



POLICY BRIEF

Quality of Care

What are effective policy options for governments in low- and middle-income countries to improve and regulate the quality of ambulatory care?





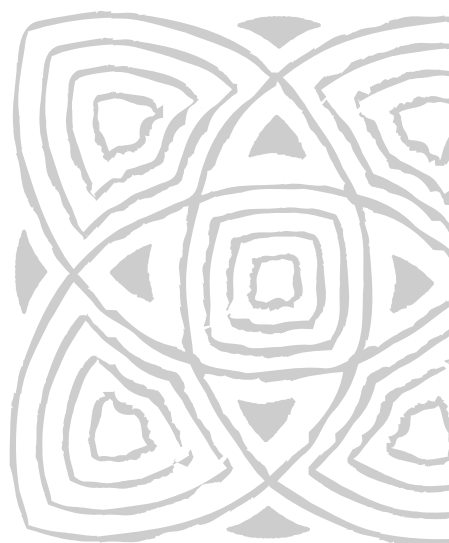
Asia Pacific Observatory
on Health Systems and Policies

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Quality of care: what are effective policy options for governments in low and middle income countries to improve and regulate the quality of ambulatory care?

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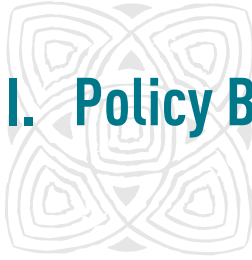
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I. Policy Brief

What are effective policy options for governments in low- and middle-income countries to improve and regulate the quality of ambulatory care?

Purpose of the policy brief

This policy brief aims to provide guidance for policy-makers in low- and middle-income countries (LMICs) in the Asia Pacific region on actions that governments can take to improve and regulate quality of care in ambulatory care services. There is increasing evidence of the very poor quality of ambulatory care in LMICs. Current strategies to address quality of care in these countries such as accreditation have tended to focus on hospitals. But ambulatory care accounts for the largest share of out-of-pocket expenses in LMICs and is key to addressing the double burden of communicable and noncommunicable disease.

This brief draws on available evidence of factors influencing quality of care and strategies to improve quality of care in the ambulatory care sector. Although there is a large body of literature addressing quality of care in high-income countries, this is an emerging field of research for LMICs. However, there is growing experience in the region from the implementation of a number of discrete strategies to improve the provision of ambulatory care. The question is how governments can learn from these experiences to improve their stewardship of ambulatory care, particularly in the context of introduction of universal health coverage programmes and mixed public-private provision.

What is the quality problem?

Quality is difficult to define. There is ambiguity in defining quality and a lack of a commonly accepted measurable definition. Quality is multi-faceted and there are multiple perspectives – quality from the perspective of the

provider (effectiveness), the payer (efficiency), and the patient (responsiveness). At least six elements of quality have been identified by the Institute of Medicine in the United States: safety, effectiveness, patient centeredness, timeliness, efficiency and equity.

Quality is difficult to measure. Common aspects measured are: inputs (facility, staff, equipment, supplies); process (adherence to protocols and standards of care); outcomes (relief of symptoms, extension of life, complications or poor outcomes). Inputs, though easy to measure, have been shown to have a weak link to other aspects of quality. The tools available to measure process quality such as clinical vignettes, observation and standardized patients are time-consuming and difficult to apply, especially in the LMIC setting where providers are dispersed. Measuring outcomes in terms of health status is costly and considered more complex due to the intervention of patient-specific factors. They are particularly difficult to measure for chronic conditions requiring follow-up.

As a result, quality (especially effectiveness and safety) tends to be neglected, and the focus of programmes and performance evaluation is typically on the more measurable aspects – utilization, efficiency, and responsiveness to patient expectations.

However, neglect of the quality aspect in terms of effectiveness and safety has resulted in overall poor quality of ambulatory care in LMICs which has largely manifested as:

- **Overtreatment:** provision of unnecessary treatment, ineffective treatment, or more expensive treatment than required (overprescribing antibiotics or diagnostic tests)
- **Undertreatment:** failure to provide required treatment or misdiagnosis leading to poor outcomes, longer duration of illness, and occasionally complications.

What strategies improve quality?

Factors that influence quality

The most common approach to improve quality focuses on improving the availability and adequacy of the inputs – facilities, staff, equipment and supplies. However, there is little evidence that increasing availability of staff, provision of equipment or supplies results in improvement of quality of service provision. More recently, the focus for strategies has shifted to addressing provider behaviour (competence and effort), especially for ambulatory care. This focus recognizes that even where providers are competent, there is a gap between knowledge and practice, and compliance with professional standards is lacking.

Strategies to address provider behaviour

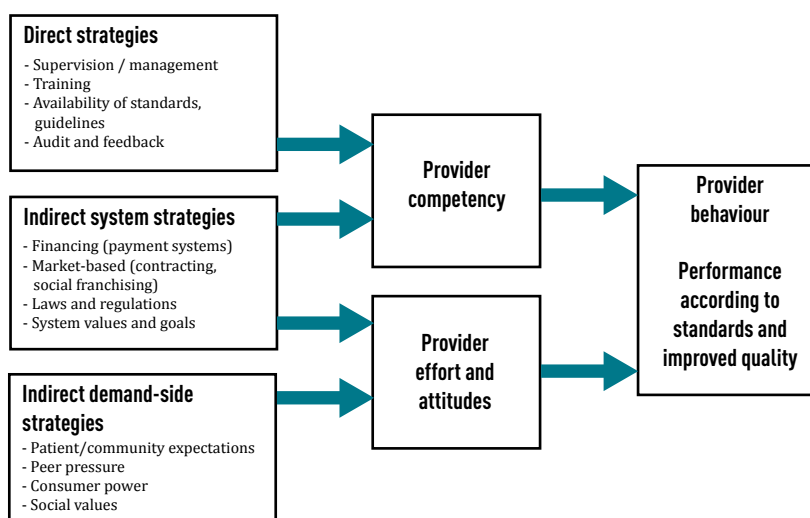
Therefore, strategies to improve quality of care need to target the competence, effort and attitudes of health-care providers either directly or indirectly to improve the quality of the patient-provider interaction.

Strategies to address provider competence include: training (pre-service or in-service), protocols and guidelines, supervision, audit and feedback.

Strategies to address provider effort and attitude include: influencing incentives and/or consumer demand. Low quality due to overtreatment can be the result of perverse incentives or lack of demand for better quality (real or perceived) from consumers. Low quality due to undertreatment can be due to the lack of intrinsic or external motivation or lack of consumer power.

These and other strategies are illustrated in Figure 1.

Figure 1. Framework illustrating factors that can influence provider behaviour



Source: Adapted from Marquez L, 2001.

What is the evidence for what works?

The most commonly researched strategies to improve ambulatory care provision are those that focus on directly targeting the health provider to improve provider competence through in-service training, supervision and protocols. However, there is very little evidence regarding their impact in LMICs to improve quality. Moreover, their applicability (they are

difficult to implement in the dispersed private sector) and scalability within the LMIC context is questionable. As such, on the basis of this review, these strategies might not be effective options for LMIC governments to pursue on their own but might be useful if implemented within a package of strategies targeting provider effort and attitudes. It is important to note the caveat that the literature examined did not look at training for medical certificates and licences, but rather at shorter in-service training programmes.

The evidence base for demand-side strategies to improve provider behaviour other than vouchers is sparse and insufficient to answer questions regarding whether these might be useful policy options to pursue in the LMIC context. Strategies aimed at improving legislation and the regulatory capacity of governments are under-researched and there is a lack of systematic evidence in this policy area as yet.

From the available evidence, in terms of applicability and scalability in the LMIC ambulatory care context (mixed provision, dispersed care, low regulatory capacity), strategies aimed at indirectly improving provider behaviour through systems reforms, especially market-based and financing instruments, show the most promise. Most can be incorporated within universal health care (UHC) reforms such as strategic purchasing. Additionally, since these strategies are based on the assumption of utility and profit maximization by providers, they directly address the motivation problem (both lack of and perverse incentives). However, the evidence on their impact is weak since they have not been explicitly used to improve quality.

What can governments do?

The focus of this working paper is to identify policy options for governments to improve and regulate the quality of care in ambulatory services. This requires consideration of the role of government and the broad categories of policy options available to government. A useful approach to considering the role of government in issues of public welfare such as quality of health-care services is the concept of stewardship.

The stewardship role of the government includes formulating policies and establishing a strategic vision and priorities, regulation, management of public health services, ensuring accountability and oversight. We found that a key constraining factor in addressing quality of care in LMIC is the relative neglect of quality as a policy objective. This neglect in turn contributes to the lack of evidence on strategies to address quality.

A more systematic approach to addressing quality of ambulatory care is required, which recognizes that quality improvements are dependent on the

actions of providers. This suggests that a key focus of government action is to engage providers in addressing quality of care through co-regulatory approaches.

Consequently, our recommendations relate to actions governments need to take as part of their role as stewards of health systems, to establish the importance of quality as a policy objective, and to build a framework that enables and encourages providers to engage in, develop and implement interventions to improve quality of care. This will in turn contribute to the evidence base health care providers and policy-makers can draw on in further improving the quality of care of ambulatory services.

1. Invest resources in definition and measurement structures for quality of care.

In their stewardship role of setting standards and objectives for the health system, LMIC governments in the Asia Pacific region need to explicitly define and include quality among their performance objectives; and engage providers in defining and measuring standards.

Most governments have already defined standards for inputs (facilities and equipment required to provide services, and competencies of providers) in terms of licensing/registration requirements. But standards for process and outcomes also need to be developed, along with methods of measurement. Specifically, the effectiveness and safety aspects of quality need to be defined and measurement indicators developed. As a first step, standard protocols for care of key conditions at the ambulatory level and expected outcomes in terms of mortality, morbidity and complications are required. There needs to be a concerted effort to engage professional associations and providers in defining national standards and measurement structures to ensure consensus and collective action on their implementation.

2. Provide resources and direction for quality improvement strategies in publicly-provided services.

Once the government defines standards of care and quality reporting requirements, it will need to invest in providing inputs at public facilities to be able to meet these requirements.

In countries where financial and administrative capacity to address the quality of a dispersed ambulatory care sector is limited, a convenient starting point might be public hospitals because of their institutional structure. Introduction of quality standards at hospitals could have a

wider systemic effect on a quality improvement culture as they are places of training and education for future health-care professionals, as well as the centres for referral and specialist care for ambulatory care providers. This could also provide a base for expansion to smaller clinics and medical practices.

3. Better design and use of financing and market-based strategies to generate incentives for quality improvements.

Countries on the path to UHC are poised to be able to address quality of care at a systemic level. Policy-makers can utilize the strategic purchasing function under UHC reform to actively build in incentives for effectiveness and safety and discourage adverse consequences. For example, selective contracting, Pay for Performance, and capitation financing models could be linked to meeting defined quality standards and protocols, data collection and reporting from providers, and education of providers and patients (Mate et al., 2013). However, to effectively address quality, the evidence suggests that:

- provider payment mechanisms need to be clearly linked with measurable indicators of quality.
- simultaneous investments need to be made in capacity-building, training and supervision to ensure the ability of ambulatory health-care providers to improve information systems and adhere to quality standards.
- services need to be relatively well-defined (Payment mechanisms might not be applicable to a wide range of interventions. These payment mechanisms are more applicable to curative care and not recommended for preventive care [due to bias towards services that have higher payment rates]).
- effective and continuous monitoring is required to limit adverse consequences (of which there can be several).
- these payment mechanisms work in contexts where there is capacity to improve (i.e. where poor quality is a function of provider effort and not competency); and
- they require substantial administrative and financial capacity to set up and run effectively.



II. Working Paper Executive Summary

The introduction of universal health coverage (UHC) reforms in many low and middle-income countries (LMICs) of the Asia Pacific region has directed attention to the problem of low quality care, and the need for strategies to improve and regulate quality of care (Berendes et al., 2011; Mate et al., 2013). Current efforts to address quality of care in LMICs such as accreditation have tended to focus on hospitals (Barnett and Hort, 2013). However, ambulatory care is an important component of health services, accounting for the largest share of household out-of-pocket (OOP) expenses in LMIC (Berman, 2000). In most such countries, ambulatory care is a mix of public and private care provision, with evidence of very poor quality in both sectors (Berendes et al., 2011; Das and Hammer, 2014).

Although there is a large body of literature addressing quality of care in high-income countries, this is still an emerging field of research for LMICs, with insufficient understanding regarding how to improve the quality of ambulatory care. However, the implementation of a number of discrete strategies to improve the provision of ambulatory care is growing. The question is whether these strategies are working to improve quality, whether they can be implemented to scale, and how applicable they are in the context of mixed health-care provision and UHC reforms.

We first summarize the evidence on what drives poor quality of ambulatory care in LMICs in order to provide a framework for policy-makers to address the issue. We then review the evidence on the impact of the different strategies described in published systematic reviews and find an overall lack of robust evidence of their impact on quality of care. There is a dearth of well-designed impact evaluations, a lack of focus on quality, and ambiguity around the definitions and measures used for quality of care in the studies reported in the literature. These are symptoms of the lack of systematic approaches to address quality of care in LMICs. Of all the strategies reviewed, those focused on harnessing the market such as social

franchising and contracting, and those attempting to improve incentives through payment mechanisms show the most promise in terms of scalability and applicability to improve quality of ambulatory care in LMIC settings within the context of UHC reforms. However, there are areas which are under-researched such as large-scale strategies to target consumers, those aimed at harnessing peer influence, and legislative and regulatory changes.

We explore in more detail two increasingly popular market-based strategies in LMICs, social franchising and Pay for Performance, to distill lessons for policy-makers interested in using these approaches to improve quality of ambulatory care. Overall we find that (1) more effort is required to explicitly monitor and target quality improvements, (2) provider effort is emerging as a key determinant of quality of ambulatory care compounding issues of low competence and might be an area for focus in the shorter term and (3) governments need to invest in strengthening implementation and monitoring capacity, as most interventions to address quality are complex and can have adverse consequences if not carefully designed and monitored.

Governments in LMICs need to approach the problem of low-quality ambulatory care systematically and develop cohesive plans. We use the findings from this research to recommend areas for government action consistent with their role of providing stewardship. The first step is for governments to define national standards and measurement structures for quality of ambulatory care to make it an explicit focus of any reform efforts. Resources will be required to roll out implementation once standards and indicators are defined. Any quality improvement efforts should involve providers to improve accountability and acceptance of these efforts – their engagement in defining standards and indicators will be essential along with efforts to strengthen co-regulation. Focusing on public services initially might be easier for governments and these efforts might have spillover effects on the private sector. Governments can also better use market-based instruments within UHC reforms to create incentives for quality improvements as long as they link performance measures to clear quality indicators and closely monitor them to avoid adverse consequences.



Introduction


Quality of care has been recognized as a key objective of health systems performance necessary to strengthen health systems in low- and middle-income countries (WHO, 2000; 2007). However, recent studies have documented extremely poor quality of ambulatory care across LMICs (Berendes et al., 2011; Basu et al., 2012; Das and Hammer, 2014). Recent efforts to address quality of care in LMICs such as accreditation have tended to focus on hospitals (Barnett and Hort, 2013). But ambulatory care defined as the “delivery of personal health-care services on an outpatient basis” is an important component of health-care delivery and accounts for the largest share of household out-of-pocket (OOP) expenses in low- and middle-income countries (Berman, 2000).

Why does this matter? The focus of current reforms, such as universal health coverage (UHC), tends to be more on efficiency (controlling costs of care), financial protection (introduction of universal health coverage) and equity (access and utilization by the poor) than quality. Efforts to introduce UHC in the Asia Pacific region will have limited impact on population health if quality of ambulatory care is not improved along with access (Mate et al., 2013). Furthermore, high-quality ambulatory care services are essential to address the growing burden of noncommunicable diseases in the region (Berendes et al, 2011).

In most LMICs, ambulatory care is a mix of public and private care provision, with evidence of poor quality in both sectors (Berendes et al., 2011; Das and Hammer, 2014). Although there is a large body of literature addressing quality of care in high-income countries (HIC), this is still an emerging field of research for LMICs. However, there is growing experience in the region from the implementation of a number of discrete strategies to improve the provision of ambulatory care. The question is whether these strategies are working to improve quality, whether they

can be implemented to scale, and how applicable are they in the context of mixed health-care provision and UHC reforms.

This paper aims to describe problems of quality in ambulatory care services, and whether it matters; to review evidence on factors responsible and strategies to address quality of care at the ambulatory care level, and to provide guidance and options for governments in their role as stewards to regulate and improve the quality of ambulatory care services.



Methodology

This paper was informed by two literature reviews:

1. Initial review of systematic reviews and meta-analyses. An initial literature search was conducted on PubMed, Google Scholar and the Cochrane Library to identify existing meta-analyses and systematic reviews on the topic. Search terms included: quality of care, quality, health care performance, ambulatory care, primary care, low- and middle-income countries, developing countries, private sector regulation, and regulatory policy. Additional systematic reviews were identified through snowballing and from the author's personal libraries. Systematic reviews focused on LMICs were primarily considered. Although some systematic reviews considered examples from high-income countries, those solely focused on HIC examples were excluded. Only one such review was considered because the discussion focused on applicability to the LMIC setting. For topics where recent updated reviews were available, earlier editions were not considered. We focused on strategies applicable to both public and private sectors but limited to formal ambulatory care providers (i.e. those with recognized formal qualifications). As such we did not look at the informal sector.
2. A further literature review was then conducted focusing on strategies identified from the initial review that might complement current UHC reforms and deliver improvements in quality of care, and be suitable for the ambulatory care setting in LMIC. The strategies selected were Pay for Performance and social franchising. We identified meta-analyses on these two policy strategies to document key lessons and contextual factors that influenced the success of these strategies. A detailed review of primary research was beyond the scope of this paper and therefore we relied on secondary research and papers providing meta-analyses of the selected strategies.

The literature review was used to identify:

- a) Evidence on strategies and their effectiveness in the LMIC context: including identifying frameworks used to classify strategies.
- b) Concepts and approaches to quality of care: how it has been defined, conceptualized, and measured; and what causes of poor quality have been identified in the literature in the LMIC ambulatory care setting. For this we examined the identified systematic reviews further for dimensions of quality examined and frameworks used to understand quality impacts.



Context of ambulatory care provision

The ambulatory care landscape in LMICs is very different from that of high-income countries. Some characteristics include:

High degree of fragmentation: A weak regulatory environment in low- and middle-income countries has led to a plethora of providers due to the lack of constraints on market entry (Berman, 1998). Although most governments have invested heavily in public provision of ambulatory care, the private sector is the main provider of ambulatory care, even for the poor, in several LMICs (Berendes et al., 2011, Lagomarsino et al., 2009). The distinction between public and private care is often blurred due to the existence of dual practice and informal user fees (Patouillard et al., 2007, Lagomarsino et al., 2009). The private sector is pluralistic, spanning both qualified formal providers and unqualified or underqualified informal practitioners in addition to providers of alternate and traditional systems of medicine. Even within the formal private sector, there are non-profit providers and for-profit providers delivering services through individual practice, small clinics, drug shops and hospitals. Moreover, the share of public, private formal and private informal varies in different countries, regions within countries and for different medical conditions (Lagomarsino et al., 2009).

Asymmetry of information and power: LMIC populations differ from high-income country contexts in that they have poorer socioeconomic conditions and lower levels of education. Patient information asymmetry inherent in the health-care market is further exacerbated in these countries where consumers are often less educated, less involved in the process of health care and passive in demanding better health (Berlan and Shiffman, 2012). Studies have shown patients seek unnecessary or inappropriate treatment in several developing countries and that poorer quality care is often given by the same providers to lower socioeconomic groups (Berlan and Shiffman, 2012).

Dispersed care: The very nature of ambulatory care implies a dispersed environment. Large components of ambulatory care are provided in rural and remote settings where providers often work in isolation, are spread out, poorly-skilled and have poor access to information technology (Athlabe, 2008). Leonard and Masatu (2007) found poorer quality care in rural areas compared to urban areas due to lower provider competence.

The challenges identified above are compounded by the fact that they not only create obstacles for governments attempting to address the issue of quality of care but at the same time they exacerbate poor quality of care.



What is the problem of poor quality?

The World Health Organization (WHO) has recognized quality and safety as intermediate goals of health systems performance (along with access and coverage) necessary to achieve the overall goals of effectiveness, efficiency, responsiveness and equity (WHO, 2007). However, addressing quality of care confronts a number of conceptual and methodological issues.

Quality is difficult to define. There is ambiguity in defining quality and no commonly-accepted measurable definition. Quality is multi-faceted and there are multiple perspectives – quality from the perspective of the provider (effectiveness), the payer (efficiency) and the patient (responsiveness). Quality overlaps with other objectives of health systems performance. A widely used concept of quality includes six elements: safety, effectiveness, patient centeredness, timeliness, efficiency and equity (Institute of Medicine, 2001). However, the WHO health systems framework separates quality as an element contributing to the achievement of goals of efficiency, effectiveness, responsiveness and equity, rather than including these within the concept of quality. The National Health Service (NHS) in the United Kingdom, on the other hand, narrows down the concept of quality to three dimensions: clinical effectiveness, patient safety and patient experience (Department of Health, 2008). However, there are no commonly-accepted measurable indicators for each element or consensus on the relative weight to give each aspect. A group of 30 health-care leaders and experts from 15 developing countries met in 2008 and defined quality improvement “as a philosophy to pursue continuous performance improvement through technical and managerial methods enabling frontline workers and organizations to improve their learning and change the process of care delivery so as to focus on patients and their families and improve health outcomes” (Leatherman et al., 2010). The complexity of this definition sheds some light on the inherent ambiguity and challenge in applying a consistent definition of quality across settings.

Quality is difficult to measure. One of the most widely used frameworks in the literature to conceptualize and measure quality was developed by Donabedian (1966). This framework identifies three aspects of quality that can be measured: inputs (facility, staff, equipment, supplies); process (adherence to protocols and standards of care) and outcomes (relief of symptoms, extension of life, minimized complications or poor outcomes). Inputs, though easy to measure, have been shown to have a weak link to quality (Donabedian, 1988; Maestad et al., 2010; Das and Hammer, 2014). Measuring process or clinical effectiveness is challenging due to the privacy of the interaction between the provider and patient. The tools available to measure process quality such as clinical vignettes, observation and standardized patients are time-consuming and difficult to apply, especially in the LMIC setting where providers are dispersed. Measuring outcomes in terms of health status is costly and considered more complex due to the intervention of patient-specific factors. They are also difficult to measure for chronic conditions requiring follow-up.

In HICs, where health insurance systems are widespread, patient safety is increasingly used as a quality outcome measure. This implies measuring the number of negative incidents, which is relatively easy to measure, especially in the hospital setting (Busse, Afifi and Harding, 2003). However, this measure might have limited applicability in the ambulatory care setting outside hospitals in the LMIC context. The other quality dimension highlighted by the NHS is patient experience or satisfaction. Although this is relatively easy to measure through exit interviews with clients, it is not on its own a sufficient measure of quality.

As a result, quality (especially effectiveness and safety) tends to be neglected as a policy objective and the focus of programmes and performance evaluation is typically on the more measurable aspects – utilization, efficiency, and responsiveness to patient expectations. This neglect is confirmed by the lack of studies reporting quality improvements in the systematic reviews. Looking at contracting of primary services, Liu et al. (2007) found only three out of 13 cases included improving quality of health service delivery as an objective. Witter et al. (2012) included nine studies in their review of Pay for Performance, of which only one used quality of care as the main focus. Most studies evaluating interventions to improve service delivery continue to focus on measures of utilization rather than quality.

At the same time, where measured, quality of ambulatory care in LMIC is generally considered to be poor. Two recent studies have compared quality in the public and private sector (Berendes et al., 2011; Basu et al., 2012).

Berendes et al. found drug availability, patient responsiveness and provider effort substantially better at private facilities but no difference in technical competence between public and private. Poor conditions of service and resource constraints were identified as factors contributing to poor quality in public sector facilities (Berendes et al., 2011). Basu et al. (2012) on the other hand found that private sector providers prescribed more unnecessary drugs and tests, had poorer diagnostic accuracy and levels of competence and violated medical standards more often than public providers.

The problems of poor quality in LMIC can be summarized as:

- **Overtreatment:** provision of unnecessary treatment, ineffective treatment, or more expensive treatment than required (overprescribing antibiotics or diagnostic tests)(Currie et al., 2012).
- **Undertreatment:** failure to provide required treatment or misdiagnosis leading to poor outcomes, longer duration of illness, and complications (Das, Hammer and Leonard, 2008)

Improving and regulating quality of care at the ambulatory level is particularly problematic because of the unique landscape of this sector in LMICs (mix of public-private, fragmentation, patient information asymmetry) and the overall weak regulatory capacity of governments.

What drives poor quality?

Traditionally, inadequate availability of structural components such as staff, facilities, and equipment was assumed to drive poor quality of care. However, structure, including caseloads, has been shown to have a weak link to quality of service provision. Although the lack of equipment and technology in resource-constrained settings can contribute to poor quality, there is increasing attention to the importance of provider behaviour (or the accuracy of the advice) in determining quality of care, especially in ambulatory care settings (Busse, Afifi and Harding, 2003; Berlan and Shiffman, 2012; Das and Hammer, 2014).

The accuracy of advice by a provider depends on 1) provider competence and 2) provider effort (Leonard and Masatu, 2007; Das and Hammer, 2014). While poor provider competence contributes to poor quality of care in LMIC settings (Barber et al., 2007; Brugha and Zwi, 1998), there is increasing recognition of the gap between knowledge and practice (Das and Gertler, 2007; Leonard and Masatu, 2006; Leonard and Masatu, 2010) and low compliance with professional standards (Leonard and Masatu, 2010). Provider effort is increasingly being seen as

a key determinant of poor quality of care, compounding problems of low competence in the public sector in particular (Leonard and Masatu, 2007; Das, Hammer and Leonard, 2008; Das and Hammer, 2014).

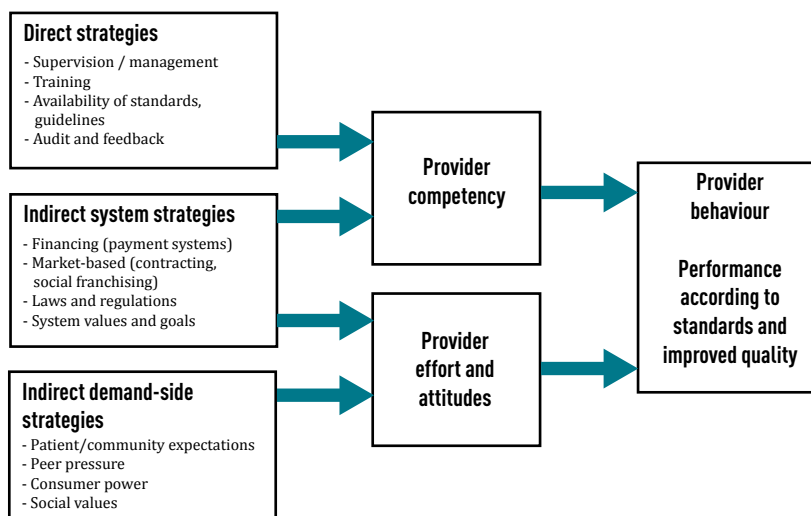
So what drives provider effort? Using a health economics lens, incentives (perverse or lack of) impact provider effort. For example, the problem of undertreatment can be explained by a lack of provider motivation (lack of intrinsic or external incentives) whereas the problem of over-treatment can be explained by economies of scope or perverse incentives (Das and Hammer, 2014; Leonard and Masatu, 2010). Provider effort can also be driven by demand. Barber, Gertler and Harimurti (2007) found that even in situations where the poor and wealthy had access to the same quality doctor, the poor received lower quality of care. This suggests that the provider discriminates in delivering effort, based on the perceived or real demand for higher quality care. Other studies have also linked overprescribing of antibiotics to a (sometimes perceived) demand from consumers (Sun et al., 2009). Another quality problem identified by Bradley and Yuan (2014) is the lack of an organizational culture in LMIC that fosters accountability to common values.

Strategies to improve quality of ambulatory care

Strategies to improve quality of care need to target the competence, effort and attitudes of healthcare providers either directly or indirectly to improve the quality of the patient-provider interaction (WHO, 2000a).

Several frameworks cited in the literature classify factors that influence provider behaviour either directly or indirectly (Mills, 2002, Berlan and Shiffman, 2012, Peabody, Brughha and Zwi, 1998; Marquez L,2001). We adapt one of these, the framework from Lani Marquez, 2001 to illustrate the pathways of influence on the health-care provider and quality of care.

Figure 1. Framework illustrating factors that can influence provider behaviour



Source: Adapted from Marquez L, 2001.

This framework is useful because it allows policy-makers to see where and how they can intervene to influence quality of care and how these

strategies might fit within the wider context of health system strengthening efforts. Policy options can target one or several of the factors that influence provider behaviour either directly or indirectly. For example, poor quality of care due to overprescribing of antibiotics can be the result of poor provider competence, demand from consumers or the problem of economies of scope or supplier-induced demand. A government could address this problem either by influencing consumer demand (indirect demand-side strategies) or by disincentivizing profits from drug prescription (indirect system factors) or by providing better training and guidelines (direct strategies) depending on the context and capacity. Currie et al., (2011) provide an interesting example from China where they demonstrate that overprescribing of antibiotics was clearly linked to economies of scope but was addressed by improving public knowledge of appropriate antibiotic use and therefore appropriate demand. Chen and Gertler (2013) on the other hand cite an example from Taiwan where the same problem was addressed by introducing legislation to prohibit the sale of drugs at outpatient clinics and decoupling diagnosis and treatment.

Strategies relevant to UHC reforms

Mate et al., (2013) have further developed a conceptual framework for countries pursuing UHC reforms which illustrates how public insurers can leverage their control to enhance the quality of care provided at a systems level. They illustrate how insurers can use mechanisms such as selective contracting, provider payment mechanisms, design of the benefit package and investments in the system to include quality enhancing strategies and to improve provider competence and effort. For example, contracting or provider payment mechanisms can incorporate accreditation status, adherence to standards and guidelines, and data collecting requirements. Similarly, investments through UHC reforms in subsidies or systems can include resources for improving data and measurement systems, education on quality for health providers and patient/public education.

The evidence on what works: Review of systematic reviews

Several developing countries are experimenting with alternate strategies to improve ambulatory care provision within the context of low regulatory capacity. What is the evidence of the impact of these schemes on quality?

We found 19 systematic reviews of different strategy options to improve health sector performance in low- and middle-income countries. Annex 1 provides a summary of the evidence from these systematic reviews. Only seven reviews (Athlabe et al., 2008; Rowe et al., 2005; Bosch-Capblanch et al., 2011, Meyer et al., 2011; Koehlmoos et al., 2009; Liu et al., 2007 and Patouillard et al., 2007) addressed the issue of quality specifically, with most studies looking at different dimensions of performance such as equity, efficiency, utilization and access.

The most commonly researched strategies involve those directly targeting providers' knowledge and standards of care such as education and training, supervision and guidelines. Although there is a small literature exploring organizational strategies such as task-shifting and integration of services at the point of delivery, this category of strategies is under-researched. There is also very little evidence on regulatory interventions such as self-regulation, disclosure regulation or consumer protection laws. Additionally, there is some evidence on the effects of vouchers and social/community health insurance schemes on quality of care but other options to influence consumers such as improving consumer information and participation seem to be poorly represented in the literature.

Using the conceptual framework in Figure 1, strategies can be grouped into 1) strategies that influence providers directly, 2) strategies that influence providers through systemic or organizational factors and 3) strategies that influence providers through demand-side factors. While discussing their potential, we keep in mind the ability of governments to implement these strategies at scale and achieve quality improvements at a systemic level including through the UHC reform agenda (Mate et al., 2013).

Policy options aimed at directly improving provider behaviour

Overall, most of these strategies have not been applied at a systems level, are likely to be difficult to scale up in the rural ambulatory context, and have little or no evidence of impact on quality in the ambulatory care setting in LMICs. However, it is important to note that many of these strategies have been implemented alongside strategies such as social franchising, Pay for Performance and other market-harnessing strategies where they might be more effective and scalable. Evidence on specific strategies is summarized as follows.

- ***In-service training, education meetings or outreach visits***

These strategies are being widely implemented in several countries especially within the public ambulatory care sector. Yet strong evidence of the impact of training programmes on improving provider practice and quality of care is lacking (Lonkhuijzen et al., 2010; Opiyo and English, 2010, Athlabe et al., 2008). There is more evidence of the impact of small education meetings and educational outreach visits if interactive and focused, as well as training combined with supervision (Rowe et al., 2005; Athlabe et al., 2008). However, in terms of scaling up these strategies for ambulatory care in the LMIC context, they can be expensive and time-consuming in rural areas that are isolated and where providers are scattered (Athlabe et al., 2008). Additionally, targeting private providers is harder and the follow-up supervision required more difficult.

- ***Guidelines and protocols***

Clinical practice guideline dissemination has been found to have little or no impact in LMIC unless combined with other interventions such as educational outreach, reminders and audit and feedback which can result in small to moderate improvements in practice (Lewin *et al.*, 2008; Athlabeet *al.*, 2008; Rowe *et al.*, 2005). The social franchising models being implemented use protocols to standardize practice across franchises, but there is no evidence regarding adherence to these protocols (Schlein, 2013).

- ***Audit and feedback***

The evidence on this strategy points to its lack of applicability to the LMIC context. It requires good routine data collection systems for effectiveness, is not applicable to health workers in community settings and has only small to moderate impact (Rowe *et al.*, 2005; Athlabe *et al.*, 2008).

- ***Supervision***

A recent systematic review finds no or uncertain impact of managerial supervision on improving quality of care in LMICs, albeit from a low-quality evidence base (Bosch-Capblanch *et al.*, 2011). However, a previous study (Rowe *et al.*, 2005) reported positive outcomes of supervision on health worker performance though it cautioned against the many weaknesses in current supervision models in LMICs. It is unclear if and how supervision of the private sector would work and there is insufficient information on the characteristics of good supervision.

- ***Quality improvement processes***

The adoption of an overall quality improvement process—a series of steps that health workers and managers can use to identify and solve quality problems – has also been advocated. However, its applicability to the ambulatory care setting in LMICs is uncertain and there is no evidence of its implementation and impact (Rowe *et al.*, 2005).

A concept not explored sufficiently in the systematic review literature is how to directly target providers to encourage and promote intrinsic motivation.

Strategies aimed at influencing the demand side to improve provider behaviour

Several countries are attempting to influence consumers directly to reduce information asymmetry and enable consumers to be less passive in their choice of healthcare. However, overall evidence of the effectiveness of these strategies is scarce. There is some evidence that small-scale programmes such as grassroots committees, providing information to consumers or

participation through women's groups can improve provider accountability and health outcomes (Berlan and Shiffman, 2012). But evidence of impact on quality is lacking and the ability to scale up these initiatives successfully is uncertain. There is insufficient evidence on the particular features of programmes that promote positive outcomes. Efforts to involve consumers have often failed due to lack of interest, trust and cooperation (Berlan and Shifman, 2012). Provider report cards are also emerging as useful instruments and there is some evidence on impact from one study, though design is considered important so as to be simple enough for consumers to interpret and use (Berlan and Shifman, 2012).

The most promising strategies targeting clients have been vouchers and conditional cash transfers. A recent systematic review of the impact of vouchers finds modest evidence (from three programmes) that vouchers improve some dimensions of quality of care (Meyer et al., 2012). However, there is insufficient discussion regarding the contexts or conditions in which the programmes are likely to be more or less successful. Most documented voucher programmes have been for insecticide-treated bed nets, sexual health and maternal health services, and their applicability to the wider health system including chronic conditions is unknown. Conditional cash transfers have been found to have a positive impact on health outcomes but their replicability in low-income settings is unknown as most successful programmes have been implemented in middle-income countries with stronger health systems. Also unknown are the mechanisms whereby positive impact was achieved and their applicability to curative and chronic health services, since most have been used for preventive services (Lagarde, Haines and Palmer, 2009).

Leonard and Masatu (2006) have demonstrated the existence of the Hawthorn effect – where clinics alter their behaviour because they are being observed. This implies that there is a role for peer pressure to improve the quality of clinical practice. This is however underexplored in the literature.

Strategies aimed at indirectly improving provider behaviour through system factors

Since most ambulatory care is mixed provision, regulation is an important tool for governments whereby they can intervene to influence provider behaviour. Most system-wide strategies to influence provider behaviour are included in common regulatory strategies identified in the context of LMICs: licencing and registration, market-harnessing mechanisms (contracting, franchising, price controls); self-regulation; incentive-based

schemes (Pay for Performance); disclosure regulation; and social insurance (Akhtar A, 2011).

Many of these strategies fall under the umbrella of reforms that can be implemented with UHC (Mate et al., 2013). Market-based instruments are considered more suited to the LMIC context as they minimize political and administration constraints to implementation and have lower transaction costs (Busse, Afifi and Harding, 2003). As such, they are increasingly being recommended and implemented in LMICs to improve ambulatory care and we found several systematic reviews on this. However, our review finds that the evidence base of the impact of these strategies on quality is weak as yet. Notably, we did not find any systematic review on laws and legislations enacted in LMICs to change provider behaviour and address quality of care.

- ***Contracting***

Three systematic reviews on contracting out services to the private sector found inconclusive evidence of impact on quality (Liu et al., 2007; Lagarde and Palmer, 2009; Patouillard *et al.*, 2007). Many contracting arrangements include Pay for Performance incentives and are expected to have an impact on quality. However, in most cases, contracting has been used as a mechanism to provide services where the public system is deficient and not as a tool to improve quality of care (Lagarde and Palmer, 2009). Contextual features identified as affecting impact include provider payment mechanisms, autonomy given to contracted providers, the capacity and experience of providers and contractors, procurement process and duration of the contract (Liu, 2007). (See also Asia Pacific Observatory (APO) Policy Brief on Contracting – in preparation).

- ***Social franchising***

The existing evidence base is insufficient to understand the impact of social franchising on quality of care. One systematic review found no studies of sufficient quality that met the inclusion criteria for the review (Koehlmoos *et al.*, 2009). Three other reviews found mixed evidence (Beyeler, 2013; Patouillard *et al.*, 2007, Nijmeijer *et al.*, 2013). Overall, social franchising has been found to improve utilization and client volume and to increase client satisfaction (Koehlmoos *et al.*, 2011 and Beyeler *et al.*, 2013) although little is known regarding the actual quality of care being dispensed. Nijmeijer *et al.*, 2013 found that some programmes had resulted in improved quality of facilities, supplies and client satisfaction but mixed or no impact on medical quality or quality of provider. Beyeler *et al.*, 2013 find that social franchising might be a useful policy option in settings

where there are a large number of unregulated private providers as most franchises are of better quality than non-franchised private providers. We describe this policy option in more detail in the next section.

- ***Pay for Performance (supply side)***

The current evidence base does not provide robust evidence of positive impact of Pay for Performance on improving quality of care (Witter et al., 2012; Eldridge and Palmer, 2009). This is largely due to weak study designs evaluating these schemes which have not been able to separate confounding factors. However, the literature does highlight features of the scheme that are important in determining impact and reducing potential adverse outcomes. We describe these in more detail in the next section.

- ***Organizational strategies***

These strategies are largely applicable to the public sector. The evidence on integration of services points to no impact (Dudley and Garner, 2011, Athlabeet *al.*, 2008). Task-shifting was found to have a positive impact on client satisfaction but impact on quality is unknown. The evidence base on these strategies is weak.

- ***Health insurance***

The most recent and only systematic review examining the impact of health insurance schemes in LMIC on quality of care found very little evidence of impact (Spaan et al., 2012). However, the strategies discussed in this section can be applied to improve quality in the context of universal health coverage implementation as they can be used for strategic purchasing of services. These include payment mechanisms, selective contracting, and strategies such as social franchising that encourage providers to ensure standards of care through protocols, guidelines and minimum qualifications.

Within this category of interventions at the systems level, there is a bias towards market-based mechanisms. Many of these strategies such as social franchising and Pay for Performance are donor-supported, which might explain the bias in documentation. We found much less of an evidence base for regulatory- and legislation-based strategies, which are also important systemic levers to affect quality. A future area of research might be to understand how different countries have addressed regulation.

We summarize the evidence available from systematic reviews for the different policy options in the table below. A more detailed description of the evidence from systematic reviews is provided in Annex 1.

Table 1: Summary of evidence available for different strategies targeting quality of ambulatory care in LMICs

| Options | Evidence of impact on quality | Strength of evidence | Evidence base for LMICs |
|---|-------------------------------|----------------------|---|
| Policy options aimed at directly improving provider knowledge, skills, standards, norms | | | |
| In-service training/refresher training | None or low | Low | Two systematic reviews |
| Educational outreach visits and educational meetings | Low to modest | Moderate to high | Several reviews |
| Use of protocols and guidelines | None or low | Moderate to high | Very little from LMICs. Systematic reviews summarizing evidence from HICs |
| Audit and feedback | Low to modest | Moderate | Very little from LMICs. Systematic reviews summarizing evidence from HICs |
| Managerial supervision | Mixed | Low/very low | One systematic review |
| Professional oversight or peer review | Not available | Not available | Missing |
| Policy options aimed at influencing consumers/society values | | | |
| Vouchers | Modest | Medium | One systematic review |
| Legislation (including malpractice litigation to enforce legal mandates) | Not available | Not available | Missing |
| Consumer power, community participation, information to patients | Mixed | Not available | Poor |
| Conditional cash transfers | Modest | Moderate | One systematic review but most studies from middle-income countries |
| Policy options aimed at restructuring the health system/market | | | |
| Contracting with private sector | Mixed | Low | Three systematic reviews and one meta-analysis of programmes |
| Social franchising | Mixed | Low | Three systematic review and one meta-analysis of programmes |
| Pay for Performance, incentives | None | Low | Two systematic review, one meta-analysis of programmes |
| Health insurance | Little evidence | Low | One systematic review |
| Integration of services | None | Low | One systematic review |
| Other regulatory strategies | | | Missing |

Source: Asia Pacific Observatory on Health Systems and Policies

Overall, our review finds an overall lack of robust evidence regarding the effectiveness of different strategies to address quality of ambulatory care in low and middle-income countries. The main weaknesses in the evidence base are summarized below:

Bias in strategies: There is a greater focus in the reviews on educational strategies and those focused on harnessing the private sector market such as social franchising and contracting and less focus on organizational and regulatory strategies. It is unclear whether this is due to the rarity of governments experimenting with these options or a bias in published literature. It is possible that the focus on educational strategies is due to the fact that until recently, a lack of knowledge and skills was considered the primary reason for low-quality care (Rowe et al., 2005).

Quality is not the focus of strategies: Although quality improvement is implied in many strategies, these strategies are not being used explicitly to improve quality of care. They have been used to broadly improve organizational performance, access and utilization, and in some cases equity. A systematic review of Pay for Performance strategies concludes that the reason these schemes might not be showing quality improvements is that they are not being used to improve quality but to improve provider responsiveness towards priority areas (Witter et al., 2012).

Lack of well-designed impact studies: Low priority has been given to conducting rigorous evaluation of quality improvement interventions in LMICs. Most studies tend to be poorly designed and therefore it is difficult to attribute impact (Witter et al., 2012, Koehlmoos et al., 2009; Rowe et al., 2005). Studies tend to measure utilization and coverage rather than quality; when quality is measured, it is inconsistently defined. Many studies look at short-term effects and little is known regarding sustainability or long-term effects (Patouillard et al., 2007; Rowe et al., 2005). Cost effectiveness studies are also lacking. The knowledge base needs enriching and governments and donors need to prioritize this research while designing interventions to improve quality of care. Koehlmoos et al. (2011) concluded that more systematic reviews on the impact of social franchising interventions were not recommended until the primary research base was further strengthened.

No consistent definition or measure of quality of care: Liu et al. (2007) conclude that most studies included in their review had either not defined quality or used inconsistent measures. A similar trend was found across the literature where different definitions of quality and various methods to measure quality of care have been used. Very few studies have used clinical vignettes, direct observation, or standardized patients who simulate

an illness to measure the quality of provider-client interaction. Several reviews highlight that a strategy is more likely to improve quality if quality is operationally defined and measured (Liu et al., 2007; Witter et al., 2012).

However, defining and measuring quality of care within the unique ambulatory care setting of developing countries has been acknowledged to be problematic (Liu et al., 2007; Witter et al., 2012). Research is complex due to the privacy of the interaction and the lack of reliable measurement tools (Peabody et al., 2006; Das and Gertler, 2007). This is supported by Schlein et al. (2013) who found that despite most social franchise initiatives having well-developed quality assurance frameworks in place, measurements have focused on structural components of quality and not clinical vignettes and other mechanisms to measure process quality (Schlein et al., 2013).

Insufficient information on context: Most reviews have concluded that “context matters”, however they stop short of providing detailed information on factors that contribute to or hinder positive outcomes. Rowe et al. (2005) conclude in their review that it is difficult to draw any conclusions regarding appropriate settings for particular interventions due to the weak evidence base on contextual factors.



Lessons learnt in implementation of two commonly used market-based/financing strategies

There is particular interest in strategies that might complement introduction of UHC reforms as lessons learnt from these strategies could inform UHC payment policies.

We have picked two strategies (social franchising and Pay for Performance) to explore in more detail because 1) they are increasingly being implemented in LMICs, 2) they have a strong theoretical underpinning to improve quality within the complex ambulatory care architecture of LMICs and 3) they can be used as tools within the UHC framework to impact quality at a systems level. The third option highlighted in the UHC framework, contracting-out, is the subject of a separate working paper and as such has not been included in this review (Asia Pacific Observatory 2014).

Social franchising

Social franchising is a model which works on the principles of commercial franchising but with the goal of achieving a social benefit rather than a profit maximizing goal. In most social franchising interventions, there is a contractual agreement between the franchisor (either a not-for-profit organization (NGO), the government or a for-profit franchisor) and a network of franchisees who are expected to provide a service (Beyeler et al., 2013), usually for a pre-determined price. The franchisor is responsible for ensuring consistency in the services provided amongst the franchisees and the franchisee is expected to adhere to quality standards, provide regular reports on services delivered and sometimes pay franchise fees. Koehlmoos et al. (2009) have identified typical characteristics of this model as including: 1) identification through a brand name or logo; 2) training by the franchisor to all franchisees to ensure standardization in procedures and protocolized management of illnesses; 3) standardization of supplies and services such as birthing kits; 4) monitoring through regular reports and 5) membership in a franchise network.

The model can be a “full” franchise implying all services and products offered at the facility are standardized through the franchisor or a “fractional” franchise implying only certain services offered at a facility are part of the franchise programme. The social franchising programmes being implemented include a mix of franchising in rural and urban areas involving a range of health-care providers from doctors to nurses, paramedics and community health workers. Although the majority of social franchises provide reproductive health services, the franchise model also provides maternal and child health services, tuberculosis treatment, HIV/AIDS and malaria treatment in different settings (Schlein and Montagu, 2012). Most franchises operate with fee-for-service as their payment method (Huntington et al., 2012).

The applicability of social franchising to ambulatory care in low- and middle-income countries

With a large and dispersed private sector often providing the majority of ambulatory care of varying quality in developing countries, governments require tools to improve their oversight of this sector. Social franchising provides an opportunity for governments to engage with the private sector to reduce the fragmentation amongst private providers of ambulatory care and improve quality by giving incentives for standardized care. Quality is one of the overarching goals of a social franchise, with equity, access and cost-effectiveness being the others (Schlein and Montagu, 2012). Additionally, in the context of weak government regulatory capacity in low and middle-income countries, Lagomarsino et al. (2009) have highlighted this strategy as an important “stepping stone” to more systemic solutions to the regulation of mixed healthcare provision as it builds “networks” and links among private providers, a necessary step to further engagement.

The growing popularity of the strategy is evidenced by the fact that in 2012, 74 programmes of social franchising were operational across 40 countries, mostly in Asia or Africa (Schlein and Montagu, 2012). Although social franchising is being applied to regulate the private sector, there is emerging evidence that the social franchising model could be used to improve quality in the public sector as well (Ngo, Alden, Pham and Phan, 2009).

In what settings and under what circumstances are social franchising schemes applicable?

Montagu (2002) has highlighted some of the factors which need to be considered when evaluating social franchising as an option to regulate quality of care.

1. Services need to be well defined and limited so they can be standardized across franchises and monitored for quality.
2. There should be an existing and underemployed private health sector, large enough to justify the costs of setting up a franchise.
3. Clients should want to and be able to pay for services (even if they are subsidized). In this regard, the author cautions against the applicability of this concept to preventive services and those requiring long-term care.
4. Local capacity to build and manage the franchise should exist.

In light of the lack of evidence regarding quality improvement as a result of social franchising, Schlein et al. (2013) provide some insights into the quality assurance mechanisms currently in place within social franchises across Asia and Africa and describe the practices of high-performing franchises. The authors found that high-performing franchises had a quality assurance framework in place with indicators to measure and monitor the operation of the framework. All high-performing franchises had a screening process for recruitment. Most require providers to have a valid operating licence and clinics to have basic physical attributes such as privacy, toilets, ventilation, cleanliness, and power supply. The high-performing franchises conducted training of selected providers which ranged from two days to two weeks and assessed pre- and post-training knowledge, with the requirement of a minimum score after the training as a condition of joining the franchise. All high-performing franchises also conducted regular refresher training and addressed performance issues identified by monitoring visits. Some franchises included observed practice as part of their training module, where new franchisees provide services under supervision. Some franchises required that providers attend one continuing medical education session per year to remain in the network.

Most high-performing franchises monitored clinical and non-clinical quality through site visits and clinical audits requiring completion of pre-developed checklists. Many franchises reported improved services as a result of the findings of the quality assurance visits through retraining, removal of franchisees and improvement in infection prevention. Several franchises have also applied methods of motivating providers to achieve better quality through rankings and performance recognition in newsletters and public meetings. This tool has been found useful in settings where providers work independently and have limited access to training.

Lessons learnt and implications for quality of care

This is a strategy particularly suited to engagement with the private sector, especially the fragmented dispersed private ambulatory care sectors of many LMICs. Beyeler et al. (2013) conclude that franchises can be a useful strategy in areas where a large unregulated private sector provides the bulk of primary care.

It can also be useful to introduce new services in existing private practice and to strengthen public sector health care delivery. However, one study found an increase in out-of-pocket payments for services offered at franchises but not price-controlled (Huntington et al., 2012). It relies on demand and capacity to pay from the community (possibly through a health insurance payer) which should be considered prior to implementation. Another condition for its success is that private providers have the capacity (including financial) to respond to the demand generated by joining a franchise. It only works in contexts where there is sufficient competition to incentivize joining a franchise. In many cases, there is a need to address competencies (in-service training) and inputs in parallel to ensure the ability to adhere to quality standards. It also requires the capacity to clearly link performance measurements to process quality indicators (not just inputs) and close monitoring to ensure adherence to these quality standards.

Setting up a social franchise is expensive and sufficient finances are required by the franchisor to do this. Current models being implemented in LMICs are reliant on external donor funds and therefore governments considering this option need to consider sustainability issues (Koehlmoos *et al.*, 2011).

Several knowledge gaps still exist in the implementation of social franchising which policy-makers considering these options should be aware of. There is little information on the impact of social franchising on the overall health system – on unfranchised clinics and public clinics. It is unclear whether social franchising improves access in underserved areas or whether it just shifts users from one source to another or recruits existing providers into a network (Ravindran and Fonn, 2011).

Pay for Performance

Eichler and Levine (2009) define performance-based incentives as “monetary payments or other material rewards that are provided on the condition that one or more indicators of performance change, that predetermined targets are met, or both”. Pay for Performance or

performance incentives can be used to affect both the supply side as well as the demand side of health care provision. On the supply side, payments at a facility, individual health worker or district/province level can be linked to service delivery targets or penalties for not meeting targets including quality measures. Demand-side Pay for Performance schemes include conditional cash transfers or vouchers to households to use a particular service. In this section we focus on supply-side Pay for Performance schemes.

Pay for Performance is not a uniform policy strategy but rather a term used to define a range of different models (Witter et al., 2012; Elridge and Palmer, 2009). These models differ according to who pays whom, how targets are set and measured, how payments are made and the magnitude of the incentives. It is unclear in the literature whether Pay for Performance can be considered as another system of provider payment or whether it is seen as an intervention that provides marginal payments. Witter et al. (2013) use the latter definition in their systematic review.

The theory behind Pay for Performance and its applicability in low- and middle-income countries

There is evidence that doctors in both the public and private sector often do not perform according to their ability in LMICs (Das and Gertler, 2007 and Leonard and Masatu, 2010). Therefore, they need to be incentivized to exert more effort to provide better quality of care. Performance-based payments in theory incentivise better quality of services by linking outputs to rewards. It is a potentially useful tool for governments to use in conjunction with strategies of “strategic purchasing” of better services which fits in with the current UHC agenda in many developing countries.

This policy option tries to address the classic principal-agent problem identified by health economists, where financial incentives align the interests of the principal and agent to provide better quality of care.

In what settings and under what circumstances are Pay for Performance schemes applicable?

Eichler and Levine (2009) conclude that the services best suited to performance-based incentives are those that require little behaviour change on the part of the patient, can be measured and are offered for a limited time. Key conditions highlighted in the literature as necessary for the success of Pay for Performance schemes include: strong political support, good health information and reporting systems, room for change

and innovation to maximize efficiency, management capacity for effective implementation, the ability to flexibly mobilize resources, capacity to design a system with sufficient incentives that target both quality and quantity (Eldridge and Palmer, 2009).

A potential bias towards the applicability of these incentives to curative care at the cost of preventive care has been identified in the literature but as yet there is inconclusive evidence on this. A randomized controlled trial of a Pay for Performance scheme in Rwanda found that the scheme had more impact on increasing utilization of services that had higher payment rates and required the least effort from doctors. Utilization and quality of basic maternal and child services improved but not immunization or prenatal services.

Smith and Hanson (2011) have identified some adverse consequences linked to Pay for Performance schemes such as: 1) tunnel vision, where providers focus only on services linked to performance incentives at the cost of other services; 2) crowding out of intrinsic motivation; 3) strategic behaviour and gaming, where they underperform before targets are set so their targets are easier to achieve or do false reporting; 3) cherry-picking of clients who are easier to target and 4) corruption, where the providers and those who monitor performance collude to misrepresent data. These problems are highlighted by others in the literature. Lagarde et al. (2010) also found that Pay for Performance schemes can have an adverse effect on quality of services not included in the scheme as well as the tendency to false reporting in order to receive the bonus. Eldridge and Palmer (2009) caution against several unintended consequences of Pay for Performance schemes such as discouraging providers from working in the most disadvantaged areas if they think targets will be hard to reach, and the reliance on more easily measured targets such as quantity.

Lessons learnt and implications for quality of care

This strategy can be used to address both public and private sectors and addresses provider motivation which is increasingly being identified as a key driver of poor quality care. However, policy-makers need to be aware that studies have found Pay for Performance to have a tendency to crowd out intrinsic motivation. Therefore, an understanding of the current incentive scheme is important to know what requires changing (Eichler and Levine, 2009).

This scheme is particularly suitable for third party payers and as such fits well within the UHC reforms being implemented in several countries. However, care is needed while designing incentives to try and limit the

potential for adverse consequences. The evidence suggests that not all payment should be through incentives, just some proportion targeting key/priority areas.

Policy-makers must consider their capacity for monitoring and evaluation, since the success of Pay for Performance schemes depends on the ability to accurately monitor targets and minimize adverse outcomes. However, as highlighted previously, quality is difficult to measure and therefore indicators need to be carefully selected along with mechanisms to measure these.

Setting up these schemes requires substantial administrative and financial capacity as well as ongoing learning and adjustment (Eichler and Levine, 2009). Although there is uncertainty regarding the magnitude of the incentive (Basinga, 2010; Peabody, 2010), it is likely to be a substantial cost in addition to the cost of the staff to administer and support monitoring.

Pay for Performance schemes are complex and require careful consideration of the operating context and the capacity to effectively administer them.



Policy options and role of government

The focus of this working paper is to identify policy options for government to improve and regulate the quality of care in ambulatory services. This requires consideration of the role of government and the broad categories of policy options available. A useful approach to considering the role of government in issues of public welfare such as quality of health care services is the concept of stewardship.

The WHO in its 2000 seminal report on health systems described stewardship as an essential government function (WHO, 2000b). The stewardship role of the government includes formulating policies and establishing strategic vision and priorities, regulation, management of public health services, ensuring accountability and oversight (WHO, 2000b, 2007).

One of the policy options available to governments in fulfilling their stewardship role in mixed health systems is regulation. Regulation is complex and occurs at multiple levels. Healy and Dugdale (2009) illustrate this through the “responsive regulation” concept. According to this concept, regulatory strategies can be arranged in a hierarchy or pyramid from low-cost, low-intervention (voluntary efforts), to high levels of intervention (“command and control”) at the apex of the pyramid. Regulation at the base of the pyramid such as voluntary compliance with agreed standards, is strengthened by overlying levels of economic incentives, co-regulation, and meta-regulation, but can only work if governments have the ability to enforce sanctions in cases of non-compliance. Co-regulation, where government regulatory strategies actively engage with and involve non-government self-regulatory efforts, has been recommended as a more suitable regulatory strategy for the LMIC context (Bloom, Standing and Lloyd, 2008).

However, regulatory capacity is weak in most LMICs. Traditionally, mechanisms to regulate quality of health care have involved command and control legislation focused on entry such as licencing and registration (Sheikh, Saligram and Prasad, 2013). However, this has been largely unsuccessful in most LMICs due to weak legislation or weak enforcement (Sheikh, Saligram

and Prasad, 2013; Akhtar, 2011). A recent review found that although most LMICs do have licencing procedures in place, licensure is usually a one-time process rather than an ongoing renewal process based on continuing education. In addition, licencing requirements for the private sector have not kept up as this sector has grown (Kaplan et al., 2013). Self-regulation has also proved unsuccessful in the LMIC context due to weak professional bodies or regulatory capture and consumer protection laws are weak in most countries (Sheikh, Saligram and Prasad, 2013; Akhtar, 2011).

However, the stewardship role is broader than regulation in ensuring a well-functioning and high-quality health-care sector. We use the findings of this paper to identify options for the government to improve its role as steward in addressing quality of ambulatory care. The evidence suggests that while a number of strategies have been introduced in LMICs to address the low quality of ambulatory care, a systematic approach to addressing quality is missing. There is weak evidence regarding the impact of these strategies on quality of care primarily because improving quality has not been an explicit focus of programmes, and evaluations have not measured impact on quality. A more systematic approach is required, as is a cohesive plan to build long-term capacity for systemic quality improvements both in the public and the private sector in LMICs (Lagomarsino et al., 2009).

A key starting point for a more systematic approach is to address the current relative neglect of quality of care in policy priorities and policy development. This neglect stems at least in part from the failure of governments to identify quality of care as a policy objective, to define what is meant by quality care including indicators, and to measure the impact of policy interventions in terms of quality of care.

This approach also recognizes that improvements in quality of care are dependent on the actions of providers. This suggests that a key focus of government action is to engage providers in addressing quality of care through co-regulatory approaches. Involvement of physicians in particular has been identified as a key explanatory factor in the success of large-scale health system transformation efforts (Best et al., 2012). Hospital accreditation has emerged as a co-regulatory strategy for the regulation of quality of care in hospitals, and there is some evidence of its effectiveness (Barnett and Hort, 2013). Government action without the support of providers is unlikely to result in systemic and long-lasting change.

Consequently, our recommendations relate to actions governments need to take as part of their role as stewards of health systems, to establish the importance of quality as a policy objective, and to build a framework that enables and encourages providers to develop and implement interventions to improve quality of care. This will in turn contribute to the evidence base

on which health care providers and policy-makers can draw in further improving quality of care in ambulatory services.

Key areas for government attention

1. Invest resources in definition and measurement structures for quality of care.

A central message from this review is that more effort is required to explicitly measure, monitor and target quality. Although the importance of quality is recognized by WHO in its 2007 Framework for strengthening health systems, it is a relatively neglected element of services, with more focus on improving access, utilization and equity.

As a first step, LMIC governments in the Asia Pacific need to explicitly define and include quality among the performance objectives; and engage providers in defining and measuring standards. To achieve this, governments will need to invest resources in definition and measurement structures for quality of care.

Most governments have already defined standards for inputs (facilities and equipment required to provide services; and competencies of providers) in terms of licensing/registration requirements. But this is not enough. Standards for process and outcomes need to be developed, along with methods of measurement. Specifically, the effectiveness and safety aspects of quality need to be defined and measurement indicators need to be developed. As a first step, standard protocols for care of key conditions are required at the ambulatory level, as are definitions of expected outcomes in terms of mortality, morbidity and complications. There needs to be a concerted effort to engage professional associations and providers in defining the national standards and measurement structures to ensure consensus and collective action on their implementation. In this regard, some separation from direct government control may be useful through the establishment of an independent agency to define and oversee measurement of quality, and introduce a “meta-regulatory” level of strategy. An agency like this could also conduct national campaigns on raising awareness amongst consumers regarding appropriate treatments.

2. Provide resources and direction for quality improvement strategies in publicly-provided services.

Evidence from countries such as Singapore and Thailand which effectively provide high quality of care through public services suggests an active role

in closely monitoring and guiding provider behaviour and a high level of investment. Government spending on health is low in most LMICs. Once the government defines standards of care and quality reporting requirements, they will need to invest in providing inputs at public facilities in order to meet these requirements. This would include funding for inputs such as adequate staff and equipment but also in-service training, improved data collection systems, and monitoring and reporting systems.

In countries where financial and administrative capacity to address quality of a dispersed ambulatory care sector is limited, a convenient starting point might be public hospitals because of their institutional structure. Introduction of quality standards at hospitals could have a wider systemic effect in terms of building a quality improvement culture as they are places of training and education for future health care professionals, as well as the centres for referral and specialist care for ambulatory care providers. This could also provide a base for expansion to smaller clinics and medical practices.

Improving quality and utilization in the public sector could have a spillover effect to the private sector as reported by a study in the Philippines, where health insurance and increased demand for public facilities forced the private sector to compete by improving quality (Quimbo et al., 2011).

3. Make better use of financing and market-based strategies to generate incentives for quality improvements.

Market-based and financing strategies can be better designed and used within the UHC framework to influence the drivers of poor quality ambulatory care. The review of systematic reviews identified these strategies as having the most applicability and scalability in the LMIC ambulatory care context (mixed provision, dispersed care, low regulatory capacity) to improve provider behaviour. Most can be incorporated within UHC reforms such as strategic purchasing and address the motivation problem (both lack of and perverse incentives) which drives poor quality. However, the evidence on their impact is weak since they have not been explicitly used to improve quality. Therefore, an important message for policy-makers is that when designing payment mechanisms and strategic purchasing functions within UHC reforms, quality improvements should be made an explicit focus. For example, selective contracting, Pay for Performance and capitation payment models could be linked to meeting defined quality standards and protocols, data collection and reporting and education of providers and patients (Mate et al., 2013).

However, to effectively address quality, the evidence suggests that:

- provider payment mechanisms need to be clearly linked with measurable indicators of quality;
- simultaneous investments need to be made in capacity building, training and supervision to ensure the ability of ambulatory health-care providers to improve information systems and adhere to quality standards;
- services need to be relatively well-defined (these mechanisms might not be applicable to a wide range of interventions). These mechanisms are more applicable to curative care and not recommended for preventive care (due to bias towards services that have higher payment rates);
- effective and continuous monitoring is required to limit adverse consequences, of which there can be several. Market mechanisms do not mean less government involvement and are usually effective only with increased government capacity for oversight;

4. A mix of strategies will be required

No single strategy is likely to be effective. Strategies at different levels will be required addressing different aspects of the quality problem, such as inadequate consumer power and inappropriate demand, high degree of fragmentation, low competencies and motivation, and lack of an organizational culture that fosters professionalism. Schemes such as social franchising, Pay for Performance and contracting are also often implemented along with training of providers, supervision, audit and feedback, vouchers and consumer information. As Lewin et al. (2008) have put it, “a range and mix of implementation strategies, selected based on a diagnosis of the underlying problems, will probably be needed to ensure the quality of primary health care”. Overall, a systematic approach to address quality is needed.

Key areas for donors/researcher action

The donor and research community can support national governments in their stewardship role to improve quality of care. In particular, they can provide financial, and where necessary, technical support in setting standards, defining indicators of quality of care, and rolling out the implementation of quality adherence frameworks. Researchers can support countries in knowledge sharing and translation from the experience of

high-income countries in setting standards and indicators, which several have done.

Looking at the regulatory pyramid discussed previously, regulatory efforts in LMICs seem to be more focused on economic/market-based strategies. This bias is in part promoted by donors who provide funding for various projects and strategies. This bias is reflected in the published literature as well. Going forward, it will be important to explore a wider range of strategies to support. In this, greater effort can be made to apply lessons from the experience and evidence from HICs, especially that related to regulatory and legislative activities on addressing quality of ambulatory care in the unique LMIC context. Lastly, efforts to improve ambulatory care should ensure well-designed evaluation research components which explicitly measure the accuracy of clinical advice in addition to patient satisfaction.

Annex: Summary of evidence from systematic reviews

| Authors | Type | Policy options | Key findings | Definition of quality |
|------------------------|--------------------------------|--|---|--|
| 1. Althabe et al. 2008 | Overview of systematic reviews | Strategies for improving quality of healthcare for MCH (low and middle income) | <p>Interventions had to target MCH to be included and looked at only interventions targeting professionals.</p> <p>Unclear if multifaceted interventions were more effective than single interventions.</p> <p>Looked at:</p> <ol style="list-style-type: none"> 1. Distribution of education materials: ineffective when implemented alone (limited in rural settings and with workers of low technical ability) 2. Audit and feedback: small-moderate positive effects but can be constrained due to lack of routine data 3. Reminders: small-moderate positive effects 4. Educational meetings, outreach visits, local consensus processes and problem-based learning: small group interactive workshops which are more effective are costly and might be more challenging in rural areas 5. Local opinion leaders: small-moderate positive effects; really only applies to urban settings 6. Patient-mediated and mass media: of little effect in low-resource and less-educated settings | Included studies reporting measures of professional practice and/or health outcomes. |

Annex: Summary of evidence from systematic reviews (cont.)

| Authors | Type | Policy options | Key findings | Definition of quality |
|---------|------|----------------|---|-----------------------|
| | | | <p>7. Organizational interventions: few studies exist on this and need more on understanding effect of integration</p> <p>8. Provider incentives: insufficient evidence</p> <p>9. Clinical practice guidelines: weak evidence for developing countries</p> <p>10. Training programmes: insufficient evidence.</p> <p>Interventions need to be selected or tailored to address the underlying reasons for failure.</p> <p>Many systematic reviews of continuing education and educational strategies to improve quality. Most are one-off evaluations rather than impact evaluations with long-term follow-up. Very few evaluations of regulatory, financial and organizational interventions.</p> <p>Scope of review: Interventions should target MCH or be directly applicable such as primary care, prevention or emergency care.</p> <p>Interventions should target qualified health providers.</p> <p>One review trying to understand what works in rural and remote settings found no evidence due to the challenges posed by remoteness, isolation, lack of time and locum cover and poor information technology infrastructure. Issues of feasibility in scaling up strategies in a cost-effective way. The fact that providers in rural settings are the least skilled also is a challenge.</p> | |

Annex: Summary of evidence from systematic reviews (cont.)

| Authors | Type | Policy options | Key findings | Definition of quality |
|-------------------------------|--------------------|---|---|--|
| 2. Rowe et al. 2005 | Review of evidence | Improving health worker performance (low-resource settings) | <ol style="list-style-type: none"> Dissemination of written guidelines without additional interventions was ineffective. Supervision and audit with feedback was generally quite effective. Multifaceted interventions (training + supervision) were more likely to improve performance than single interventions. <p>How to supervise well is a challenge.</p> <p>Improving provider behaviour in the private sector is challenging. Few approaches to improve private provider behaviour have been rigorously evaluated and those that have, found mixed results.</p> <p>Contextual factors can substantially modify the effect of an intervention.</p> | Not defined. |
| 3. Opiyo N and English M 2010 | Review of evidence | In-service training (low- and middle-income) | <p>Evaluated in-service training to improve care of seriously ill newborns or children. Very little high-quality data exists. Authors found only two studies – both showed improvements in performance, but used different training and were at high risk of bias. No evidence in either on effect on mortality. Other issues: cannot comment on long-term effects as evaluated shortly after training, and did not comment on possible “herd effect” due to training coverage. Outpatient or hospital-based care.</p> <p>All qualified medical providers including doctors, nurses, pharmacists, nutritionists, etc.</p> <p>High and low income. Only two studies met criteria – both in LIC and set in delivery room.</p> | Included studies that measured performance in terms of adherence to treatment guidelines, prescribing practices, clinical assessment, recognition and management of cases (looked at technical quality). |

Annex: Summary of evidence from systematic reviews (cont.)

| | Authors | Type | Policy options | Key findings | Definition of quality |
|----|---|--------------------|---|--|--|
| 4. | Bosch-Capblanch X, Liaqat S and P Garner 2011 | Systematic review | Managerial supervision (LMIC) | Inconclusive evidence of impact on quality of care of primary health care in LMICs. Quality of evidence poor (low to very low). Long-term effects not evaluated. | Dimensions of quality included: provider practice, provider knowledge and drug supply. |
| 5. | Dudley L and Garner P 2011 | Systematic review | Integration of primary health services (low income countries and middle income countries) | Looked at outcome indicators of healthcare delivery, user views and health status. Evaluated nine interventions in total. Studies were of moderate to high quality. Some evidence that “adding-on” services or “linking” might improve utilization. But no evidence on outcomes and patient satisfaction. No evidence of positive effects from fuller integration – in fact, it might decrease utilization and awareness and have no effect on health status. None of the studies looked at integration of governance arrangements or financial arrangements. However, lack of proper information regarding the mechanisms of integration in several studies weakens the analysis. Focus on primary care, government and non-government. | Did not look at quality per se but looked at health outcomes. |
| 6. | Koehlmoos TP et al. 2009 | Review of evidence | Social franchising (low and middle income) | Found no studies for inclusion – no current robust evidence exists. No RCTs, non-randomized control trials, interrupted time series or controlled before and after studies evaluating the effects. | Not applicable since no studies were included. |

Annex: Summary of evidence from systematic reviews (cont.)

| Authors | Type | Policy options | Key findings | Definition of quality |
|------------------------|-------------------|---|--|--|
| 7. Beyeler et al. 2013 | Systematic Review | Clinical social franchising (low and middle income) | <p>One of the objectives of the study was to understand impact of social franchising on quality of care. Mixed evidence. Positively associated with client volume and satisfaction but mixed on health care utilization and health impact.</p> <p>Evidence on quality is weak as most of the research focused on client satisfaction without commenting on other dimensions of quality such as provider technical competence, quality and availability of essential equipment and drugs. However, authors conclude that “while franchises are often equal or lower quality to public clinics, they are typically higher quality than non-franchised private providers and so might be useful in settings where there are a large number of unregulated private providers.”</p> | <p>Although over half of the studies included measured some aspects of quality, this was not done in a comprehensive manner according to the authors. Quality dimensions/ measures included:</p> <ol style="list-style-type: none"> 1. Client satisfaction 2. Provider knowledge 3. Provider ability to insert IUD. <p>One study used mystery clients to assess provider practice and elements like wait time, privacy.</p> |

Annex: Summary of evidence from systematic reviews (cont.)

| Authors | Type | Policy options | Key findings | Definition of quality |
|--|-------------------|--------------------|--|---|
| 8. Nijmeijer K, Fabbriocotti I and Huijsman R 2013 | Systematic review | Social franchising | <p>Overall evidence is of low quality and too weak to draw robust conclusions. Authors find that franchising is positively associated with client volumes, physical accessibility and some types of quality. Twelve of the 15 included studies were conducted in Asia and Africa. Franchising either has positive effect or no effect on quality. Franchising has positive effects on quality of facilities and supplies, but unclear effects on medical quality and quality of provider. Mixed results on client satisfaction and overall quality. Franchising appears to be associated with less efficiency and less autonomy and authority for providers.</p> <p>Primary research studies do not provide sufficient details regarding the franchise designs to understand why some had positive results and others did not.</p> | <p>Looked at:</p> <ol style="list-style-type: none"> 1. Medical quality (adherence to therapy; achievement of care standards; reducing treatment delays) 2. Quality of facilities and supplies (mainly from the client satisfaction perspective) 3. Quality of provider (provider expertise/reliability, caring manner) 4. Client satisfaction 5. Overall quality. |

Annex: Summary of evidence from systematic reviews (cont.)

| Authors | Type | Policy options | Key findings | Definition of quality |
|-------------------------------------|-------------------|--|---|---|
| 9. Patouillard, Goodman et al. 2007 | Systematic Review | Interventions with private for-profit sector | <p>Looked at social marketing, vouchers, pre-packaging of drugs, franchising, training, regulation, accreditation and contracting-out.</p> <p>Weak evidence of the impact of these interventions on quality/utilization of care by poor.</p> <p>Most of the studies concerned training and social marketing with a few on contracting out, franchising, regulation and one on accreditation.</p> <p>Training, the most common intervention, had a positive impact for at least some outcome indicators.</p> <p>Private providers: formal and informal for-profit. Excluded non-profit because of different incentives.</p> <p>Health services: inpatient and ambulatory care plus public health products.</p> | <p>Quality: included both technical (observation of provider behaviour such as performance against training or guidelines and physical attributes of the practice) and perceived dimensions of quality (measured through patient satisfaction). Excluded studies that measured impact only in terms of provider qualifications and knowledge.</p> |

Annex: Summary of evidence from systematic reviews (cont.)

| Authors | Type | Policy options | Key findings | Definition of quality |
|-------------------------|--------------------------------|---|---|-----------------------|
| 10. Lewin S et al. 2008 | Overview of systematic reviews | Governance, financing, delivery arrangements and implementation strategies (not only on quality), primary health care and low and middle income | <p>Governance: accreditation of pharmacy outlets can have weak but positive effects on use of unregistered drugs compared to non-accredited facilities. Franchising had mixed effects on quality. Did not find many studies in this area, especially addressing decentralization, regulation of training or control of corruption.</p> <p>Financial arrangements: found 17 studies reviewing effects of explicit financial incentives to improve quality. 5/6 studies found partial or positive effects of incentives directed at physicians, 7/9 of incentives directed at provider groups – but effect sizes were small. Two studies of financial incentives at the payment system level had mixed results – the unintended effects of paying for performance were adverse selection of patients and other ways to manipulate the system to maximize payments. But none of these studies were in LMIC.</p> <p>Delivery arrangements: looked at task-shifting, specialist outreach clinics, integration of primary health care, social marketing and contracting, but not much on its effects on quality (except for specialist clinic outreach).</p> <p>Implementation strategies: looked at strategies to change professional behaviour such as guidelines dissemination, audit and feedback, educational outreach visits and educational meetings – all had positive improvements. Several training sessions improved quality in one study.</p> <p>Authors conclude that the few studies that exist looking at quality improvement interventions are one-off studies and there is a dearth of evaluations of quality improvement systems in primary health care. Cost effectiveness studies are also lacking.</p> | |

Annex: Summary of evidence from systematic reviews (cont.)

| Authors | Type | Policy options | Key findings | Definition of quality |
|-------------------------------|-------------------|---|---|--------------------------|
| 11. Berlan D, Shiffman J 2012 | Systematic review | Factors that enhance health provider accountability to consumers in low-income settings | <p>Evidence on health provider accountability is weak, and there are very few evaluations of what works. Divided into two types of influences: health system factors (oversight mechanisms, sources of revenue and nature of competition) and social factors (consumer power and provider norms).</p> <p>Some evidence of positive impact of four interventions:</p> <ol style="list-style-type: none"> 1. Government-facilitated community participation under decentralization 2. Community-collective action – independent or facilitated by NGOs/donors 3. Better informed consumers 4. Well-designed contracts for NGOs to provide health care. <p>Provider performance reports: mixed, depends on design. User fees: good for quality of care but bad for access.</p> | Did not look at quality. |

Annex: Summary of evidence from systematic reviews (cont.)

| Authors | Type | Policy options | Key findings | Definition of quality |
|-----------------------------|--------------------|--|---|--|
| 12. Li X et al. 2007 | Review of evidence | Contracting out primary health services (developing countries) | <ul style="list-style-type: none"> Contracting out has in many cases improved access but effects on equity, quality and efficiency are little known Little known of health system-wide effects –positive or negative Context and design features are important in influencing effect Contracting out is more likely to improve quality if: <ul style="list-style-type: none"> Quality is operationally defined and indicators measuring quality well developed Quality indicators are linked to the payment to providers Quality indicators have an established association with utilization of contracted services. <p>The review found that most studies had either not defined quality or quality was inconsistently defined and most studies did not include control groups.</p> <p>Focus only on primary care.</p> | Define performance as: access, quality, equity and efficiency. |
| 13. Lagarde and Palmer 2009 | Systematic review | Contracting (LIC and MIC) | <p>Defined contracting as provision of healthcare services on behalf of the government by non-state providers. Only 3 studies included. Contracting can improve access and utilization and in one case reduced OOP and improved health outcomes, especially in underserved areas. Quality of evidence is low or very low.</p> | This study did not look at quality of care. |

Annex: Summary of evidence from systematic reviews (cont.)

| Authors | Type | Policy options | Key findings | Definition of quality |
|-------------------------------|--------------------------------|-------------------------|--|--|
| 14. Eldridge and Palmer 2009 | Systematic Review | Pay for Performance | <p>Authors found the Pay for Performance had different models and was being used in different ways conceptually, based on who made the payment and to whom, as well as the conditions of payments and targets. The models were:</p> <ol style="list-style-type: none"> 1. donor to governments; 2. within the public sector – regional government to municipalities; 3. government to non-government and 4. directly to public or private health providers. <p>No evidence of clear impact in any low-income country setting. Authors note that quantifiable targets tend to dominate at the cost of quality of care indicators.</p> <p>Studies were not of very high quality as many did not have controls or controlled for confounders.</p> | Did not focus on quality but looked at impact (most studies measured utilization). |
| 15. Oxman and Fritenheim 2009 | Overview of systematic reviews | Results-based financing | <p>Limited evidence regarding their effectiveness, especially in LMICs. Authors conclude that incentives (targeting providers or patients) can be effective in the shortrun for simple and well-defined behavioural goals. But can create distortions, gaming, etc. Financial sustainability is unclear.</p> | Not defined. |

Annex: Summary of evidence from systematic reviews (cont.)

| Authors | Type | Policy options | Key findings | Definition of quality |
|------------------------|--------------------|----------------------------|---|-----------------------|
| 16. Witter et al. 2012 | Review of evidence | Pay for Performance (LMIC) | <p>Overall quality of the available evidence is poor and the review does not provide any robust evidence regarding the effectiveness of Pay for Performance on improving delivery of health interventions or quality of care due to inconsistency of findings, high risk of bias and limited studies reporting specific indicators. Also incomplete evidence base. However, authors note that the design of the intervention, contextual factors such as starting salary levels and ancillary components are likely to determine the success of this policy option. Other studies have also agreed that the current evidence base is weak.</p> <p>Success is likely to depend on how the scheme is designed, how targets are set, participation in target setting, how targets are defined and measured, and the context such as efficiency of implementers, starting levels of pay and funding.</p> <p>Sustainability and cost-effectiveness are untested.</p> <p>Focused on a range of providers including primary and hospitals, public and private.</p> <p>Although theoretically Pay for Performance is expected to improve quality, this relies on assumptions of the ability to measure quality, the ability to link Pay for Performance systems to quality measures and the absence of adverse consequences. Additionally, Pay for Performance is being used in LMICs particularly as a tool to improve responsiveness of providers to priority programmes and not specifically to improve quality.</p> | |

Annex: Summary of evidence from systematic reviews (cont.)

| Authors | Type | Policy options | Key findings | Definition of quality |
|-------------------------------------|-------------------|----------------------------|---|--|
| 17. Lagarde, Haines and Palmer 2009 | Systematic review | Conditional cash transfers | All the successful conditional cash transfer programmes have been implemented in middle income countries with relatively well-functioning health systems and their replicability in low income countries is unclear. Although there is moderate quality evidence to suggest that transfers have resulted in improved utilization of services and improved health outcomes in some programmes, the mechanisms by which positive impact was achieved are not clear. Most conditional cash transfer schemes have targeted preventive services which are already free and their applicability to paid services is also unknown. | Studies did not measure quality but some have looked at health outcomes. |

Annex: Summary of evidence from systematic reviews (cont.)

| Authors | Type | Policy options | Key findings | Definition of quality |
|------------------------------------|-------------------|-----------------|--|---|
| 18. Meyer C, Bellows N et al. 2011 | Systematic review | Vouchers (LMIC) | Found modest evidence (from three programmes as opposed to four for stronger evidence) that voucher programmes improve the quality of health services. Of the 16 voucher programmes included in the review, six were for insecticide-treated net distribution, nine addressed reproductive health and one was a general health services programme. The programmes were located in Africa, Asia and Latin America. For quality, three voucher programmes reported quality outcome indicators. Majority of these studies were of medium quality. | <p>Quality indicators included in the studies were:</p> <ol style="list-style-type: none"> 1. % of services delivered during antenatal care visits 2. % providers performing well on quality indicators at antenatal care visits 3. Reliability of detection of lesions (for cervical cancer screening programme) 4. % providers with appropriate family planning treatment 5. % providers with appropriate STI/HIV treatment 6. Doctors knowledge score regarding STI prevention and treatment 7. Patient satisfaction. |

Annex: Summary of evidence from systematic reviews (cont.)

| Authors | Type | Policy options | Key findings | Definition of quality |
|--|-----------------------|--------------------|--|--|
| 19. Spaan E, MathijssenJet al.2012 | Systematic review | Health insurance | Most Africa-based studies reported on community-based health insurance whereas Asia studies looked at social health insurance. Studies reported on quality of care less often than on utilization, financial protection and social inclusion. Studies were of high and medium quality. Only 21 out of 159 studies reported on quality of care. There is weak evidence that either insurance mode has a positive effect on quality of care. This is the first review looking at the impact of health insurance schemes on quality of care and evidence is scarce. | Not defined. |
| Meta-analyses / Scoping reviews | | | | |
| 1. Loevinsohn and Harding 2004 | Review of experiences | Contracting (LMIC) | All studies were of non-profits and contracting of primary healthcare. Includes some data on quality of care indicators for some of the 10 studies. Authors found contracting to be a useful method of improving health care delivery. Contract management was identified as an issue for governments, but not one that has prevented success. | Not examined. |
| 2. Koehlmoos et al. 2011 | Scoping review | Social franchising | Included 12 studies –three systematic reviews and nine primary research studies. Overall weak quality of evidence.Almost all franchises delivering reproductive health. Of the five studies that assessed quality of care, patient perceptions of quality of care were mixed and franchise health providers were more likely to be trained than non-franchise providers. Literature does not address adherence to protocols or sustainability. Although the public sector continues to have better client volumes, franchised clinics do better than non-franchised clinics. No evidence on quality other than clients being generally satisfied by the quality of franchised services. | Five of the 12 included studies addressed quality of care and six addressed health outcomes. quality of care has been addressed through provider and client interviews and in one case through case notifications. |



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