The Asia Pacific Observatory on Health Systems and Policies is a collaborative partnership which supports and promotes evidence-based health policy making in the Asia Pacific Region. Based in WHO’s Regional Office for the Western Pacific, it brings together governments, international agencies, foundations, civil society and the research community with the aim of linking systematic and scientific analysis of health systems in the Asia Pacific Region with the decision-makers who shape policy and practice.

Purchasing arrangements with the private sector to provide primary health care in underserved areas
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Authorship and Acknowledgement

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## Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ITN</td>
<td>insecticide-treated bednet</td>
</tr>
<tr>
<td>LMIC</td>
<td>low- or middle-income country</td>
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<tr>
<td>MeSH</td>
<td>medical subject heading</td>
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<tr>
<td>NGO</td>
<td>nongovernmental organization</td>
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<tr>
<td>PHC</td>
<td>primary health care</td>
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<td>STI</td>
<td>sexually transmitted infection</td>
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Executive Summary

What is the problem?

Many countries in Asia and the Pacific have already committed to delivering universal health coverage to their populations, or are currently considering this action. At the same time, governments in low- and middle-income countries (LMICs) in Asia and the Pacific face challenges in ensuring access to quality primary health care services for their entire populations, particularly in remote or rural locations.

Most countries in Asia and the Pacific are characterized by mixed health systems, that is, centrally planned public health services that operate side by side with private markets, and the private sector is used abundantly in some settings. As a result, government purchase of health care services from the private sector has been proposed as a strategy to address inequities in access to public services. Advocates of this approach highlight additional benefits, usually based on the assumption of increased provider competition, for example, better quality, increased utilization and equity, health outcomes, efficiency and transparency. Opponents, on the other hand, insist on strengthening publicly delivered health services as the way forward to address unmet health needs, especially of the poor, as the private sector is contributing to an inequitable provision of services.

Interactions of the private and public sector within national health systems are manifold and not always well understood, and the decision to purchase services is often made in poorly regulated health systems with limited public capacity for health governance. This may lead to unintended consequences from purchasing services from one group of providers. This Policy Brief focuses on the rationale and potential arrangements by which governments could purchase primary health care services from the private sector for currently underserved populations. It aims to provide a structured guide to assist decision-making and selection of purchasing options.
What do we know (and not know) about viable options to address the problem?

Two recent systematic reviews found that health service outcomes vary by provider type but concluded that overall neither sector was clearly better than the other. A number of other systematic reviews, albeit mostly of relatively poor methodological quality, assessed the outcomes of different arrangements for government purchasing of services from the private sector in LMICs. None evaluated the overall health system impact of purchasing services. However, the reviews highlighted the potential for purchasing to introduce at least some degree of regulation in growing and unregulated private sectors.

There is significant experience with contracting (mostly contracting-out) and voucher schemes in Asia and the Pacific, and studies have demonstrated that these purchasing arrangements have resulted in increased utilization in underserved areas. Evidence for vouchers was strong for utilization, modest for quality and promising for health outcomes. Evidence for contracting delivered mixed results. The relative contribution of the private and public sectors to the outcomes achieved was not always clear.

Purchasing arrangements that engage the private sector are shaped by the interaction of development partners, governments, providers and users. Development partners are involved in nearly all purchasing arrangements through provision of funds. Key issues in relation to the role of development partners include the alignment of funding priorities with government health priorities and the sustainability of externally funded schemes. Governments execute a number of tasks in engaging the private sector. Issues related to the role of government include the lack of a rationale for the decision to purchase, lack of predefined outcomes, weak regulatory frameworks and capacity, insufficient resources to monitor and/or measure outcomes, and lack of capacity for management of contracts or payment mechanisms. Another crucial actor are providers (public and private), and their availability, capacity and mutual relationships that affect outcomes. Transparent selection of an appropriate mix of public and/or private providers in accordance with predefined quality standards was another part of successful schemes. Finally, patients’ awareness and willingness to use services will determine demand. Addressing barriers to access services by an appropriate design of purchased services will enable this demand to be translated into utilization.
**Recommendations**

Given the lack of clear evidence of the benefits of purchasing services from the private sector, decisions on purchasing schemes need to be made on the basis of factors in specific contexts. In this Policy Brief, a structured guide is provided to assist governments in making decisions on

1) whether to purchase services from the private sector; and, if so,
2) the appropriate purchasing arrangements.

The following questions can guide the initial decision to purchase services from the private sector:

1. **What is the health problem and potential services?**
   
   Identify the health problem, target population and services that are suitable to address this problem and constraints for the target group to access existing providers of these services. Based on this, define the expected outcomes or objectives for the services.

2. **What are the characteristics of the services to be provided?**
   
   Evaluate how complex the services are, how much provider discretion is entailed, how measurable the services are, and the constraints on the supply or demand side on the provision of services to the target population. These considerations will define the requirements necessary for provision of services.

3. **What are the options for public provision of the services?**
   
   Consider whether there is existing public capacity or potential for capacity-building to enable the public sector to provide the services. Assess constraints on public capacity to identify whether and how much it might cost to use the public sector, and to inform the future role of the public sector in provision of the services.

4. **What are the options for private provision of the services?**
   
   Evaluate potential private providers to deliver the services, constraints the sector might face and which resources are necessary in building private capacity. This will include an estimation of operational costs for private sector provision.

5. **What other factors in the context or environment need to be considered in making this decision?**
   
   For example, is this purchasing arrangement intended to fill short-term needs or is it an ongoing engagement, is there a requirement to invest in
the public sector to ensure both sectors function effectively, and what is the political and social context for engaging the private sector?

However, this decision will often involve difficult trade-offs, particularly in low-capacity contexts, and may require a package of measures involving both public and private providers. Having made the determination to purchase services from the private sector, the appropriate purchasing arrangements (that is, mechanisms) and the design of the key aspects of those arrangements must be decided.

Table A: Framework informing the decision on purchasing design

<table>
<thead>
<tr>
<th>Issue</th>
<th>Options</th>
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| How complex are the purchased services?                    | • Remember that contracting and franchising can handle more complex services, require less specification of inputs and/or outputs and provide more autonomy to the provider; however, risk is shifted to the contractor and is more complex to manage.  
• Remember that vouchers and social marketing are better suited for simpler services. |
| How developed is the government’s managerial capacity?      | • Provide additional resources to build government capacity for management and payment as part of the engagement programme.  
• Undertake contracting-in capacity from a third-party provider.  
• Ensure adequate capacity for stewardship and monitoring and evaluation even if management is contracted to a third party. |
| What are the costs of provision of the services and how can these be paid? | • Use an average package price for the package of services.  
• Pay a capitation fee per target person covered.  
• Pay itemized costs per service up to an agreed rate.  
• Pay on the basis of achieving agreed outputs and/or provide performance incentives. |
### Table A: Framework informing the decision on purchasing design (cont.)

<table>
<thead>
<tr>
<th>Issue</th>
<th>Options</th>
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<tbody>
<tr>
<td>How big is the existing community demand for the services?</td>
<td>• Include community information and awareness-raising in the package of funded activities.</td>
</tr>
<tr>
<td></td>
<td>• Include community outreach, and consider complementary funding for travel costs.</td>
</tr>
<tr>
<td></td>
<td>• Ensure that all costs are included and that there are no extra provider charges.</td>
</tr>
<tr>
<td></td>
<td>• Consider engaging the private sector to address community preferences and to improve responsiveness.</td>
</tr>
<tr>
<td>Should the public sector, in addition to the private sector, be engaged in the provision of the services?</td>
<td>• Use a mechanism that engages both sectors to encourage competition between public and private sectors, (for example, vouchers).</td>
</tr>
<tr>
<td></td>
<td>• Include both sectors in capacity-building, (for example, training).</td>
</tr>
<tr>
<td></td>
<td>• Ensure adequate resources are available to the public sector to respond to impacts of the engagement of the private sector.</td>
</tr>
<tr>
<td></td>
<td>• Specify within the purchasing arrangements the expected contribution of the public sector.</td>
</tr>
<tr>
<td></td>
<td>• Engage both the public and private sectors in joint monitoring.</td>
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</table>
Governments in many low- and middle-income countries (LMICs) in Asia and the Pacific face challenges in ensuring access to quality primary health care (PHC) for their populations, particularly in rural and remote areas. While the introduction of financial protection through universal health coverage is intended to reduce financial barriers to access care, geographic access barriers may still limit the ability of some populations to benefit from universal health coverage. The World Health Report 2010 noted that “removing the financial barriers implicit in direct-payment systems will help poorer people obtain care, but it will not guarantee it...if services are not available at all, or not available close by, [as] people cannot use them even if they are free of charge.” (1, 2) A key issue for governments introducing universal health coverage is to ensure equitable availability of quality health services for their populations.

Overall, countries in Asia and the Pacific have been successful in improving their health sectors, including demonstrated progress towards the Millennium Development Goals. East Asia has most rapidly reduced under-five mortality, and South-East Asia has made substantial improvements in coverage of antenatal care. (3) Nevertheless, some regions are lagging behind, for example, South Asia with maternal care. (3) Moreover, heterogeneity of health outcomes by geography and socioeconomic status have raised concerns about equitable access to health care. (4, 5) Problems in access for populations in the region, despite extensive public health networks, are partly due to severe shortages of health workers, as currently experienced in Cambodia, Indonesia, Lao People’s Democratic Republic, Myanmar and Viet Nam. (2) An uneven distribution of health personnel, with doctors concentrating in urban centres in particular, adds to problems of access for populations in more remote locations, such as some islands in Indonesia (6, 7) or ethnic communities in mountainous areas in Viet Nam. (8)
Use of the private sector for PHC services is well established in Asia and the Pacific, with the private sector exceeding 50% of PHC usage in some countries, for example, Indonesia and Viet Nam. (7, 9) However, there are a variety of different providers in the private sector (for example, formal and informal, for-profit and nonprofit), providing a range of services to specific populations, and with complex relations with the public sector. (10, 11) There is an ongoing debate on how governments should engage with the private sector, ranging from regulation to varying extents of active engagement to harness (12) the private sector to contribute to public health goals. The merits of engaging the private sector have been extensively debated, (13, 14) and the argument between Oxfam (15-17) and the World Bank (18) exemplifies how champions of the private or the public sector accuse each other of resting decisions on ideology rather than on evidence.

One potential method of engagement that has been proposed is that governments purchase services from the private sector to fill gaps in public sector provision, for example, for underserved populations. This approach has been referred to as “pragmatic approaches that build on what is available and what works in both the government and non-government sector.” (18) Underlying theories of supply and demand assume that

1) increased provider competition results in better efficiency and quality of services;
2) better transparency;
3) increased utilization of services; and
4) targeting of poor populations, thereby increasing equity. (19-22)

Some countries in Asia and the Pacific have significant experience with a variety of purchasing arrangements with the private sector to expand coverage of PHC services. (23) These range from contractual arrangements with nongovernmental organizations (NGOs) for the provision of a comprehensive PHC package in Cambodia (24, 25) to partnerships with private providers to deliver tuberculosis treatment in Bangladesh. (26) However, questions have been raised about the quality of PHC services provided by the private sector. (9, 27)

The aim of this Policy Brief is to provide policy-makers with guidance on the circumstances in which it might be appropriate for governments in LMICs to purchase PHC services for underserved populations from the private sector, the potential purchasing arrangements, and factors that need to be considered to ensure that these arrangements are effective and efficient. The perspective is that of national-level policy-makers, while the funding may be from national government sources or from external or donor sources.
Methodology

A literature review was conducted to identify published systematic reviews summarizing the knowledge already available for LMICs on:

1) PHC provision by the private sector; and
2) purchasing arrangements with the private sector—which may include also the public sector, but not exclusively—to provide services for underserved populations.

This search included PubMed, the Cochrane Collaboration and CABI Global Health. PubMed and the Cochrane Collaboration were searched with medical subject heading (MeSH) terms. The search in PubMed was limited to publications from 2000 onwards, those having an abstract available, those in English and of a “review” type. The search in the Cochrane Collaboration was limited to the same time period, publication in Cochrane or other reviews, and economic evaluations with word variations. The search in CABI was limited to 2000–2013, included related words, human sciences and in English. Detailed search terms and search strategy are available on request.

Eventually, two reviewers identified 56 relevant abstracts. Full-text versions were assessed and excluded if studies:

1) were not systematic reviews;
2) did not provide information to distinguish between public and private providers;
3) assessed other arrangements not directly including providers such as conditional cash transfers, or;
4) reported on informal private providers only.

Eventually, 15 systematic reviews were included collaboratively, 14 from the literature search and 1 from simultaneous reading by one of the researchers (Annex, Table A.1).
As the literature was often ambiguous in respect of terminology, terms most pertinent to our review are defined in Table 1.

Table 1: Definitions of relevant terms applied in this policy brief

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
<th>Issue</th>
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<tr>
<td>Private providers</td>
<td>All formal (that is, recognized by a regulatory authority and having received training at a recognized institution) providers of health care, outside the public sector. Includes for-profit and nonprofit.</td>
<td>Most likely have a strong impact on outcomes and are considered in the analysis. Excludes nonformal providers. Note that the boundaries between private and public are not always well defined. (28) Can include schemes that also apply to the public sector.</td>
</tr>
<tr>
<td>Purchasing arrangements by government</td>
<td>Provision of resources from government to private sector providers in return for services or goods relevant to services. Not dependent on funding from governments directly.</td>
<td>Broad definition of purchasing arrangements. Includes donor-funded programmes not necessarily in partnership with governments. Excludes out-of-pocket expenditures.</td>
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<tr>
<td>Underserved areas</td>
<td>Population groups with reduced access to essential health services, either due to financial constraints, or other constraints (for example, geographic location) Either population groups (for example, poor) or geographic areas with a high proportion of poor (usually rural areas but also including urban slums). (29)</td>
<td>No restriction on particular causes of being underserved, although cause may be considered as factor. May assume that those in rural, remote or low-income locations are underserved. (29)</td>
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</table>
Methodological quality of included systematic reviews was then assessed with the AMSTAR criteria. The quality of those reviews were classified with an overall score of 0–4 as “low”, 5–8 as “moderate” and 9–11 as “high”. (31) (Annex, Table A.1).

The systematic reviews were then analysed to identify information on the circumstances and factors in effective engagement of the private sector to provide services to the underserved. In the first step, the literature was evaluated for purchasing arrangements leading to improvements of health service outcomes to identify the range of mechanisms, tools and information about their effectiveness. Second, the scope of the analysis was narrowed to those purchasing arrangements judged as most effective in the first step to focus on the experience in their use, and on the circumstances and factors related to the ultimate health service outcomes. Studies identified from the systematic reviews, and additional publications identified in a further search relevant to those purchasing arrangements selected in step one, were analysed using a realist approach, with a focus on contextual factors. The realist approach is driven by the intention of answering the questions “in which context, what worked for whom and why or why not?” rather than providing a quantitative summary of outcomes. These contextual factors served then to formulate a structured guide to supporting the decision whether to purchase. The underlying assumption here was that contextual factors relevant to the selected purchasing arrangements would also apply to other forms of purchasing.

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
<th>Issue</th>
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<tr>
<td>Primary health care (PHC)</td>
<td>Usually first point-of-contact with the health care system in a community comprising promotion, prevention and treatment services</td>
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<tr>
<td>Primary care</td>
<td>A core component of primary health care, more narrowly focused on illness treatment and rehabilitation</td>
<td></td>
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<tr>
<td>Service outcomes</td>
<td>Utilization (including equity of access by gender and other disadvantaged persons), cost-effectiveness, quality and sustainability</td>
<td>Need to consider outcomes in terms of target population but also other aspects of system and ongoing sustainability</td>
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</table>
Characteristics of the private sector and private service provision

Health care systems of most LMICs can be described as mixed, denoting that “centrally planned government health services operate side-by-side with private markets for similar or complementary products and services.” (10) Boundaries between public and private providers are often blurred with an enabling regulatory environment, leading to the dominant role of the private sector (28) in many LMICs.

The composition of the private sector is heterogeneous, and providers can be classified into formal and informal providers of various levels of training and quality of services provided. (9, 27, 32) Another way of classifying private providers is by their orientation to making profit. For-profit providers include multinational corporations, individual physicians and informal providers. (9) Nonprofit providers encompass NGOs, civil society organizations, faith-based organizations and charities. (9)

The extent of private sector contributions to the provision of health services at the population level is not always clear and varies extensively between countries and areas. Private providers exceed public ones by far in some, for example, 77% of health expenditure is in the private sector in Pakistan (33) and 76% of all physicians work in the private sector in Madhya Pradesh, India. (10) In Viet Nam, the private sector provides 60% of ambulatory care, (9) and in 12 African countries, 3%-45% of patients use the private sector for HIV testing. (9) A background report for the United Nations Children’s Fund (11) grouped the 21 countries and areas of East Asia and the Pacific according to the scale of the private sector contribution into three groups (Table 2).
Table 2: Countries in East Asia and the Pacific grouped by scale and role of private sector (11)

<table>
<thead>
<tr>
<th>Scale and function of private sector</th>
<th>Countries and areas</th>
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<tr>
<td>The private sector provides more than half of all health services and is important for primary care services. It provides some to the majority of secondary and tertiary (that is, hospital) care. The for-profit private sector is much larger than nongovernmental organizations.</td>
<td>Cambodia, Indonesia, Lao People’s Democratic Republic, Malaysia, Myanmar, Philippines, Thailand, Viet Nam</td>
</tr>
<tr>
<td>The private sector is small, providing less than half of health services. Nongovernmental organizations and faith-based organizations provide a significant proportion of private sector health care.</td>
<td>Fiji, Kiribati, Marshall Islands, Federated States of Micronesia, Papua New Guinea, Solomon Islands, Timor-Leste, Tonga, Vanuatu</td>
</tr>
<tr>
<td>The private sector exists in specialty areas (for example, for dental care) and within structural arrangements in which the government is an active partner.</td>
<td>China and Mongolia</td>
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The extent of services provided by the private sector roughly follows geographical borders, with the strongest private sector influence in South-East Asia (plus Indonesia), a small sector in the Pacific and a less developed one in China and Mongolia. (11) Services provided by the private sector range from health education to the provision of “medical” goods, for example, insecticide treated bednets (ITNs), contraceptives or spectacles; supportive services, for example, diagnostics and dispensing of drugs; and provision of primary, secondary and tertiary health care services.

**Services provided and populations targeted by the private sector**

The private sector tends to focus on services directly providing benefits to the individual purchasing the service, for example, treatment and diagnostics. The private sector also seems less important for the provision of preventative services, for example, vaccinations. (34) This can be seen as a focus on private goods, rather than public goods, for example, preventive and public health services, where individuals not directly involved in the service also benefit. However, it is notable that nonprofit providers (for example, NGOs) are also providers of public goods services.
Private provision of health services has been growing at least partly to address perceived gaps in the provision of services by the public sector (35) or unmet community demands. Patients have reported preferences for private providers, as they are often more courteous, more accessible, offer more flexible payment options and are more responsive to the needs and preferences of users. (9, 29, 36) These factors often result in willingness to pay for health services in addition to the common perception that private services are of higher quality than public services. (32) However, patient-centric services provided through the private sector are sometimes also profit-centric, and may result in inappropriate services, for example, excessive testing or vitamin injections. Others suggest that the private sector acts as a source of “disruptive innovation, developing simpler and cheaper services that enable the participation of new sets of consumers previously excluded from conventional markets.” (35)

Overall, it seems evident that the private sector serves a large proportion of the more affluent. (9) However, in many countries and areas, high levels of use by the poor have also been reported, particularly by informal private practitioners, (37) raising concerns about various levels of quality of care received by different income groups. The private sector in many LMICs is widespread, but especially the formal private sector is generally more concentrated in urban areas where the number of potential users is higher. (34, 36) Specialized practitioners also tend to be located in urban centres. (36)

**Impacts on the public sector**

Interactions between the private and the public sector are manifold and not always well understood. The literature describes positive and less desirable outcomes. The private sector has been described as addressing gaps and opportunities created or left by the public sector (35) (for example, in middle-income countries, new vaccines are often introduced by private providers, (34) and services are provided at times not available in the public sector). (9, 38) Negative outcomes include public sector employees “dual-practicing,” leading to absenteeism or referral of patients to private practice. (39)

Introduction of private health services can also contribute to domestic brain drain from the public sector to the private. Rapid privatization of health services was also associated with worse patient outcomes. (9) Substantial public funds are being spent to regulate the private sector, particularly in Africa. (9) Conflicting interests and mutual distrust can characterize the relationship between private and public sectors, thereby limiting collaborative relationships and agreement on regulation. (40)
Two recent systematic reviews compared public and private health services in LMICs in general and ambulatory care in particular; (9, 27) while a third evaluated malaria treatment by various providers. (41)

Basu et al. (9) compared the performance of private versus public sectors in general and rated the private sector as more patient-centred. Patients preferred private providers due to shorter waiting times, longer and more flexible hours and better availability of staff members. However, quality of care, expressed by accuracy and adherence to medical standards, knowledge of correct diagnosis and treatment and prescription practices was found to be worse in the private sector. In addition, private practitioners performed unnecessary interventions, for example, Caesarean sections, more often. On the other hand, the public sector had poorer availability of drugs and service provision. Treatment success rates were higher in the public sector for HIV and tuberculosis, and it achieved higher vaccination rates.

Both sectors were not acting in accountable or transparent manners, however; studies included in this review indicated a dearth of available data on accountability. User fees were prevalent in both sectors, and out-of-pocket spending was highest for the nonprofit private sector and lowest for the public; the poor were often excluded by the private sector. The poor received care as often from the private sector as the more affluent, yet providers were usually less qualified. Drug prescription costs were higher for the private sector, and privatization was associated with higher expenditures for health.

A review by Berendes et al. (27) compared (formal) private and public ambulatory health care (that is, PHC) in LMICs and found no significant differences for infrastructure and inputs, for example, buildings, equipment and supplies. The private sector was characterized by significantly better availability of drugs. In addition, the private sector was rated better than the public in regard to responsiveness and effort, but no differences were found with respect to patient satisfaction. Technical quality of provided services
was poor for both sectors without any major differences. Perception of public sector quality was often better but more provider-focused, while the private sector was easier to access and more client-centred. Clinical practice was slightly better for the private sector; however, it was much better in the for-profit than nonprofit sector. Overall, the authors concluded that “stereotyped opinions that one sector is clearly better than another are not supported.”

Examining the performance of different providers to treat malaria in Sub-Saharan Africa and Cambodia, Kamal-Yanni et al. (41) found that knowledge was better in the public sector; public providers generally performed better in diagnosing malaria, although a substantial part was not complying with results; availability of antimalarial drugs was better in the private sector; and most public facilities provided medication free of charge.
Purchasing services from the private sector

Most purchasing of services from the private sector in LMICs is undertaken by private individuals using out-of-pocket expenditures, and higher usage of the private sector is usually accompanied by higher proportion of out-of-pocket expenditures in total health expenditures. (11)

Governments in many LMICs have also explicitly purchased services from the private sector. A range of factors are reported to be associated with the decision of governments to purchase, including a context of weak public service provision, external pressure from development partners to contract with private providers, recognition that private provision may be preferred, an interest to reduce financial barriers to health care for the poor, perception that private provision is more efficient and as a strategy to take the pressure off of the public system. Furthermore, in many cases, the private sector is providing more than 50% of health care in LMICs, and purchasing may represent a way of better managing the delivery of private care. (42, 43)

The decision to purchase does not usually take place within a specified framework or even in consideration of broader health system goals. According to Preker et al., (44) there are a range of factors that should be considered in the decision whether to provide goods or services from the public sector or to purchase them from the private sector, in particular the measurability and contestability of the service. Their model assumes that if the government can oversee and regulate private sector activities by way of purchasing health goods and services aligned with government health objectives and goals, then government as a purchaser should work.

Yet purchasing health service delivery from private providers in LMICs is not always happening in the context of well-regulated health systems. Particularly in lower-income countries and areas, regulatory capacity can be weak. There is also a reported lack of awareness of how purchasing health service provision from private providers fits within broader health system goals and principles. (45) Often the process of purchasing is established
within an environment of significant distrust between private and public parties, for example, as a result of corruption and delays in fund flows. Competitive dynamics between the two sectors can also lead to an “infrastructure inequality gap” (9) where government funds are diverted away from underfunded public services and redirected to private providers.
Options for purchasing arrangements

The systematic reviews identified by the literature search (n = 15) were rated according to the AMSTAR quality assessment tool. Most of the reviews were of low (n = 4) to moderate (n = 10) quality; only one study was scored as high (Annex, Table A.1). Based on the reviews, the following purchasing arrangements and their associated outcomes were identified.

**Contracting**

In essence, rather than providing the service itself, a health actor (for example, the Ministry of Health) entrusts a partner (private for-profit or nonprofit) with providing it in exchange for payment. (47) “Evidence suggests that contracting-out has achieved impressive results in improving both the availability of services and population-based utilization rates, particularly in underserved areas where publicly provided services are irregular or unavailable.” (48) However, impact on other health service outcomes was mostly not assessed.

Another review found that contracted PHC services clearly benefitted the poor, but quality of care seemed worse than in the public sector. (29) In addition, it was substantially more expensive than provision of services via public facilities but reduced the extent of out-of-pocket expenditures for health care services at the household level. There was little analysis of how contracting of services might affect the overall health system. It is particularly hard to predict how equity, efficiency, access, quality and sustainability might be affected, “which in turn influence the utilization and coverage of services—but are not covered by the contract.” (48) The review concluded that contracting is an effective option where the government is unable to reach some populations and where the public sector is absent or weak, as in “underserved areas or post-conflict settings.” (49) Associated with contracting is the risk that efforts concentrate on measured outcomes, and neglect remains unmeasured.
Public–private collaboration

This is defined as “developing organizational alliances among public and private sector actors to share resources and activities for a common purpose.” (50) Poor attitudes of public providers towards vulnerable populations have been used as a reason for involving private providers. However, private providers continued the use of inappropriate X-rays, particularly among the poor. Record-keeping and monitoring were poor among the private–public mix for tuberculosis treatment. The public sector also lacked capability and willingness to handle interaction with the private sector. (36)

Social marketing

This “is the application of the tools and concepts of commercial marketing to social and health problems to increase population coverage of effective and affordable interventions.” (29) One review, examining explicitly the impact of social marketing on condom use, (51) found an increase in usage, but as this was primarily referring to Sub-Saharan countries, transferability to other areas was unclear. Similarly, another review identified marketing interventions mostly for condoms or other family-planning methods, all of which showed significant increases in utilization. (29) A positive impact on the poor was only demonstrated in one study (that is, ITNs). The authors concluded that “it is not possible to prove from the available literature that private sector interventions benefit the poor and improve equity.”

A third review examined sexual and reproductive health only (50) and found that overall, 68 of the 71 studies showed a positive result associated with a private sector strategy. Eleven of these studies related to social marketing (mostly of low scientific quality), of which only four included a comparison group and none used randomization. The outcomes measured in many studies were quite limited in ambition, and were accompanied by mixed results. Many of the more successful approaches used a combination of private sector strategies rather than reliance on a single strategy. Success may depend on how well strategies are combined.

Clinical social franchising

“The concept of franchising for health services is similar to franchises in business. A franchiser develops a successful way to provide the health services, and then other franchisees copy the model in other franchises.” (52) A Cochrane Collaboration review found no studies satisfying criteria for inclusion in a systematic review. (52) Nevertheless, there is some evidence that social franchising “increased client volumes and satisfaction” (53) and service uptake (not specifically for PHC). There was a scarcity
of quality research examining potential impacts on population health, quality of services or equity. There is no evidence on the ability of clinical social franchising to expand the availability of health services in currently underserved areas. Social franchising can, in theory, increase the number of providers particularly where the existing medical workforce is under-utilized. However, some evidence suggests that social franchises do not substantially expand access to health services but rather recruit existing providers into the network or shift users from one source of care to another. (53)

Despite the “clear goal of serving low-income populations. franchised clinics serve a greater proportion of higher income clients than other facility types.” Moreover, it might result in increased costs of health care. (53) It is potentially useful in areas with a largely unregulated private sector providing the majority of services, as it can introduce some degree of regulation. (53)

**Vouchers**

The target group receives a voucher that can be redeemed for prespecified health services at selected health care providers. There is some evidence that vouchers are an effective strategy to extend particular health services (most often for reproductive health) to a wider population. However, a review by Bellows et al. found for all studies either positive or not significant results. (40) This included interventions that targeted mainly poor women and youth, but targeting of high-risk groups in need was successful. Outcomes included overall higher treatment costs (for sexually transmitted infections [STIs]) but lower costs per cured patient. Out-of-pocket expenditures decreased in the intervention areas. Knowledge about disease and symptoms increased among women, as did facility-based deliveries, antenatal and postnatal care and use of contraceptives. User satisfaction was higher in the voucher groups as compared to those who did not use vouchers. Moreover, physician knowledge increased, and there was some positive impact on health (for example, unwanted pregnancies and STI prevalence).

Similar to other purchasing arrangements, the overall health system impact has not been explored in a single study. (40) Another review (54) found modest evidence for successful targeting of particular populations in need. Evidence of efficiency was insufficient. Evidence of increased utilization was robust, and evidence for better quality modest, while there was no evidence of an effect on health outcomes.

A third review addressing vouchers found a clear positive impact of vouchers for ITNs on the poor. (29) Overall, vouchers seem to increase utilization and have some positive impact on other health service outcomes, such as out-of-pocket expenditures or targeting; the impact on population health was not conclusive but promising.
Overall, the reviews demonstrated some evidence for positive outcomes from some forms of purchasing arrangements, but one common theme of all reviews was the lack of comprehensive evaluations. None of the included systematic reviews were able to address the impact of a particular purchasing arrangement on the overall health system. Purchasing services might be an option in areas with an abundant and unregulated private sector, where formal contracts introduce some degree of regulation. In addition, the private sector may particularly benefit from quality improvement and training.

There are other purchasing mechanisms that often involve the transfer of large sums from governments to the private sector, such as social health insurance or national health schemes, (for example, PhilHealth (55) in the Philippines, RSBY in India (56) or VSS in Viet Nam.) (57). However, none of those schemes were examined in the literature included in the systematic reviews. This might be either due to an absence of peer-reviewed publications in this field, a lack of systematic evaluations of how these schemes harness the private sector, a too-narrow search strategy, or a focus of most schemes on either hospital coverage or purchasing mainly from public providers. While the scale of some of these schemes is large, they are therefore not evaluated by this Policy Brief for the above reasons. Thus, the strongest evidence for increased utilization of health services in previously underserved areas or populations was found for the purchasing arrangements of contracting and voucher schemes. As there is also substantial experience with these two mechanisms in Asia, contextual factors associated with successful or ineffective implementation of these two arrangements were examined.
Voucher schemes

Mechanism

Vouchers are a form of demand-side or consumer-led (40) health financing. The basic principle is to provide previously powerless populations with purchasing power through targeted financing for health services. (54) As a guide to demand-side financing issued by the World Bank states, “[t]he key defining feature of a demand-side subsidy is the direct link between the intended beneficiary, the subsidy, and the desired output (such as access or utilization).”(58)

In theory, potential strengths of this mechanism in comparison to other purchasing schemes are:

1) targeting poor or high-risk groups (54, 59) via distribution to particular areas or populations;
2) increased quality of services resulting from competition between private sector providers, (40, 60) and provider selection and participation usually limited to those fulfilling certain standards or qualifications; (54, 61)
3) stimulating efficiency and lower costs through market mechanisms of supply and demand; (60)
4) increased utilization and uptake of previously underutilized health services through consumer subsidies; (62, 63)
5) better health resulting from increased quality, equity, utilization and efficiency; and (62)
6) rapid evaluation and monitoring. (58)

Evidence for vouchers

Two recent systematic reviews evaluated the impact of voucher schemes on the use and quality of health care (54) and the use of vouchers for reproductive health services (40) in developing countries (Table A.2, Annex).
A third review on working with the private sector in general did not include
any voucher schemes located in Asia and the Pacific. (29)

Most of the included studies considered vouchers for reproductive health,
(40, 54) a few looked at ITNs and one evaluated vouchers for general health
services. (54) Studies included from Asia were located in Bangladesh,
Cambodia, China, Republic of Korea, India and Indonesia. The studies in the
Republic of Korea occurred in the 1960s and 1970s.

Overall, there was robust evidence for an increase in utilization, and modest
evidence for successful targeting and quality improvement. There was
insufficient evidence for increased efficiency, and no evidence for an impact
on health. (54) The second systematic review (40) identified only publications
with positive or no effect, as no publication reported a negative impact on
health service outcomes. The authors concluded that there is probably a
positive effect on utilization, limited evidence for impact on quality, the most
promise for an impact on population health and limited evidence for impact
on knowledge.

In addition, subgroup analyses pointed to modest evidence for a health
impact from free services and service provision by a mix of public and
private providers. (54) Included voucher schemes involved private and
public providers, and external funding was present in almost all cases. (40)

**Country experience in Asia and the Pacific with voucher schemes**

For this Policy Brief, systematic reviews of studies located in Asia and
the Pacific were identified, and additional non-systematic literature
searches in PubMed and Google Scholar were conducted to identify further
peer-reviewed publications and grey literature. Table A.3 in the Annex
provides a description of key voucher schemes identified in the region.

**Contextual factors influencing the success of voucher schemes**

Identifying the role of the private sector in published reports of voucher
schemes was not always easy, as the reports were rarely clear on the extent
of private sector involvement. Where schemes included public facilities only
(for example, Cambodia), authors suggested that the inclusion of private
providers may be beneficial, (59) while others (for example, Pakistan)
recommended the inclusion of public facilities. (64)
A number of contextual factors were identified from the literature that are very likely to influence the implementation and ultimate outcome of voucher schemes.

**The capacity of public administration.** Governance and stewardship capacity of public administration, mostly within the Ministry of Health, is likely to influence all stages from decision-making to the evaluation of voucher programmes. While government involvement is a prerequisite for the integration of privately delivered services, public capacity is often too low to successfully implement voucher programmes without additional inputs, for example, the scarcity of human resources for implementation of demand-side financing in the Delhi health system. (65) Although public advocates acted as champions for voucher schemes, (59, 65-68) the underlying decision to initiate voucher schemes was hardly ever described. However, the need for detailed baseline information prior to implementation, particularly for monitoring and evaluation purposes, was often detailed. (64) Informed decisions require detailed knowledge of health needs, provider capacity, costs and identification of populations underserved, but this inventory-taking prior to implementation was not reflected by the literature.

**Development partner involvement.** Development partners were involved in essentially all (59, 66, 69-73) but one (65) scheme. They included the Belgian Development Agency, Department for International Development of the United Kingdom, Deutsche Gesellschaft für Internationale Zusammenarbeit (German Agency for International Development), John Snow Inc., Kreditanstalt für Wiederaufbau (German Reconstruction Credit Institute, KfW), Marie Stopes International, Population Services International, United Nations Population Fund, United States Agency for International Development, World Bank and World Health Organization. If and how funding of voucher schemes were in alignment with national health priorities and strategies were unclear. Taking previously expressed concerns of misalignment of development aid with national interests (74, 75) into account, the impact on domestic strategies, decision-making and overall health systems remained uncertain.

**Capacity of pre-existing public and private providers.** Successful voucher schemes rely on the existence of service providers of a certain standard. The assumption that competition results in better efficiency and quality rests on the idea that more than one provider, public or private, is accredited in the voucher scheme of a particular area. (76) For some health services, such as STI treatment or distribution of ITNs, the cost of market entry is low, and additional providers competing for vouchers may be introduced. (54) Other health services, like maternal and child health, require specialty human resources, which are difficult to attract, particularly in remote and underresourced areas. (63, 76)
Some regions had strong pre-existing private sectors, for example, parts of India or Pakistan, (65, 69, 77) while they were less developed in others, for example, Cambodia and rural Bangladesh. (59, 63, 76) The geographical distribution of private providers has to be considered, as well. There were large inequities in access to health care for populations in rural areas or those of low socioeconomic status, (64, 66, 69) while private providers were concentrated in urban areas. (64, 65, 67) Almost all studies reported staff shortages at public health facilities (59, 70) in addition to long waiting times, poor staff attitudes, shortage of medicines and poor management. (59, 67, 70)

**Selection of providers.** The selection of providers for voucher schemes varied extensively. In one scheme in Gujarat, the chief district health officer selected eligible providers (all private providers had to be equipped with basic facilities such as labour and operating rooms, access to blood and anaesthetics). (67) In Pakistan, only areas with a sufficient number of Greenstar-associated providers were initially selected for implementation of the voucher scheme; providers trained by Greenstar in maternal health and PHC were then preapproved for providing services and had to commit to an ongoing quality assurance programme. (69) Criteria in Cambodia were the results of an initial quality assessment of public facilities and included availability of at least one midwife around the clock and a pre-existing record of relatively high health care utilization. (59) In two schemes implemented in urban India, where many private providers existed, those who were nearest to low-income slum areas and met facility and staff quality standards were invited to submit an expression of interest for participation. (65, 71)

**Provider motivation, payment methods and costs.** Payment methods showed a large degree of variation. In Gujarat, providers were paid for a block of 100 deliveries, including complications and Caesarean sections. Separate rates for Caesarean sections were avoided for fear of induced demand, that is, a higher payment triggering more and often unnecessary interventions by providers. An advance payment was accepted by some providers without providing any care. In Gujarat and Delhi, private providers tended to refer complicated cases back to public facilities, blaming expenses, and thereby defeating the purpose of the scheme. (65, 67) In contrast, in Pakistan, the fee for delivered services was calculated by the average fee charged to nonpoor patients, adjusted with a discount. (64) Higher payments for Caesarean sections seemed not to lead to induced demand (that is, 13% of Caesarean sections were within the range recommended range by the World Health Organization (78)). A voucher scheme in northern India distinguished normal from complicated deliveries, assuming that low-income populations may have higher rates of complicated deliveries. (71) Providers in Pakistan
received their payments directly in their bank account within 35 days. Public health facilities in Cambodia were paid at the end of the month based on normal user fees, (59) while it took up to 1 month or more in different contexts in India. (65, 71) Informal payments at public facilities were reported in Cambodia (66) and in Gujarat and Delhi. (65, 67, 79) These, as well as the cost of US$1.20 for vouchers in Pakistan, might deter women from accessing health services.

In India, marked differences in the cost of public and private health care meant that rates set by voucher schemes were not attractive enough to engage private providers in the scheme. In rural areas, the benefit of attracting new clients into the private sector was a motivating factor. (71) but this was not true in urban areas, where private providers were abundant and populations were large. One scheme purposely limited the number of providers enrolled in urban areas to encourage competition. (71) In other schemes, a major motivating factor for private providers entering the scheme was to provide charity to low-income and marginalized populations. (65)

**Patient beliefs and community preferences.** Patient beliefs and preferences are intrinsically linked to the uptake of health services. A range of cultural issues has to be considered, such as preferences for the private sector as in Pakistan (70) and India. (67) Traditional beliefs contributed to the preference for traditional birth attendants in Pakistan (69) and to low utilization rates at public facilities in Cambodia. (66) Lack of knowledge about benefits of care can be widespread, as in Dera Gazi in Pakistan. (69) Prior experiences with health providers can be supportive if positive, or act as a deterrent if negative. Gender and cultural attitudes towards women also influence the uptake of health services. Access to finances, lack of decision-making authority and a lack of understanding of basic health can limit women and children’s access to health care. Finally, the education level of the targeted beneficiaries has to be considered, for example, 40% of rural women were illiterate in the context of the Cambodian scheme, (66) which limited means of communication.

To address cultural beliefs and norms, communities have to be integrated into voucher schemes. Methods of integration of the targeted communities differed substantially between schemes. The scheme in Pakistan recognized the need for awareness-raising of reproductive health services in general and the vouchers in particular, to overcome cultural obstacles. This resulted in long and repeated interactions with women. (64) The team was trained in community mobilization, and lady health workers were consulted prior to implementation. In India, voucher schemes relied on government-sponsored community health workers who helped promote the uptake of vouchers. (65, 71)
However, overreliance on community-based health workers, who are often overworked and undercompensated, can also be problematic. One scheme in India relied solely on community-based health workers for promoting the scheme, resulting in low uptake. (65) The scheme in Cambodia included village chiefs and village health volunteers, (66) and the scheme in Gujarat identified eligible women at village health days. (68) The confusion around entitlements and other schemes in Cambodia highlighted the need for clearer communication. (66)

**Monitoring and evaluation.** Voucher schemes also rely on a well-functioning administrative and monitoring system to reimburse providers, target beneficiaries and track services. (76, 80) In complex bureaucracies of South Asia, long lag times in hospital, banking and government administrations can discourage providers from participating in voucher schemes. (76) Government monitoring mechanisms often cannot be responsive to rapid uptake of services that result from large voucher programmes, which could place an unsustainable burden on public facilities. (63, 76) The final evaluation of a scheme in Delhi found that government officers were unsure of what their monitoring responsibilities were. (65) Understanding what success means is crucial to monitoring. By design, demand-side financing identifies particular health services to focus on which may lead to neglect of others. None of the literature reviewed discussed the impact of voucher programmes, which were mostly implemented with donor support, on other health service areas.
Contraction is defined as “a voluntary alliance between independent partners who accept reciprocal duties and obligations and who expect to benefit from their relationship.” (47) In essence, rather than providing the service itself, a health actor (that is, the Ministry of Health) entrusts a partner (private for-profit or nonprofit) with providing it in exchange for payment. (47) Contracts can be divided into two fundamental types:

1) formal (legal), and
2) relational.

A formal contract defines in detail the mutual responsibilities between contractual partners, financial conditions and legal implications. (81) A relational contract involves “mutual agreement between collaborative partners about the general terms of collaboration.” (81) Financial transactions play a less important role (81) in relational contexts, and such contracts are not legally enforceable.

In LMICs, the common purchasing approach reported in the literature has been to contract out, predominately PHC services, usually in rural districts, to a small number of designated providers, frequently NGOs as is seen in Cambodia. (10) Proponents of contracting service delivery argue that this mechanism allows greater focus on measurable results than other purchasing schemes, increases managerial autonomy, draws on private sector expertise and increases the effectiveness and efficiency of services through competition. (49) According to Lagomarsino et al., if done properly, contracting can improve the “quality and availability of private providers by aligning payment incentives with desired outcomes, while establishing and monitoring quality and efficiency targets.” (10) Payments are usually on the supply side, with the government directly purchasing a set quantity.
of services. (10) However, it can be questioned whether these elements are achievable in some LMICs given constraints of information about private actors in the health system, administrative capacity and policy capture and corruption. (10) As a result, the difficulties and costs associated with specifying and monitoring contracts counteract potential efficiency gains. (49)

Evidence for contracting

A number of reviews of contracting have been completed over the last 10 years with mixed results. Some (24, 82) have concluded that contracting provides an effective way for governments to quickly improve the provision of important health services. Others (49) believe that the amount and quality of the evidence is insufficient to know whether contracting actually works. A recent review by Liu et al. (48) suggested that contracting improved access to health services particularly in underserved areas, but effects on other dimensions for example, quality, efficiency and equity remained unknown. Countries included were Bangladesh, Cambodia and India. Liu et al. (48) concluded that "results indicate that the context in which contracting-out is implemented and the design features of the interventions are likely to greatly influence the chances for success." All reviewers have pointed out the need for additional studies of contracting for health service delivery.

Some of the reported outcomes for contracting health services to private providers in the LMIC context include increased coverage of services, (24, 34, 46, 48, 83, 84) sustainable NGO services as a result of improved government–NGO collaboration, improved accountability through more transparent monitoring of the contract arrangement over time, (85, 86) and provision of services on a larger scale through engagement of private sector providers. (24) There is also some evidence from LMICs that performance-based contracts have more positive results than contracts that are not performance-based. (24, 48, 87) Information about interventions where performance monitoring has not been reported (48) was limited; however, publication bias may be an issue. (88) Furthermore, as argued by Freihein et al., (89) the methods used to determine the impact of complex interventions, for example, contracting and performance-based financing, often fail to account for contextual factors and systemwide effects.

Overview of country experiences with contracting

Over the last decade, countries and areas in the region, for example, Afghanistan, Bangladesh, Cambodia, India and Papua New Guinea, have piloted contracting-out programmes, predominately covering a package
of PHC services contracted to NGOs. Table A.4 in the Annex provides an overview of the studies used to explore contracting in the LMIC context in Asia and the Pacific.

**Contextual factors influencing effectiveness of contracting**

Overall, analysis and evaluation of these influences is lacking, particularly how these components interact with each other, how these factors impact the specific contracting mechanisms used and influence the outcomes of contracting. Some of the major contextual factors identified include regulatory environment, capacity of steward, capacity of purchaser, nature of service, nature of provider market, funding source and degree of trust. (90)

Building on this initial step, the following contextual factors were identified as most relevant to contracting.

**Stewardship capacity.** Stewardship capacity is perceived as fundamental, particularly when contracting is being rolled out at scale (that is, at the regional and/or national level). Stewards are required to guide the policy process, set the rules and regulate the contracting arrangement. (91)

According to Ansell and Gash, (92) at a minimum, the steward should build trust and collaboration and include a level of monitoring to ensure private provider conduct is aligned with contracting rules and objectives. Therefore, effective stewardship requires a culture of trust, networks, links, collaboration, alliances and information-gathering with the people who the government intends to serve. (43, 93, 94) The range of actors in mixed health systems in LMICs, coupled with compromised or inadequate monitoring and regulatory systems, makes building networks of trust difficult. Contracting-out in the face of low stewardship capacity and without investment in capacity-building makes institutionalizing transparent and accountable processes difficult. (45, 95)

**Decision to contract.** The literature is unclear on whether a specific process or rationale is applied to determine what should be contracted. Although knowledge of public and private sector capacity to deliver health services in LMICs is considered a prerequisite in any decision to purchase, it appears as though this is often based on limited information. Bennett and Mills (45) found that purchasing by way of contracting had arisen owing to a variety of particular local, historical circumstances rather than an explicit policy to promote the private sector or make greater use of purchasing to improve efficiency. However, more recently, there appears to have been major policy shifts towards private sector engagement, presumably influenced by global pressure. In Afghanistan, Bangladesh and Cambodia, all three governments
made policy statements regarding increasing private sector engagement as an approach to improve access to health services, just as all three countries received substantial donor funds to implement a contracting model. Political commitment is likely to be an important factor to the success of contracting with private providers, with the addition of adequate resources.

Development partner involvement. Development partners have been major funders and influence decisions to contract with private providers in LMICs in Asia and the Pacific. (46, 96) This support often focuses on building purchaser capacity to manage the contracting arrangement through, for example, third-party contract management agencies, monitoring and reporting systems and capacity-building. (97) It is unclear whether the decision to contract addresses country priorities or whether countries are obliged, given that funds are earmarked for this purpose. Historically, LMICs in Asia and the Pacific have tended to be reluctant to use public funds to finance contracts for PHC, (98) possibly due to the inexperience in contract management on the purchaser side; inexperience in running regionally scaled-up programs on the provider side; and mutual distrust, which often has entrenched historical roots. What is clear is that donor pressure to engage with private providers, by contracting or using other mechanisms, is evident.

Large-scale contracting experiments in LMICs in Asia and the Pacific have been predominately donor-funded, and results have been positive, including contracting NGOs in Afghanistan and Cambodia, and the Urban Primary Health Care Project in Bangladesh. (96, 98, 99) A main concern is the sustainability of such endeavours if donor funding is withdrawn. Interestingly, Cambodia has slowly transitioned to an internal contracting model, (100) and it appears as though investment in building public capacity to contract has carried through as the country moves to national ownership of health services, which suggests sustainability going forward.

Provider capacity. The NGO presence in most LMICs in Asia and the Pacific is substantial, and NGOs collaborate at various levels with the public sector, either formally or informally. The success of these collaborations is likely to depend on the capacity of each party to deliver what they have committed to, whether that is technical support, finances, contract support or health services. Shortages of resources, mismanagement, lack of accountability and absent or inaccessible health services in the public sector are thought to have led to the growth of the NGO sector, for example, in Bangladesh. (83) NGOs are

1) less constrained by bureaucratic processes, thus better able to cover their costs; and
2) more likely to channel funds back into the community. (83)
Bangladesh has a very active and well-positioned NGO sector, while the situation is historically different in Cambodia, with almost no local NGOs working in the health sector when contracting was first piloted. This resulted in contracting of international NGOs, which had the required capacity to implement programmes. (99)

Results of contracting PHC services were positive in Cambodia, and included improvements in health outcomes; (99) in contrast, results in Bangladesh were mixed. The Integrated Nutrition Programme performed worse than public facilities, (101) while another programme, which provided services to the urban poor, performed better than equivalent public provision. (85) In the Bangladesh urban contracting programme, better performance was thought to be attributable to NGOs being more knowledgeable and skilled than public sector providers, offering a wider variety of services and having better organized outreach services. (98) Interestingly, after years of successful pilots of contracting in Cambodia, the Ministry of Health opted for public ownership of health services and abandoned contracting-out as a strategy for increasing health service delivery. This was partly a result of the cost of contracting-out, which was almost two times that of contracting-in, and which raised concerns regarding long-term sustainability.

**Autonomy, collaboration and trust.** Based on experiences in Afghanistan, Arur et al. (96) proposed that appropriate contract incentives, in combination with management autonomy that allows providers to take context-appropriate decisions, are expected to improve the use of important health services. Three further studies (24, 45, 98) found that the most successful interactions between purchaser and provider give the maximum amount of autonomy to the provider, which in many cases means that service providers have control over how they run their service and make decisions about who they employ. For example, in Bangladesh, NGO-contracted services experienced greater autonomy and flexibility, compared to publically contracted services, in how they managed local funds and human resources, which was thought to make them more amendable to adapt to local needs. (98)

However, autonomy of private providers in the context of contracting needs to be built on a foundation of trust. In the LMIC context in Asia and the Pacific, mutual lack of trust has a significant and negative impact on purchaser and provider interactions. (46, 81, 83) Trust is often hampered by a range of factors including ideological differences; lack of institutional openness and lack of understanding of both parties, priorities and objectives. (83) Delayed payments to providers and poor transparency in decision-making are repeated issues that further hamper trust between the provider and the purchaser. (46, 102) Collaboration, including constant dialogue, openness to
change and step-wise development of collaborative terms is necessary for building trust. (81)

As noted by Lagomarsino et al., (10) in many countries, there is very little existing collaboration between public and private sectors to lay the groundwork for a contracting relationship. The two systems generally work in parallel, and the private sector remains largely disengaged from broader public health goals. (103) The financial and managerial capacity of the purchaser and provider is another important determinant of the effectiveness of contracting. (19, 90, 96) In trying to address capacity issues, contracting programmes in some LMICs in Asia and the Pacific (96, 99) have made significant investments in building purchaser capacity to engage and manage relationships with providers, which appears to have had a positive impact on sustaining contract arrangements.

**Type of services.** The types of services contracted vary, but generally fall into two categories:

1) specific services for defined conditions for example, tuberculosis, (83) HIV (46) and malnutrition; (101) or
2) as a package of PHC services. (85, 96, 99)

The scale in terms of the target population tends to vary widely, from 15 million people covered by the Bangladesh Integrated Nutrition Programme, (48) to over 1.26 million in the contracting project in Cambodia (1999–2003), (99) to 54 000 covered by a child treatment programme in India. (104)

There is very little published literature on contracting with private non-NGO providers. (48) One reason may be that the number of private non-NGO providers operating at the grassroots level in remote and underserved areas may be low. Incentives to operate in these areas (that is, profitability of service) may not be sufficient, while incentives for NGOs may be different from for-profit providers.

**Regulatory system and monitoring.** Effective contracting with private providers is likely to benefit from a functioning regulatory system. Legal and regulatory provisions are used as mechanisms to steer health systems to improve service quality and patient safety. Many LMICs in Asia and the Pacific lack an effective system of regulation for most private providers. (34) The main means, if any, through which governments regulate private providers is contract management and performance monitoring of NGOs. (102) However, ability to monitor quality of care and to place sanctions on providers is often limited. Furthermore, misalignment of institutional roles and actions, and of formal and informal relationships in institutions, makes it difficult to identify
who should be doing what in the contractual arrangement. (90, 105, 106) Often, there is nothing in the contract that specifies penalties for breach of contract, nor what entails breach of contract. Even in cases where contracting has been formalized and results generally positive, (96, 99) consequences from poor performance are not well articulated. (96) Therefore, private providers are not incentivized appropriately to follow guidelines.

Good, consistent and transparent monitoring is a key strength in the contracting arrangement and important in the LMIC context to reduce opportunism and to allow purchasers and providers to review progress and address issues identified in reported data. In Afghanistan, monitoring performance was taken very seriously by the Ministry of Health to try and compensate for broader institutional weaknesses. (96) Similarly, Cambodia and Bangladesh have weak regulatory systems, so considerable emphasis was placed on monitoring and reporting.
Synthesis: key actors and their roles in the decision to purchase from the private sector

In this synthesis, the key contextual factors identified from the literature in relation to the key actors involved in purchasing arrangements are summarized. Four key actors were identified that were involved in voucher schemes and contracting in the Region: development partners, government agencies, public and private providers, and users or patients. The factors identified in the literature as influencing the success of implementing and operating purchasing arrangements with the private sector can be related to these roles and the capacities of key actors to undertake their roles.

Development partners play a significant role in influencing the decision to purchase health services. As funders of voucher and contracting programmes, development partners may prioritize certain health services, and determine target populations or geographic target areas based on their funding priorities. Key factors associated with the role of development partners are the alignment of selected priorities with government health system priorities, and the sustainability of government funding for programmes when initial development partner funding ceases.

Governments play several key roles in the process of purchasing from the private sector. These include establishing the regulatory environment under which the purchasing programme operates; determining the policy objectives and deciding to purchase from the private sector; oversight of the programme, including monitoring and evaluation; and, in many cases, managing the process of purchasing and payment to private sector providers. The capacity of government to carry out these roles was limited by a number of factors, including:

1) lack of clarity on the rationale and expected outcomes of the decision to engage the private sector;
2) weak regulatory frameworks and low capacity to regulate the practices of engaged parties;
3) insufficient resources and capacity to monitor the implementation of the programme, or to measure and evaluate the outcomes; and
4) lack of capacity to develop and manage the contractual relationships with the engaged private sector, or to establish or manage the payment mechanism.

Purchasing is also influenced by the type, capacity and organizational structure of providers available to participate in the programme. The quality of the relationship between the public sector and the private sector providers appears to be an important factor in the effectiveness of the purchasing scheme. Important characteristics of the relationship include trust and the degree of autonomy afforded to the providers. For this reason, governments may prefer to engage nonprofit providers. However, some evidence shows that contracting with NGOs results in more sustainable, but more costly, delivery of services. Transparent selection of the right mix of public and/or private providers in adherence to clear quality standards is a prerequisite for success. The requirements in terms of resources, experience and management capacity of providers depend on the complexity of the services to be provided, but also determine the availability of potential providers. Overly high standards may limit the availability of providers, which may undermine the intended process of better access and quality via increased competition.

Service users (that is, communities) are the final set of actors in this system. In particular, the awareness and willingness of potential target users to use services will determine the likely demand for the services. The extent to which the purchasing mechanism addresses potential barriers, geographic, financial and attitudinal, will influence the extent to which demand translates into utilization, particularly of the target group. Vouchers, as demand-side financing, require strong ties with communities to inform and educate the target population and community leaders on the benefits, entitlements and value associated with the delivered services to actually result in appropriate demand and utilization of services. Facilitating links between the service providers and the community also helps address cultural barriers to service uptake. Contracting, as a supply-side scheme, cannot neglect health education and awareness initiatives; otherwise, there is the risk of a mismatch between supply and demand. Community preference for a particular group of providers should also be addressed but with care to avoid a trade-off in quality of services provided.
A framework for guiding decision-making on purchasing from the private sector

This Policy Brief identifies the potentially positive impact of governmental purchase of PHC services from the private sector on a number of health service outcomes for some purchasing arrangements, notably contracting and vouchers. However, evidence for other types of purchasing arrangements was less conclusive.

This Policy Brief also highlights that decisions regarding purchase from the private sector are highly context-specific and are likely to vary from country to country. However, in making this decision, there are a number of questions, which will be similar across countries, which policy-makers should consider when deciding whether private sector purchase is appropriate.

Given these circumstances, decisions on government purchasing of services from the private sector should be made on a case-by-case basis, with consideration of a range of issues in specific contexts.

The following framework and structured guide have been developed to provide a step-wise approach to this decision, considering factors identified as most relevant in the LMIC context.

This section builds on a synthesis of the experience reported in the literature to develop some guidelines that can be applied by governments in making these decisions. However, applying experience as reported in the literature is challenged by a few shortcomings: (1) a dearth of impact evaluations assessing the overall health system impact, particularly on services not subject to purchasing; (2) generally low scientific quality of included studies and systematic reviews; (3) less clear-cut lines between different purchasing options (for example, a combination of supply- and demand-side strengthening may be required); and (4) the sometimes imperative role development partners play in decision-making.
This review suggests that there are two key considerations for government in deciding to purchase PHC services from the private sector for underserved populations:

1) whether to purchase from the private sector or to invest further in the public sector to address identified service gaps; and
2) having determined to purchase from the private sector, the appropriate purchasing arrangement, and the design of the purchasing mechanism.

**Question 1: Should the government purchase services from the private sector or invest further in the public sector?**

Figure 1 (page 34) summarizes the steps involved in this decision.

**Step 1: What is the health problem and potential services?**

This step aims to clarify the rationale for purchase from the private sector, by identifying the health problem and the target population. As part of this step, it is important to identify the services that may address the health problem, and the reasons or factors that currently constrain access to or use of the services by the target group. As a result, the expected outcome or objective for the programme should be defined.

**Step 2: What are the characteristics of the services to be provided?**

The second step is to define the characteristics of the services to be provided, in particular the level of complexity, provider discretion and measurability of the service. Based on this, identify the constraints to the provision or access to the services, including supply-side constraints (for example, availability of facilities or skilled providers), and demand-side constraints (for example, user knowledge and willingness to access services, and financial or geographic barriers). This should result in definition of the requirements for provision of the intervention, and the expectations in terms of resources and costs.

**Step 3: What are the options for public provision of the services?**

In deciding to purchase from the private sector, it is important to consider initially public sector capacity, and the potential for the public sector to provide the services with an investment of appropriate resources. This step should also consider what are the likely constraints in trying to build public capacity, for example, the potential to adversely impact other public service provision. This step is also an opportunity to consider how the public and private sectors interact around the selected condition, target population or services, and whether the public sector will still have a role, and potentially...
**Figure 1: Framework to assist the decision whether to purchase primary health care services from the private sector**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong>: Health problem and potential intervention / service</td>
<td></td>
</tr>
<tr>
<td>Clarify:</td>
<td>Health problem; target population; intervention / services possible; constraints to access</td>
</tr>
<tr>
<td><strong>Output</strong>: Expected outcome / objective of program</td>
<td></td>
</tr>
<tr>
<td><strong>Step 2</strong>: Characteristics of provided intervention / service</td>
<td></td>
</tr>
<tr>
<td>Clarify:</td>
<td>Complexity; provider discretion; measurability of services; constraints to provision (supply and demand)</td>
</tr>
<tr>
<td><strong>Output</strong>: Requirements to provide services; resources and costs</td>
<td></td>
</tr>
<tr>
<td><strong>Step 3</strong>: Options for public provision of intervention / service</td>
<td></td>
</tr>
<tr>
<td>Clarify:</td>
<td>Public sector capacity; potential for service provision with investment; constraints to public capacity building; public-private interaction; public role in case of private provision of services</td>
</tr>
<tr>
<td><strong>Output</strong>: Estimated resources for public provision; role of public sector in provision</td>
<td></td>
</tr>
<tr>
<td><strong>Step 4</strong>: Options for private provision of intervention / service</td>
<td></td>
</tr>
<tr>
<td>Clarify:</td>
<td>Who will be private sector providers; constraints to private service delivery; operational costs</td>
</tr>
<tr>
<td><strong>Output</strong>: Estimated resources for private provision</td>
<td></td>
</tr>
<tr>
<td><strong>Step 5</strong>: Other contextual factors</td>
<td></td>
</tr>
<tr>
<td>Clarify:</td>
<td>Short vs long term strategy; investment in both sectors; political and social context; acceptability; sustainability</td>
</tr>
<tr>
<td><strong>Output</strong>: Feasibility; required modifications; overall estimated cost-benefit</td>
<td></td>
</tr>
</tbody>
</table>
require additional resources, even if services are provided by the private sector.

**Step 4: What are the options for private provision of the services?**

Under this step, it is important to consider who might be potential private sector providers for the services, their organizational structure (for example, network or franchise), what constraints they may face in providing the services, and consequently what resources they may need to invest in building private sector capacity. It will also be important to estimate the likely operational costs for private sector service provision.

**Step 5: What other factors in the context or environment need to be considered in making this decision?**

Finally, it is important to review other factors in the context or environment that may influence the decision to purchase from the private sector. Such factors could include:

1) whether this is seen as a short-term programme to cover a temporary gap that would be subsequently provided through the public sector, or whether there is an intention to encourage ongoing, long-term purchasing arrangements with the private sector;
2) whether and to what extent it would be necessary to invest in both sectors, to ensure that the public sector was able to fulfil its role, even when services are provided through the private sector;
3) the overall political and social context of engagement of the private sector, and its acceptability at a political and broader community level; and
4) the sustainability of the financial resources needed for the programme, and degree of dependence on external or donor funding.

Use of these steps should assist decision-makers in identifying the problem and objectives for the programme, potential options in both public and private sectors to address the problem, and comparative advantages of public or private provision. However, the decision will often involve difficult trade-offs, particular in low-capacity contexts, and may require a package of measures involving both public and private providers.

**Question 2: What is the appropriate purchasing arrangement, and how should key features of the purchasing mechanism be designed?**

Once the decision to purchase from the private sector has been made, policy-makers face the issue of choosing the most appropriate purchasing arrangement and deciding on the key design features. The following section
summarizes key considerations that can serve as guidance in this decision-making process.

The purchasing arrangement provides the resources; specifies the expected outputs, amount of payments and how they link with the outputs; and details the division of accountability, autonomy and risk between purchaser and provider. Key design features that need to be decided include processes for selection of providers, targeting and selection of users, and making payments.

The two mechanisms of contracting or vouchers can be used as examples of different points on the range of design features. Contracting provides more autonomy to the provider and less control for the purchaser, but also shifts risk to the provider, while vouchers provide more control for the purchaser, less autonomy to the provider and shift risks to the purchaser.

In general, the more the purchaser uses the purchasing arrangement to specify the activities to be purchased, the easier it is to control and monitor the activities of the provider. However, this gain in control comes with a shift of accountability and risk to the purchaser.

A series of questions are provided below to guide decisions on the selection and design of purchasing arrangements, rather than a series of steps as for question 1. This reflects the complexity of this decision, and the need to balance among different considerations to find the arrangement that best suits the aims and the context. The final arrangement is likely to consist of a package of arrangements rather than a single mechanism.

**Key questions to inform decisions on mechanism and design**

1. How complex are the purchased services?
2. How developed is the government’s managerial capacity?
3. What are the costs of provision of the services and how can these be paid?
4. How big is the existing community demand for the services?
5. Should the public sector in addition to the private sector be engaged in provision of the services? How?

1) How complex are the purchased services?

Complexity arises when a service cannot be fully specified in advance, or a range of different services needs to be selected by the provider for individual patients.

More complex services are likely to be:

- More difficult to cost and arrange payment appropriately; more difficult to monitor whether appropriate services are provided to patients; and
of a greater risk of provider-induced demand, whereby services are provided in excess of objective need.

- Likely to require greater resources from the provider in terms of provider skills and expertise, facilities and equipment, protocols, procedures, supervision and monitoring; and will potentially require a referral process for different levels of facilities.

Simpler services entail the provision of a standard service or goods to all patients who satisfy criteria, with little need of selection and little room for discretion. These services are easier to cost, measure and pay.

Options

Contracting and franchising can handle more complex services, but may require less specification of inputs and/or outputs, and provide more autonomy for the contracted party. As a result, the contracted party has a greater share of risk, and the challenge of monitoring and measurement is greater for the purchaser.

Vouchers and social marketing are better suited for simpler services.

2) How developed is the government’s managerial capacity?

There are three key roles for the government in the purchase of services from the private sector:

a) Oversight and stewardship of the programme, to ensure the programme contributes to the broader sectoral public goals (for example, reduction of health inequities or better access to services for the poor with less financial risk), is consistent with overall government policy on provision of public services and regulation, and is efficiently managed and provides value for money.

b) Monitoring and evaluation of the programme in terms of achieving its outputs, and its contribution to broader public health goals. Given that in many cases these are pilot programmes, it is important to invest adequate resources in a strong monitoring and evaluation programme that uses comparison with noninvolved areas where possible. Adequate resources need to be allocated, and an independent evaluator may be advisable.

c) Management of the purchasing and payment process, including activities such as specifying the activities and criteria for recipients, selection of providers, determination of payment amounts and criteria for payment, management of payment, checking for fraud and improper practices, management of other risks, and ensuring the quality of performance delivered.
Delays and problems with payment are frequently reported in the literature as constraints and barriers to effective operation of purchasing mechanisms.

**Options**

Allocate additional resources to build capacity within government agencies to manage the purchasing and payment process. The costs of these resources need to be considered in the total cost of the programme.

Contracting-in the capacity from a third-party provider. This may particularly be appropriate for an independent evaluator and third-party management of purchasing and payment.

However, government will still need to ensure adequate capacity for oversight and stewardship of the programme, and the capacity to manage a contracting process for monitoring and evaluation and the payment process if these roles are contracted to third parties.

3) **What are the costs of provision of these services and how can these be paid?**

Resources required and consequently costs incurred and requirements for payment can be considered in two categories:

a) Fixed costs, for example, costs for provision of physical infrastructure, equipment and facilities, as well as workforce to deliver services and management and supervisory structure. These costs are fixed in that they do not vary significantly on the amount of services provided. An important issue to consider is the extent to which providers may need to invest in new resources to provide the services, either by extending the geographic spread of services or the capacity of their workforce. The purchasing and payment arrangement needs to provide for these additional resources, and it may be more transparent to have a reimbursable specific payment for these costs that is linked to the availability and quality of the resources to be provided.

b) Variable costs, for example, costs for the actual provision of services, including consumable supplies, drugs, equipment and the time and operational costs of staff and facilities. Where services are reasonably standard, and these costs can be accurately measured, payment based on standardized outputs is relatively straightforward. Vouchers and social marketing may be appropriate arrangements. However, where there is significant discretion afforded to the
provider to determine the type, extent and timing of services, costing and payment mechanisms become more complex.

In both cases, there is a risk that payment linked to provision of services will create incentives to increase the provision of the services for which payment is received, or where there is the largest profit margin, and to neglect other services. On the other hand, if payments provided do not cover the full costs of the services, providers may not be incentivized to deliver the expected outputs.

Thus, the ability to determine costs accurately and to link these to payments to provide the right incentives for providers is a key aspect of any engagement mechanism.

**Options**

These include an average package price for each patient treated per condition (for example, per pregnant woman for management of pregnancy and delivery), a capitation fee to cover the average cost of providing care per head of population covered, itemized costs per service provided up to agreed average rates per head of population covered, and additional performance incentive payments for achieving agreed rates of utilization or agreed performance indicators.

4) **How big is the existing community demand for the services?**

Where the objective of the programme is to increase utilization of specific services, a key factor influencing utilization is the extent of community demand, or the willingness and capacity of the community, particularly those targeted under the programme, to access the service. The purchasing arrangement needs to ensure that appropriate resources are provided to address the constraints or barriers to access confronted by the target population.

**Options**

Include community information and awareness-raising in the package of funded activities. Engagement with existing community-level intermediaries (for example, village health volunteers) could be a requirement for service providers.

Include community outreach activities in the package of activities, and consider complementary funding for users to cover costs of travel to reach services.
Ensure that all costs, including ancillary services, drugs and supplies are included, and that providers are not permitted to charge beyond agreed user charges.

The target population may be reluctant to use services because of previous experience of poor-quality interactions with providers. The private sector is generally held to be more responsive in interactions with users, and this could contribute to the rationale for engaging the private sector.

Franchising may be a useful mechanism to improve the quality of provider interaction with users, and to enable users to identify quality providers.

It may also be important to include the views of potential users and the target group to ensure that providers address their concerns and issues.

A related issue is the extent of targeting of users. Targeting of users by restricting benefits to nominated users enables more efficient use of funds, but is dependent on the capacity of the provider or concerned agency to properly identify the target group and to avoid missing those entitled or leakage to nontargeted users. In many cases, it may be more effective to avoid overly prescriptive limits on users, to ensure that all those who require the service can access it.

5) Should the public sector in addition to the private sector be engaged in provision of the services? How?

Interaction between public and private sectors has been identified as a key factor affecting the outcomes of purchasing from the private sector. The decision to purchase from the private sector will impact the public sector, so it is important to consider whether the mechanism can include the public sector, or whether other support with the public sector is needed in parallel.

Potential impacts on the public sector identified in literature include

- potential for the private sector to refer more complex or expensive patients to the public sector, effectively shifting costs to the public sector;
- the potential for necessary investments in public sector to be limited by investments in the private sector consuming available public resources;
- the potential to reduce pressure on the public system by diverting patients to the private sector, or to divert high-paying patients from public to private and to further reduce income in the public sector;
• the potential to divert workforce from public to private if there are greater returns in the private sector; and
• engagement of the private sector may exacerbate distrust between sectors, or may provide a mechanism to strengthen collaboration.

Options

Encourage competition between public and private sectors by using a purchasing arrangement that enables both sectors to engage, for example, vouchers. This can lead to improvements in the quality of services provided by both sectors.

Include both sectors in activities that contribute to capacity-building, for example, training or quality improvement programmes.

Ensure adequate resources are available to the public sector to enable it to take on its role and to respond to potential impacts of the engagement of the private sector.

Specify within the purchasing mechanism the expected contribution of the public sector, and the implications for payment of referral from private provider to the public sector; or of refusal to provide services to patients by the private provider.

Engage both public and private sectors in joint monitoring and review of the programme, and use the programme to build trust and relationships between the sectors.

Other related issues

Nonprofit motivation. In selection of private providers, consider whether to limit to nonprofit providers. This has been used in purchasing mechanisms such as contracting where significant autonomy is given to the provider, and the government may wish to require the provider share values of service and focus on patient welfare rather than for-profit motivation.

Capacities and expertise. Specifying the standards and expertise required to be engaged will ensure greater capacity in selected providers, but may exclude local providers and limit local capacity-building, particularly for nonprofit providers. Inclusion of resources to enable capacity-building may be worth consideration.
Table A.1: Characteristics and quality (AMSTAR) of identified systematic reviews

<table>
<thead>
<tr>
<th>Title</th>
<th>AMSTAR score</th>
<th>AMSTAR classification</th>
<th>Number of studies included, region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can public–private collaboration promote tuberculosis case detection among the poor and vulnerable? (36)</td>
<td>3/11</td>
<td>Low</td>
<td>11 (India, Kenya, Nepal, Pakistan, Philippines, Pakistan, Viet Nam)</td>
</tr>
<tr>
<td>Can working with the private for-profit sector improve utilization of quality health services by the poor? A systematic review of the literature (29)</td>
<td>5/11</td>
<td>Moderate</td>
<td>52 (Benin, Botswana, Cameroon, Ethiopia, Ghana, Guinea, India, Indonesia, Kenya, Lao People's Democratic Republic, Lesotho, Madagascar, Mexico, Nicaragua, Nigeria, Nepal, Pakistan, Peru, Philippines, South Africa, Tanzania, Thailand, Uganda, Viet Nam)</td>
</tr>
<tr>
<td>Comparative performance of private and public health care systems in low- and middle-income countries: a systematic review (9)</td>
<td>7/11</td>
<td>Moderate</td>
<td>102 (34 in South-East Asia and the Pacific, 32 in Sub-Saharan Africa, 13 in Latin America, 23 other/multiple continents/not context-specific)</td>
</tr>
<tr>
<td>Title</td>
<td>AMSTAR score</td>
<td>AMSTAR classification</td>
<td>Number of studies included, region</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------</td>
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<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Effects of condom social marketing on condom use in developing countries: a systematic review and meta-analysis, 1990–2010 (51)</td>
<td>8/11</td>
<td>Moderate</td>
<td>6 (Cameroon, India, Mozambique, South Africa, Zambia)</td>
</tr>
<tr>
<td>Quality of private and public ambulatory health care in low- and middle-income countries: systematic review of comparative studies (27)</td>
<td>6/11</td>
<td>Moderate</td>
<td>80 (23 in South-East Asia and the Pacific, 39 in Sub-Saharan Africa, 18 other)</td>
</tr>
<tr>
<td>Scaling up malaria treatment: a review of the performance of different providers (41)</td>
<td>3/11</td>
<td>Low</td>
<td>31 (30 in Sub-Saharan Africa and 1 in Cambodia)</td>
</tr>
<tr>
<td>Role of the private sector in the provision of immunization services in low- and middle-income countries (34)</td>
<td>4/11</td>
<td>Low</td>
<td>37 (16 Asia, 6 in Africa, 3 in Latin America, 1 in Europe, 1 in North Africa/Middle East, 10 without region)</td>
</tr>
<tr>
<td>Strategies for engaging the private sector in sexual and reproductive health: how effective are they? (50)</td>
<td>4/11</td>
<td>Low</td>
<td>71 (Country details offered only for randomized controlled trials and nonrandomized controlled trials. Country information was not offered for before and after studies and cross-sectional assessments. Bangladesh, Cameroon, Colombia, Gambia, Ghana, Guatemala, India, Indonesia, Mexico, Mozambique, Nigeria, Pakistan, Peru, Thailand, Uganda, Viet Nam and others not specified).</td>
</tr>
<tr>
<td>Title</td>
<td>AMSTAR score</td>
<td>AMSTAR classification</td>
<td>Number of studies included, region</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
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</tr>
<tr>
<td>The effectiveness of contracting-out primary health care services in developing countries: a review of the evidence (48)</td>
<td>5/11</td>
<td>Moderate</td>
<td>16 (Bangladesh, Bolivia, Cambodia, Costa Rica, Croatia, Guatemala, Haiti, India, Madagascar, Romania, Senegal, South Africa)</td>
</tr>
<tr>
<td>The effect of social franchising on access to and quality of health services in low- and middle-income countries (52)</td>
<td>8/11</td>
<td>Moderate</td>
<td>0</td>
</tr>
<tr>
<td>The impact of clinical social franchising on health services in low- and middle-income countries: a systematic review (53)</td>
<td>8/11</td>
<td>Moderate</td>
<td>23 (Ethiopia, India, Kenya, Madagascar, Myanmar, Nepal, Pakistan, Philippines, Viet Nam)</td>
</tr>
<tr>
<td>The impact of contracting-out on health outcomes and use of health services in low and middle-income countries (49)</td>
<td>11/11</td>
<td>High</td>
<td>3 (Bolivia, Cambodia, Pakistan)</td>
</tr>
<tr>
<td>The impact of vouchers on the use and quality of health care in developing countries: a systematic review (54)</td>
<td>7/11</td>
<td>Moderate</td>
<td>24 (Bangladesh, Cambodia, India, Mozambique, Nicaragua, Niger, Senegal, Tanzania, Uganda, Zambia)</td>
</tr>
<tr>
<td>The quality of private pharmacy services in low and middle-income countries: a systematic review (107)</td>
<td>6/11</td>
<td>Moderate</td>
<td>30 (Brazil, Egypt, Ethiopia, India, Gambia, Ghana, Lao People’s Democratic Republic, Mexico, Nepal, Nigeria, Thailand, Uganda, Viet Nam, Zimbabwe)</td>
</tr>
<tr>
<td>The use of vouchers for reproductive health services in developing countries: systematic review</td>
<td>5/11</td>
<td>Moderate</td>
<td>24 (Bangladesh, Cambodia, China, India, Indonesia, Kenya, Republic of Korea, Nicaragua, Uganda)</td>
</tr>
</tbody>
</table>
Table A.2: Impact of reproductive voucher schemes on health service outcomes (after Bellows et al. (40))

<table>
<thead>
<tr>
<th>Health service outcome variable</th>
<th>Findings</th>
<th>Studies included from Asia and the Pacific</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costs</td>
<td>• Lower out-of-pocket costs for deliveries</td>
<td>Bangladesh (72)</td>
</tr>
<tr>
<td></td>
<td>• STI programme higher costs per patient, but lower costs per cured patient</td>
<td></td>
</tr>
<tr>
<td>Knowledge</td>
<td>• Knowledge of programme and STI increased</td>
<td>Not applicable</td>
</tr>
<tr>
<td></td>
<td>• Increased STI and contraception</td>
<td></td>
</tr>
<tr>
<td>Utilization</td>
<td>• Facility-based deliveries increased</td>
<td>Bangladesh (72)</td>
</tr>
<tr>
<td></td>
<td>• Increase antenatal and postnatal care</td>
<td>Cambodia (59)</td>
</tr>
<tr>
<td></td>
<td>• Increased use of contraceptives</td>
<td>Bangladesh (72)</td>
</tr>
<tr>
<td></td>
<td>• Nonsignificant increase of STI services</td>
<td></td>
</tr>
<tr>
<td>Quality</td>
<td>• No increase unnecessary Caesarean sections</td>
<td>Bangladesh (76)</td>
</tr>
<tr>
<td></td>
<td>• Higher user satisfaction</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Physician STI knowledge increased</td>
<td></td>
</tr>
</tbody>
</table>

IUD = intrauterine device, STI = sexually transmitted infection.
Note: Identified publications, including the Republic of Korea and Taiwan, China, evaluate voucher schemes from the 1960s and 70s.
### Table A.3: Key studies investigating voucher schemes in Asia

<table>
<thead>
<tr>
<th>Country</th>
<th>Services</th>
<th>Scheme</th>
<th>Outcome</th>
</tr>
</thead>
</table>
| Bangladesh, maternal voucher scheme (63, 76, 109, 110) | Free vouchers for maternal health services (three studies using antenatal check-ups, safe delivery-institutional or skilled birth attendants at home, medicines and cash incentives for buying nutritious food, gift box with baby clothes and supplies, one study using postnatal check-up, transport costs for all visits) | • 44 subdistricts over six years (2006–2011).  
• Universal targeting in 9 subdistricts, means-based (pregnant women that met two of four household poverty indicators) in the rest.  
• Maternal mortality rate in 1991 was 574/100 000, in 2010 270–290/100 000.  
• Demand-side financing scheme aimed to strengthen maternal and child health services at public and private subdistrict-level facilities with referrals for emergency operation centres to public district facilities.  
• Programme managed at the national and subdistrict level with support from community. | • Increase in maternal health care for all socioeconomic groups in project areas versus nonproject areas.  
• Recipients were 3.6 times more likely to be assisted by a skilled health professional, 2.5 times more likely to deliver in a facility, 2.8 times more likely to receive postnatal care, 2 times more likely to receive antenatal care and 1.5 times more likely to seek treatment for complications.  
• The scheme did not have an effect on inequality in service utilization in public facilities. |
| Cambodia, three operational districts (59, 66) | Free vouchers for maternal health (family planning and counselling, three antenatal care check-ups, delivery, postnatal care check-up up to six weeks, abortion, transport) for poor women | • Population: 1.7 million in Kampong Cham Province  
• Maternal mortality rate 266–472 (depending on source)/100 000.  
• 26% of households are poor.  
• Partner public (majority) and nonprofit Marie Stopes International clinics.  
• Only 21% facility-based deliveries (6.5% among fifth quintile).  
• More than 50% of deliveries by traditional birth attendants. | • By February 2012, distributed more than 3500 vouchers for safe motherhood and more than 15 000 for family planning.  
• Reported increase of utilization (qualitative study) and better quality of life.  
• Large proportion of distributed vouchers not used (more than 50% of delivery vouchers).  
• Vouchers supported about 20% of health centre-based deliveries.  
• Increase of facility-based deliveries in voucher group from 2.4% to more than 7.0% (+195%). |
<table>
<thead>
<tr>
<th>Country</th>
<th>Services</th>
<th>Scheme</th>
<th>Outcome</th>
</tr>
</thead>
</table>
| India, Chiranjeevi Yojana, Gujarat (67, 68, 77, 111) | Free vouchers for maternal health (one study using antenatal care check-up, delivery including Caesarean section, ultrasounds for some women, food, transport) for women below poverty line or of tribal ethnicity, free public ambulance service. Began in five districts, scaled across state in 2007 | • Population 60.4 million.  
• Maternal mortality rate 142–389 (depending on source)/100 000.  
• Aimed at poor (16% of population below poverty line) and tribal mothers.  
• Empanelled private obstetricians reimbursed for block of 100 deliveries regardless of type of delivery. | • 131 329 deliveries.  
• Saved lives of 363 mothers.  
• Saved lives of 4823 newborn infants.  
• By October 2009, 384 920 deliveries supported by the scheme.  
• 800 providers participated in the programme.  
• Beneficiaries enjoyed considerable savings. |
| India, Mamta Scheme, Delhi National Capital Region, promoting institutional delivery in urban areas (65) | Three studies using antenatal care visits with testing (ultrasounds), tetanus toxoid injection, iron–folic acid tablets, institutional delivery facilities, emergency obstetric care, essential newborn infant care and vaccinations, one study postnatal care visit. Additional facilities, like transport, left to the discretion of the district medical officers. Only one district offered transport to private hospitals | • Maternal mortality rate for India in 2009 was 254/100 000 (Delhi National Capital Region rate unavailable).  
• Infant mortality rate in 2009 in Delhi was 35/1000.  
• Aimed at below poverty line and tribal or low-caste women in select areas of urban Delhi through public and private facilities. | • Low uptake, only 4220 cases registered under the scheme, and only one-third of the funds expected to be spent in the first two years of the four-year scheme were spent.  
• Had no impact on institutional deliveries in the target areas.  
• Only one-third of facilities initially included in the scheme continued to provide services under the scheme after three years. |
<table>
<thead>
<tr>
<th>Country</th>
<th>Services</th>
<th>Scheme</th>
<th>Outcome</th>
</tr>
</thead>
</table>
| Pakistan, Dera Gazi Khan district (64, 69) | Subsidized voucher (US$1.20) for maternal health (three studies using antenatal care check-ups, normal delivery or referral for Caesarean section, one study using postnatal care check-up, blood count, ultrasound, transport) for one year (starting October 2008) for poor women with no prior delivery at health facility | • Population 2.2 million in 60 union councils, pilot in 6 union councils.  
• 15% urban.  
• More than 70% of population below poverty line.  
• Maternal mortality rate 276/100 000.  
• Only 39% of deliveries with skilled attendant in Pakistan (target is more than 90%).  
• Partner Greenstar private providers.  
• Target of pilot: 2000 women in Dera Gazi Khan city (population 258 000). | • Sold 1999 of 2000 voucher booklets.  
• Included women were poorer, less educated and had more children.  
• Each voucher beneficiary brought on average 3–4 additional women.  
• Antenatal care increased among all quintiles (for example, the fifth quintile from 34.1% to 51.4%).  
• Facility-based deliveries increased only among fifth quintile (from 31.8% to 53.5%).  
• 68% had natural deliveries at Greenstar facilities, and 13% had Caesarean sections.  
• Postnatal care increased among all quintiles (for example, fifth quintile, +11%; first quintile, +12%).  
• Statistically 5.5 lives saved.  
• US$26 053 per life saved.  
• US$339 million if scaling up nationally. |
| Pakistan, Jhang district (70) | Subsidized voucher (US$1.20) for maternal health to poor women (lowest two socioeconomic status quintiles) with no prior delivery at facility, one-year duration (starting January 2010) | • Population of 2.4 million in 84 union councils.  
• 77% rural.  
• Pilot in 11 union councils with 330 000 persons.  
• Facility-based deliveries 29% in lowest socioeconomic status quintile versus 61% in highest.  
• Partner Greenstar private providers. | • High voucher redemption rate: 97% antenatal care 1, 91% antenatal care 2, 85% antenatal care 3.  
• 86% laboratory exams, 88% ultrasound, 96% deliveries.  
• 84% satisfied with services.  
• Antenatal care use (three+ visits) increased from 23% to 39% in the fifth quintile, and from 31% to 49% in fourth quintile.  
• Institutional delivery increased from 31% to 47% in fifth and 37% to 58% in fourth quintile.  
• Increased postnatal care from 7% to 13% in fifth quintile and 12% to 23% in the fourth quintile. |

Note: Discrepancies in reported maternal mortality result from contradicting evidence in the literature; this might be partly explained by date of publications.
Table A.4: Key studies investigating contracting in Asia

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<th>Country</th>
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<th>Scheme or purchasing mechanism</th>
<th>Services purchased</th>
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| Bangladesh, National Tuberculosis Programme (83) | Tuberculosis control has suffered from limited capacity and quality, and there is a big gap between population coverage and the case detection rate | Objectives are to increase the cure rate of sputum smear-positive cases to 85%, and to increase case detection to 70% of the estimated incidence. For implementation of the DOTS programme, a memorandum of understanding was signed in 1995 between the government and six NGOs, outlining specific tasks for the government and partner NGOs in the delivery of DOTS in defined areas | DOTS programme. NGOs provide supervised treatment at the community level, promote active case finding and raise awareness about tuberculosis among the general population | NGOs and the private sector jointly cover more than half of the entire programme activities, in both rural and urban areas | • DOTS population coverage rose from 90% in 1998 to 95% in 2002.  
• Case detection rate of new smear-positive cases under DOTS increased from 24% to 32%, and the treatment success rate rose closer to the target level (84% for the 2001 cohort).  
• Improvements in the technical capacity of staff members providing DOTS. |
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| Bangladesh, Urban Primary Health Care Project | There are problems with publicly provided services in Bangladesh. The quality of care in public facilities was poor (only 29% of patient–provider interactions involved any physical examination), and client satisfaction was low. Free health care usually involved significant informal payments. Urban areas exhibited environmental factors, such as crowding, poor ventilation and pollution that expose city-dwellers to greater health risks | Contracting-out partnership agreement areas to NGOs to deliver primary health care services in new facilities built in urban areas using a competitive bidding process. Eleven NGOs selected, nine were national NGOs while the remaining two were national affiliates of international NGOs | Basic package of curative, preventive and promotive services that reflected the priorities of the government: comprehensive reproductive health care centres that were to provide a broad range of services including obstetrical care (normal deliveries and Caesarean sections), primary health care centres to provide curative and preventive services, and outreach sites meant to bring preventive and promotive/educational services closer to slum-dwellers and the non-slum poor | City corporations and five municipalities covered under 24 partnership agreements with each agreement defined geographically and covering 200 000–300 000 people, totalling about 9.4 million people. 30% of services targeted to the poor, and women and children comprise 75% of the beneficiaries | • NGO facilities were more likely to have working equipment, essential drugs and necessary infrastructure (compared to public provider comparator).  
• Parents in the NGO area showed greater increases in their likelihood of seeking curative services.  
• The poor in the NGO area experienced greater improvement in the coverage of services compared to the poor in public provider area, and a much larger improvement in the volume of patients seen.  
• The NGO provided a higher quality of care as judged by the availability of key inputs and services and the knowledge of the NGO staff appears to have been slightly better.  
• The NGO also delivered services more efficiently than public services, based on the cost per service provided or considering absorptive capacity. |
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| Bangladesh | There are high rates of low birth weight and malnutrition among children and women of childbearing age | Activities were run by government in three thanas and by contracted NGOs in three other thanas. At the subdistrict level (third level of administrative structure), the programme contracted out all activities of the nutrition programme to a specific NGO. The NGO was reimbursed the cost of carrying out the nutrition activities based on the number of individuals enrolled in the programme | Monthly growth monitoring and promotion of children and pregnant and lactating women, supplementary feeding of malnourished pregnant and lactating women and malnourished and growth-faltered children under 2 years of age plus referral to health services, nutrition education for mothers and adolescent girls | Each thana has about 1000–1500 people in its coverage area | • The cost of providing nutrition services per enrollee was US$24.43 for government-run Community Nutrition Centers (CNCs) and US$29.78 for NGO-run CNCs.  
• NGO facilities are not more efficient in the delivery of nutrition services when cost per person-days of service delivered is considered.  
• Improvement in prenatal care use, coverage of vitamin A and iron supplementation, and knowledge among women of better intrahousehold health practices, but no evidence of additional effect on child nutrition status. |
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<td>Cambodia (99, 100)</td>
<td>Two-thirds of the population now consults first with a private practitioner (of various sorts) for primary care in Cambodia</td>
<td>Basic Health Services Project (1999–2003), Health Sector Support Project (2002–2009)</td>
<td>Each of the districts covered under the pilot was 100 000–200 000. Each comprised a network of health centres and referral hospitals</td>
<td>A minimum package of activities is defined under the contract for health centres and covers basic curative and preventative services including immunization, birth spacing, antenatal care, provision of micronutrients, simple curative care, care for diarrhoea, acute respiratory tract infections and tuberculosis. • Contracted services resulted in better-quality services and health outcomes, compared to government provision. • Improvements in service delivery (such as improved immunization rates) and greater equity of access in selected areas of the country. • Although contracting out coverage was greater, it came at a cost of almost 2:1. • There were large increases in the coverage rates of health services in all 12 districts, contracted and government managed; however, the contracted districts achieved much higher coverage rates than the government districts.</td>
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<td>Afghanistan (107)</td>
<td>As of 2006, 77% of the population lived in a district where health services are provided through a contracting approach. Health services at this point were provided mostly by NGOs</td>
<td>Three models of contracting-out that varied due to scale of contract (province-wide or subprovincial cluster of districts), performance-based payments, contract management responsibility, monitoring process, and NGO capacity-building</td>
<td>Basic package of health services through a mix of international and Afghan NGOs, including maternal and newborn infant health, child health and immunization, public nutrition, communicable disease, mental health, disability, supply of essential drugs</td>
<td>Varied, provincewide or a cluster of districts, 82% of the population has access to primary health care but the actual extent of service coverage is unclear</td>
<td>Contracting-out is associated not only with an overall increase in service use but also with an increase in use by the poor, female patients and children under age 5 years. Since these are stated policy priorities, it is clear that contracting-out has been an effective approach to achieving the Ministry of Public Health’s policy goals for service utilization</td>
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DOTS = directly observed therapy, short-course; NGO = nongovernmental organization.
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