

DFID Health Partnership Scheme (2010 -2015); Economic Appraisal

Summary and recommendation

The capacity and size of the health workforce in low-income countries is one of the critical bottlenecks to achieving the health-related MDGs. International links aim to build capacity in low-income countries. By working in the countries themselves, they can lead to change that is embedded in the local situation and hence tends to be sustainable. There is good information about what makes an international link effective. The HPS is designed so that a managing agent can ensure that this knowledge about good practice is applied. This expertise should enhance the benefits already produced by the goodwill of health personnel in the UK and partner countries.

Evidence about the effectiveness of international links is largely qualitative. Nevertheless, some programmes have shown excellent value for money – for example the Health Systems Strengthening Programme in Somaliland has been instrumental in achieving the graduation of the first nationally trained doctors in Somaliland; a 30% increase in the number of doctors in the health system; and the graduation of 26 nurse tutors trained in teaching, clinical and leadership skills.

It is recommended that the HPS is funded over 4 years to a total indicative amount of £20 million.

1. Rationale for intervention

The Global Health Workforce Alliance describes the global health workforce crisis as follows:

“WHO's *World Health Report 2006* estimated that there are over 59 million health workers globally and that the world needs 4.3 million more to bridge the gap. This means 2.5 million doctors, nurses, midwives, and other health professionals, as well as 1.8 million management and support staff. **But the crisis is not just about numbers** - bridging the gap entails raising political commitment towards action on the issue, improving education and training, reforms in management and the tackling of issues of migration and retention of health workers issues of migration as well as increased financing.”¹

The crisis is most severe in sub-Saharan Africa where 3% of the world's health workers struggle to combat 24% of the global disease burden².

The Alliance has identified a number of obstacles to retaining and motivating health workers in low-income countries. These include:³

- Failure to update health workers' skills and knowledge
- Poor management and lack of regular, supportive supervision

¹ <http://www.who.int/workforcealliance/media/qa/02/en/index.html>. All references accessed October 2010.

² http://www.who.int/workforcealliance/knowledge/resources/hwai_advocacytoolkit/en/index.html

³ IBID

- Lack of key skills such as human resource management, financial management, and program management
- Unfavourable policies that restrict nurses and mid-level workers from assuming greater responsibility
- Inadequate support for community-level health workers and caregivers
- Inadequate participation by stakeholders on policy issues that impact health.

The MDG Summit in New York in September 2010 included discussions about the health workforce crisis. The clear and critical link between the health workforce and health MDGs 4, 5 and 6 was stressed, citing a strong correlation between the availability of health workers, coverage of health services and health outcomes.⁴

The DFID Health Partnership Scheme (HPS) would provide support to existing health workers and their trainers in a variety of ways relevant to the obstacles described above. The rationale for DFID devoting resources to the HPS is based on:

- Recognition of the importance of a skilled and motivated health workforce for achievement of the health-related MDGs.
- Recognition that international partnerships can contribute to increasing the skills and motivation of health workers in relation to both clinical work and management. Partnerships with health training institutions can also affect the *numbers* of health workers.
- Recognition that a managed Partnership can add value by putting into practice what is known about making links effective.

2. Options considered for tackling the problem

In 2008, a detailed assessment of possible different models/mechanisms for establishing and operating UK/International health links was carried out.⁵ The starting point for the work was that a centre would be established which would be independent of, and external to, the UK government. The centre would work as a challenge fund providing support for establishing, developing and sustaining health links with developing country partners.

More than 20 different entities were considered as part of the exercise, ranging from charities such as Sister Cities International to parastatals such as Belgian Technical Co-operation. Entities included national and international charities, non-government organisations, parastatals, private companies, government agencies and community groups. The exercise was not limited to the health sector to ensure that experiences from other sectors were captured, and that other models of facilitating links informed the review.

From the long-list of entities, eleven were selected for detailed consideration on the basis that either they had substantial involvement in links already, or that they demonstrated a potential alternative model.

The assessment specified that any organisation managing links would need the capacity to:

⁴ <http://www.who.int/workforcealliance/media/news/2010/mdg2010statement/en/index.html>

⁵ DFID Health Resource Centre, 2008, James J et al. *Evaluation of links between North and South Healthcare Organisations*.

- respond to the priorities of DFID and the Department of Health and manage the resources of the Links Centre and the Health Links Scheme to deliver their strategic objectives effectively
- deliver these objectives whilst operating independently of government and deliver the highest standards of corporate governance and accountability
- fulfil the role of the Links Centre set out in the response to the Crisp report and, ideally have the potential to deliver the four additional roles listed in the response; and, ideally
- have the capacity to broaden any health links so they support initiatives or links in other sectors.

Based on these required capacities and the analysis of 11 examples, the option appraisal identified two broad types of possible mechanism:

- A managed model with focused initiatives exerting leverage through financial incentives to ensure that activities are harmonized, complementary, in line with good governance, evidence based and cost effective. This is likely to result in less local ownership and less local financial support through fund raising. It may also mean that initiatives are supply side driven.
- A facilitation and support model which encourages good practice through guidelines and peer pressure which accepts that there are trade-offs between encouraging and supporting enthusiastic (but occasionally less well focused) initiatives which generate additional resources but not having leverage to ensure that the best practice is always followed. This model allows (but does not ensure) demand driven initiatives.

The option described in this project memorandum is essentially a hybrid of the two types of mechanism – but with more “managed model” elements. However the design is also mindful of the risks identified in the option appraisal – particularly the risk of undermining low-income country ownership of links.

The need for elements of the managed model is based on the appraisal's conclusion that a number of key elements are necessary if links are to be successful. (See Box 1.) In practice these elements mean that the managed model has an important role to play in developing effective links.

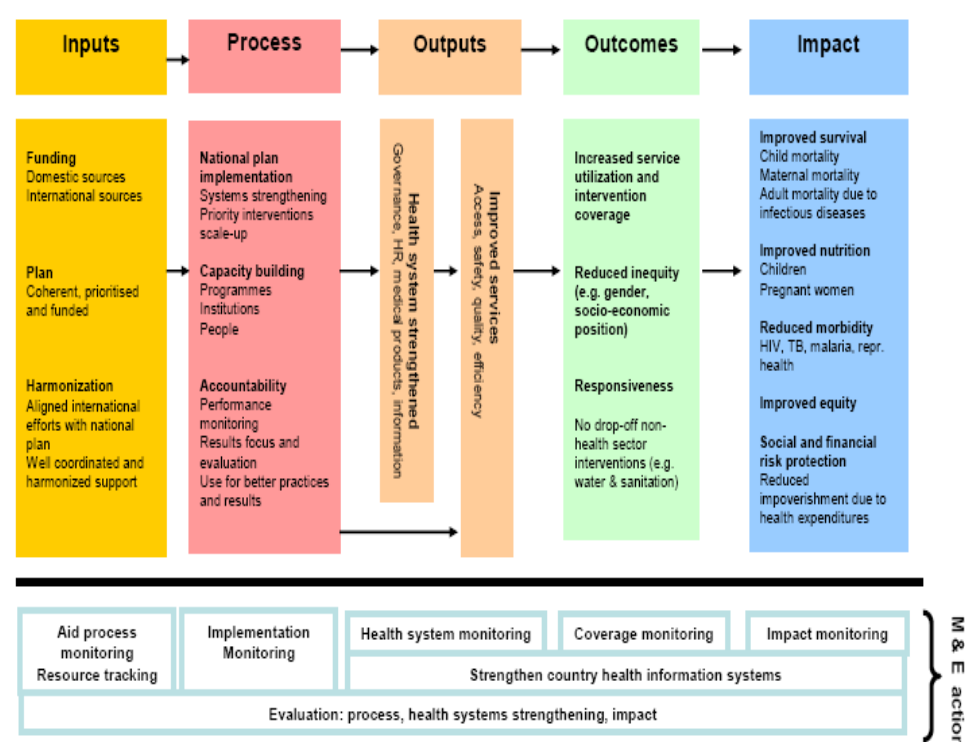
Box 1 Recommendations: key elements for ensuring successful links

- Relationship built on friendship, shared values, long-term commitment; “adult: adult” relationship.
- Link conforms with principles of good governance.
- Forum to ensure southern partners determine and drive the nature of the support provided.
- Flexible, iterative approach to developing support.
- Support based, where possible, on existing structures, mechanisms and technical resources.
- Principal focus on capacity building: longer-term visits or attachments by senior staff provide the greatest benefit.
- Minimise transaction costs both locally and nationally by reducing multiple “one off” visits.
- Ensure support based on nationally agreed health packages, policies and protocols and conforms with agreed local curricula.

- Support aligned with regional and national health policy and strategy.
- All support incorporated into institution/ district annual plans.
- Ensure provision of equipment and furniture is demand-led and conforms with guidelines outlined.
- Where possible ensure mechanisms to monitor and evaluate the support given using national data sets (not parallel systems).
- Lessons learned disseminated to other links partners, and to a wider audience.

1. Intervention logic and evidence

Diagram 1 shows the widely-used conceptual framework of the hoped-for logical progression from inputs to impact in health.



HPS would operate largely at the “process” level in countries, mostly through developing individual and institutional capacities to provide better services and make better management decisions. This would then improve outcomes and – ultimately – health impact. For example:

- a midwife learns some new strategies to increase uptake of post-natal care (*process*) → more mothers use post-natal care (*outcome*) → improved health for mothers and babies (*impact*)

- the importance of adherence to clinical protocols is reinforced to a district health team (*process*) → supportive supervision (*output*) ensures that more malaria cases are treated effectively (*outcome*) → decrease in mortality from malaria (*impact*).

In practice, linkages to outcome and impact indicators are difficult to establish. The *Evaluation of links between North and South Healthcare Organisations* concluded:

“Links are essentially modest, low-cost interventions, focusing principally on capacity building. Hence, in the short-term it is unrealistic to anticipate any demonstrable improvement in health indicators (MDGs, etc). **Process, not impact, indicators are more appropriate.**” (page 7)

Empirical work tends to provide numbers at the process level, but then to become more qualitative at the output, outcome and impact levels. There is also a problem with *attribution* as good partnerships are only part of a bigger picture. Three “evaluations” of Partnerships are given here as examples.

I. The Health Systems Strengthening Programme in Somaliland (DFID-funded, part of Kings THET Somaliland Partnership) focused on formal training of medical and nursing students, as well as support to professional and regulatory bodies. Achievements included:

- Graduation of the first nationally trained doctors in Somaliland (5 fully completed, 30 interns ‘in the system’.)
- Five hospitals benefiting from the presence of medical interns
- Number of doctors in the health system in Somaliland increased by a third, with 24-hour coverage on selected wards in two hospitals. Initial evidence suggested a marked increase in admissions to wards attended by interns.
- Graduation of 26 nurse tutors trained in teaching, clinical and leadership skills.
- Performance based salary support to key nurse tutors.
- Development of the first standardised curriculum for a Basic Nursing Diploma.
- Somaliland Medical Association and the Somaliland Nursing and Midwifery Association developed plans; increased membership; established regional sub-chapters and facilitated Continuous Professional Development.
- The presence of interns and nursing students at Maternal and Child Health Posts led to increased attendance, plus more and earlier referrals to hospitals

II. An article from the British Medical journal about a **UK/Tanzania link** illustrates the issues about quantification and attribution⁶:

“Changes in Muheza have included better use of partograms in midwifery and increased use of, and lower mortality in, the special care baby unit. Paediatric anaesthesia and post-operative care have improved tremendously. Management of the operating theatres and repair of equipment have improved, and the casualty facilities have been restructured. There are now more counselling skills for AIDS patients and terminally ill patients. Engineers, a plumber, and a qualified electrician from Hereford (who is also a chaplain) have repaired equipment and encouraged local staff to undertake their own repairs and maintenance. While some of these changes could undoubtedly have happened without the link, we believe that the visits have led to new ideas and a willingness and confidence to consider change.”

⁶ Wood JB et al (1994), *Hands across the equator: the Hereford-Muheza link eight years on*. BMJ 308: 1029

III. In 2009, there was an end-of-programme evaluation of *Developing Global Health Link Partnerships to improve Health Capacity in Developing Countries*⁷. The evaluation concluded “Achievements towards health targets are not easily or automatically attributable to Links.” However the evaluation did cite many “qualitative” examples of improved outputs or outcomes:

- “In many cases, training programmes have meant that hospitals are staffed with more technically and professionally competent staff, who have been able to take on roles hitherto denied. The trained individuals have added status, power to influence policy and practice, and enhanced their position socially, economically and politically as well as professionally beyond the planned impact expectations.”
- “There are a number of instances where work in difficult and sometimes dangerous environments have also shown outstanding successes attributed at least in part to the presence of Links. It would be valid to state that many have either a direct or indirect bearing on contributing towards achieving the MDGs, particularly in reducing child mortality; improving maternal health and combating many prevalent diseases.”
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- “As a result of THET co-ordination and dissemination of information, changes have been made to the way services are designed and delivered in response to locally determined needs. Reported impacts include changes in clinical practice, technical ability, and management and administrative systems. Improved staff morale is also evident although not independently verified. It is also apparent that new and expanded services have been delivered and services strengthened.”
- “The focus on improved clinical practice, systems and procedures has led to new ways of doing things and more effective use of limited resources. For example, the introduction of laparoscopy services in Tanzania has resulted in a reduction in the number of days patients stay in hospital – making service provision cheaper.”
- “At an individual level Links partnerships have engaged with poorer communities. For example, in Sierra Leone, discussions with communities indicated that activities carried out by the Link groups had been successful because community priorities and views on priority setting were listened to.”
- “Many Links have helped raise awareness of rights, often raising the profile of specific health conditions and neglected groups. For example, the work of the Kintampo-North Hampshire Link has raised the profile of mental health in Ghana. Links partners have been able to put the rights of people with mental health needs on the government agenda.”

In short, evidence suggests that partnerships can lead to improvements in outputs and outcomes. However quantification of these effects is extremely limited and attribution is a challenge.

2. Incremental costs

The table below shows the annual indicative costs for HPS. (Assumed duration of 4 years.)

Strand of Activity	Annual Indicative Amount
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⁷ By John Cunningham, Development Alternatives

	(x 4 years)
Multi-Country partnerships	Up to £3m (60%)
Long-term volunteering	
Paired institutions	Up to £1.5 (30%)
HealthBay	Up to £0.25 (5%)
Monitoring and Evaluation	Up to £0.25 (5%)
Total	£5.0m £20.0 m over 4 years

The budget reflects the lessons learnt about effective partnerships. For example:

- Multi-country partnerships (which allow south-south learning) and long-term links are particularly effective
- Good monitoring is crucial if the links are to have the desired results, particularly in terms of benefiting poor people.

It is difficult to quantify the further costs of the HPS, namely those which fall on to the Department of Health (DH), partly because it is not clear what form the partnerships will take. The scheme is dependent upon the altruism of UK health professionals giving their time, and therefore incurs costs for the NHS organisation.

The overriding incremental cost is clinical backfill. Cover for the volunteer will need to be paid for by the NHS employer, especially if the recommendations for longer periods of time overseas (six months or more) are implemented. This will be particularly challenging in specialities where there is an existing shortage of qualified and experienced staff, such as midwifery⁸. Pension contributions are currently supported for overseas volunteering until 2011, and the assumption is this support will continue. Nevertheless, NHS employers may find the scheme difficult to justify financially and/or politically.

Another cost for which responsibility needs to be specified is insurance for travel and professional indemnity. NHS staff tend to be covered under their employers insurance, not as individuals.

The HPS will amass experience about how different NHS employers deal with clinical backfill and insurance. It will be able to offer advice to employers and individuals – a more efficient process than each case being dealt with in isolation.

3. Incremental benefits

⁸ Spiralling births leads to midwife shortage in Nursing Times: 15 January 2010.
<http://www.nursingtimes.net/nursing-practice-clinical-research/clinical-subjects/midwifery/spiralling-births-leads-to-midwife-shortage/5010416.article>

The difficulties of measuring benefits were discussed in Section 2, above. Following an extensive review, the 2008 *Evaluation of links between North and South Healthcare Organisations* found:

“There was considerable variation in the effectiveness of links. Whilst there were a number of successful links, benefiting and valued by both southern and northern partners, there were also some that had failed to make significant impact and others which had expended considerable resources but not yet got off the ground.” (page 7)

The evaluation concluded that it made sense to continue to fund Partnerships, as long as the lessons learnt about ensuring successful links were implemented. (The lessons are summarised in Box 1, above.) **The design of HPS is a response to these lessons.** Partnerships which are well-designed and well-managed are much more likely to bring about the desired consequences in terms of health outcomes, impact and equity.

4. Balance of costs and benefits

The proposed scheme is £5 million per year for four years.

The average annual health spend in low income countries is currently \$25 per person (about £15). So £5 million would provide about 330,100 people with existing standards of health care.

Looked at another way, the £5 million would fund salaries for 1,440 midwives in Ghana for a year⁹.

The argument for supporting Partnerships is that strengthening workforce capacity can have multiplier effects. This works for both costs and benefits. If a clinician in a leadership role changes her clinical practice, then this affects not only her patients, but also the many other clinicians whom she teaches or otherwise influences. Partnerships are based largely on goodwill, and there is a tendency for much time and effort to be spent free of charge.

5. Risk and uncertainty

Section 4 of the Project Memorandum identifies risks, assesses their impact and probability and describes mitigation strategies. The project is rated as low risk.

Much is known about how to make international links effective – and how to avoid ineffective links. (See, for example, Box 1 above.) The point of having a managing agent is to implement these lessons and thus improve the chances of successful links. An example is the extra effort needed to ensure that a link is pro-poor. This involves asking additional questions, such as: will the impact reach rural or slum areas? Will the benefits be seen in primary care facilities which offer no-fee services? Addressing these issues should lead to more cost-effective links.

From an economic perspective, another risk is a limited supply of NHS workers who are able and willing to participate. It is known that having a few people spend longer in a country is more effective than many short, one-off contacts. There is, of course, a risk that UK

⁹ Salaries and incomes of health workers in sub-Saharan Africa by McCoy et al in 2008 (http://www.who.int/alliance-hpsr/researchsynthesis/AllianceHPSR_SalariesIncomeHealthWorkersSSA.pdf)

employers will not support long-term volunteering. As described in Section 4 of the main appraisal, this risk is tackled by supporting NHS Trusts, paying pension contributions to staff for time overseas, and exploring accreditation options. If there is still a shortage, the scheme will under-spend. A review of disbursement at the end of year 2, for example, could assess spending and decide whether there is a good case to continue with the budget of £5 million per year.

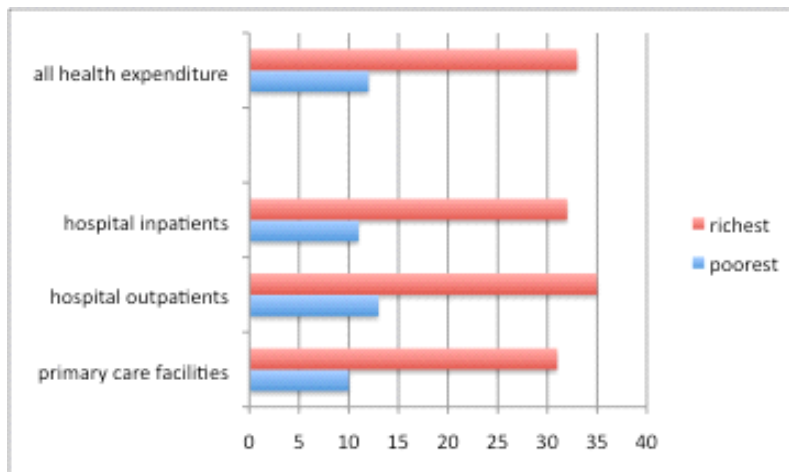
6. Incidence of costs and benefits

Figure 1 below shows the benefit-incidence of public health spending in Ghana.¹⁰ This clearly illustrates that an effort needs to be made to ensure that the benefits of international links reach the poorest – just “helping a hospital” is not enough. This issue is explicitly tackled in the main Project Memorandum (paragraph 2.1.4):

“The HPS will focus on those in most need. This means focusing on thematic priorities – Maternal, Newborn, and Child Health (MNCH), and Malaria – and on geographical areas – defined as DFID priority countries, in particular rural areas where health infrastructure is weakest. The multi-country partnerships strand of work will be restricted to these priorities initially.”

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Figure 1 Benefit-incidence of public health spending, Ghana



The other incidence issue of concern is that much of the spending will in the UK, or for NHS employees. This is justifiable if the money is used to mobilise resources in an efficient way – and the rationale for the HPS is that it uses DFID money to make the best possible use of NHS volunteers who will contribute to building the capacity of the health workforce in low-income countries.

9. Sustainability

¹⁰ “What is the private health sector and what should we do about it?” Presentation by Roger England, HLSP Technical Forum, September 2010.

The *Evaluation of links between North and South Healthcare Organisations*¹¹ looked in detail at the issue of sustainability and concluded:

- Sustainability appeared to be a strength of many of the links mechanisms.
- The role of northern partners was to build capacity. The ensuing improvements in service delivery - in almost all cases – resulted from activities by the southern, and not northern, partners; sustainability should be maintained.

Sustainability was good largely because the changes took place *in situ* and often without additional non-personnel resources – in other words the change was appropriately *embedded*.

The evaluators did find one crucial factor linked to sustainability – **continuity of key personnel**. (Successors were less likely to bring the same level of commitment to the link.) Of course such continuity – in both north and south - can never be guaranteed. However the managing agent of the HPS can make sure that partners are aware of the importance of continuity from the outset.

Financial sustainability is not a major issue – each link knows from the start that it is time-limited. Links should be for as long as possible given the available resources – it is known that longer-term links tend to be more effective.

10. Attribution to DFID and DH NHS

The attribution of impacts as a result of the partnerships can be based on the proportion of funding provided by DFID. Obviously, this will be dependent upon the number and scale of links and partnerships developed and continued over the next four years.

The attribution of impacts to the NHS can similarly be based on the proportion of funding - through pension contributions, clinical backfill as well as direct support to the project in terms of providing expertise.

¹¹ Op. cit. page 40.