

# Investing UK Aid in a Global Skills Partnership: Better Health at Home and Abroad

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## Abstract

There is a global shortage of health workers. Demand for nurses outstrips supply as systemic underinvestment in training meets ballooning needs due to aging in rich countries and population growth in poor ones. A Global Skills Partnership combines training funded by donors with pre-agreed arrangements for qualified graduates to work temporarily overseas, usually in the donor country. This paper shows through one hypothetical example how a GSP for a specific sector (nursing) financed by a specific donor (the UK) delivering training in a specific country (Malawi) addresses

critical nursing shortages in both countries. The Partnership would help the NHS meet urgent needs in the UK. It would increase the number of health workers to fill vacancies in Malawi, so it will not cause ‘brain drain.’ And it would dramatically raise nurses’ incomes and augment their skills, boosting both Malawi’s economy and the quality of its healthcare. A conservative benefit-cost calculation shows the scheme would provide very large financial benefits and represents extremely competitive value for money for UK Aid.

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## Contents

Invest UK aid to train nurses in Malawi who can work temporarily in the UK.....	1
Problem: A global health workforce shortage .....	1
The supply and demand of nurses in the UK and Malawi .....	3
United Kingdom .....	3
Malawi.....	5
A Global Skills Partnership to match supply and demand.....	6
It's worth it: A GSP creates very large overall benefits.....	8
Cost-benefit outcomes are positive.....	11
Capturing the benefits: Design options for a successful GSP .....	12
Avoiding brain drain: Aligning the GSP with the WHO's Global Code of Practice.....	13
Beyond brain drain: Answering other challenges .....	14
Next steps.....	19
References .....	20
Appendix—Details on costs and benefits.....	23
Estimating costs and benefits .....	23
Detailed costs and sources .....	24

## **Invest UK aid to train nurses in Malawi who can work temporarily in the UK**

The United Kingdom and countries supported by British aid face distinct but similar challenges: a large, growing shortage in the number of health workers. This paper sets out how the UK can use its impressive aid budget to train people overseas and create a temporary labour corridor to allow them to contribute to the UK's economy. The combination of training and temporary access delivers a triple dividend of:

- training more health professionals (and so delivering better health outcomes) overseas
- addressing critical shortages of qualified nursing staff in the UK
- leveraging British aid to deliver dramatic increases in educational outcomes and lifetime incomes

The key to delivering this trifecta is a policy framework that marries temporary labour mobility to investments in skill creation. A Global Skills Partnership (GSP) combines donor-financed training with pre-agreed arrangements for qualified graduates to temporarily work overseas, usually in the donor country. Any number of sending and receiving countries could set up a GSP for many types of skills.

This paper sets out a practical example of a GSP for a specific sector (nursing), for a specific donor (the UK), and with training provided in a specific country (Malawi) to create shared value by addressing critical nursing shortages in both countries. Malawi is used as an example for illustrative purposes, but the same case could be made for other low-income countries, including, for example, Uganda and Tanzania.

This is a proposal. It does not reflect a planned programme, nor engagement with key stakeholders—like nurses' unions, political leaders, line ministries, boards of education, or regulatory bodies—in either country. We recognise that any proposal for planned migration of skilled individuals may face intense political scrutiny, particularly in the UK. Nevertheless, our analysis confirms that implementing such a partnership will create large benefits for both countries, deliver remarkable value for money for UK aid, and improve staffing levels and health outcomes in Malawi.

### **Problem: A global health workforce shortage**

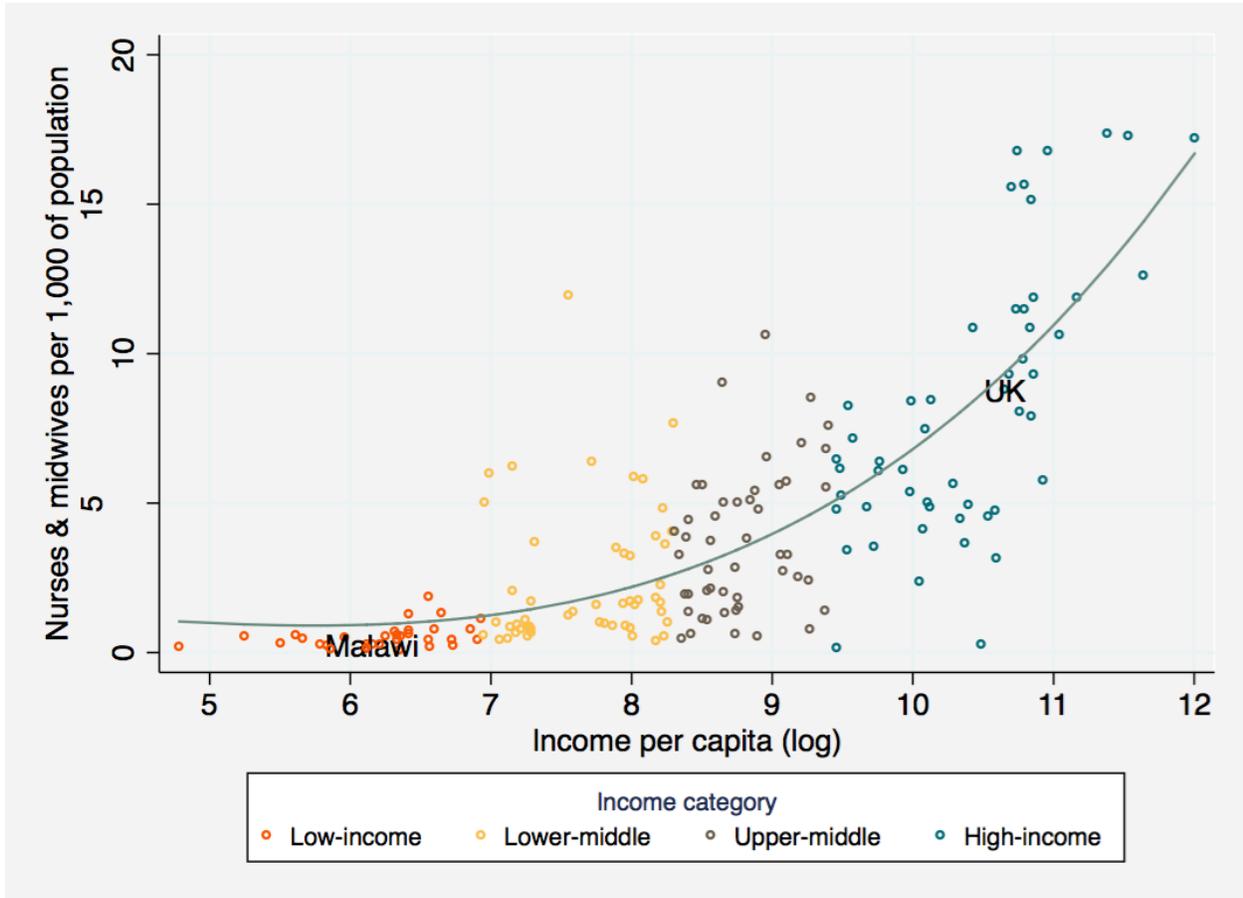
We face a global health workforce shortage. The gap between the number of workers needed to deliver good care and the number available is predicted to reach 13 million workers by 2035 (WHO, 2013). Global supply is shrinking, with staff retiring or leaving some countries for better paid jobs overseas and not enough young people entering healthcare professions. At the same time, demand is growing due to population growth in some countries and aging populations (with more complex healthcare needs) in others.

Motivated by this burgeoning mismatch in supply and demand—and its effects on health outcomes in lower-income countries—the World Health Organization’s (WHO) Global Strategy on Human Resources for Health (HRH) programme focuses on attaining and maintaining the staffing levels needed for universal health coverage.

Nursing care is a key element of the solution. Nurses provide critical care at lower cost than doctors and specialists. Yet nurses are in short supply in both high-income and lower-income countries. Unsurprisingly, perhaps, sub-Saharan Africa faces the greatest shortages, partly due to low investment in training of new nursing talent.

The reported ratios of nurses to population at the country level range from less than 10 nurses per 100,000 in countries such as the Central African Republic, Liberia, and Uganda to more than 1,000 per 100,000 in Norway and Finland (Buchan and Calman, 2005). And even many of the wealthiest countries report shortages, including Australia, Canada, the United Kingdom, and the United States. The key point is that both rich and lower-income countries face the same challenge, albeit at different levels: how to increase the number of qualified professionals in their health services.

**Nursing cover and income: same problem, different levels**



*Notes: most recent observations of income per capita and nurses and midwives per 1,000 of population from World Bank (2016), series NY.GDP.PCAP.CD and SH.MED.NUMW.P3. Fitted values from a fractional polynomial regression. Analysis by CGD.*

This is not a new problem. More than a decade ago, the *World Health Report* concluded that “the most critical issue facing health care systems is the shortage of people who make them work.” Nor is the problem getting better. Training capacity remains low in developing countries and four in ten nurses in wealthy countries are expected to leave health employment in the next decade (WHO, 2013).

## **The supply and demand of nurses in the UK and Malawi**

The UK’s Gross National Income (GNI) per capita is greater than \$43,000. That is more than 100 times Malawi’s GNI (World Bank, 2015). But these dramatically different economies face analogous challenges in training, recruiting, and retaining enough nursing talent. This paper focuses on the UK and Malawi to demonstrate how a Global Skills Partnership could work to everyone’s benefit; the approach and shared benefits would apply to many other pairs of richer countries and lower-income countries.

In the UK, the demographic pressures of an aging population are driving up demand for nurses, while lower enrolment in nurse training courses and pressures to reduce inward migration of foreign nurses reduce their supply. Malawi faces analogous pressures of a young, fast-growing population with high rates of HIV combined with limited nurse training capacity and high emigration. We set these out in detail below.

### **United Kingdom**

#### **Increasing demand**

*Demographics:* The UK population is aging. By 2034, nearly every fourth person in the country will be over 65 (Office of National Statistics, 2016). That means a slow-moving but unavoidable rise in the need for healthcare services, especially for non-communicable and chronic disease like cancer, dementia, and heart disease. If demand rises without an increase in supply, then either staff shortages will increase or wages will have to rise, or both. The UK’s demographic transition therefore poses a long-run fiscal challenge for the National Health Service (NHS). It makes good policy sense to increase the supply of skilled medical professionals in a cost-effective way.

#### **Constrained supply**

*Low training rates for UK nurses:* There are about eight nurses per 1,000 people in Britain, behind most other European countries and the OECD average of nine (OECD, 2015). A recent stocktake of NHS England nursing supply showed that there were 21,000–27,000 unfilled full-time positions in 2015, equivalent to one in ten NHS nursing posts (Health Education England, 2015; NHS Employers, 2015). The number of places on nurse training courses in the UK was reduced in the

1990s, and the NHS has struggled to maintain target levels of nurse staffing ever since (Centre for Workforce Intelligence, 2013).

*Nurses emigration:* UK-trained nurses have also been attracted to employment abroad, resulting in a net outflow of nurses since the mid-2000s. A comparison of the number of applications to the Nursing and Midwifery Council from English nurses applying to work outside the European Economic Area (EEA) and foreign nurses applying to work in the UK indicates a net outflow of more than 2,500 nurses leaving England each year (Centre for Workforce Intelligence, 2013). In estimating projections of nursing staff levels, the Centre for Workforce Intelligence<sup>1</sup> estimated in 2013 that there would be a net loss of nurses leaving England for the foreseeable future for both “high” and “low” staffing scenarios.

*Foreign recruitment restrictions:* Foreign workers have historically been recruited to fill the nursing gap in the UK, with a peak inflow in the early 2000s (Centre for Workforce Intelligence, 2013). But immigration regulations have become much stricter since then. It is relatively difficult to enlist foreign nurses, and political pressures to reduce net migration have recently tightened the rules for recruiting nurses from outside the EEA even more.

New hurdles were introduced in 2016, like increasing the minimum salary requirement for non-UK recruits and adding a £1,000 fee for every year of an international health worker’s visa. Nursing is on the UK’s Shortage Occupation List (Home Office, 2016), but recruiting non-EEA workers requires a Resident Labour Market Test to prove that the skills cannot be sourced locally—even though these skills are in short supply by the government’s own definition. The government recommends limiting visas to only 5,000 non-EEA nurses for 2016, with stricter limits in coming years (Migration Advisory Committee, 2016), and allocations for a restricted number of Certificates of Sponsorship are only held once per month.

*Post-Brexit labour policy:* Recruitment will become more challenging if freedom of movement is restricted as a consequence of the UK’s negotiations to leave the European Union (EU). Even before the referendum vote, more than two-thirds of targeted recruitment campaigns in EEA countries—workers who would not currently need visas—failed to attract the number of nurses hoped for (NHS Employers, 2015). Amid uncertainty of Brexit negotiations, new registrations of nurses from EU countries with the Nursing and Midwifery Council have dropped sharply and steadily since the referendum vote from over 1,000 per month in April 2016 to less than 50 per month by April 2017 (Triggle, 2017). These figures suggest that the supply line of EU nurses is significantly decreasing. And there is uncertainty

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<sup>1</sup> The Department of Health and Health Education England has taken over the Centre for Workforce Intelligence’s research and forecasting role.

about how many of the 25,000 foreign-trained nurses from EU countries currently practicing in the UK will be allowed (or choose) to remain.<sup>2</sup>

## Malawi

### Increasing demand

*Demographics:* Malawi faces a very different threat to its ability to provide healthcare to its young, fast-growing population. Almost half of Malawi's population is under 15 years old (World Bank, 2015), implying a high social return if the country is able to improve healthcare coverage. A heavy HIV/AIDS burden—one in ten people aged 15–49 is HIV positive—creates greater strain on nursing services. And the population is growing at almost 3 percent per year, so demands for nurses will continue to rise.

### Constrained supply

*Health system fragility:* There is no gold standard for the right number of nurses for a population,<sup>3</sup> but the WHO asserts that countries with fewer than 45 physicians, nurses, and midwives per 10,000 people do very poorly on early indicators of the Sustainable Development Goals (WHO, 2016). With less than four nurses or midwives per 10,000 people (WHO, 2009), Malawi has less than a tenth the number of healthcare workers suggested by the WHO to achieve even minimal health standards. Despite its growing population, Malawi does not have enough nurses to provide basic coverage to its population. The country faces a deficit of almost 60,000 healthcare workers that is expected to increase.<sup>4</sup>

As in the UK, Malawi's severe shortage of health workers is not a new challenge: the Emergency Human Resources Programme (EHRP) was established in 2004 to improve staffing, with the modest goal of bringing staffing levels in Malawi up to those in neighbouring Tanzania. While the programme had some success in retaining some healthcare workers through salary top-ups, nursing vacancies remain at around 33 percent of positions for established posts, based on staffing levels approved in 2007 (Government of Malawi, 2011).

*Training capacity:* Malawi has 16 nurse training colleges which collectively take in approximately 1,000 nurses per year to begin training—although some are lost to

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<sup>2</sup> According to OECD Health Workforce Migration data in 2014, there are 86,668 foreign-trained nurses in the UK, 29 percent of which are from EU countries. Available: [http://stats.oecd.org/viewhtml.aspx?datasetcode=HEALTH\\_WFMI&lang=en](http://stats.oecd.org/viewhtml.aspx?datasetcode=HEALTH_WFMI&lang=en)

<sup>3</sup> See Angenendt et al. (2014) p. 4-6 for earlier discussion of the challenge of defining a benchmark for a “critical shortage” of healthcare workers.

<sup>4</sup> CGD calculation based on 41 “missing” health workers (45 “suggested”—4 supplied) per 10,000 people with 2009 population of 14.3 million for equal comparison. While physicians are needed in this mix as well, a boost of additional trained nurses could certainly help fill this gap.

attrition (Government of Malawi, 2011). Given the current shortage of nurses and projections for population growth, output is insufficient to meet demands. Past training interventions to scale up the number of healthcare workers have had limited results in significantly boosting the nursing supply. These have included the EHRP, which also involved infrastructure scale-up of training institutions, funded by donors including the UK Department for International Development (DFID); syllabus changes to nursing programs, undertaken by the Nurse and Midwifery Council of Malawi; and additional incentives for tutors in nurse training institutions, funded by the German Organisation for Technical Cooperation (GIZ).

*Nurse emigration.* Malawi's Human Resources for Health profile recognises migration as one of the contributing factors for why the health workforce was “near collapse” in 2004 when it began implementing the EHRP. Outward migration of skilled workers was a source of short-term stress for Malawi's health service, but this probably overstates the case: around that time, only 16 percent of nurses trained in Malawi were estimated to be working out of the country (O'Neil et al., 2010). On balance, those workers likely contributed more to Malawi's economy through remittances and eventually through return migration.

The UK and Malawi therefore confront analogous problems, emblematic of a global nursing shortage. They both face unmet demand for nursing skills and an inability to scale up cost-effective training. There is a clear need for policy innovation.

## **A Global Skills Partnership to match supply and demand**

Malawi and the UK have very different problems in keeping people healthy—but they may share a common solution. A Global Skills Partnership (GSP) is a framework for bilateral arrangements linking skill *creation* in a lower-income country with controlled labour *mobility* to a higher-income country. The framework was originally proposed by the development economist and migration expert Michael Clemens (Clemens, 2015).

In a Partnership, participating countries create a pre-migration agreement that targets a specific skills gap, sets out how to finance training for potential migrants, and agrees employment terms and conditions for participants in advance. For example, the UK and Malawi could agree to a Partnership that would draw from the UK's aid budget to invest in scaling up training for nurses in Malawi. Some of those qualifying nurses could apply to work for the NHS in the UK – after obtaining accreditation – on a five year visa before returning to Malawi.

Healthcare is an obvious example of an occupation well suited to a GSP because the needs are so great. But this could apply to a long list of occupations, such as information technology or engineering. This type of partnership would be more effective than blanket restrictions on migration, which rule out *any* mutual gains from mobility. Without an explicit bilateral agreement, there is a risk that encouraging nurses to work—even temporarily—in

the UK will leave Malawi worse off. A GSP explicitly addresses this concern so that benefits accrue to both sides.

Many analogous proposals for healthcare partnerships already exist. For example, Health Education England has recently launched a partnership with Apollo Healthcare in India to source clinical staff for the NHS (Campbell, 2016). For other examples, see Clemens (2015): Germany piloted a partnership for geriatric nurses from Vietnam; Nurses Now International is a Mexican firm that facilitates training for nurses to temporarily practice in the United States; Finland and the Philippines divide training between the two countries for recruitment to work in Helsinki. In designing these partnerships, opportunities for mutual benefit must be sought so that source countries are not disadvantaged.

For the UK, the influx of custom-trained nurses at a much lower cost than domestic training would help to address a growing shortage in the number of skilled medical workers. Because the training is carried out overseas for the benefit of Malawian students, it can be scored as Official Development Assistance (ODA) under the Development Assistance Committee (DAC) rules and so leverages the UK's impressive aid budget (OECD, 2008). Because labour mobility is built into the scheme, the NHS also saves money and institutional bandwidth from lower recruitment costs.

Malawian citizens would benefit from a greater number of trained nurses at little cost. Some of the additional trained nurses would choose to remain in Malawi. Those who choose to migrate would return home with improved skill sets. Private benefits in the form of improved employment opportunities and a significant rise in earnings while working in the UK would accrue to the Malawian trained nurses who choose to migrate. The existence of a GSP would support Malawian nurses to access information about how to access international job markets and encourage them to seek out those opportunities with confidence.

Malawian families and communities would also benefit from the remittances of a portion of the wages that nurses will be earning in the UK. Remittances are one of the best drivers of poverty reduction because they deliver money directly to households. In 2015, remittances to developing countries totalled \$441 billion (Ratha et al., 2016), compared to total aid from DAC donors of less than \$132 billion. Though a precise estimate of the change in local poverty levels with respect to remittances is difficult to pin down, statistical evidence is compelling. Page and Adams (2003), for example, find that a 10 percent increase in the proportion of international migrants in a population is associated with a 2 percent decline in the share of people living in poverty. World Bank analysis on the impacts of remittances on specific countries has estimated that it has reduced poverty by 11 percent in Uganda, 6 percent in Bangladesh, and 5 percent in Ghana (World Bank, 2006). In a survey of nurses in London, over half of respondents reported sending remittances to their home country and two-thirds of those sending remitted more than 10 percent of their salary (Buchan et al., 2006).

More importantly, a GSP enables Malawi to capture a larger share of the long-term gains from an increase in health worker training to expand the domestic nursing workforce. Migration results in an increase in remittances and other sources of income for the home country. When migration is both pre-agreed and temporary,<sup>5</sup> the home country in a GSP benefits when the migrants return to their field with more experience and better training as a result of working overseas. As a result, a GSP framework formalises the benefits for both sending and receiving countries.

#### Overview of GSP benefits

Who benefits?	How do they benefit?
<i>The UK</i>	<ul style="list-style-type: none"> <li>● Trained workers to fill nursing shortage</li> <li>● Lower public training expenses</li> <li>● Planned limits on migration</li> </ul>
<i>The NHS</i>	<ul style="list-style-type: none"> <li>● Custom-trained nurses, fewer vacancies</li> <li>● Lower training costs compared to the UK</li> <li>● Lower recruitment costs</li> </ul>
<i>Newly trained Malawian nurses</i>	<ul style="list-style-type: none"> <li>● Professional employment opportunities</li> <li>● International-quality training</li> <li>● Access for low-income students</li> <li>● Huge rise in lifetime earnings</li> </ul>
<i>Malawi</i>	<ul style="list-style-type: none"> <li>● Subsidised training for nurses</li> <li>● Greater supply of trained nurses</li> <li>● No fiscal drain from graduates' migration</li> <li>● Better in-country training institutions</li> <li>● Remittances from nurses who migrated</li> <li>● Return migration of better-trained nursing talent</li> </ul>

*Adapted from Clemens (2015)*

### It's worth it: A GSP creates very large overall benefits

In this section, we provide a rough estimate of the costs and benefits of different ways we could train foreign nurses to deliver care at home or abroad. The analysis confirms that the

<sup>5</sup> Clemens's (2015) original GSP concept leaves open the question of whether migration would be permanent or temporary. Nursing shortages in some destination countries are not transitory but likely to last for the foreseeable future, so permanent migration by at least some graduates could benefit destination countries even more than temporary migration. And if destination countries can be assured of getting longer-term service from the graduates, they might be yet more willing to subsidise low-cost training at the origin even for those in a domestic track who do not migrate. In contrast, this paper which uses the UK as a destination country, specifies that migration from Malawi to the UK would be one-time and temporary to be most politically viable in the current post-Brexit climate. Note that this is not a "circular" (repeated temporary) migration proposal where migrants would periodically cycle in and out of the NHS, but would be a one-time migration for a specified single period.

combination of cheaper international training and labour mobility creates the largest net benefit, and delivers the best value for money for UK Aid.

As set out below, we evaluate the total benefits and costs for implementing a minimal scheme for four cohorts of graduating nurses of up to 100 students in each cohort. Those nurses could be trained in the UK or in Malawi (or another partner country), and could either be employed temporarily in the UK if a GSP is set up or only work in Malawi in the absence of one. (Note that we focus on increased wages as the main benefit here: that excludes the substantial benefits to the NHS from hiring more nursing talent to meet staff shortages, and the large benefits to Malawi from increasing its pool of healthcare workers.)

We can use UK aid to train foreign nurses either at home or abroad, and we can either work across government ministries to set up a GSP, or not set up the scheme so that nurses can only work in Malawi. This implies a comparison of four scenarios:

Train in the UK & no GSP	Train in Malawi & no GSP
Train in the UK & GSP	Train in Malawi & GSP

More concretely, an evaluation should capture the cost of training foreign nurses in the UK compared to Malawi. The benefits arising from those costs are the development and use of the increased skill from the training, with wages as a proxy for those benefits.<sup>6</sup> We therefore consider what nurses could earn from working for a period in both countries (if a GSP is in place), or *only* working in Malawi (if there were no GSP). Since income and costs are generated over time rather than all at once, we convert them to today’s money by discounting them. Then the *net* present values of each option are the present value of benefits less the present value of costs, or:

$W_M - C_{UK}$ “Malawian wages and UK training costs”	$W_M - C_M$ “Malawian wages and Malawian training costs”
$t(W_M, W_{UK}) - C_{UK}$ “UK and Malawian wages, UK training costs”	$t(W_M, W_{UK}) - C_M$ “UK and Malawian wages, Malawian training costs”

where  $C_M$  and  $C_{UK}$  are the present value of the costs of training some number of nurses in each country and  $W_M$  and  $W_{UK}$  are the present values of total earnings, and  $t(\cdot)$  is a function to add up the wages earned working both in Malawi and in the UK (again, nurses participating in a GSP will earn some share of the present values of both UK and Malawian

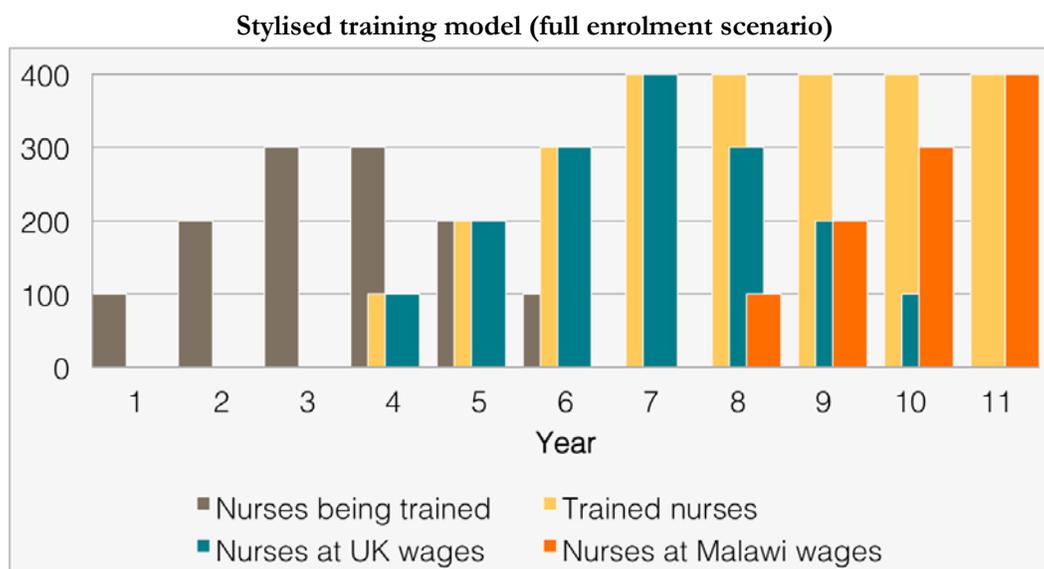
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<sup>6</sup> Note that we ignore any wages that students *would* earn if they were not educated through the aid-funded intervention. We do this both because these wages are likely to be very low, and because this term would be common to each of the scenarios and so irrelevant to an effort to *compare* them.

wages).<sup>7</sup> By ascribing the full cost and benefits to DFID, we implicitly assert that none of the additional enrolment and wages earned would have happened without the scheme or, put differently, that all the enrolled students achieved nursing degrees only because of the UK’s investment.

We set out the data and assumptions used to calculate each of these terms in the Appendix, drawing from publicly available national and international sources for data on costs and incomes in the UK and Malawi.

Under those prices, the timeline for our stylised model of training, working temporarily in the UK, and returning to Malawi can be visualised as follows. The grey bars capture the increasing enrolment of the number of nurses being consecutively trained, until enrolment ends (only four cohorts of students are enrolled); yellow bars show the number of graduated, qualified nurses, reaching a maximum of 400, based on four cohorts of 100 students each. The teal bars indicate the total number of nurses earning UK wages under a notional GSP term of five years: this increases as nurses are added to the UK workforce under the terms of a GSP and declines as they leave it. As nurses graduate from working in the UK and return to Malawi, orange bars summarise the increase in the number of nurses working in their “home” healthcare system.



*Note: Bar heights are total number of nurses (“stocks” not “flows”).*

<sup>7</sup> Set out like this, DFID’s decision is based on both costs, which it fully internalises by paying for healthcare workers’ educations, and benefits that are shared by the workers themselves (as income) and the NHS, which employs them. This elides two important points. One is purely technical: the price for a factor input (nursing labour) reflects its relative value. Since nursing creates many positive externalities from better societal healthcare, the wage earnings of nurses undervalue the total benefits. So we are implicitly being highly conservative in defining “benefits” this way. At another level, scoring costs and benefits raises philosophical questions. A GSP creates gains for both the UK and Malawi, in addition to enormous lifetime increases in the nurses’ incomes. Should DFID’s calculation of benefits include wages paid for care provided in the UK, or for care delivered in Malawi, or the increased wages of the nurses themselves? Our calculation includes the full value of all market income and costs, implicitly ascribing to DFID gains that flow to people whose educations are financed by aid.

## Cost-benefit outcomes are positive

The cost and benefit assumptions laid out in the Appendix put a value on each option for considering whether to implement a GSP. The table below summarises the costs and benefits in today's money.

**Benefits or costs for four cohorts over 11 years (real GBP millions)**

	Full (100 students per cohort)	Partial (50 students per cohort)	Low (20 students per cohort)
Real costs, train in Malawi: $C_M$	13.8 mn.	12.2 mn.	11.3 mn.
Real costs, train in the UK: $C_{UK}$	30.6 mn.	15.3 mn.	6.1 mn.
Real benefits, no GSP: $W_M$	1.0 mn.	0.5 mn.	0.2 mn.
Real benefits, GSP: $t(W_M, W_{UK})$	60.4 mn.	30.2 mn.	12.1 mn.

We use these values to calculate the *net* present value of the various options. The combination of overseas training and temporary labour mobility creates the highest returns. We should not be surprised by which option has the largest payoff. But the degree to which the combination of funding overseas training and enabling labour mobility improves on other possibilities is impressive.

**Net benefits or costs for four cohorts over 11 years (real GBP millions)**

	Train in the UK	Train in Malawi
No GSP	-29.5 mn.	-12.7 mn.
GSP in place	29.9 mn.	46.7 mn.

*Note: net present values under a full enrolment scenario; 2% discount rate*

Investing in training and enabling mobility delivers dramatic value for money for UK aid, with a ratio of real benefits to costs of more than four to one (60.4 million divided by 13.8 million). That excludes important benefits that are not calculated here: better healthcare and outcomes in both the UK and Malawi.

## **Capturing the benefits: Design options for a successful GSP**

Given these large net benefits, how might the UK government deliver a GSP?

There are six key elements to consider with relevant stakeholders when designing the partnership:

1. **Negotiate a bilateral agreement.** There must be an explicit, formal bilateral agreement that shows a stable and long-term commitment from both countries. This will be particularly important for the UK to demonstrate a credible commitment to labour market access and to provide certainty about job opportunities. It will also be important to signal that employment in the UK will be for a fixed term, with a clear obligation for nurses to return to Malawi when their visas expire.
2. **Set up a cross-government working group in each country.** The partnership will involve policy elements of workforce planning and training, public health priorities, foreign aid, migration, and border control. Therefore, cooperation (or at least assent) from numerous government ministries and regulatory authorities in both countries is needed in order to establish the partnership. In the case of the UK, recommended bodies include the Department of Health, NHS England, Public Health England, Health Education England, the Nursing and Midwifery Council (NMC), DFID, the Home Office, the Foreign and Commonwealth Office, and the UK Border Agency. For Malawi, an initial shortlist of stakeholders is the Nurses and Midwives Council, which regulates training and licensing; the Ministry of Health; the Ministry of Education; the Ministry of Finance, Economic Planning, and Development; the Christian Health Association of Malawi, which provides health services for the population alongside the Ministry of Health; and the Malawi High Commission in London.
3. **Define the flow and timing of funding.** The contract for the training payments would have to clearly outline the costs that DFID would be covering. This funding would come from the UK's aid budget and would be scored as official development assistance. However, the NHS would pay the salaries of the nurses working in the UK; the Ministry of Health in Malawi would pay the salaries of nurses working there. ODA could not be used to pay the salaries of nurses working in the UK after they have completed their training.
4. **Create a licensing framework** The UK's Nursing and Midwifery Council requires registration of every practicing nurse to regulate the profession and assure quality. The process requires a rigorous English language test, a nursing knowledge exam, and observed clinical practice. A streamlined process for Malawian trainees to register with the NMC after completing these requirements would be needed. Trainees could be supported in completing their applications and with reduced fees

and expedited registration processes, so that delays from when they complete training to when they begin practicing their profession are minimal. When nurses return home, Malawi's Ministry of Health should officially recognise the experience gained abroad in their career progression structure so as not to implicitly penalise them for their time spent working overseas.

5. **Involve industry groups, unions, and nursing bodies from day one** Trade unions are important stakeholders in the NHS and influence state policy (Bach, 2010). The main trade unions that represent nurses in the UK are the Royal College of Nursing and Unison. These organisations should be involved from the design stage to ensure that a partnership to hire an increased number of foreign nurses is positively received among nurses practicing in the UK. This can also establish relationships so that migrant nurses have access to industrial representation, employee protections, and a voice in contract negotiations and industrial bargaining. More experienced nurses are likely to find common cause with newly trained nurses because they will help to address urgent staffing shortages in the NHS, potentially reducing workloads and patient loads.
6. **Plan for the full life-cycle of employment.** Since nurses will be expected to leave the UK when their fixed term visas expire, the partnership should plan for a smooth reintegration into the Malawian healthcare system. Attention to clinical skills most relevant to Malawi's context should be prioritised alongside the skills needed to work effectively in the UK. Although some nurses may seek employment in South Africa or other countries, every nurse should be supported for effective reintegration in Malawi.

This indicative list captures what we regard as the key primary elements of setting up a mutually beneficial training and temporary migration programme. Of course, there are other details that would need to be considered: selecting a training colleges in Malawi for establishing the partnership; determining whether nurses would come on the traditional "Tier 2" skilled worker visa and under what conditions; and setting out what options migrant nurses will have for changing employers while working in the UK.

## **Avoiding brain drain: Aligning the GSP with the WHO's Global Code of Practice**

International migration of skilled staff has raised concerns about "brain drain": depriving low-income countries of key staff in order to fill vacancies in high-income countries. In response, WHO member states adopted the Global Code of Practice in 2010. The Code recommends that systems of international recruitment of healthcare workers should be designed in order to mitigate any negative effects on health systems in the country of origin.

The Code promotes the idea that health worker migration "can make a sound contribution to the development and strengthening of health systems, if recruitment is properly managed." It defines basic principles for future bilateral and international cooperation on

healthcare migration, encouraging member states to seek out partnerships with countries of origin; provide technical and financial assistance; and foster planning, training, education, and retention measures.<sup>8</sup>

The Code is a laudable effort to manage brain drain. But like many international documents, it is the result of a compromise; it contains contradictions among certain articles that have led to disagreement about how to interpret its principles, making implementation difficult.<sup>9</sup> The greatest dispute is between key articles 3 and 5, which, respectively, promote freedom of movement for healthcare workers, but discourage active recruitment. Article 3.4 states that “nothing in this Code should be interpreted as limiting the freedom of health personnel, in accordance with applicable laws, to migrate to countries that wish to admit and employ them.” Yet article 5.1 states that “member states should discourage active recruitment of health personnel from developing countries facing critical shortages of health workers.”

As Angenendt et al. (2014) explain, “it is difficult to reconcile these principles in practice. Either restrictions on recruitment do not end up restricting health workers’ mobility, in which case they cannot affect health systems in migrant-origin countries, or they do end up restricting mobility, in which case they violate the specific exclusion of limits on mobility” (Angenendt et al., 2014).

More broadly, the Code is not—and never has been—a recruitment ban, as has been suggested by some interpretations. It is a set of recommendations for *how* recruitment should be conducted to mitigate negative effects on health systems in the country of origin. As the perfect example of such a recruitment system, a GSP embodies the principles of the Code to encourage international cooperation, partnerships, financial assistance, and additional training efforts while not limiting freedom of movement and not creating negative effects on origin country health systems.

There is not a fixed number of healthcare workers per country and hiring a Malawian nurse in the UK does not mean that Malawi will have one less healthcare worker. As part of a GSP, more nurses overall can be brought into the workforce, thus increasing the supply of nurses in *both* countries. A Partnership contributes to the goal of increasing healthcare worker coverage in both destination and origin countries.

## **Beyond brain drain: Answering other challenges**

Any ambitious policy innovation faces challenges. This section is a non-exhaustive overview of some of the challenges that a GSP may face. It is intended to support policymakers to address potential pitfalls before these undermine progress in delivering a skills partnership.

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<sup>8</sup> See Angenendt et al. (2014) p.3 for more principles of the Code.

<sup>9</sup> For a deeper discussion of debates on adopting the Code, see Angenendt et al. (2014) p. 3-4. The ideas in this section draw broadly from this work.

### **The World Health Organization already has plans to tackle the nursing shortage**

**Challenge:** The WHO has recognised the global issue of healthcare staffing broadly and the Human Resources for Health (HRH) programme has focused attention on health worker shortages in some countries, mainly in sub-Saharan Africa. Countries believed to face shortages of practitioners (medical staff broadly defined) are designated “critical shortage” countries.

**Reply:** The GSP could easily be incorporated in the HRH plans for countries with critical shortage status, and could help bring new resources to the problem.

### **The NHS prohibits GSP recruitment**

**Challenge:** The NHS retains a rule from over a decade ago that limits overseas recruitment from developing countries. It maintains a list of more than 150 countries from which recruitment is restricted, including countries defined as high income by the World Bank, like Chile and Uruguay.

**Reply:** The rule was designed to protect lower-income countries’ health service, but the GSP will increase the overall number of nurses in the country of origin, despite the fact that some will temporarily migrate. However, the rule only applies to health workers employed by the NHS; private healthcare providers can still recruit from where they choose. Limiting foreign recruitment for the public sector only harms the NHS rather than “fixing” a perceived problem. There are already bilateral agreements in place that create exceptions for certain countries—notably the Philippines and India—without actually removing them from the list. Generally, exceptions to this rule are allowed when recruitment occurs on terms to which the sending country agrees, as would explicitly be the case for a GSP.

### **The United Kingdom could be setting a bad example for health worker recruitment**

**Challenge:** The UK has been a leader on international recruitment policy in health, with the NHS adopting recruitment limits long before the WHO Global Code of Practice was adopted. It could be argued that implementing a GSP could undermine these efforts and make the UK appear to be flouting its own policy goal of not recruiting from countries with a shortage of healthcare workers.

**Reply:** As discussed above, the Code is not a recruitment ban but rather a set of principles to mitigate negative effects on health systems in countries of origin. The UK’s limits on recruitment from certain countries only apply to the NHS—not to private health worker recruitment. If the UK were to both limit opportunities for

migration that could benefit the origin country *and* allow recruitment to continue in the private sector, it would not be aligned with the Code. But the UK already exempts countries on its own list when a bilateral agreement is in place. Therefore, promoting a GSP does not undermine the UK policy efforts to improve international recruitment. Instead, it strengthens the UK's position that it should be done well.

### **Asking nurses to return to their country of origin is unfair or unrealistic**

**Challenge:** In designing a scheme based on temporary migration, the destination country may worry that migrant nurses will not actually return to their home country. Upon return, nurses may face challenges reintegrating into the local workforce. They may be frustrated by not being able to use higher-level skills, facilities, or technology in their home country, and they may face discrimination from their peers who did not migrate.

**Reply:** Expectations for return must be shaped from the time a prospective nurse enrolls in the origin country training programme. A GSP should be designed to ensure that the skills and experience nurses learn abroad would be recognised by employers upon their return home. The UK-India Apollo Healthcare programme, for example, has incorporated strategies for success upon migrants' return to India into their training curriculum. The destination country must also recognise that some migrants may stay if they find other legal pathways for remaining in country and employed, such as a student visa for continuing education or obtaining a residence permit through marriage or partnership to a British (or other qualifying) citizen. These other pathways to remaining the UK would be available to migrant nurses from a GSP in the same way they are available to anyone who wants to live in the UK.

### **UK needs social care more than it needs nursing**

**Challenge:** In addition to nursing, the UK also has significant needs in the social care sector, especially for the elderly.

**Reply:** The shortage of social care workers and the shortage of nurses have different causes. Nursing suffers from a shortage of *skilled* workers while the social care sector suffers from an insufficient *relatively unskilled* labour force. The requirements to become a nurse are much more rigorous, and nursing wages are higher; the advantage of paying for the years of training in a country with low training costs coupled with higher wages in the destination country together result in the great net benefits for the GSP. Since social care requires less training and wages are lower, the benefits would be much lower and hence would not be as good a use of UK aid as

nursing training. The GSP model is not a good fit for social care; it is better suited to nursing or other high-wage employment.

### **Incoming nursing students will be insufficiently prepared for the nursing course**

**Challenge:** Secondary education that would prepare students for nursing training must be high enough quality that nursing students can succeed in their training programme. Given known deficiencies in the Malawian education system, there is concern that students completing secondary education may not be sufficiently prepared for a GSP nursing curriculum that would meet UK standards.

**Reply:** Challenges in the Malawian education system should not be overlooked. But an additional feature of the GSP could include a foundation year option to ensure students are equipped to make the most of nursing training.

### **Increasing immigration is politically unacceptable in the UK**

**Challenge:** Reducing net migration was a key theme of the referendum vote for the UK to leave the EU in 2016. Politicians may be hesitant to accept partnerships that increase net migration.

**Reply:** The migration of skilled workers is likely to remain a subject of intense policy debate in the UK for some time. But viable and affordable healthcare also remains a high political priority. Even advocates of tighter migration controls accept that there is a need to address key skills gaps with migrant labour if UK workers cannot fill these needs in the labour market. The NHS is a key topic for voters: efforts to strengthen this institution should be politically palatable. The concerns about patient safety due to an over-stretched nursing workforce is a smart, compelling reason to consider all options to ensure adequate staffing of the NHS.

### **Governments have limited capacity to manage more partnerships**

**Challenge:** When considering establishing new partnership, even with a multitude of benefits, both parties must consider their capacity for managing additional relationships.

**Reply:** The Malawian training institution would need to consider whether these partnerships would be welcomed. For example, Kamuzu College of Nursing, the largest in Malawi, already has partnerships with China for language study (the

Confucius Center) and Canada for clinical practice and research.<sup>10</sup> It also lists 32 other partners on its website, with varying levels of engagement. Likewise, in the UK, stakeholders already manage a variety of partnerships and would need to have the capacity to take on new ones.

### **Governments have limited budgets to pay for more nursing salaries**

**Challenge:** In the case of both countries, having additional trained nurses at a significantly lower cost would bolster the pool of available staff. But after training the nurses, employers still have to pay their salaries.

**Reply:** Staffing in both countries is currently far below the desired level for positions already budgeted for. Given strained health system budgets and the need to increase current numbers of approved positions in the long term, some reallocation may be necessary to pay the increased number of healthcare workers these systems are requesting. But the constraint appears to remain the number of employable medical workers, not appetite amongst policymakers and donors to invest more in supporting health systems.

### **UK public opinion about migration would not support a GSP**

**Challenge:** The UK's current political climate makes it difficult to approach migration from the perspective of improving development impact. Data from the 2013 British Social Attitudes survey eliciting responses about the preferred change in migration found that 56 percent of respondents would like to see immigration "reduced a lot," while 77 percent chose either "reduced a lot" or "reduced a little," and immigration is consistently ranked as one of the "most important" issues by respondents.

**Reply:** Additional survey data suggests that much of this effect could be driven by a large gap between reality and perceptions. When asked to estimate the share of foreign-born residents living in the UK, for example, the average guess is 31 percent. The Office of National Statistics estimates the true figure in 2013 to be 12 percent. Respondents believe the majority of migrants are asylum seekers and underestimate the number of migrants arriving for employment or study (Ipsos MORI, 2013).

Innovative partnerships where skilled migration is managed is a way to assuage these concerns. A GSP brings in skilled workers for jobs that are not currently filled by UK residents and benefits the NHS.

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<sup>10</sup> The McGill University Ingram School of Nursing (MSON) partnership with Kamuzu College of Nursing, established in 2010, is an opportunity for MSON students to gain clinical learning experiences in low-resource settings and for the schools to work on research projects of mutual interest. See Birch et al. (2013).

## Next steps

A Partnership with Malawi or another country facing analogous constraints would leverage the UK's impressive aid budget to invest in training and education centres for health workers—particularly nurses—overseas. Some of those nurses could choose to work in the UK for reasonable, extended periods, perhaps three to five years. That would enable the NHS to meet urgent needs in the UK. It would raise the number of trained health workers in Malawi, a country that badly needs them. It would create an opportunity for nurses from a lower-income country to dramatically improve their incomes and augment their skills by working overseas, boosting Malawi's economy and the quality of its healthcare. And it would create new incentives and resources for better education outcomes in Malawi.

This is an ambitious, achievable proposal that should be particularly attractive to the UK government at a time when the supply of nurses from the EU faces uncertainty. A successful pilot could be explored and launched straight away. It would not need to wait for Brexit to be implemented; indeed, it would offer economic advantages to both sides even in the absence of Brexit. Such a pilot would meet the three tests that one of us set out in an earlier paper (Anderson, Rogerson, Juden, 2016): it would benefit global development, it would serve the UK's national interest, and it would not prejudice the UK-EU negotiations on the UK exit from the EU.

There are many details to be explored. They would be best addressed by learning from the successful international partnerships already managed by Health Education England. It may be that existing partnerships or other factors would point to testing a pilot in Uganda or Tanzania or elsewhere. Similarly, this proposal is for Health Education England; it may be that a partnership focusing on Scotland or Northern Ireland is more practical.

More broadly, a Global Skills Partnership for nursing would signal that the UK is prepared to use its aid to address shared challenges. In 2016, the UK Secretary of State for Health, Jeremy Hunt, signalled an ambition to make the UK “self-sufficient” in training doctors over the next decade. It is possible that the same ambition will be applied to nursing. Sourcing all nurses from UK nationals based on UK training, though, will dramatically ramp up costs at a time when the NHS already faces extreme financial challenges.

It would also limit beneficial exchange, to everyone's detriment. In a world where diseases do not respect national borders, and where research, new treatments, and standards of care are developed on a global stage, the idea of a purely national workforce may appear outdated. Structuring cooperation in a way that builds the total pool of skills, and which benefits both the labour-sending and labour-receiving societies is not only a good use of UK aid. It is also smart—and timely—public policy.

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## Appendix – Details on costs and benefits

### Estimating costs and benefits

There are five elements to calculating the values of the costs and benefits of implementing a GSP: the costs of nursing education in the UK and Malawi, the number of students enrolled, the wages in the UK and Malawi health services, the costs of setting up an overseas training regime and GSP, and the structure of the GSP. Costs are set out in more detail in the table below.

1. **Costs of nursing education** The total cost<sup>11</sup> of completing a Bachelor's degree nurse training programme is £80,250<sup>12</sup> in the UK compared to £8,104<sup>13</sup> in Malawi.
2. **Enrolment** We provide a minimal stress-test by calculating outcomes across three enrolment scenarios: **full** (100 students trained per year), **partial** (50 per year), and **low** (20 per year). These numbers are small in absolute terms, but successive cohorts increase the stock of total nursing talent and even a cohort of 100 nurses would represent a 10 percent increase (from 1,000 to 1,100) in the number of nurses trained in Malawi.
3. **Wages** Starting wages for nurses in the UK are about £22,000<sup>14</sup> per year, compared to roughly £470<sup>15</sup> per year in Malawi.
4. **Costs of the GSP** Fixed costs of establishing the partnership might include renovating training facilities and investing in equipment. Variable costs to run the training facility include facility and equipment maintenance, teachers' salaries, and training materials and consumables. Based on cost estimates from Malawi's Ministry

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<sup>11</sup> We use international student tuition rates for education costs. Fee rates for locals reflect a range of opaque subsidies, making it difficult to estimate a true marginal cost of training a nurse. The most transparent way to estimate the full training cost is to look at what is charged to people who do not have access to (most) subsidies, under the assumption that most or all of the full cost of their education is being passed along to them. Foreign student tuition rates are therefore a minimally arbitrary estimate for the full cost of education. We thank Michael Clemens for this helpful clarification, which also underlies the calculations in Clemens (2014, 2015).

<sup>12</sup> UK training: £26,750 per year is the cost for a three-year course of study for a B.Sc. in nursing at Florence Nightingale Faculty of Nursing & Midwifery course at King's College 2017-2018 for non-European students.

<sup>13</sup> Malawi training: As part of an operational plan to scale up the capacity of the nurse training institutions released in 2011, the Government of Malawi estimated the total cost of educating an additional 2,718 nurses at \$27.5 million USD for a per nurse total training cost equivalent of £8,104 (Government of Malawi Ministry of Health, 2011 p. 6). This estimate includes fixed costs related to upgrading of facilities and other needs for increased number of students. The training costs differ among the 16 training institutions because of differences in pre-existing facility conditions such as classroom space, so this is average cost per nurse across the Malawian training system.

<sup>14</sup> UK wages: 2016-2017 NHS pay band 5 for starting nurses. £21,909 per year.

<sup>15</sup> Malawi wages are estimated at MK 35,000 per month based on figures in Grigulis (2009), as cited in Clemens (2014). This included a 52 percent salary top up from the donor-financed Emergency Human Resources Plan (EHRP).

of Health for scaling up the national number of health workers, we estimate £1.01 million in construction and set up costs for a new facility, and £1.09 million in annual expenses, including national and international staff time. Finally, each graduating cohort will require further support to facilitate their passage to the UK, including administrative costs for arranging placements, roundtrip travel for nurses, visa fees and processing costs, and on-arrival licensing requirements like registration with the Nursing and Midwifery Council. These costs add up to £9,415 per nurse.<sup>16</sup>

**5. Structure of the GSP** Rather than assuming a constant uptake of students entering a GSP, we calculate the relative costs and benefits accruing to just four graduating cohorts of students, under the example assumptions that a GSP enables each cohort to migrate immediately to the UK and work there for five years before returning to Malawi.

Finally, most discounting exercises account for future flows generated from an investment using so-called terminal values: for example, a nursing graduate would expect to see his or her lifelong earnings grow over a long horizon, reflecting upgraded human capital. We focus on the earnings accrued *only* in a notional 11-year horizon and ignore these terminal values—an extremely conservative evaluation of the benefits of training.<sup>17</sup> We use a 2 percent discount rate to convert future costs and benefits to today’s money.

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<sup>16</sup> Note that fixed costs of the GSP are intentionally “double counted” with total Malawian training costs to reflect the additional resources that would be needed in Malawi to make training facilities suitable for UK standards. As explained in footnote 13, the fixed costs for upgrading facilities is included in the total cost estimation of training additional nurses. An additional £1.01 million is added to conservatively estimate additional needs to prepare students to practice in the UK.

<sup>17</sup> The rationale is that our focus is comparing the value of these different options, not calculating the full value of gains. Since nurses would work in Malawi after returning from the UK, the terminal value of future earnings in Malawi are common to all the options. Put differently, we ignore factors common across each option to focus on the differences between them.

## Detailed costs and sources

Assumptions	Units	USD unit value	per	GBP total value	Sourcing:
Conversion (1 USD=0.81 GBP)					
0.81					
<b>Fixed costs</b>					
Build new classroom	2	57,000	one-off	92,340	Ministry of Health, Government of Malawi (2011)
Build new skills lab	1	67,000	one-off	54,270	<i>Ibid</i>
Build new office block	1	100,000	one-off	81,000	<i>Ibid</i>
Build multi-level library	1	214,000	one-off	173,340	<i>Ibid</i>
Build new accommodation	1	386,000	one-off	312,660	<i>Ibid</i>
Renovate dining facilities	1	107,000	one-off	86,670	<i>Ibid</i>
Buy new computers	5	1,000	one-off	4,050	<i>Ibid</i>
Buy new 32 seater vehicle	2	122,000	one-off	197,640	<i>Ibid</i>
International travel	5	2,000	one-off	8,100	Estimate
<b>Total (fixed)</b>				<b>1,010,070</b>	
<b>Variable costs (time)</b>					
Salary for tutors	10	5,680	year	46,008	<i>Ibid</i>
Salary for clinical and lab instructors	10	2,960	year	23,976	<i>Ibid</i>
GSP support staff salaries & admin	4	1,000	year	3,240	Estimate
International staff	10	85,000	year	688,500	Estimate
Facility maintenance	1	202,014	year	163,631	Estimate
Equipment maintenance	1	202,014	year	163,631	Estimate
<b>Total (per year)</b>				<b>1,088,987</b>	
<b>Variable costs (nurses)</b>					
International travel expenses (one time)			nurse	2,000	Estimate
Tier 2 visa (5 years)			nurse	5,000	NHS Employers, 2016
NMC registration (one time)			nurse	1,415	Nursing & Midwifery Council, 2016
Uniforms and supplies			nurse	1,000	Estimate
<b>Total (per nurse)</b>				<b>9,415</b>	