I

Overview
WHAT INCENTIVES ARE EFFECTIVE IN IMPROVING DEPLOYMENT OF HEALTH WORKERS IN PRIMARY HEALTH CARE IN ASIA AND THE PACIFIC?1

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KEY MESSAGES

Improving access to primary health care is important for prevention, early detection, and management of health conditions and also contributes to more efficient utilization of resources in a health system. However, workforce shortages and high staff turnover rates can be a major barrier to the access to quality primary health care.

Health systems in Asian and Pacific countries are dominated by urban-based tertiary care facilities that are considered by consumers to offer superior quality services, and by health practitioners to represent higher status employment.

Experiences in both developed and developing countries suggest that personal factors (such as place of origin and location of training) are
important for health workforce recruitment, but workforce retention strategies need to pay attention to professional factors.

Individual financial and non-financial incentives can be effective in improving the deployment of health workers in primary health care in rural settings, and could be promising for urban primary health care, but these incentives need to be used in combination within the context of the local environment so that incentives specifically target individual and location-specific requirements.

Financial incentives for individuals tend to be more effective for recruitment than retention. Organizational incentives to improve the work environment and give better professional support to individual health workers are more important for workforce retention.

A strategy that seeks to combine the skill bases of highly trained health professionals, lower skilled health workers, and the informal sector (including regulating traditional healers) can improve access to primary health care and, in doing so, may assist with workforce retention as well.

Creating a workforce with adequate interest in and commitment to primary health care requires strategies to realign the curriculum and training locations of educational institutions.

Ultimately, the status of primary health care within a health system will be important in attracting and retaining high-quality health workers. Adopting a system where primary health care is the first point of contact and referral, including for financing purposes (that is, a “primary health care as gatekeeper” system) is likely to be effective in this regard.

Overall, individual, organizational, and system incentives should be applied. But workforce issues should be addressed concurrently with other building blocks of the health system.

In the short term, policies directed towards improving individual material and professional incentives are most likely to yield a quicker return. However, policies that focus on systemic changes, such as new service models and the place of primary care within the health system, are best placed to deliver sustainable workforce results.

**PURPOSE OF PAPER AND METHODOLOGY**

A major global health policy goal is the achievement of universal access to primary health care as a cost effective strategy integrating prevention, detection, and continuing care (Atun 2004; Starfield 2009). Policy measures
required to achieve universal access will entail minimizing financial barriers to access, ensuring appropriately skilled human resources for health care, promoting appropriate care-seeking behaviour, and maintaining a good standard of health services. This paper summarizes a policy brief that focuses on one of the health workforce policy challenges for achieving universal access to primary health care (World Health Organization 2007), specifically: What are the most effective incentives to improve deployment and retention of health workers in primary health care in Asia and the Pacific region?

The original longer policy brief synthesizes relevant literature concerning workforce incentives in primary health care in the Asia-Pacific region, and also draws from broader international literature where lessons may be relevant. Key databases were utilized, as well as grey literature from agencies such as the World Health Organization and World Bank. Evidence was derived from systematic reviews and high quality narrative reviews. However because of important contextual factors in the Asia-Pacific region, lower quality narrative reviews and single studies from this region were also considered important. Primary health care (PHC) is seen here as first-contact care for prevention, detection, and treatment in a community setting, and the primary health care workforce is seen as those engaged in this in the formal health sector.

The search revealed an abundance of literature globally, focusing on rural and remote settings, which are often PHC settings. However, there is very little literature on urban, underserved PHC settings for low- and middle-income countries, let alone the Asia-Pacific region in particular. While further research into the recruitment and retention in urban areas is clearly needed, this paper has drawn upon available literature about rural areas to the extent that they may be applicable, or at least hold lessons, for both urban and rural PHC.

CURRENT CHALLENGES TO WORKFORCE RECRUITMENT AND RETENTION

Health systems in Asia and the Pacific are diverse — some are predominantly public and others are largely private. Primary health care is variously provided by solo practitioners and large organizations, by well regulated general practitioners and mid-level practitioners, unregulated private providers, and traditional healers.
Despite diversity in health care financing and governance arrangements, most health systems in Asia and the Pacific are dominated by the tertiary care sector. Primary health care services in general tend to be seen as low quality and unattractive to consumers. The preference of consumers to self-treat or seek attention from private and non-allopathic providers, or turn to tertiary hospitals (Boupha et al. 2005; Soeters and Griffiths 2003; Nguyen et al. 2005) reflects users’ perception of the low status of primary health care services, and, by implication, the workers in those services. From a labour market perspective, the primary health care services segment is, in many countries, a less attractive employment option (The World Bank 2009).

While Asia has about 50 per cent of the world’s population, it only has 30 per cent of the global stock of doctors, nurses, and midwives (Joint Learning Initiative 2004), though the actual composition and challenges relating to the health workforce differ significantly from country to country across the region. Country data (World Health Organization 2006; World Health Organization 2009) suggest that the region has a lower worker density of doctors, nurses, and other health workers than any other region in the world, excluding sub-Saharan Africa.

In many disadvantaged communities in both rural and urban areas, primary health care workers are scarce (Lao Ministry of Health 2005; Nguyen et al. 2005), and the utilization of their services may be low as well. Despite policy measures to improve the availability and distribution of the health workforce to primary care facilities, health workers still prefer not to go to or stay in primary health care (especially in underserved areas) for a range of complex reasons. Henderson and Tulloch (2008) have suggested reasons for health workers in the Asia-Pacific (Fiji, Tonga, Samoa, Vietnam, Papua New Guinea, Cambodia, Thailand, Pakistan, India, Sri Lanka, Vanuatu) not wanting to stay with their employers (low retention) as including:

- Income: low salaries and the lack of adequate allowances;
- Working conditions: inadequate facilities, shortages of drugs/equipment, heavy workload, and difficulties with transportation;
- Professional support: inadequate clinical supervision, weak support and management, few opportunities for professional development, limited scope to upgrade qualifications, and mismatches in skills and tasks;
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- Career prospects: shortage of job prospects and lack of promotion prospects/career structure;
- Social amenities: inadequate living conditions, risk of violence/lack of safety, political instability, family members far away, and poor education prospects for children.

USE OF INCENTIVES — A POLICY FRAMEWORK

Countries have used a variety of incentives to try to alter workforce behaviour and address the reasons for workforce shortages in underserved areas (Dolea et al. 2010), usually in rural regions and not necessarily in primary health care settings. These incentives have focused on financial and material benefits, as well as non-financial assistance, such as safety concerns, professional gains, and psychosocial benefits. Table 1.1 summarizes the most common incentives reported in the literature. Studies globally have generally shown that individual benefits (such as pay and extras) are important for recruitment, but professional benefits (including relationships and opportunities) are more important for retention (Dambisya 2007; Henderson and Tulloch 2008; Lehmann et al. 2008; Willis-Shattuck et al. 2008; World Health Organization and Asia Pacific Action Alliance on Human Resources for Health 2009). However, what incentives work will vary considerably among various health service delivery contexts and models of care, within health systems, and between individual workers.

As seen in Table 1.1, incentives have been used to entice as well as coerce individual health workers to work in primary health care settings. Organizational incentives have also been applied to alter the work environment, and system incentives to alter the position, status, and nature of primary health care. Incentives are also used to increase performance and thus service quality, which may in turn have an indirect effect on both access to primary health care and workforce retention. Depending on the nature of the workforce shortage, different combinations of incentives will be required.

Given the complexity of factors which influence health worker behaviour, Ridoutt and Santos (2006) suggest that Maslow’s hierarchy of needs may be a useful framework — as seen in Table 1.2 — for pointing to the range of factors that influence health workers’ decisions and suggest policy issues that require attention in order to attract and keep health workers.
EVIDENCE FOR EFFECTIVENESS OF INCENTIVES

The most commonly used financial incentives in both developed and developing countries are incentives directed at individual workers. These can be financial and non-financial and include: (1) targeted scholarships (Bärnighausen and Bloom 2009; Sempowski 2004), (2) mandatory training and service requirements (which may be an indirect incentive insofar as exposing health workers to new experiences and environments) (Health and Human Resources Development Center 2007; Henderson and Tulloch 2008), and (3) higher salaries and other benefits (Health and Human Resources Development Center 2007; Christianson et al. 2009). These have all proved to be important in recruitment, but not sufficient for retention (Drager et al. 2006). For example, non-financial incentives —

<table>
<thead>
<tr>
<th>Incentives</th>
<th>Training/Recruitment</th>
<th>Retention</th>
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<tbody>
<tr>
<td>Financial — individual</td>
<td>Scholarship</td>
<td>Higher salaries</td>
</tr>
<tr>
<td></td>
<td>Mandatory service</td>
<td>Dual practice</td>
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<td></td>
<td>Higher salaries &amp; bonuses</td>
<td></td>
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<tr>
<td>Financial — organizational</td>
<td></td>
<td>Public-private partnerships</td>
</tr>
<tr>
<td>Non-financial — individual</td>
<td>Working conditions</td>
<td>Continuing professional development</td>
</tr>
<tr>
<td></td>
<td>Social amenities/services</td>
<td>Performance management</td>
</tr>
<tr>
<td>Non-financial — organizational</td>
<td></td>
<td>Social amenities/services</td>
</tr>
<tr>
<td>Non-financial — health system</td>
<td>Workforce substitution</td>
<td>Working conditions</td>
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<td></td>
<td>Localized training</td>
<td>Teamwork</td>
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<td>Clinical supervision</td>
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<td></td>
<td></td>
<td>Outreach services</td>
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<tr>
<td></td>
<td></td>
<td>Regional health services</td>
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<td></td>
<td></td>
<td>Primary care gatekeeping and specialization</td>
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*Source: Summarized from sources used in this review.*
such as improved living conditions, social networking, and opportunities for continuing education and professional development — are just as, or even more, important than financial incentives, in achieving retention (Henderson and Tulloch 2008; Lehmann et al. 2008). Some non-financial incentives can be directed at individuals (such as professional development support), but are also often applied through organizational and system reforms.

Table 1.3 provides an overview of the most common incentives adopted in Asia-Pacific Region countries that are directed at the individual.

It is at the organizational level that service quality and performance are linked to workforce motivation and possible retention. Promising incentives or strategies include: (1) creating a positive work environment through improved teamwork and clinical support, better leadership and management style, performance management systems, continuing education, career development, and the provision of social amenities and services (Dieleman et al. 2009; Henderson and Tulloch 2008; Human Capital
(1) reorienting primary health care as a specialization and as the “gatekeeper”\(^4\) thus improving its status (Pagaiya and Noree 2009; Asian Development Bank 2008); (2) new system service models, such as regionalized networks that provide for career pathways; (3) developing a system of mid-level practitioners who are up-skilled to carry out some of the key tasks of high-level professionals who are difficult to recruit and
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retain (Pashen et al. 2007); (4) addressing labour market issues, including the location, recruitment, and training/socialization strategies of health care training institutions (Brooks et al. 2002; Henry et al. 2009; Laven and Wilkinson 2003; Rabinowitz et al. 2008), and using strategies that make the most of workers who are already there or are more willing to work in underserved areas (Chopra et al. 2008). For example, upskilling existing health workers (Araoyinbo and Bateganya 2008; Beney et al. 2000; Laurant et al. 2005), or training lay health workers (Haines et al. 2007; Hongoro and McPake 2004; Lewin et al. 2010); and (5) integrating informal, private, and traditional providers into the formal health system (Sharma 2001; World Health Organization 2004). Reforms of financing and payment mechanisms (such as health insurance, contracting and other public-private partnerships, and payment for performance) are less likely to have direct impacts unless they result in primary health care being the gatekeeper and user fees are removed.

It is likely that a package of policy interventions is needed, rather than the adoption of singular approaches. The key interventions that may be of value are: developing the primary care gatekeeping role, providing competitive remuneration, developing positive work environments that offer autonomy but also strengthen teamwork opportunities, supporting small teams or solo practitioners with professional development, improving workplace infrastructure, and supporting a commitment to quality of care.

ASSESSING AND CHOOSING POLICY OPTIONS

Following a review of the evidence, the authors derive conclusions about the best ways to assess and choose policy options:

The choice of policy interventions for recruiting and retaining health workers in primary health care facilities will depend on consideration of available evidence as well as whether they can be adapted to local contexts. The key criteria for choosing policy options should include:

• How likely they (the options) are to make a difference to workforce deployment;
• Whether they will improve access (and equity of access) for appropriate disadvantaged groups (including those determined by age, gender, or ethnicity) to primary health care;
• Whether the cost is reasonable for the expected return;
• Whether they are implementable.

Policies that aim to provide the best incentives for the health worker (supply side) should be linked with policies that can increase access (demand side) to the appropriate quantity and quality of primary health care because incentives for the health workforce are only one element of a comprehensive strategy to build a high-performing primary health care system. Incentives for health workers complement such strategies as: (1) removing or minimizing financial barriers to access to primary health care (e.g. reducing out-of-pocket cost, especially for those who do not have the ability to pay); (2) improving service delivery and providing innovative service models that are responsive to community needs; (3) having legislative frameworks to regulate provider behaviour so as to engender trust in health care institutions and health workers; and (4) enhancing health literacy and the community’s ability to use health resources well.

Incentives for the health workforce at whatever level can be initiated at any point, from local service management to countrywide programmes. However, workforce incentives need to be addressed alongside other policy measures to strengthen the primary health care system. The mix of incentives depends on the health system and organizational contexts. Furthermore, the degree to which the quality of health workers and health care services is deemed important by the community depends on the level of economic development. Despite these complexities, some indicative policy interventions for both recruitment and retention could be adopted according to health system contexts and practice settings, as shown in Table 1.4.

Overall, a carefully focused package of financial and non-financial incentives needs to be devised on the basis of local context, organizational structure, institutional capacity, culture, and wider social values and expectations. Such a package must take into account the ease of implementation and monitoring, the cost and time frame for the package to take effect, and the sustainability of the package.

Over time the policy measures adopted will need to evolve as the character of the health system changes. For example, Table 1.5 displays how policy measures evolve with increasing country development, changing population distribution, and the resultant changing characteristics of the health service.
For most low- and middle-income countries, a likely pathway of phased interventions would be:

- In the short term, a focus on individual material and professional benefits, including targeted scholarships, mandatory training and service, better pay and working conditions and better clinical support, would appear to be the most beneficial.
- In the longer term, a focus on changing the status of primary care and professional rewards for working in primary care is appropriate. Possible measures include: (1) reorienting primary health care as the “gatekeeper”; (2) multidisciplinary teams and new service models; (3) addressing the location; recruitment, and training strategies of undergraduate training institutions; and (4) developing a system of workforce substitution.

**TABLE 1.4**

**Policy Interventions in Context**

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<thead>
<tr>
<th>Practice Setting</th>
<th>Labour Market Context</th>
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<tbody>
<tr>
<td></td>
<td>Workforce shortage</td>
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<tr>
<td>Solo practice</td>
<td>Better pay and other amenities</td>
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<td></td>
<td>Clinical support</td>
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<td></td>
<td>Continuous professional development</td>
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<td></td>
<td>Workforce substitution</td>
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<tr>
<td>Health centre</td>
<td>Outreach services</td>
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<tr>
<td></td>
<td>Visiting specialists</td>
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<tr>
<td></td>
<td>Higher salaries and better conditions</td>
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<td></td>
<td>Workforce substitution</td>
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*Source: Authors’ conclusions based on literature review.*
### TABLE 1.5
Evolving Policy Measures According to Country Context

<table>
<thead>
<tr>
<th>Country context</th>
<th>Characteristics of health service</th>
<th>Possible policy measures</th>
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<tbody>
<tr>
<td>Low income, high proportion of population in rural areas</td>
<td>Limited facilities, low utilization of primary health care services, strong belief in traditional health care, brain drain of more skilled health workers to other countries</td>
<td>System/labour market: primary care workers' substitution for doctors and other skilled workers, local training and placement in rural areas; Individual: mandatory service in public health facilities and in underserved areas; rural allowances</td>
</tr>
<tr>
<td>Medium income, high proportion of population in rural areas</td>
<td>Need to expand rural primary health care, growing consumer desire for quality services, some high standard tertiary care facilities in urban areas</td>
<td>System/labour market: increased production of doctors, nurses, primary care workers; Individual: specialist training for career progression, but linked to rural service, social network to support doctors; Organizational: improve infrastructure and equipment in primary health care services</td>
</tr>
<tr>
<td>Medium income, moderate proportion of population in rural areas</td>
<td>Well developed urban-based tertiary care facilities, emerging private sector services, competition between public and private sectors for labour, growing consumer preference for quality Western medicine</td>
<td>Organizational: improve infrastructure and equipment in public sector; Individual: career advancement measures for rural doctors, financial incentives for public sector practice and rural hardship; System/labour market: local recruitment/training/placement, increased production of primary care workers and nurses</td>
</tr>
<tr>
<td>High income, low proportion of population in rural areas</td>
<td>Universal coverage provided, but increased concern about quality</td>
<td>Individual: special allowances for doctors, dentists, pharmacists, and nurses; System/labour market: local recruitment/training/placement; System: primary care as gatekeeper</td>
</tr>
</tbody>
</table>

Source: Adapted from Pagaiya & Norree (2009).
Notes

1. This draft policy brief was commissioned by WHO and its Western Pacific Region and has been supported technically and financially by the Asian Development Bank and the World Bank. These three agencies are working together to establish an Asia Pacific Observatory on Health Systems and Policies, which will publish a full version of this brief once the review is finalized.

2. There is good evidence for rural areas, but a scarcity of evidence for underserved urban primary health care settings. More research is needed into recruitment and retention in underserved urban primary health care settings.

3. There is strong evidence for institutions and training in rural areas. Their location in poorer urban areas has not been adequately researched.

4. A gatekeeper role means that primary health care is known as the first point of contact, and may be financed to do so, and therefore manages referrals to higher levels as appropriate.

References


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