola. It is unlikely that these figures are an accurate reflection on the prevalence of state engagement with non-state partners in these countries. It is more likely that these results are driven by systematic under-reporting, or that the modes of PPE being used were such that they could not be captured in this review. The fact that this systematic review used phrases relating to existing PPE models as search terms may have resulted in a failure to capture more uncommon or innovative PPE mechanisms. As such, further empirical research into the extent of PPE, and the types of PPE used, in these contexts is strongly recommended.

More generally, PPE models particular to the Southern African context may not have been captured by this review. Models of PPE specific to the Southern African context may present important lessons for other LMICs and efforts should be made to generate evidence in this regard. These considerations also raise the important

question of the extent to which PPE models, and their successful implementation, are context-dependent. The literature suggests that best practice for PPE implementation is 'situation specific' (World Bank Institute 2012, p. 11). The success of PPE initiatives is dependent on government's capacity to negotiate, develop, implement and manage contracts and collaborative initiatives (Jeffreys *et al.* 2003; Chopra *et al.* 2009; Marriott 2009; Sheaff *et al.* 2013; Kula and Fryatt 2014). Some PPE models are more capacity-intensive than others. PFIs, for example, are particularly capacity-hungry, requiring extensive contract negotiation and management capacity, and having a high participation cost for the public sector (Bing *et al.* 2005). As such, the review indicates that those considering the implementation of a PPE initiative should begin with a realistic appraisal of their capacity to manage the relationship, and should consider whether an alternative PPE model with a lower participation cost for the public sector might achieve the same, or similar, outcomes.

Other contextual factors that have been said to impact the success of PPE initiatives include human resource management capacity, financial management capacity, and the capacity of the state to impose sanctions (Mugisha *et al.* 2005; Vio 2006; Sheaff *et al.* 2013). In addition, the nature of the private health care market, and the extent to which non-state partners are financially dependent on the state may impact the success of PPE initiatives (Palmer and Mills 2005; Sheaff *et al.* 2013). It is hoped that the PPE typology presented here will facilitate further research into the contextual factors influencing PPE outcomes, and comparative and evaluative studies surrounding which PPE models are best suited to different contexts.

The literature review also indicates the need for further investigation into the viability in the rest of Southern African of PPE models found to be used in South Africa. The South African PPE initiatives identified in the literature were largely independent of out-of-country support. In particular, co-location arrangements and PFIs are utilized in South Africa to harness private resources for public health goals, but were not identified elsewhere in Southern Africa. These PPE models may not be well suited to the Southern African context, but, given the potential gains they present, it may be worthwhile to investigate the feasibility of implementing PPE initiatives of this sort elsewhere in Southern Africa. Further research is suggested in this regard.

In addition, it is possible for Southern African countries to learn from the experiences of other African countries in implementing innovative PPE models. For example, contracting with the non-state sector, in particular faith-based organizations, is common throughout Africa (Boulenger *et al.* 2009; Boulenger *et al.* 2012) and can utilize models of engagement not identified in this search, such as designating faith-based health facilities as public sector institutions, and co-ownership of health facilities by faith-based providers and the state (Olivier and Wodon 2012). These models indicate the potential for Southern African countries to learn from the experiences of countries elsewhere in Africa, and a need for further research regarding the viability of such models in the Southern African context.

Scarcity of evidence of state engagement with in-country NPOs

The distribution of results indicated by this review may have been influenced by the types of providers that governments in different contexts commonly engage with. This review revealed only four PPE initiatives in which the non-state partner was an in-country NGO, without international organization affiliation or funding. It is

unlikely that these results reflect the actual levels of PPE with in-country NGOs. Rather it can be presumed that such partners lack sufficient resources to ensure that their work and the results thereof are reported. Engagement with not-for-profit providers presents an important opportunity for achieving population health gains, particularly for low-income countries. As such it is vital that information on the mechanisms used to engage with not-for-profit providers, and evaluations of these mechanisms, are available to policy-makers.

State engagement with the informal sector

This systematic review aimed to capture evidence of PPE with both formal and informal providers. However, no literature on engagement with the informal health sector was identified in the review. In low-income countries, the informal private sector—comprising providers who have not been formally trained and operate outside the purview national regulations—tends to be large (Peters *et al.* 2004). Pharmacy vendors and traditional healers constitute a primary source of health care in many African countries (Peters *et al.* 2004) and the World Health Organization encourages the inclusion of traditional healers in health programmes (Ae-Ngibise *et al.* 2010). The lack of evidence of PPE with informal providers is particularly concerning given that it is these providers that are most commonly utilized by the poorest segments of the population (Hanson *et al.* 2008). While it is recognized that the difficulties inherent in engaging with informal providers may result in very few engagements of this sort being undertaken (Hanson *et al.* 2008), it is also possible that such initiatives are under-reported. Engaging with informal providers constitutes a significant challenge that must be undertaken in order to ensure patient safety and quality of services (Peters *et al.* 2004; IFC 2011). Further research is necessary to establish the extent of state engagement with informal providers, and the factors that enable and inhibit such engagement.

Regulation of DP

The regulation of DP presents a similar challenge. DP involves health workers working in both public and private sectors simultaneously (García-Prado and González 2011). The practice occurs to various extents in both developed and LMIC contexts (García-Prado and González 2011), including countries with regulatory restrictions against the practice (Ferrinho *et al.* 2004). DP can lead to improvements in the delivery of health services, but may also have undesirable effects on health systems (García-Prado and González 2011). Internationally, DP is seen as a system-wide solution to limited resource availability in the public health sector (Wadee and Khan 2007). In LMICs, where there are insufficient incentives for doctors to work in the public sector, DP may facilitate government retaining physicians in the public sector at a lower cost, because providers can supplement their income in the private sector (Ferrinho *et al.* 2004; García-Prado and González 2011; Ashmore and Gilson 2015).

However, in LMICs it is not uncommon for DP to increase absenteeism by incentivising physicians to work less than their contracted number of hours in the public sector as a result of the demand for their services in the private sector (Ashmore and Gilson 2015; García-Prado and González 2011). In addition, private-sector work may decrease public sector job-satisfaction, and exacerbate the internal 'brain drain' (Ferrinho *et al.* 2004; Ashmore and Gilson 2015). DP can also worsen public/private inequalities because

providers may provide better quality care in their private practices (Madhavan and Bishai 2010). As such, the practice must be adequately regulated and regulations must be enforced (Ashmore and Gilson 2015). Effective and well-targeted regulations will help to retain physicians in the public sector while mitigating the ill-effects of DP (Marek *et al.* 2005).

The literature revealed evidence of attempts to regulate this practice from only three of the ten countries under review. In South Africa, regulations to limit DP, known as the remunerated work outside public services (RWOPS) policy requires physicians to apply for the privilege of undertaking DP, limits the number of hours physicians work outside of public services, and stipulates that private sector work must be done outside the hours for which the applicant is paid by the public sector (Moorman 2001; Benatar 2014; Ashmore and Gilson 2015). Similar restrictive regulations are in place in Zambia—where only senior physicians are permitted to engage in DP—and an outright ban is in place in Mozambique (Berman and Cuizon 2004; Russo *et al.* 2014).

However, the evidence suggests that the implementation and effectiveness policies to manage DP is problematic. In Zambia, DP regulations are ill-enforced and regularly flouted, and in Mozambique the ban is selectively applied and commonly ignored (Berman and Cuizon 2004; Russo *et al.* 2014). In South Africa, there is concern that absenteeism has increased as a result of the policy, and that DP privileges are being abused by health practitioners (Benatar 2014; Ashmore and Gilson 2015). Given the likely prevalence of the practice throughout the region (García-Prado and González 2011; Russo *et al.* 2014), and the evident difficulty of controlling the practice, the lack of reporting on the mechanisms and effectiveness of regulation of dual-practice is worrisome.

State support for health financing for the poor

This systematic review sought to include PPE initiatives for health financing. However, no such initiatives were identified through the review. Community-level prepayment plans have been recommended as a complement to government financing, particularly in sub-Saharan Africa (Waters *et al.* 2003). However, sub-Saharan African governments have failed to respond appropriately to international pressure for the institution of national policies that support community health insurance (CHI) (De Allegri *et al.* 2009). CHI can increase access to care and prevent impoverishment as a result of ill-health among poor, vulnerable and informally employed populations (De Allegri *et al.* 2009). Low enrolment has been identified as the primary factor inhibiting the growth of CHI schemes in Sub-Saharan Africa (Kalk 2008; De Allegri *et al.* 2009). Even very small contributions are a considerable financial burden for the very poor that constitute the target population of CHI schemes (Kalk 2008). As such, governments can, and should, support these schemes through subsidies (Kalk 2008; De Allegri *et al.* 2009).

However, despite the fact that voluntary pre-paid plans are extensive in Southern Africa (Marek *et al.* 2005) only one instance of PPE for health financing was identified in the review. The Government Employees Medical Scheme (GEMS) in South Africa is a heavily subsidised, voluntary health insurance scheme, but is restricted to government employees and as such does not target the poor, vulnerable or informally employed (Govender *et al.* 2013). Particularly in countries such as Namibia and South Africa, where the private health insurance industry is strong (Foster 2012), there

may be room for expansion of PPE for CHI. Further research into the factors inhibiting state involvement in CHI and similar schemes is suggested.

Mechanisms to structure relationships between governments and international donors

This review revealed a lack of information regarding the contractual mechanisms (formal or informal) in GPPPs and other PPE initiatives between states and international donors, international NGOs and GHIs. Of the seven GPPPs identified, information regarding the formalization of the relationship between development partners and government was available for only two. The relationship between ACHAP and the government of Botswana is described as a ‘formal operational agreement’ (Distlerath and Macdonald 2013, p. 5), and the Khayelitsha ART programme involves informal relational contracts with implementing partners and a formalized grant agreement between the Western Cape DoH, and GFATM (Hodes and Naimak 2011). This lack of information is concerning from an academic perspective in that it disallows the development of a body of knowledge regarding how states do, and should, engage with out-of-country partners. However, it is also concerning to the extent that, if this lack of evidence is indicative of a limited use of formal or informal mechanisms to structure relationships between partners, such arrangements may inadvertently shift the balance of power away from state players and ultimately undermine the capacity of the collaboration to make a positive contribution.

Contracts, or memoranda of understanding (MOUs), can facilitate clarity regarding risk allocation, division of responsibilities, performance requirements and termination provisions, *inter alia* (World Bank Institute 2012). The involvement of international actors in national health systems raises significant questions about accountability (Brugha 2009). Accountability within PPE initiatives between national governments and international organizations is difficult to achieve (Buse and Walt 2000b) and the growing dominance of GPPPs raises serious questions about how to ensure accountability on the part of global partners (Ciccone 2010). While all GHIs include MoH partners, the role of these partners and their capacity to influence decisions is unclear (Buse and Walt 2000b). Without formal agreements detailing the expectations and responsibilities of each partner, it is difficult for national governments to hold global partners to account in achieving desired outcomes and upholding the public interest.

This is particularly concerning when the financial dependence of the state on an international partner further undermines the power of the public partner to dictate terms (Buse 2003) and gives donors increased decision-making power (Ciccone 2010). An asymmetric division of power is inevitable when the public sector is financially reliant on a global partner (Ciccone 2010). Furthermore, the influence of donors is not always in keeping with national public health priorities, national social values or health system strengthening. The involvement of international donors has at times been problematic in terms of a lack of alignment with country needs and priorities, the distortion of recipient countries’ national health policy (Biesma *et al.* 2009), the creation of expensive parallel bureaucracies for donor management and increasing the burden on already fragile health systems (Brugha 2009), exacerbation of the ‘internal brain-drain’, as well as decreased domestic health sector spending (Carter *et al.* 2006; Biesma *et al.* 2009; Lancet 2009). As such, investigation into how best to structure relationships between international donors and national governments in order to ensure that PPE

arrangements empower state partners and strengthen health systems is vital.

Sector-wide approach as an accountability mechanism

SWAp present a potential means of improving accountability between governments and donors. A SWAp is an MoH-led formal, long-term co-operative agreement with civil society and donors in which all parties pool available resources and work in accordance with jointly approved national sectoral strategies and expenditure frameworks to improve population health outcomes and facilitate national development (Cassels 1997; Perrot 2006). SWAps utilize the formalized relational mechanisms (in the form of a negotiated agreement between actors) that describe the roles and responsibilities of each actor in the joint venture (Perrot 2006). All three SWAps identified in this review—Malawi, Zambia and Mozambique SWAp arrangements—utilized MOUs to formalise relations between partners (Jeffreys *et al.* 2003). Donors involved in the SWAp cede the right to select vertical projects to finance (thereby allowing government to ensure expenditure of funds is in line with national policies), in exchange for the opportunity to influence the development of a sectoral strategy and resource-allocation decisions (Cassels 1997). All partners are obligated to work under the framework of the government's strategic vision for the health sector (Mugisha *et al.* 2005). As such, SWAps aim to facilitate accountability of international partners and donors to national priorities.

However, the achievement of this aim is commonly undermined by a lack of donor commitment. In Mozambique, for example, 11 years after the implementation of the SWAp, only 14% of health sector funding was channelled through the SWAp, while 55% was utilized in vertical un-integrated programmes (Mussa *et al.* 2013). In 2003, 6 years after the implementation of the SWAp, Government's capacity to absorb donor funds was still considered low, as was management, implementation, planning and monitoring capacity, and there was little consistency between the national medium-term expenditure frameworks and the activities of major international donors (Jeffreys *et al.* 2003).

The Malawi SWAp is undermined by a similar lack of capacity as a result of extreme under-staffing; financial management systems within the MoH are weak and undermine donor's willingness to commit financial resources to basket funding (Jeffreys *et al.* 2003). The Malawi SWAp also faces a lack of commitment on the part of key donors (Jeffreys *et al.* 2003). GFATM is a major financial supporter of the Malawi SWAp, but the disbursement of funds is conditional and therefore cannot be depended on in the long term (Carter *et al.* 2006). Similarly, in Zambia it was found that despite the SWAp, administrative structures and development programmes remain, to a large, extent vertical and project focused (Sundewall and Sahlin-Andersson 2006). In general, vertical measures remain the default approach to international aid (Unger *et al.* 2006) and aid initiatives frequently bypass government health plans and priorities (Marriott 2009). As such, the SWAp approach commonly fails to create an appropriate level of accountability on the part of international partners to national priorities. No literature was identified in this review regarding how best to ensure accountability between international donors and national governments, or how to improve SWAp functioning.

The effects of imbalanced power relations between governments and international donors on the social value of the health system

The value of a national health system exceeds the health gains it produces. 'The design given to political institutions such as health

systems governs the notions of morality and justice prevailing in society' (Rothstein 1998, p. 160). An effective health system is a core social institution, and recognition that a strong health system is an essential component of a just and equitable society is growing (Backman *et al.* 2008). Trusted and strong national health systems can contribute to wider social values including nation building and social cohesion (Gilson 2003; Streefland 2005; Chopra *et al.* 2009). However, because GHIs work in many countries simultaneously, funds are commonly disbursed in a manner that is not tailored to the epidemiological or cultural contexts of the recipients (Biesma *et al.* 2009). In addition, the disbursement of donor funds can be subject to value-based conditions, such as PEPFAR grants, for example, which at times have been dependent on explicit opposition of prostitution (Carter *et al.* 2006). As such, reliance on donor funding can inhibit the ability of health systems to be representative of national priorities or values (Biesma *et al.* 2009), undermining national ownership. Research ought to be conducted into the effects of donor involvement on national health systems ownership, social cohesion and the social value of the health system. Furthermore, international partners should be cognisant of the social value of the health system in their engagement with national partners.

Sustainability of PPE initiatives with international donors

An important function of contracts (whether formal or informal) and accountability mechanisms, is the stipulation of provisions for termination of relations (see World Bank Group 2014). Termination provisions include defining the contract term, making provisions for handover of functions and stipulating the circumstances under which the relationship can be prematurely terminated (World Bank Institute 2012). Sustainability entails the ability of national health systems to assume full responsibility for programmes without an adverse effect on programme outcomes (Ooms 2006). The question of how to manage the transition back to purely public provision is one that requires careful consideration and should (but rarely does) constitute a key concern in programme development (Jacobs *et al.* 2010). As such, these are vital considerations for the sustainability of programmes developed and implemented with donor support.

This is especially so because, when funding for programmes is donor-driven it cannot be depended on, as was demonstrated by the effects of the 2008 global financial crisis which had negative consequences for donor supported health programmes (Hodes and Naimak 2011; Kirigia *et al.* 2011). Development assistance is temporary and precarious and donor-funded programmes are commonly created without guarantee that funding will continue in the long term (Ciccone 2010; Ooms *et al.* 2008). The literature review revealed no studies on how best to ensure sustainability of donor-funded programmes and no information regarding mechanisms for management of the transition back to public funding and provision. Furthermore, the extent to which more formalized relationships between partners would mitigate these risks is as yet unclear.

How can international partners contribute to PPE management capacity strengthening?

One potential mechanism by which international partners can mitigate the risks of the unsustainable nature of donor driven programmes may be to work to build the PPE management capacity of local and government partners. In this way, when donor-driven programmes come to an end, government partners could use PPE with in-country actors to ensure the continued provision of services.

Adequate regulation of the private sector requires significant stewardship and regulatory capacity on the part of the state (Nishtar 2010). Similarly, the use of PPE in the health system necessitates substantial administrative capacity on the part of the government to develop, manage and enforce contracts and regulatory procedures, and create agreements that protect public health (Bennett *et al.* 2005; Marriott 2009). Poor contract design and insufficient monitoring capacity commonly undermine contracting arrangements in the health sector (Sinanovic and Kumaranayake 2010), and it is not uncommon for government to agree to contractual terms that result in an unfavourable distribution of risk, or that allow for sanctions that the government is, in actuality, unable to impose (Doherty 2011).

One potential way for international donor organizations to contribute in a meaningful and sustainable manner to health systems development in Southern Africa might be to increase the transfer of partner management capacity between international and state partners. Nishtar (2010) suggests that the role of GHIs should be expanded to include engagement with countries to maximise the workload of a broad range of providers, thereby building a sustainable workforce while strengthening regulatory capacity. Collective development and implementation of programmes that involve government, health providers and NGOs may facilitate skills transfer, local ownership and sustainability (Hodes and Naimak 2011). However evidence of the effects of collaboration with GHIs on the strength of health systems is limited (McCoy 2009). Further research regarding factors that facilitate such knowledge transfer, as well as the effectiveness of PPE management capacity transference as a mechanism of health system strengthening, is suggested.

Relational contracts and trust

In conducting the extended research suggested above, it will be important to remain cognisant of the role played by informal, relational and trust-based mechanisms for structuring relationships between partners. A central aim of this review was to facilitate evaluative research of the comparative strengths of various PPE organizational models. At the outset of the review, as a result of background reading, the organizational factors assumed to be relevant to the success of PPE projects included directly observable organizational characteristics such as the distribution of risk between partners, funding sources and payment mechanisms, the division of responsibilities, incentives, contracts and monitoring arrangements, the bundling of services etc. While the systematic review confirmed that these features can influence the success of PPE arrangements, the review also illuminated the importance of intangible features of relationships between partners to successful PPE.

The mechanisms by which partners exert control can be formal—utilizing formal contracts and financial incentives, or informal/relational—using interpersonal relationships, industry norms, reciprocity, values and trust to manage the behaviour of partners (Kernaghan 1993; Perrot 2006; Thomson *et al.* 2009; Chambers *et al.* 2013). Interpersonal relationships between partners often play a significant role, sometimes more so than contractual or monitoring mechanisms (Palmer and Mills 2005). The degree to which each partner perceives that other partners are committed and engaged in the project, affects their own willingness and commitment—described by Thomson *et al.* (2009) as an ‘I-will-if-you-will’ mentality. As such, trust and a perception of ‘fair dealing’ constitute important control mechanisms (Thomson *et al.* 2009).

The relationship between government and the non-state health sector in LMICs has historically been, and in many contexts remains, marred by tension and mistrust (Bennett *et al.* 2005). This mistrust, combined with limited PPE management capacity can undermine PPE initiatives. On the other hand, however, PPE can empower non-state actors to make a genuine contribution to health sector governance (Kernaghan 1993) and strong interpersonal relationships and shared ideologies may decrease the capacity required on the part of the state to ensure successful PPE initiatives. If trust can be achieved and maintained, it can significantly reduce the transaction costs of collaboration (Thomson *et al.* 2009). Relational approaches to PPE may also be more sustainable than traditional contractual approaches (Thomson *et al.* 2009). Such approaches may also be more appropriate in contexts where capacity for developing, negotiating, implementing and enforcing formal contracts is low, as is the case in many LMICs (Palmer and Mills 2005). This review has illuminated the importance of the role of relational contracts, norms of behaviour and trust in PPE project development and implementation, and the feasibility of using these mechanisms to improve the performance of PPE initiatives is an area that should be explored further.

Next steps: evaluating PPE models in context

One of the primary aims of this review was to facilitate evaluative research that examines the effectiveness of various PPE models in context. PPE initiatives are heterogeneous; the various PPE models discussed here have distinct strengths and weaknesses, and their successful implementation will depend on the suitability of the model to the context in which it is implemented, among other factors. The need for further research into the suitability of various PPE models in various contexts is underlined by a particularly troubling PPE example identified in the review. The Tsepong/Lesotho PPE for the Queen Mamohato Hospital in Maseru reportedly constitutes the first Alzira model PPE initiative in Africa (Marriott 2014). The partnership has been described by the IFC as a flagship model to be replicated elsewhere in Africa because it represents an innovative DBFO arrangement that includes the delivery of primary and tertiary medical services bundled under one contract (Marriott 2014). In theory, the model allows the private partner to create efficiencies by controlling the flow of patients from primary to tertiary level services (Coelho and O’Farrell 2011).

However, despite the IFC playing the role of contract advisor to the Lesotho Government, serious flaws in the contract design have led to rapidly increasing costs borne by the public partner. Higher than expected use of the facilities, as well as issues with human resource retention, have resulted in annual costs of US\$67 million per year, diverting the country’s resources away from urgently needed primary care in rural areas (Marriott 2014). In addition, the contract allows Tsepong a 25% return on equity, compared with a (profitable) international norm of between 13 and 18% for similar projects (Marriott 2014). The imbalance of power in the contract negotiation was reportedly inadequately managed by the IFC which failed to make up for insufficient operational management capacity on the part of the state (Marriott 2014). The PPE initiative has been described as a ‘dangerous diversion of scarce public funds from primary healthcare services in rural areas’ (Marriott 2014, p. 1).

This example demonstrates the need for caution in engaging with private partners for health. It should also constitute a call for further research into the contextual factors that facilitate or undermine the success of various PPE initiatives. Research is needed to

guide decision-makers in deciding which PPE models are most likely to be successful in their context and the steps that can be taken by implementers to ensure PPE success. It is hoped that the study presented here will go some way to facilitating such research.

Summary

This literature review revealed substantial gaps and, in some cases, a disproportionate distribution of the available literature on PPE in Southern Africa. In particular, the available literature disproportionately presents evidence on PPE initiatives in South Africa, is biased towards reporting on PPE initiatives involving for-profit partners and those involving international donors, and demonstrates a lack of coverage on public-sector engagement with informal partners. Significant gaps in the available literature are also apparent with regard to state involvement in health financing mechanisms targeted at the poor and informally employed, as well as mechanisms to improve the regulation of DP. In addition, information regarding the nature of relationships between international donor organizations and national governments, and how these relationships can be strengthened to ensure sustainability of donor-funded programmes and the empowerment of state-partners, is limited. Further research into the context-dependency of PPE models, as well as the viability of implementing models used in South Africa and Africa in general, in Southern African contexts, is recommended. The review revealed that partners in PPE for health need not be limited to health sector actors, and that non-state partners can contribute intangible and tangible resources to public health goals. In addition, the review indicates that trust and interpersonal relationships should be considered alongside organizational particularities as key determinants of PPE success. On the basis of this review it is recommended that any PPE initiative should begin with a realistic appraisal of the state's PPE management capacity, and international partners should strive to make a contribution to PPE management capacity strengthening. Further, it is recommended that Southern African governments should consider investing in CHI schemes through PPE, and that, particularly in South Africa and Namibia, the engagement of the private health insurance sector in PPE for CHI should be explored.

It is hoped that the research presented here will facilitate further studies that acknowledge the heterogeneous nature of PPE, and in doing so create evidence that can be used to improve PPE functioning. Further it is an ambition of this paper to facilitate increased involvement of the private sector in public health by illuminating the wide variety of potential models for engagement with the state. Given the prevalence of PPE and the capacity of engagement with non-state partners to improve population health and contribute to health systems strengthening, it is vital that the evidence base guiding policy-makers in their decisions regarding which PPE models to utilize, and how best to implement them, is strengthened.

Ethical approval

Ethical approval was granted by the authors' institute: University of Cape Town, Faculty of Health Science, Human Research Ethics Committee.

Supplementary data

Supplementary data are available at *HEAPOL* online.

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References

- Ae-Ngibise K, Cooper S, Adiibokah E *et al.* 2010. 'Whether you like it or not people with mental problems are going to go to them': a qualitative exploration into the widespread use of traditional and faith healers in the provision of mental health care in Ghana. *International Review of Psychiatry* 22: 558–67.
- Agha S. 2001. Intention to use the female condom following a mass-marketing campaign in Lusaka, Zambia. *American Journal of Public Health* 91: 307–10.
- Asante AD, Zwi AB. 2007. Publicprivate partnerships and global health equity: prospects and challenges. *Indian Journal of Medical Ethics* 4: 176–80.
- Aveyard H. 2010. *Doing a literature review in health and social care: a practical guide*. Maidenhead: McGraw-Hill/Open University Press.
- Ashmore J, Gilson L. 2015. Conceptualizing the impacts of dual practice on the retention of public sector specialists - evidence from South Africa. *Human Resources for Health* 13: 1–9. 3.
- Backman G, Hunt P, Khosla R *et al.* 2008. Health systems and the right to health: an assessment of 194 countries. *Lancet* 372: 2047–85.
- Barlow J, Roehrich J, Wright S. 2013. Europe sees mixed results from public-private partnerships for building and managing health care facilities and services. *Health Affairs* 32: 146–54.
- Bekinska ME, Smit JA, Mantell JE. 2012. Progress and challenges to male and female condom use in South Africa. *Sex Health* 9: 51–8.
- Benatar S. 2014. Professional competence and professional misconduct in South Africa. *South African Medical Journal* 104: 480–2.
- Bennett S, Hanson K, Kadama P, Montagu D. 2005. *Working with the non-state sector to achieve public health goals*. Geneva: World Health Organization.
- Berman P, Cuizon D. 2004. *Multiple public-private jobholding of health care providers in developing countries: an exploration of theory and evidence*. DFID, London.
- Berman P. (1996). The role of the private sector in health financing and provision. In: Janovsky, K. (ed.) *Health Policy and System Development: An Agenda for Research*. Geneva: World Health Organization, 125–46.
- Biesma RG, Brugha R, Harmer A *et al.* 2009. The effects of global health initiatives on country health systems: a review of the evidence from HIV/AIDS control. *Health Policy and Planning* 24: 239–52.
- Bing L, Akintoye A, Edwards PJ, Hardcastle C. 2005. The allocation of risk in PPP/PFI construction projects in the UK. *International Journal of Project Management* 23: 25–35.
- Boulenger D, Barten F, Criel B. 2012. Contracting between faith-based health care organizations and the public sector in sub-Saharan Africa. In: Olivier J, Wodon Q (eds). *The Role of Faith-Inspired Health Care Providers in Sub-Saharan Africa and Public-Private Partnerships*. Washington, DC: The International Bank for Reconstruction and Development/The World Bank, 60–71.
- Boulenger D, Keugoung B, Criel B. 2009. Contracting experiences in sub-Saharan Africa: The case of Cameroon, Tanzania, Chad and Uganda; main findings of a Medicus Mundi International Network Study. *Health and Development* 14–21. Aug.
- Brugha R. 2009. Global health initiatives and country health systems. *Lancet* 374: 1237–8.
- Buse K, Walt G. 2000a. Global publicprivate partnerships: Part I—A new development in health? *Bulletin of the World Health Organization* 78: 549–61.
- Buse K, Walt G. 2000b. Global publicprivate partnerships: Part I—what are the health issues for global governance? *Bulletin of the World Health Organization* 78: 699–709.
- Buse K. 2003. Governing public-private infectious disease partnerships. *Brown Journal of World Affairs* 10: 225–42.

- Buso DL. 2004. Public-private health sector mix-way forward. *South African Family Practice* 46: 5–8.
- Campbell Collaboration. 2014. *What is a systematic review? The Campbell Collaboration*. http://www.campbellcollaboration.org/what_is_a_systematic_review/index.php, accessed 9 September 2014.
- Carter J, Clinton B, Blair UPMT, Kofi US-G. 2006. The new world of global health. *Science* 311: 162–7.
- Cassels A. 1997. *A Guide to Sector-wide Approaches for Health Development: Concepts, Issues, and Working Arrangements*. Geneva: World Health Organization.
- Chambers N, Sheaff R, Mahon A *et al.* 2013. The practice of commissioning healthcare from a private provider: learning from an in-depth case study. *BMC Health Services Research* 13(Suppl 1): S4–1.
- Chapman S, Jafa K, Longfield K *et al.* 2012. Condom social marketing in sub-Saharan Africa and the total market approach. *Sexual Health* 9: 44–50.
- Chopra M, Lawn JE, Sanders D *et al.* 2009. Achieving the health millennium development goals for South Africa: challenges and priorities. *Lancet* 374: 1023–31.
- Ciccone DK. 2010. Arguing for a centralized coordination solution to the public-private partnership explosion in global health. *Global Health Promotion* 17: 48–51.
- Coelho CF, O'Farrell CC. 2011. The Lesotho Hospital PPP experience: catalyst for integrated service delivery. *World Hospitals and Health Services: The Official Journal of the International Hospital Federation* 47: 39–41.
- Cruz CO, Marques RC. 2013. Integrating infrastructure and clinical management in PPPs for health care. *Journal of Management in Engineering* 29: 471–81.
- Dambisya YM, Modipa SI. 2009. *Capital flows in the health sector in South Africa: Implications for equity and access to health care*. Equinet Discussion Paper 76. Harare: The Regional Network on Equity in Health in East and Southern Africa (EQUINET).
- De Allegri M, Sauerborn R, Kouyate B, Flessa S. 2009. Community health insurance in sub-Saharan Africa: what operational difficulties hamper its successful development? *Tropical Medicine and International Health* 14: 586–96.
- Distlerath LM, Macdonald G. 2013. The African Comprehensive HIV/AIDS Partnerships—a new role for multinational corporations in global health policy. *Yale Journal of Health Policy, Law, and Ethics* 4: 147–56. 9.
- Doherty J. 2011. Expansion of the private health sector in east and southern Africa. EQUINET Discussion Paper 87. Harare: The Regional Network on Equity in Health in East and Southern Africa (EQUINET).
- Ferrinho P, Van Lerberghe W, Fronteira I, Hipólito F, Biscaia A. 2004. Dual practice in the health sector: review of the evidence. *Human Resources for Health* 2: 1–17.
- Flynn BC. 1996. Healthy cities: toward worldwide health promotion. *Annual Review of Public Health* 17: 299–309.
- Foster N. 2012. Private sector involvement in health services in East and Southern Africa: country profiles, EQUINET Discussion Paper 89. Harare: The Regional Network on Equity in Health in East and Southern Africa (EQUINET).
- García-Prado A, González P. 2011. Whom do physicians work for? An analysis of dual practice in the health sector. *Journal of Health Politics, Policy and Law* 36: 265–94.
- Gilson L. 2003. Trust and the development of health care as a social institution. *Social Science & Medicine* 56: 1453–68.
- Goldstein S, Usdin S, Scheepers E, Japhet G. 2005. Communicating HIV and AIDS, what works? A report on the impact evaluation of Soul City's fourth series. *Journal of Health Communication* 10: 465–83.
- Govender V, Chersich MF, Harris B *et al.* 2013. Moving towards universal coverage in South Africa? Lessons from a voluntary government insurance scheme. *Global Health Action* 6: 19253.
- Hammerstrøm K, Wade A, Jørgensen A-MK. 2010. Searching for studies: a guide to information retrieval for Campbell Systematic Reviews. *Campbell Systematic Reviews* 2010 (Suppl 1).
- Hanson K, Gilson L, Goodman C *et al.* 2008. Is private health care the answer to the health problems of the world's poor? *PLoS Medicine* 5: e233–1528. 1532.
- Hellowell M. 2013. PFI redux? Assessing a new model for financing hospitals. *Health Policy* 113: 77–85.
- Hodes R, Naimak TH. 2011. Piloting antiretroviral treatment in South Africa: the role of partnerships in the Western Cape's provincial roll-out. *African Journal of AIDS Research* 10: 415–25.
- IFC. 2011. *Healthy Partnerships: How Governments Can Engage the Private Sector to Improve Health In Africa*. Washington, DC: The International Bank for Reconstruction and Development/The World Bank.
- Jacobs B, Thomé JM, Overtom R *et al.* 2010. From public to private and back again: sustaining a high service-delivery level during transition of management authority: a Cambodia case study. *Health Policy and Planning* 25: 197–208.
- Jeffreys E, Walford V, Pearson M. 2003. *Mapping of Sector-wide Approaches in Health*. London: Institute for Health Sector Development.
- Kalk A. 2008. Health insurance in sub-Saharan Africa: a call for subsidies. *Bulletin of the World Health Organization* 86: B.
- Kenworthy NJ. 2014. A manufactu(RED) ethics: labor, HIV, and the body in Lesotho's "sweat-free" garment industry. *Medical Anthropology Quarterly* 28: 459–79.
- Kernaghan K. 1993. Partnership and public administration: conceptual and practical considerations. *Canadian Public Administration* 36: 57–76.
- Kirigia JM, Nganda BM, Mwikisa CN, Cardoso B. 2011. Effects of global financial crisis on funding for health development in nineteen countries of the WHO African Region. *BMC International Health and Human Rights* 11: 4–1.
- Kula N, Fryatt RJ. 2014. Public-private interactions on health in South Africa: opportunities for scaling up. *Health Policy and Planning* 29: 560–9.
- Lagarde M, Haines A, Palmer N. 2009. The impact of conditional cash transfers on health outcomes and use of health services in low and middle income countries. *Cochrane Database of Systematic Reviews*.
- Lancet 2009. Who runs global health? *Lancet* 373: 2083.
- Lefebvre C, Manheimer E, Glanville J. 2008. Searching for Studies. In: Higgins J, Green S (eds). *Cochrane Handbook for Systematic Reviews of Interventions*. West Sussex: John Wiley & Sons Ltd with The Cochrane Collaboration, 95–142.
- Madhavan S, Bishai D. 2010. Private Sector Engagement in Sexual and Reproductive Health and Maternal and Neonatal Health. A Review of the Evidence. Bamenda: Human Development Resource Centre.
- Marek T, O'Farrell C, Yamamoto C, Zable I. 2005. *Trends and opportunities in public-private partnerships to improve health service delivery in Africa*. Health Systems for Outcomes Publication, Washington, DC: World Bank.
- Marriott A. 2009. Blind optimism: challenging the myths about private health care in poor countries. *Oxfam Policy and Practice: Private Sector* 6: 1–55.
- Marriott A. 2014. A dangerous diversion: will the IFC's flagship health PPP bankrupt Lesotho's Ministry of Health? Oxford: Oxfam International.
- Mathanga DP, Campbell CH, Taylor TE, Barlow R, Wilson ML. 2006. Socially marketed insecticide-treated nets effectively reduce Plasmodium infection and anaemia among children in urban Malawi. *Tropical Medicine and International Health* 11: 1367–74.
- Mazzeo J, Makonese L. 2009. Experiences of collaboration, coordination and efficiency in the delivery of HIV/AIDS home-based care in Zimbabwe. *African Journal of AIDS Research* 8: 443–53.
- McCoy D. 2009. Global health initiatives and country health systems. *Lancet* 374: 1237.
- McKee M, Edwards N, Atunc R. 2006. Public-private partnerships for hospitals. *Bulletin of the World Health Organization* 84: 890–6.
- Meadley J, Pollard R, Wheeler M. 2003. Review of DFID approach to social marketing. *Health Systems Resource Centre*. London: DFID.
- Meekers D, Richter K. 2005. Factors associated with use of the female condom in Zimbabwe. *International Family Planning Perspectives* 31: 30–7.
- Mills A, Broomberg J. 1998. Experiences of contracting health services: an overview of the literature. *Health Economics and Financing Programme Working Paper* 1: 1–59.
- Mills A, Brughla R, Hanson K, McPake B. 2002. What can be done about the private health sector in low-income countries? *Bulletin of the World Health Organization* 80: 325–30.
- Mills A, Palmer N, Gilson L *et al.* 2004. The performance of different models of primary care provision in Southern Africa. *Social Science & Medicine* 59: 931–43.
- Mills A. 2014. Health care systems in low- and middle-income countries. *New England Journal of Medicine* 370: 552–7.

- Montagu DD, Anglemeyer A, Tiwari M *et al.* 2011. *Private versus public strategies for health service provision for improving health outcomes in resource-limited settings: a systematic review.* San Francisco, CA: Global Health Sciences, University of California.
- Moorman J. 2001. Public-private partnerships. In: Ntuli A, Suleman F, Barron P (eds). *South African Health Review (SAHR) 2001.* Durban: Health Systems Trust, 83–100.
- Mugisha F, Birungi H, Askew I. 2005. Are reproductive health NGOs in Uganda able to engage in the health SWAp? *International Journal of Health Planning and Management* 20: 227–38.
- Munyuki E, Jasi S. 2009. Capital flows in the health care sector in Zimbabwe: trends and implications for the health system. EQUINET Discussion Paper 79. Harare: The Regional Network on Equity in Health in East and Southern Africa (EQUINET).
- Mussa AH, Pfeiffer J, Gloyd SS, Sherr K. 2013. Vertical funding, nongovernmental organizations, and health system strengthening: perspectives of public sector health workers in Mozambique. *Human Resources for Health* 11: 1–9.
- Ndlovu K, Littman-Quinn R, Park E, Dikai Z, Kovarik CL. 2014. Scaling up a mobile telemedicine solution in Botswana: keys to sustainability. *Front Public Health* 2: 275.
- Nishtar S. 2010. The mixed health systems syndrome. *Bulletin of the World Health Organization* 88: 66–73.
- Olivier J, Wodon Q. 2012. Market share of faith-inspired health care providers in Africa: comparing facilities and multi-purpose integrated household survey data. In: Olivier J, Wodon Q (eds). *The Role of Faith-Inspired Health Care Providers in Sub-Saharan Africa and Public-Private Partnerships.* Washington, DC: The International Bank for Reconstruction and Development/The World Bank, 11–26.
- Omona J. 2009. Social marketing and the fight against malaria in Africa: population services international (PSI) and insecticide treated nets (ITNS). *East African Journal of Public Health* 6: 317–25.
- Ooms G, Van Damme W, Baker BK, Zeitz P, Schrecker T. 2008. The 'diagonal' approach to Global Fund financing: a cure for the broader malaise of health systems. *Global Health* 4: 6–13.
- Ooms G. 2006. Health development versus medical relief: the illusion versus the irrelevance of sustainability. *PLoS Medicine* 3: 1202–5. e345:
- Palmer N, Mills A. 2005. Contracts in the real world: case studies from Southern Africa. *Social Science & Medicine* 60: 2505–14.
- Palmer N. 2003. Contracts for primary care in South Africa's Part-Time District Surgeon System. In: Soderlund N, Mendoza-Arana P, Goudge J (eds). *The New Public/Private Mix in Health: Exploring the Changing Landscape.* Geneva: Alliance for Health Policy and Systems Research, 179–91.
- Patouillard E, Goodman CA, Hanson KG, Mills AJ. 2007. Can working with the private for-profit sector improve utilization of quality health services by the poor? A systematic review of the literature. *International Journal for Equity in Health* 6: 17–28.
- Perrot J. 2006. Different approaches to contracting in health systems. *Bulletin of the World Health Organization* 84: 859–66.
- Peters DH, Mirchandani GG, Hansen PM. 2004. Strategies for engaging the private sector in sexual and reproductive health: how effective are they? *Health Policy and Planning* 19: i5–21.
- Pfeiffer J, Johnson W, Fort M *et al.* 2008. Strengthening health systems in poor countries: a code of conduct for nongovernmental organizations. *American Journal of Public Health* 98: 2134–40.
- Pfeiffer J. 2004. Condom social marketing, pentecostalism, and structural adjustment in Mozambique: a clash of AIDS prevention messages. *Medical Anthropology Quarterly* 18: 77–103.
- PSI. 2015. *PSI at a glance.* <http://www.psi.org/about/at-a-glance/> (28 May 2016, date last accessed).
- Rao P, Gabre-Kidan T, Mubangizi DB, Sulzbach S. 2011. Leveraging the private health sector to enhance HIV service delivery in lower-income countries. *Journal of Acquired Immune Deficiency Syndrome* 57(Suppl 2): s116–9.
- Reddy S, Mary I. 2013. Rajiv Aarogyasri Community Health Insurance Scheme in Andhra Pradesh, India: a comprehensive analytic view of private public partnership model. *Indian Journal of Public Health* 57: 254–9.
- Roehrich JK, Lewis MA, George G. 2014. Are public-private partnerships a healthy option? A systematic literature review. *Social Science & Medicine* 113: 110–9.
- Rothstein B. 1998. *Just Institutions Matter: The Moral and Political Logic of the Universal Welfare State.* Cambridge, UK: Cambridge University Press.
- Russo G, McPake B, Fronteira I, Ferrinho P. 2014. Negotiating markets for health: an exploration of physicians' engagement in dual practice in three African capital cities. *Health Policy and Planning* 29: 774–83.
- Sekhri N, Feachem R, Ni A. 2011. Public-private integrated partnerships demonstrate the potential to improve health care access, quality, and efficiency. *Health Affairs* 30: 1498–507.
- Sharma S, Dayaratna V. 2005. Creating conditions for greater private sector participation in achieving contraceptive security. *Health Policy* 71: 347–57.
- Sheaff R, Chambers N, Charles N *et al.* 2013. How managed a market? Modes of commissioning in England and Germany. *BMC Health Services Research* 13: 1–10.
- Shuping S, Kabane S. 2007. Public-private partnerships: a case study of the Pelonomi and Universitas Hospital co-location project. *South African Health Review* 151–8.
- Sinanovic E, Kumaranayake L. 2006. Quality of tuberculosis care provided in different models of public-private partnerships in South Africa. *International Journal of Tuberculosis and Lung Disease* 10: 795–801.
- Sinanovic E, Kumaranayake L. 2010. The motivations for participation in public-private partnerships for the provision of tuberculosis treatment in South Africa. *Global Public Health* 5: 479–92.
- Skibiak J, Chambeshi-Moyo M, Ahmed Y. 2001. *Testing Alternative Channels for Providing Emergency Contraception to Young Women: Final Report.* New York: Population Council.
- Smith R, Feachem R, Sekhri Feachem N, Perez Koehlmoos T, Kinlaw H. 2008. Is private health care the answer to the health problems of the world's poor? *PLoS Medicine* 5: 1528–32.
- Streefland P. 2005. Public health care under pressure in sub-Saharan Africa. *Health Policy* 71: 375–82.
- Stren R, Green J. 2005. Boundary workers and the management of frustration: a case study of two Healthy City partnerships. *Health Promotion International* 20: 269–76.
- Sundewall J, Sahlin-Andersson K. 2006. Translations of health sector SWAp—a comparative study of health sector development cooperation in Uganda, Zambia and Bangladesh. *Health Policy* 76: 277–87.
- Thomson AM, Perry JL, Miller TK. 2009. Conceptualizing and measuring collaboration. *Journal of Public Administration Research and Theory* 19: 23–56.
- Tranfield D, Denyer D, Smart P. 2003. Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review. *British Journal of Management*, 14: 207–222.
- Unger J-P, De Paep P, Ghilbert P, Soors W, Green A. 2006. Disintegrated care: the Achilles heel of international health policies in low and middle-income countries. *International Journal of Integrated Care* 6: 1–13.
- Van Rossem R, Meekers D. 2007. The reach and impact of social marketing and reproductive health communication campaigns in Zambia. *BMC Public Health* 7: 1–12.
- Vio F. 2006. Management of expatriate medical assistance in Mozambique. *Human Resources for Health* 4: 1–6.
- Wadee H, Khan F. 2007. Human resources for health. *South African Health Review.* Durban: Health Systems Trust, 141–151.
- Waters H, Hatt L, Peters D. 2003. Working with the private sector for child health. *Health Policy and Planning* 18: 127–37.
- Wendt C, Frisina L, Rothgang H. 2009. Healthcare system types: a conceptual framework for comparison. *Social Policy and Administration* 43: 70–90.
- Widdus R. 2005. Public-private partnerships: an overview. *Transactions of the Royal Society of Tropical Medicine and Hygiene* 99: S1–8.
- Wood S, Foster J, Kols A. 2012. Understanding why women adopt and sustain home water treatment: insights from the Malawi antenatal care program. *Social Science & Medicine* 75: 634–42.
- World Bank Group. 2014. *Public-Private Partnerships Reference Guide, Version 2.0.* Washington, DC: The World Bank.
- World Bank Institute. 2012. *Public-Private Partnerships—Reference Guide: Version 1.0.* Washington, DC: The World Bank.