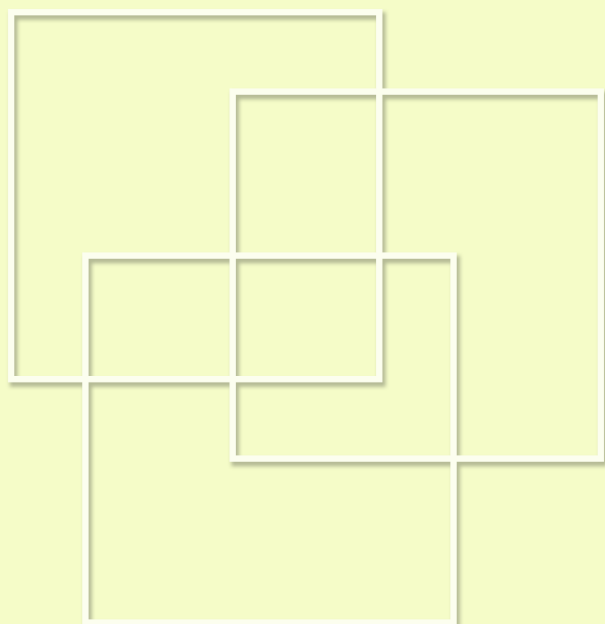


## **ILO Asia Pacific Working Paper Series**

# Assessment of the impact of migration of health professionals on the labour market and health sector performance in destination countries

Piyasiri Wickramasekara  
July 2014



ILO/Decent Work Across Borders:  
A Pilot Project for Migrant Health Professionals and Skilled Workers

ILO Country office for the Philippines

# Assessment of the impact of migration of health professionals on the labour market and health sector performance in destination countries

---

Piyasiri Wickramasekara  
Global Migration Policy Associates (GMPA)  
Geneva

A report prepared for the EU-ILO Project on  
Decent Work Across Borders:  
A Pilot project for Migrant Health Professionals and Skilled Workers,  
Manila, Philippines

Country office for the Philippines

---

Copyright © International Labour Organization 2014

Publications of the International Labour Office enjoy copyright under Protocol 2 of the Universal Copyright Convention. Nevertheless, short excerpts from them may be reproduced without authorization, on condition that the source is indicated. For rights of reproduction or translation, application should be made to ILO Publications (Rights and Permissions), International Labour Office, CH-1211 Geneva 22, Switzerland, or by email: [pubdroit@ilo.org](mailto:pubdroit@ilo.org). The International Labour Office welcomes such applications.

Libraries, institutions and other users registered with reproduction rights organizations may make copies in accordance with the licences issued to them for this purpose. Visit [www.ifro.org](http://www.ifro.org) to find the reproduction rights organization in your country.

---

## ILO Cataloguing in Publication Data

Wickramasekara, Piyasiri

Assessment of the impact of migration of health professionals on the labour market and health sector performance in destination countries : a report prepared for the EU-ILO project on "Decent work across borders: a pilot project for migrant health professionals and skilled workers" / by Piyasiri Wickramasekara ; International Labour Organization, ILO Country Office for the Philippines. - Makati City: ILO, 2014

ISSN: 2227-4391; 2227-4405 (web pdf).

International Labour Organization; ILO Country Office for the Philippines

labour migration / international migration / physician / nurse / health service / quality of care / economic implication / EU countries / OECD countries / UK / USA

14.09.2

---

The designations employed in ILO publications, which are in conformity with United Nations practice, and the presentation of material therein do not imply the expression of any opinion whatsoever on the part of the International Labour Office concerning the legal status of any country, area or territory or of its authorities, or concerning the delimitation of its frontiers.

The responsibility for opinions expressed in signed articles, studies and other contributions rests solely with their authors, and publication does not constitute an endorsement by the International Labour Office of the opinions expressed in them.

Reference to names of firms and commercial products and processes does not imply their endorsement by the International Labour Office, and any failure to mention a particular firm, commercial product or process is not a sign of disapproval.

ILO publications and electronic products can be obtained through major booksellers or ILO local offices in many countries, or direct from ILO Publications, International Labour Office, CH-1211 Geneva 22, Switzerland. Catalogues or lists of new publications are available free of charge from the above address, or by email: [pubvente@ilo.org](mailto:pubvente@ilo.org)

Visit our website: [www.ilo.org/publns](http://www.ilo.org/publns)

Printed in the Philippines

---

## Foreword

According to the World Health Organization, the world will be short of 12.9 million health-care workers by 2035. The increasing global shortage and inequitable distribution of health professionals in many developed countries, driven by demographic and epidemiologic changes, as well as newer technologies in service delivery, has intensified the demand for health workers globally.

The Philippines and India are two of the larger providers of foreign health workers for the Organisation for Economic Co-operation and Development (OECD) countries, including European nations. Highly educated professional workers are generally welcome everywhere and, as a result, physicians and related medical professionals are among those given high priority for admission -- especially in the OECD countries.

The health sector in the European Union (EU) is of growing social and economic significance. In 2009, on average the health-care sector accounted for 10 per cent of employment across OECD countries (OECD, 2011). However, the sector is showing signs of increased marketization and privatisation as the continent struggles with the effects of the financial crisis. The EU estimates that by 2020, Member States will have a need for an additional one million health-care workers (Wismar et al., 2011). The role of migrant caregivers is gaining importance and the proportion of foreign-born workers in health facilities often exceeds that of local workers in most European countries (Fujisawa, 2009).

Migration, and the migration of health-care professionals in particular, has raised concerns from both source and host countries. Health professional mobility impacts on the performance of health systems by changing the composition of the health workforce and outcomes in both origin and destination countries. The migration of health workers is both a response to the challenges of health systems in host and source countries, and a challenge in itself.

A significant body of literature exists that has mapped and documented the impacts of the migration of health professionals on source countries.

Less well narrated is the impact of migration on the host countries. The social and economic impacts of migration on these nations have, nonetheless, been the source of much debate. For instance -- and of much concern -- is the fact that migrant nurses and physicians may accept lower salaries and compensation packages than local workers. Of equal alarm is the fact that migrant health workers may be lured into accepting jobs requiring lower skills than those they have been trained for. Migrant health workers may also accept employment in geographic areas unattractive to national workers. In addition, host society health systems end up benefiting from skilled labour without having to invest in educating local health professionals. Host countries may also encounter some difficulties related to the inflow of foreign-trained health professionals.

Other factors include cultural differences, which may hinder communication and quality of services to the patients, while variations in the educational systems may cause a lack of familiarity with advanced equipment, medicines or practices, which may lead to higher error rates.

For temporary migrants, investment in workplace induction can be relatively high compared to service time provided by the migrant physicians. With regard to working conditions and wages, migrant workers' willingness to accept different treatment may impact the local industrial relations systems.

These important questions take a renewed interest in the context where host countries are more actively promoting temporary, or circular, migration patterns.

With regard to the impacts of (general) migration on employment and wages, the literature available raises some degree of controversy. The effect of immigration on a host country and its labour market will depend on the general state of its economy, and its regulatory framework.

Robust measurements of the aggregate economic, labour market, social and fiscal impacts of migration are hard to produce, and even fewer data exist on the specifics of the health sector. The accessibility and quality of data, and the methodological complexities inherent to such assessments, leave much to be desired. Furthermore, the strong interconnections of direct and indirect, individual, professional, family and developmental impacts add to the challenge. The real and perceived impacts of immigration are critical, as they feed into the political climate that influences the reform of migration-related legislations and frameworks. It is therefore important to document these impacts with facts in order to contribute to the policy debate in a constructive and balanced manner.

In this context, the ILO, through its EU-funded Decent Work Across Borders: a Pilot Project for Migrant Health Professionals and Skilled Workers, is grateful to Mr Piyasiri Wickramasekara for this contribution to the debate on the mobility of health professionals. This is an excellent and comprehensive review of the existing literature on the impact of the migration of health professionals on destination countries, in particular on employment and wages, and on the coverage and quality of medical care.

His review offers a very rich reference on the current state of research on the subject in the developed countries. It is my hope that this publication will stimulate more debate among policy makers, and feed into the design of migration policies between origin and destination countries in respect of all stakeholders concerned.

Lawrence Jeff Johnson  
Director  
ILO CO Manila

## Table of content

<b>Acknowledgement</b>	<b>vii</b>
<b>Executive Summary</b>	<b>viii</b>
<b>Abbreviations</b>	<b>xiii</b>
<b>1. Introduction</b>	<b>1</b>
Objectives of the study	1
<b>2. Methodology and data sources</b>	<b>2</b>
2.1 Definitions	2
2.2 Labour market for health professionals	4
2.3 Notes on analytical framework for impact assessment	6
2.3.1 Types of impact	7
2.3.2 Major labour market indicators for impact assessment	8
2.3.3 Factors to be considered in assessment of impact	8
2.4 Sources of data and limitations	10
<b>3. Mobility of health professional in Europe and across the globe</b>	<b>11</b>
3.1 Overview of studies on mobility and impact	11
3.1.1 Recent European studies on mobility of health professionals	11
3.1.2 Other studies consulted	14
3.2 Mobility of health professionals: some evidence	14
3.3 UK situation	17
3.3.1 Doctors	18
3.3.2 Nurse	22
<b>4. Assessment of impact of immigration -- general studies</b>	<b>23</b>
4.1 Approaches to impact studies	23
4.1.1 Area approach or spatial correlations approach	23
4.1.2 Factor Proportions Analysis	25
4.2 Review of the literature	26
4.2.1 Employment impact of immigration	26
4.2.2 Impact on wages and earning	28
4.3 Studies of impact of migration on United Kingdom in general	31
<b>5. Studies of medical migration and its economic impact on the UK</b>	<b>31</b>
5.1 Rutten's analysis of macroeconomic impacts of migration of medical workers	31
5.2 The impact of migration on the provision of UK public services including health services	32
5.3 Determinants of doctor wages in the UK by Morris et al., (2009)	35
5.4 Observations on the UK situation	35

<b>6. Selected US studies on the impact of immigrant doctors and nurses .....</b>	<b>37</b>
6.1 Immigration of physicians and the impact on the US labour market and wages.....	37
6.2 Immigration of nurses and the impact on the labour market and wages .....	38
6.3 Review of other studies on nursing immigration in the US labour market .....	40
6.4 Summary points from the literature review .....	44
<b>7. Immigration and the impact on the performance of health systems and quality of care. 45</b>	
7.1 Health system performance and immigration of health professionals.....	45
7.2 Impact of migrant health professional on quality of care .....	51
7.2.1 Fitness to practise procedures .....	52
7.2.2 Differences in performance in tests and competitive examinations.....	57
7.2.3 Comparisons based on quality of care and patient outcomes .....	58
7.3 Relevance of conditions of work and treatment of immigrant professionals on their performance.....	58
<b>8. Circular migration and voluntary partnership in optimizing benefits     from medical migration .....</b>	<b>59</b>
<b>9. Conclusions and policy implications.....</b>	<b>64</b>
9.1 Summary points and conclusions .....	64
9.2 Policy implications .....	66
<b>References .....</b>	<b>73</b>
Annex 1: ISCO-08: Categories of Health Professionals.....	85
Annex 2: List of contacts .....	86
Annex 3: OECD countries: Practicing health professionals by occupation and place of birth .....	88
Annex 4a: UK doctors -- Top 20 countries of qualification.....	89
Annex 4b: USA -- Top 20 countries of medical education for IMG physicians.....	90
Annex 5: UK Shortage occupation list: health workers (February 2013) .....	91
Annex 6: Preliminary list of data requirements to analyse the health worker labour market.....	92

## Acknowledgements

The author would like to thank a number of individuals and organizations for their cooperation and support in providing relevant information and also engaging in useful discussions:

- *ILO-EU funded project on Decent Work Across Borders*  
Ms Catherine Vaillancourt-Laflamme, Chief Technical Advisor of the ILO Decent Work Across Borders (DWAB) project for her patience and confidence in me, and being a constant source of encouragement and support at all stages of the study; Ms. Jennifer dela Rosa, National Project Coordinator of DWAB for unstinted support at all stages of the study.
- *Public Services International*  
Ms Genevieve J. Gencianos, Migration Programme Coordinator, Public Services International, for her generous time and help in guiding me to PSI work on health worker migration, providing me with relevant reports and putting me in touch with concerned researchers.
- *Experts contacted by email*  
All the experts who responded to my email request for information as listed on page 86 of the report.
- *Expert interviewed*  
All the experts and key informants (listed on pages 86-87) from various institutions (Migration Advisory Committee, UK; Royal College of Nursing, UK; Departement. of Management, Kings College London; UNISON London; NHS Employers, Leeds, UK; Migrant Research Network UK; and BOAT, London) for providing their valuable time for discussions on the issue during my visit to London in March



## Executive Summary

The study represents a desk review of the impact of the migration of health professionals on the labour market and performance and quality of health services in major countries of destination, particularly the United Kingdom. It focuses on two categories of health professionals: doctors and nurses.

It discusses the impact of immigration of health professionals on the destination country in relation to three major aspects: the labour market in terms of employment and wages; performance of the health system; and the quality of care.

Several factors determine the actual impact of medical migration on destination countries. These are: a) skill composition of incoming workers; b) occupational distribution of migrant and native workers; c) number of immigrant health workers; d) distribution of migrant workers between public and private sectors; e) migration status of workers -- permanent, temporary, or circular; and f) recruitment practices. The analysis presented in the report is based on an extensive literature survey, and consultations with key resource persons.

### ***Impact of immigration of health professionals on the labour market***

The study first reviewed general studies of immigration on the labour market in destination countries. Econometric techniques are usually adopted in such assessments. Two generally accepted methods of testing the effects of immigration on employment and wages are “area analysis” and “factor-proportions analysis”. The area approach, or “spatial correlation approach”, uses cross-sectional data to determine how wages and employment of native workers in different regional or local labour markets are affected by differences in the share of immigrants in the local labour supply. The factor-proportions approach posits a national labour market, and generally uses time series data to simulate the relationship of changes in national wages or employment of a particular skill group to changes in the share of immigrants in that group. The different skill groups serve as the different “areas”. It compares the actual supplies of workers in particular skill groups to those that would prevail in the absence of immigration (the counter-factual situation). It is argued that changed factor proportions due to immigration will lead to different wage and employment outcomes for native skilled and low-skilled workers.

The employment impact of immigration on native workers has continued to be the subject of debate in both the United States and Europe. The issue is whether the employment of foreign workers leads to displacement of native workers in the profession. Many studies on Europe and the United States surveying the literature on the employment impact of migration on native employment have pointed to small negative employment effects. This basically means that immigrants do not displace natives in employment in any significant way.

As regards the impact on wages and earnings, the popular view is that migrant workers compete with national workers, depressing their wages and worsening income distribution. Yet most research does not support this view. The general finding of a wide range of studies is that any negative effect of immigration on wages is small, if it exists at all.

In regard to the specific impact of immigration of health workers on employment and wages in the health sector, there are hardly any studies in Europe, including the United Kingdom. While there have been some important studies of health professions in Europe in recent years -- Health Professional Mobility in the European Union Project (PROMeTHEUS), Mobility of Health Professionals Project (MoHProf), and the Nurse Forecasting Project (RN4CAST), all funded by the European Commission -- they have not addressed wage and employment impacts of medical migration. In discussing the labour

market impact, the study recognises that the health labour market is highly regulated in many countries because of market failures, which reduces the scope for isolating the impact. This especially applies to the United Kingdom situation, where the National Health Service (NHS) is the main public-sector employer.

The study first reviewed trends in the UK's health immigration for understanding the labour market impact of medical immigration. The period 1997-2004 represented a time of high recruitment of health workers from different world regions, particularly India and the Philippines. Since 2006, there has been a marked shift in the new inflows in favour of European Union (EU)/European Economic Area (EEA) health workers given the EU/EEA free mobility directive. Changes in the shortage occupation list of the British Home Office have removed a number of health worker categories, including general nursing, leading to a large reduction of inflows from non-EU countries.

New rules have also made the role of the United Kingdom as a centre for postgraduate medical training less accessible to students from developing countries. Frequent changes in UK immigration policies, sometimes with retrospective effect, have caused difficulties for health sector workforce planning and individual immigrant health professionals, such as those who immigrated under old rules, e.g. the Highly Skilled Migrant Programme (HSMP).

There is also limited circular migration of health professionals between European countries and developing origin countries as advocated by the European Commission, and the only programme resembling a circular migration initiative is the UK's Medical Training Initiative (MTI) of the Academy of Medical Royal Colleges. The bilateral agreements for admission of health workers signed with India and the Philippines have become defunct under new immigration rules, although not formally abrogated.

Rutten's 2004 study of health worker immigration impact in the United Kingdom -- undertaken in the period of high recruitment -- is the only work specifically covering the economic impact. It analyses the macro-economic impacts of migration of skilled medical personnel from a receiving country's perspective, in this case the United Kingdom. The methodology employed is general equilibrium analysis, which can cover economy-wide effects of immigration of health workers into the NHS. The hypothesis is that an increase in the size of the health sector reduces the supply of skilled workers available to other sectors, and thereby the output of these sectors. But the strengthened health sector simultaneously helps increase the effective supplies of labour by improving the health of all workers. The final impact depends on the factor bias (changes in the ratio of skilled to unskilled labour) and the scale effect of effective labour supply impacts. The main finding of the model is that admitting foreign doctors and nurses into the United Kingdom would generate higher overall welfare gains than a generic increase in the NHS budget. Given the possible medical brain drain from developing origin countries, the study concludes that in the long term, "the only sustainable policy which addresses the root cause of the shortage of medical personnel is to increase the number of medical school places in the United Kingdom".

Given the absence of other specific studies on the United Kingdom or European countries on the theme, the paper reviewed US literature, which was richer in this area. There has been no change in the policy of overseas recruitment of health workers in the United States, although the global financial and economic crisis probably slowed down new recruitments. One study considered pertained to physician immigration, while others focussed on nurse immigration. These studies have also used the area and factor proportions approaches cited above, and used large datasets covering different states. Health professionals from India and the Philippines formed a large share in these samples. Both time series and cross-section data have been used in estimations. All studies concur in one finding: the impact is either absent or not significant in most cases where an impact is found. They also did not find any evidence

to suggest that health worker migration led to movement of native health workers from areas of high concentration of immigrant health workers. These findings are similar to those of general studies of immigration on the labour market, suggesting that even for immigrant health professionals, the impacts are not that strong. The studies also agree that these findings have limited validity for formulation of long-run immigration policies in the health sector, mostly because of ethical considerations regarding brain drain from developing origin countries.

### ***Impact on health sector performance***

The second area of investigation was the impact of immigrant health professionals on the performance of health systems. In addressing this, the framework provided by the World Health Report 2000 of the World Health Organization (WHO) on the goals and functions of a national health system was used. The focus is on four vital functions of “service provision, resource generation, financing and stewardship”, to achieve the overall goals of the health system: good health, responsiveness to the expectations of the population, and fairness of financial contribution.

Migrant health workers have contributed considerably to expansion of the delivery of services, since they are often brought in to address particular shortages, and they favourably influence the geographical distribution, skill mix and size of the health workforce. Immigrant health workers are also used to address less popular specialities and under-served regions of the country. The resource function refers to “the manpower, skills and knowledge required by a health system”. In developed destination countries such as Australia, the United States and the United Kingdom, immigration of health professionals is a strategy for expanding health staff resources.

Given that immigrant health professionals enter destination countries in search of higher wages, mobility has obvious implications for the financing function of the health system. In the NHS there is little correlation between recruiting migrant workers and the reduction in associated labour costs, given that same wages and benefits are provided to immigrant professionals. Spain is an important destination country where foreign health workers inflows from Latin America have served to keep salary levels in the public sector fiscally sustainable. Recently, a case has been made for a relaxation of immigration rules in the United Kingdom to bring in more overseas doctors to keep costs down, which cannot be upheld in terms of international norms. But the United Kingdom has saved considerably by bringing in health workers trained at public expense of other countries, mostly developing countries. The British Medical Association (BMA) estimated that the NHS has saved up to £250,000 for each doctor trained elsewhere.

Inflow of foreign-trained nurses also has saved the United Kingdom considerable amounts in training costs. Other major destination countries such as Australia, Canada and the United States also continue to make substantial savings in recruiting overseas-trained doctors and nurses, often at the expense of developing countries. There has been considerable discussion of the ethical dimensions of these recruitments, and whether and how destination countries should compensate origin countries adversely affected.

### ***Impact on quality of care***

The third aspect of the impact is the quality of care. Three approaches have generally been used in the literature to assess the impact on quality of care by international medical professionals:

- a. fitness to practice procedures based on complaints from patients, public bodies, hospital trusts or peers, which is popular in the UK;
- b. educational measures of quality: equivalence or shortfalls in qualifications obtained abroad, language skills, and failure rates in competitive qualifying examinations; and
- c. comparison of clinical outcomes for patients cared by native and immigrant health professionals.

A number of studies have found that doctors qualified outside the United Kingdom are more likely to be associated with higher impact adverse decisions at each stage of the fitness to practice process. According to one UK study, during 1999-2001, a higher proportion of overseas qualifiers than UK qualifiers were referred to the Preliminary Proceedings Committee by screeners at a ratio of 2:3. Other studies also point to the fact that a larger proportion of complaints about overseas qualified doctors were sent to a fitness to practise panel following investigation. Similar patterns of complaints have been reported from Canada. Yet there has also been concern about the effect of racism and discrimination regarding complaints procedures in the health systems at many levels.

There is no consistency regarding the comparative quality of native medical graduates and international medical graduates (IMGs), based on their performance at examinations. Non-US medical graduates have generally fared worse than US graduates in the US Medical Licensing Examination. Similar concerns have been raised in the United Kingdom by the General Medical Council (GMC) which found some evidence that “doctors in postgraduate training who gained their primary medical qualification overseas are proportionally more likely to experience challenges in progressing through training”.

In regard to the patient outcome criterion, a US study carried out a test of quality of IMGs by looking at mortality rates of patients cared for, and it found no significant mortality difference when comparing all IMGs with all US medical school graduates.

In the assessment of performance and quality of care, it is important to keep in mind that immigrant health professionals face a number of special problems in the workplace, as well as general living conditions in destination countries. There is evidence that they often work under more difficult conditions (e.g. late or night shifts, home care), and their conditions of work may be inferior in some cases to those of native workers. There is also documented evidence of racism and discrimination in the workplace by fellow workers and patients. A study focussing on the experience of doctors who have qualified outside the United Kingdom in working within the ethical regulatory framework of good medical practice (GMP) found that the main information, training, and support available to non-UK qualified doctors wishing to work in the United Kingdom had little emphasis on ethical and professional standards. These factors may cause overseas health professionals to perform below their potential.

### ***Policy implications***

There is not much evidence that migration of health professionals has had any significant adverse labour market impacts, while their positive contributions to the performance of health systems have been well documented. Individual migrants also have improved their welfare by migrating to developed destinations. Still, studies have shown that immigrant health professionals have not had equal opportunities for career progression. But there is continuing concern about brain drain of health workers from origin countries. While the United Kingdom had shown some concern on this development impact until recently, other major destination countries (Australia, Canada, New Zealand, and the United States) have rarely considered adverse impacts on source countries in their health worker admission policies. While circular migration involving short-term temporary migration back and forth between origin and destination countries has been advocated to address this situation, it has not been seriously considered by any country as an option to minimise brain drain while ensuring migrant rights and welfare. In terms of the above analysis, the following policy options stand out:

- the need for better data generation on inflows and outflows and to capture the impact of health worker immigration in both origin and destination countries;
- documenting the contributions of immigrant health workers to national health systems;
- careful review of immigration policy changes on immigrant health workers, including those already present in the country from traditional source countries;

- addressing issues of lack of proper orientation of foreign medical workers on ethical and regulatory frameworks on good medical practise in countries of destination, by providing specific information and educational resources prior to registration and accompanied by in-practice support;
- review impediments on equal access and opportunities for immigrant health professionals for career advancement, and adopt corrective policies and measures; and
- take remedial measures to compensate for the adverse impacts of recruitment from developing origin countries: ensure access to advanced/specialised medical training in destination countries; invest in training of medical personnel in origin countries; provision for regular exchange programmes; and promote two way circular migration of health professions between origin and destination countries through bilateral agreements and volunteer partnerships, among others.

### **About the author**

Dr Piyasiri Wickramsekara (piyasiriw@globalmigrationpolicy.org) is Vice-President of Global Migration Policy Associates (GMPA), a multidisciplinary team of international migration experts. He previously served as Senior Migration Specialist, International Labour Office, Geneva. His expertise in international migration covers: labour migration in Asia, migration of skilled workers, migration and development, temporary and circular migration schemes, and rights of migrant workers, among others. He has published widely in his areas of expertise, and was a major contributor to the ILO monograph, *International labour migration: A rights-based approach* (2010). His recent publications include monographs on *Circular Migration: A triple win or a dead end*, *Labour migration in South Asia: A review of issues, policies and practices*, and *Decent Work, youth employment and migration in Asia*, all published by the ILO.

*This publication has been produced with the assistance of the European Union. The contents of this publication are the sole responsibility of Mr Piyasiri Wickramasekara, consultant to the International Labour Organization and can in no way be taken to reflect the views of the European Union.*

## Abbreviations

BAPIO	British Association of Physicians of Indian Origin
BMA	British Medical Association
CQC	Care Quality Commission (UK)
CSA	Clinical Skills Assessment
DFID	Department for International Development, UK
DOH	Department of Health, UK
DWAB	Decent Work Across Borders, ILO/EC project, Manila, Philippines
EEA	European Economic Area: consists of 26 EU Member States (except Croatia, which is negotiating membership), and non-EU members: Iceland, Liechtenstein and Norway. Switzerland is not a member of EEA.
EMA	European Medical Association
EPSU	European Federation of Public services Unions
EU / EU27	The current European Union
GDP	Gross domestic product
GHWA	Global Health Workforce Alliance
GMC	General Medical Council, UK
GMP	Good medical practice
GP	General practitioner
HRH	Human Resources for Health
HRIS	Human resources information systems (HRIS)
ICN	International Council of Nurses
HSMP	Highly Skilled Migrant Programme, UK.
HOSPEEM	The European Hospital and Healthcare Employers' Association
IELTS	International English Language Testing System
IEN	Internationally educated nurses
IHF	International Hospital Federation
ILO	International Labour Organization/International Labour Office
IMF	International Monetary Fund
IMG	International medical graduates
ISCED	International Standard Classification of Education
IOM	International Organization for Migration
ISCO-08	International Standard Classification of Occupations
MAC	Migration Advisory Committee, UK
MoHProf	Mobility of Health Professionals Project by Scientific Institute of German Medical Doctors
MRCGP	Member of the Royal College of General Practitioners (UK)
MUAs	Medically underserved areas
NCLEX	National Council Licensure Examination: examination for the licensing of nurses in the United States
NHS	National Health Service, United Kingdom
NMC	Nursing and Midwifery Council, UK
PCC	Professional Conduct Committee, General Medical Council, UK
PMQ	Place of primary qualification
PROMeTHEUS	Health Professional Mobility in the European Union Project



OECD	Organisation for Economic Cooperation and Development
PHI	Public Health Institute (United States)
PPI	Patient and public involvement
RCN	Royal College of Nursing, UK
RN	Registered Nurse
TOEFL	Test of English as a Foreign Language
UN	United Nations
USMG	United States Medical Graduates
WHO	World Health Organization
WIAD	Scientific Institute of the Medical Association of German Doctors (Wissenschaftliches Institut der Ärzte Deutschlands)
WMA	World Medical Association

# 1. Introduction

Health worker migration has become a high-level international concern, especially in the past two decades, mainly as a result of the observed adverse impacts of the medical brain drain from developing countries, and their implications for attainment of Millennium Development Goals. Most studies of health-worker migration have therefore tended to focus on the impact of their migration on health systems in origin countries, ethical recruitment, and codes of practice. There is, however, renewed interest in the situation in destination countries in recent years for several reasons. Demographic trends, including population decline and ageing in destination countries, are boosting the demand for migrant workers, particularly younger workers and health-care workers to look after the elderly populations. The global financial and economic crisis has also affected the recruitment of international health workers in major destination countries. Another development is the active promotion of temporary or circular migration programmes in place of permanent or long-term emigration at the international level by the European Commission (2007; 2010) and the Global Forum on Migration and Development (GFMD Platform for Partnerships, 2011), among others (cited in: Wickramasekara, 2011). In the European context, the enlargement of the EU has also resulted in additional flows of health workers from the new accession countries. Some destination countries also have increased the number of health workers through expansion of medical schools and nursing admissions to reduce dependence on foreign health workers.

In the Organisation for Economic Cooperation and Development (OECD) countries, it was found that around the year 2000, on average 11 per cent of employed nurses and 18 per cent of employed doctors were foreign-born, with important variations across countries (summarised in Annex 4, based on OECD 2007). It also showed that about half of foreign-born doctors or nurses working in OECD countries were located in the United States, almost 40 per cent in Europe and the remainder in Australia and Canada. The United States was the only net receiver of doctors and nurses vis-à-vis all other countries in the world. Filipino-born nurses and Indian-born doctors each represented about 15 per cent of all immigrant nurses and doctors in the OECD, while the United Kingdom and Germany were the second and third most important origin countries of health workers.

Yet research on the impact of health-worker migration on wages and labour market conditions in destination countries, particularly in Europe and the United Kingdom, have been very limited. Several recent research projects have looked at professional health mobility and their characteristics in Europe, but have not discussed the impact of such mobility on wages and labour markets. It is in this context that the present study has been conceived under the framework of the ILO's "Decent Work Across Borders (DWAB): a Pilot Project for Migrant Health Professionals and Skilled Workers (INT/09/11/EEC)".

## Objectives of the study

The main objective of the study is to conduct a desk review of the impact of the migration of health professionals on labour markets, and performance and quality of services of the health sector in destination countries in Europe, especially the United Kingdom and the United States.

The study has the following specific objectives:

- a. identify the potential type of impacts and effects migration of health professionals are likely to have on host countries;



- b. provide an analysis of such impacts and effects; and
- c. propose policy recommendations to enhance the positive impact of migration of health professionals in host countries and mitigate any related negative effects.

## 2. Methodology and data sources

### 2.1 Definitions

The WHO definition of a health system is reproduced in Box 1.

**Box 1:  
Definition of “Health System”**

The people, institutions and resources, arranged together in accordance with established policies, to improve the health of the population they serve, while responding to people's legitimate expectations and protecting them against the cost of ill-health through a variety of activities whose primary intent is to improve health.

Set of elements and their relations in a complex whole, designed to serve the health needs of the population.

WHO Glossary (2000a).

[http://www.who.int/health-systems-performance/docs/glossary.htm#health\\_system](http://www.who.int/health-systems-performance/docs/glossary.htm#health_system)

The WHO (2000b) highlights that health systems fulfil three main functions: health-care delivery, fair treatment to all, and meeting non-health expectations of the population -- all designed to achieve the three major goals of health, responsiveness and fair financing.

The health workforce consisting of both native and immigrant workers are critical to the achievement of goals and functions. As Anand and Bärnighausen (2011) point out, existing health-system frameworks “either do not include health workers as a central feature of system functioning, or treat them as one among several components of equal importance”.

As every function of the health system is either undertaken by, or mediated through, the health worker, we place the health worker at the centre of the health system. Our framework is useful for those structuring research on the health workforce and for identifying health-worker research issues (Anand and Bärnighausen, 2011: 185).

In discussing the impact, it is important to distinguish between different categories of migrant health workers. Health professionals are included in Category 2 -- Professionals; in the 2008 ILO revised International Standard Classification of Occupations (ISCO-08). Annex 1 shows the three and four digit level classifications, and a summary is provided below of the two categories: a) Doctors; and, b) Nurses, who are classified into two further groups.

ISCO-08 Code	Category
22	Health professionals
221	Medical doctors
2211	Generalist medical practitioners
2212	Specialist medical practitioners
221	Nursing and midwifery professionals
2221	Nursing professionals
2222	Midwifery professionals

Source: ILO, 2012, ISCO-08.

In Europe and elsewhere, these broad categories capture a wide array of professional titles, specialisations, competences, responsibilities and subcategories. The term “physician” is used interchangeably for doctors. Apart from the phrase “general care nurse” used in the EU, nurses also have specialisations (Tjadens and Weilandt, 2012). They are also referred to as health-care professionals, health-service professionals, health-service providers, or health workers in some contexts (Andalon and Fields, 2011). Immigrant health workers are also referred to in different ways in the literature: immigrant health workers; foreign-born health professionals; IMGs (commonly used in the United States); foreign-trained medical graduates and nurses; or those with a non-UK Primary Qualification (GMC, 2012). The health labour market is important not only because it forms a sizeable part of the total workforce, but also because of its pervasive influence on treatment of health of all workers. “The labour market for health professionals is derived from and directly connected to the market for health and medical services.” (Scheffler, 2012: 3).

The demand for health workers is a derived demand emanating from the desire for health services by the public and private sectors. The main employers of health professionals are public and private hospitals and clinics, and the patients themselves. The market labour demand is thus “the number of health professionals with the necessary qualifications employers desire to hire and have the means to pay for”. (Andalon and Fields 2011). The market labour supply consists of the number of doctors, nurses, midwives, and other health-care professionals wanting to work in the health professionals’ labour market (Andalon and Fields 2011). The supply is generally related to the level of wages. Immigration helps increase the supply of health workers in the country.

The health labour market is regulated in many countries because of market failure. The main reason for regulation is that consumers may not be able to judge the quality of services provided by the health workforce due to “information asymmetry”.<sup>1</sup> (Nicholson and Propper, 2012). Grignon et al., (2012: 5) point out that: “Most health service provision is ‘custom work’ employing specialised knowledge that makes it very

<sup>1</sup> This is a condition where at least some relevant information is known to some, but not all parties involved. Information asymmetry causes markets to become inefficient, since all the market participants do not have access to the information they need for their decision making processes. “Informational asymmetry occurs when one party to a transaction has more information pertinent to the transaction than does the other party, which may allow the better informed party to exploit the less-informed party.” (Hurley, 2000: 73).

costly to judge provider effort and the quality of the work performed”. Nicholson and Propper (2012) have described in detail the factors determining the demand and supply factors and state regulation of the medical labour market in their recent analysis.

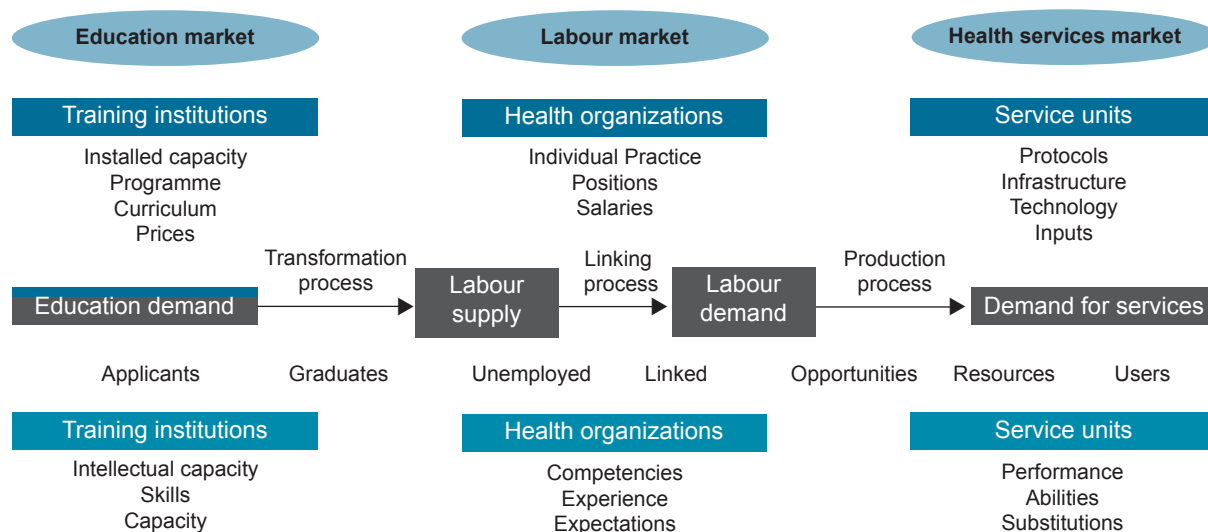
These regulations are more pervasive for immigrant health professionals. Rigorous licensing procedures, qualification recognition, labour market tests, and induction programmes are all used by professional bodies with the professed objective of quality assurance, which restrict access to the professional health labour market. This is especially the case for those health professionals admitted under general skilled immigration programmes without prior job placement, as seen in Australia and Canada. The free mobility of labour system within the EU has removed most of these barriers for EU health professionals, except those from new accession countries (Bulgaria and Romania).

Inoue (Inoue 2010) has examined the regulations implemented by regulatory bodies in the EU, the United Kingdom and Japan concerning admission of overseas nurses from abroad. He finds that “verifying qualifications, assessing language skills, and admitting work permits are important, instant, and effective measures through which regulatory bodies can promote or mitigate the impact of push-pull factors on the inflow of nurses into their territories”. Compared to Europe, Japan’s Economic Partnership Agreement (EPA) is a fully fledged regulatory arrangement with many restrictions, ranging from quantitative restriction, refusal of mutual recognition, refusal of verification of qualification valid in other countries, and language proficiency to work permits.

## 2.2 Labour market for health professionals

The linkages between markets for education, labour and health services are highlighted in Figure 1, reproduced from the WHO (2006). The supply of medical workers depends on the capacity of training institutions and the cost of training. In many developing countries, a substantial share cost of training is subsidised because health education is regarded as a public good that benefits society as a whole (Scheffler, 2012).

**Figure 1. Relationship of education, labour and health services markers with human resources**



Source: Reproduced from WHO, 2006a: 56.

In recent years, the health labour market has been driven by globalization, and there has been debate whether the health labour market has become global. It is widely held that globalization has promoted high flows of health workers from the developing world to developed countries.

This global trend is confirmed by Clark et al., (2006):

Global shortages of nurses, physicians, pharmacists, and other health-care practitioners have spurred migration not just from less affluent to more affluent countries, but also between poor countries and between wealthy ones. The result is a growing global labour market for professionals in health care (Clark, Stewart et al., 2006: 37).

Raghuram and Kofman (2012) have highlighted the specificity of skilled labour markets by taking the medical profession as an example. They have shown the manner in which “government regulations, both of immigration and those governing medical labour force, have been altered to meet the specificities of the internal labour market” (Raghuram and Kofman 2012: 2086) in the United Kingdom. According to them, organizations that regulate the labour market such as Royal Colleges are important meso-level actors in the migration of doctors, quite different from recruitment agencies and other meso-level facilitators of migration.

Any theorisation of skilled migration in welfare sectors would need to take into account the role of the state in the education and training of specific labour forces, the nature of labour shortages, the strength and effectiveness of protectionist bodies, such as professional organizations, their influence on immigration, and the recognition of migrant qualifications by states and within macro regions (Raghuram and Kofman, 2002: 2087).

Additionally, the fact that skilled migrants in the UK's medical sector were mostly (in 2002) from developing countries, forming a visible minority means that they have been affected by the shift to the EU from the Commonwealth in UK policies. Their findings that the state level remains to be a useful analytical level for understanding the skilled migration of doctors corroborate Bach's analysis for nurse migration in England (Bach, 2010b).

This is because of the dominant role of “state policy and employer behaviour [that] have resulted in the internationalization rather than the globalization of the nursing labour market”. (Bach, 2010b). Nurses have been drawn from established sources rather than from across the globe. Bach has examined recent trends in UK migration among nurses and has pointed to the need to incorporate state policy, employer preferences and trade union responses in understanding trends in nurse migration to the United Kingdom and the consequences for a range of stakeholders. He questions the view that the employment of migrant nurses is a result of a “spontaneous process of globalisation”. The state has placed a key role in elaborating a “set of policy approaches and institutional arrangements that shape the utilisation of migrant labour” through institution building via the UK Migration Advisory Committee (MAC), and co-option of employers and trade unions. He therefore argues that nurse migration to the United Kingdom has become international rather than global (Bach, 2007).

It is important to raise the issue whether there is a regional labour market within Europe with the enlargement of the EU.<sup>2</sup> One indicator is the UK health sector, which is increasingly drawing health professionals from the European Economic Area (EEA)<sup>3</sup> as opposed to traditional non-EEA sources (Wismar et al., 2011).

The EU enlargement has facilitated the mobility of EU citizens, including health professionals, from the 2004 and 2007 EU accession states. In fact PROMeTHEUS raised this issue and came up with the following generalization:

The stock of health professionals from the new (EU-12) into the old EU Member States (EU-15) have increased following EU accession. The stock of medical doctors from the EU-12 in the EU-15 countries has more than doubled between 2003 and 2007. Health professionals trained in the EU-12 are becoming increasingly important in providing sufficient health care in some destination countries and regions facing staff shortages (Ognyanova et al., 2012: 122).

However, it concludes that the expected mass exodus of health professionals has not taken place after the 2004 and 2007 EU enlargements. The estimated annual outflows from the EU-12 countries have rarely exceeded 3 per cent of the domestic workforce. This is due to several reasons, including labour market restrictions in the destination countries and improvements in salaries and working conditions in some source countries (Ognyanova et al., 2012). This, however, is only part of the story. Several Eastern European countries (Bulgaria, Czech Republic, Hungary, and Poland) have seen a large outflow affecting their health-care situation (Stracansky 2010). According to a statement to the media by the Bulgarian Health Minister in April 2010, “the country had only half the number of nurses it needs” and that “one doctor leaves the country to work abroad every day -- a catastrophe for Bulgarian health care”. (Cited in Stracansky, 2010).

## **2.3 Notes on analytical framework for impact assessment**

Migration has impacts both on origin countries as well as destination countries. This study is concerned mainly with impacts on destination countries. “Impact” means changes resulting from or induced by immigration -- in this case immigration of health workers, on the economy of the host society -- labour market and wages.

However it is not easy in a migration impact study in isolating the direction of the causality (Migration Advisory Committee 2012). As Maier et al., (2011) point out:

Impacts are developments which can be particularly hard to capture. One reason is the time lag between noticing and measuring a phenomenon. Another is the difficulty of establishing cause and effect; for example, how can a change in care delivery patterns be attributed to the inflows or outflows of health professionals? It may also take time before any effect trickles through and becomes visible. Moreover,

---

<sup>2</sup> Ten countries joined the EU in 2004: Czech Republic, Cyprus, Estonia, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia and Slovakia; from January 2007, Bulgaria and Romania have also been members of EU.

<sup>3</sup> The EEA unites the 27 EU Member States and the three EEA EFTA States (Iceland, Liechtenstein, and Norway). See: [http://www.efta.int/~media/Files/Publications/Fact%20sheets/EEA%20factsheets/FS\\_EEA.pdf](http://www.efta.int/~media/Files/Publications/Fact%20sheets/EEA%20factsheets/FS_EEA.pdf)

impacts likely go unreported or underreported, as few resources are dedicated to monitoring health professional mobility. Finally, when mobility is associated with expectations, impacts may appear smaller if expected to be greater (Maier, Glinos et al., 2011: 48).

While employment and wages are more tangible indicators, it will be more difficult to measure quality of care aspects (Dustmann and Frattini, 2010).

### 2.3.1 Types of impact

A major area of interest from the viewpoint of current research is the impact on effects of health-worker migration. This should be distinguished from the contribution of immigrant health workers to the national health system in the destination countries, which is expected to be largely beneficial.

The impact of migration of health workers has several dimensions:

- a) *Impact of health worker migration on origin countries:* This is an area where considerable work has been carried out by academics, non-government organizations (NGOs) and international organizations. Concern with such migration has led to the development of codes of practice, such as the international code of practice for ethical recruitment of health workers by the Commonwealth Secretariat (2003), and more recently by the WHO (WHO, 2010).
- b) *Impact of migration on migrant health workers in destination countries:* These can relate to conditions of work covering discrimination and racism, abuse and exploitation, deskilling, lack of career prospects, restricted access to training and other services, and isolation in private homes for elderly care or rural communities (Chen and Boufford, 2005; WHO, 2006a). This will be covered in another study under the DWAB Project.
- c) *Impact of health worker migration on local labour markets and wages in destination countries:* This is the major focus of the present study, and has to address impacts on native-skilled workers, low-skilled workers and previous migrant workers. There is very limited literature on this aspect in Europe, whereas there are several US studies (Rutten, Blake et al., 2006; Rutten, 2007; Cook, 2009; Murthy, 2009; Kalist, Spurr et al., 2010; Kaetsner and Kaushal, 2012; Schumacher, 2010).
- d) *Impact of health workers on the performance of health systems and the quality of health care in destination countries:*  
Research is also sparse on this issue, although PROMeTHEUS had it as one of the objectives (Wismar et al., 2011). The country case studies have, however, dealt with the issue in varying degrees.

The present study will deal mainly with the impact of health worker migration on local labour markets and wages in destination countries (item c), and to a lesser extent with the impact of health workers on the performance of health systems and the quality of health care in destination countries (item d), as data would permit.

### 2.3.2 Major labour market indicators for impact assessment

There is broad agreement on indicators to be covered (Brucker, 2012; Migration Advisory Committee, 2012; Ruhs and Vargas-Silva, 2012).

- Wages and salaries: this is the most obvious and tangible indicator. The issue is whether migrant health workers cause local wages to be lower or not.
- Distribution of wages: how wage incomes are distributed between migrant and non-migrant groups of workers and the wages of different groups of workers along the wage distribution (e.g. low, medium and high-paid workers). It is possible, for example, that immigration leads to a rise in the average wage of all workers, but to a fall in the wages of some low-paid workers.
- Employment: do migrants take jobs away from local workers? The impact of immigration on wages and employment of existing workers mainly depend on whether and to what extent migrants' skills are complements or substitutes to the skills of existing workers, and on how immigration affects the demand for labour (Ruhs and Vargas-Silva, 2012). The location of migrant workers is also important whether they are in urban centres or rural and remote areas.
- Unemployment and underemployment: do migrant workers cause unemployment for local workers?
- Mobility of native workers: it is possible that migrant workers may induce native workers to leave areas of high migrant concentration?

The same indicators can be used in assessing the impact of health-worker migration provided reasonable data are available, either on a time series basis, or from cross-section survey data.

### 2.3.3 Factors to be considered in assessment of impact

In discussing the impact, it is important to distinguish between different categories of migrant health workers.

The preliminary literature review has shown that most of the available information is on nurse migration. This is to be expected, because they represent the largest numbers of migrating health workers. Each of these groups face different options in regard to employment, wages and working conditions in the destination countries, given the differences in their professional training, skills and experience and the nature of jobs.

Health professionals represent a skilled worker group. Yet their entry to the labour market may not be automatic. As Grignon et al., (2012: 19) point out: "Although not a problem exclusive to health professions, immigration for health professionals ... is far more costly, administratively complex, and fraught with risk than is the case for the typical worker."

In most countries, doctors have to undergo specific licensure programmes before they are allowed to practice. Nurses may have to undergo supervised work periods before they fully qualify as registered



nurses. This is the case in the United Kingdom since 2006, where immigrant nurses have to complete the Overseas Nursing Programme before they can qualify for registration with the Nursing and Midwifery Council (NMC). Young has provided a detailed listing of the UK professional qualification requirements for health professionals from the EEA and non-EEA countries (Young, 2011a: Table 3). Language skills requirements also may act as impediments to full labour market integration at the beginning. Moreover, qualification recognition procedures may treat them differently in destination countries. For the United Kingdom, this may not be so much of a problem for health professionals hired under the NHS, who usually have matching jobs.

There are several factors that determine the actual impact (Dustmann and Frattini, 2010; Migration Advisory Committee, 2012; Ruhs and Vargas-Silva, 2012).

- a) Skill composition of incoming workers, skill profile of native workers, and its implications for the overall skill mix of the host country workforce. Cross-border movements of health professionals affect the sizes of the health workforces in source and destination countries, their skill mix and their distribution over the territory. These determine whether the incoming workers are substitutes or complements to the native workforce.
- b) Occupational distribution of migrant and native workers in terms of specialities and areas of work: this is directly related to the above.
- c) The number of immigrant health workers. The ratio of incoming workers to the native workforce in the sector can be an indicator. In the United Kingdom, immigrant doctors comprise close to 30 per cent of the national stock of all doctors, and immigrant nurses about 18 per cent of the nursing workforce. In general, the higher the ratio, the greater the impact. At the same time, the impact may not be directly related to the size of the flows, especially for origin countries because “...the departure of even a few specialist doctors can produce a substantial effect on service delivery”. (Maier, Glinos et al., 2011: 49)
- d) Employment pattern and shares of employment of migrant workers in the public and private sectors. In the United Kingdom the NHS is the major employer, while the private sector is more dominant as employers in the United States.
- e) Migration status of workers: whether permanent, temporary, circular or undocumented. In many destination countries, rigid registration and licensing procedures make it unlikely for undocumented immigrant doctors to practice. However, there may be health professionals among the refugee populations, but they may not be allowed to practise by national laws. Australia admits doctors and nurses on a temporary basis to provide in under-served areas, while immigrant doctors on permanent visas have difficulties in obtaining licenses to practise. At the same time, one needs to differentiate between new migrant workers and previous migrant workers because they may be closer substitutes and the impact may be felt mostly by earlier workers.
- f) Recruitment procedures: through public sector or private recruiters. The final impact is not independent of the recruitment systems because unethical recruitment by unscrupulous agents is one reason for under-cutting local wages by what is described as “social dumping”. Trade unions in destination countries are especially concerned about this possibility (Hardy et al.,



2012). Those employed in private nursing homes and care workers looking after elderly persons are particularly vulnerable to these practices (Hardy et al, 2012; OECD, 2011). Codes of practice have been developed to govern the activities of recruitment agencies, but their effectiveness is limited (Connell and Buchan, 2011).

## **2.4 Sources of data and limitations**

The study is mainly a desk review based on secondary sources. Therefore, the discussion has been constrained by available and accessible literature.

The study adopted several methods in the analysis:

### **A. Literature survey**

- a) Extensive web search. This was performed using Google as the main search engine, supplemented by Google Scholar.
- b) Accessing online electronic databases: searches were made on ILO Labordoc, ProQuest and Science Direct using key search terms.
- c) Compilation of bibliography using EndNote online search to download important references from major libraries.

### **B. Consultations with key resource persons**

A series of key informant interviews were carried out through email correspondence, personal interviews and Skype discussions to elicit relevant information. This meant emphasizing qualitative aspects of information gathering. Key informant interviews also generally confirmed the lack of information in this area. The consultant undertook a visit to London, England, during 13-16 March 2013 to conduct interviews with government officials, academics, trade unions and NGOs.

The list of resource persons contacted is provided in Annex 2.

### **C. Extending focus countries/regions**

The focus of the DWAB Project is on mobility of health professionals between selected Asian countries (India, Philippines and Vietnam) and the EU member states. A recurrent issue was the lack of relevant information on major focus areas for the United Kingdom and other important European destinations on issues of concern. As Diallo points out: “Most statistics on the migration of health-care workers are neither complete nor fully comparable, and they are often under-used, limited (because they often give only a broad description of the phenomena), and not as timely as required.” (Diallo, 2004: 601). There is also a discrepancy between registrations by professional bodies and actual employment in the health service. The OECD review of immigrant health professionals found that there was a large difference between the number of doctors registered by the GMC (around 210,000 in 2005) and the number of doctors employed by the NHS -- between 100,000 and 120,000 for the same year (OECD, 2007).

Existing research is mostly on mobility within the EU, and not from third countries to Europe. Several major research projects had been recently undertaken in Europe on migration and mobility of health professionals (see 3.1 below), but they have raised different research issues as explained (Dessault, Frontiera et al., 2009; Wismar et al., 2011; Dia, 2012; Tjadens and Weilandt, 2012). The

present study has therefore tried to extend the analysis to cover other regions/countries, especially the United States and Canada as relevant.

### **3. Mobility of health professional in Europe and across the globe**

#### **3.1 Overview of studies on mobility and impact**

##### **3.1.1 Recent European studies on mobility of health professionals**

A few words are in order about some European projects on professional mobility in the health sector recently carried out.

PROMeTHEUS, coordinated by the European Observatory on Health Systems and Policies funded by the European Commission's 7th Framework Programme for Research, looked at health professional mobility and health systems of 17 countries in Europe (Wismar et al., 2011). MoHProf, also funded by the European Commission, reviewed the current situation of and trends and developments in international migration of health workers in 25 countries around the world, with a focus on migration within, to and from the EU (Tjadens and Weilandt, 2012). A project for forecasting the demand for nurses was also carried out with EU support. The COST Project, "Health and Social Care for Migrants and Ethnic Minorities in Europe", (2008-2011) of the Department of Sociology, University of Geneva, reviewed migration, health policies and the international mobility of skilled health professionals in the United Kingdom, Switzerland, France and Sweden, with Canada as a reference country (Dia, 2012).<sup>4</sup> The results of the last project are not in the public domain.<sup>5</sup>

*Mobility of Health Professionals: Health systems, work conditions, patterns of health workers' mobility and implications for policy makers (<http://www.mohprof.eu/>)*

This three-year project was launched in November 2008, coordinated by Scientific Institute of the Medical Association of German Doctors (WIAD), with funding from the EU within the Seventh Framework Programme. The main objective of the project was to research current trends of mobility of health professionals to, from and within the EU, although some research was conducted in origin countries. The specific objectives of the project were:

- analysis of current trends of the mobility of health professionals to, from and within the EU, including return and circular migration;
- evaluation of policies addressing migration; and
- development of evidence-based recommendations on human resource policies in European and third countries.

---

<sup>4</sup> Dia (2012) summarises the findings of the COST Project IS0603 "Health and Social Care for Migrants and Ethnic Minorities in Europe" (2008-2011), coordinated by Professor Sandro Cattacin of the Department of Sociology, University of Geneva.

<sup>5</sup> Some reports were obtained through courtesy of Professor Cattacin.

Labour market impacts were not one of the focus areas of this project. It covered important EU destination countries: Austria, Germany, France, Ireland, Netherlands, Portugal, Sweden, and the United Kingdom. It also covered the important origin countries for the DWAB Project -- India and the Philippines. The analysis also identified four categories of factors motivating migration and retention: Push factors pushing national health-care workers abroad; Pull factors pulling immigrants into the country; Stick factors sticking the national health-care workers in the home country; and Stay factors discouraging re-emigration of immigrants in destination country. The summary report made a number of recommendations on human resource policies in European and third countries for policy and decision makers. (Tjadens and Weilandt, 2012).

*Wismar, M. et al., (eds) (2011). Health professional mobility and health systems: Evidence from 17 European countries, European Observatory on Health Systems and Policies and the World Health Organization (Wismar et al., 2011).<sup>6</sup>*

The studies were conducted within the framework of PROMeTHEUS, addressing gaps in knowledge about the numbers, trends, impacts and policy responses to health mobility, focusing on Austria, Belgium, Estonia, Finland, France, Germany, Hungary, Italy, Lithuania, Poland, Romania, Serbia, Slovakia, Slovenia, Spain, Turkey and the United Kingdom.

While the studies did not elaborate on an analytical framework, it was supposed to be structured around the following set of key policy questions:

- What are the scale and characteristics of health professional mobility in the EU?
- What have been the effects of EU enlargement?
- What are the motivations of the mobile workforce?
- What are the resulting impacts on health system performance?
- What is the policy relevance of those impacts?
- What are the policy options to address health professional mobility issues?

It is clear that the only impact studied in this project was on the performance of health systems in relation to mobility of professionals. It did not look at labour force and wage impact situation. Moreover it focused only on Europe. The only common area of focus with the current study is the impact on the performance of the health system. These findings will be drawn up as needed in Section 7.

Based on the case study findings, the study has classified destination and origin European countries according to “the domestic relevance of mobility”. (Wismar et al., 2011).

- a) High relevance: “Health professional mobility makes a major contribution to the size and characteristics of the health workforce, either because immigration is significant in both absolute (inflows) and relative (reliance) terms or because the country has considerable outflows of health professionals.” (Wismar et al., 2011: 55): Austria, Hungary, Romania, Slovakia, Slovenia, Spain and the United Kingdom.

---

<sup>6</sup> <http://www.euro.who.int/en/what-we-publish/abstracts/health-professional-mobility-and-health-systems.-evidence-from-17-european-countries>

- b) Medium relevance: “Countries in which there are considerable inflows for at least one health profession and/or reliance on a foreign workforce hovers around 5 per cent, inflows and outflows are likely to be broadly balanced, or outflows are visible but not considered to be a fundamental problem for the health system.” (Wismar et al., 2011: 55): Belgium, Finland, Germany, Italy, Poland and Serbia.
- c) Lower relevance: mobility overall is not seen as a major cause for concern while other workforce issues are considered important (overall shortages, geographical maldistribution or attrition): Estonia, France, Lithuania and Turkey.

The UK has been placed in the first category of high relevance.

*RN4CAST: Nurse forecasting, human resources planning in nursing*  
(<http://www.rn4cast.eu/en/index.php>)

The objective of the project, also funded by the EU Seventh Framework, was to determine how hospital nurse staffing, skill mix, educational composition, and quality of the nurse work environment impact hospital mortality, failure to rescue, quality of care, and patient satisfaction. The findings from the study was expected to allow researchers to refine existing nurse workforce forecasting models by addressing both volume and quality of nursing staff and patient care. The study investigated hospital quality and safety of care in Belgium, England, Finland, Ireland, Germany, Greece, the Netherlands, Norway, Poland, Spain, Sweden, Switzerland, and the United States.

The main findings have been published as a special issue of the *Journal of Nursing Science International Journal of Nursing Studies*, Vol. 50, No. 2, February 2013.

*European Federation of Public Service Unions (EPSU) project on cross border mobility and recruitment of the health sector* (<http://www.epsu.org/a/8920>)

The EPSU undertook this study in the context of growing social and economic significance of the health and care sector in Europe, which accounted for about 10 per cent of employment in OECD countries in 2009, and the differences between old and new member states in relation to this sector. It focused on three categories of workers: doctors (highly skilled workers), nurses (skilled workers) and care workers (skilled, semi-skilled and low skilled).

The project reviewed EU legal and qualifications frameworks related to cross-border mobility, identified patterns of migration between countries, reviewed “push” and “pull” factors driving migration, and examined the role of trade unions in this process. Case studies were prepared for Germany, Italy, Poland, Romania, Sweden and the United Kingdom. An overview report has presented the main findings and recommendations (Hardy, Calveley et al., 2012). It has highlighted the lack of a uniform framework of qualification recognition and language skills as a major barrier to mobility. It has also raised the precarious situation of long-term care workers who are working in a sector characterized as “low wage and low status”. It assessed impacts on individual migrants and source countries that suffer drain on the pool of local health workers without any investment in their training.

The focus of the project is different from the main objectives of the study, and a request to access country reports was unsuccessful.

### 3.1.2 Other studies consulted

The study drew upon a large number of studies in looking at the labour market impact, and the impact on the performance and quality of care in destination countries. The sources drawn upon will be elaborated in the relevant sections, and pertained to the following:

- a) Studies of the general impact of immigration on destination country labour markets: there is a rich body of literature in this regard for both Europe and the United States summarized in a number of literature reviews (Kerr and Kerr, 2011; Longhi et al., 2011; Dustmann and Frattini, 2010; Migration Advisory Committee, 2012).
- b) Studies of the impact of health worker immigration on the health labour market: the literature on Europe on this aspect is very sparse. The only study available for the United Kingdom seems to be Rutten's work (2004; 2007; 2008). Therefore, it was necessary to look at the US literature, which is richer in this area (Cook 2009; Murthy 2009; Kaestner and Kaushal, 2012; Kalist et al., 2010; Schumacher, 2010). Cook's study dealt with the immigration of physicians to the United States and their impact on employment and wages of native workers, while Murthy (2009) and other studies dealt with the impact of nurse immigration on the US labour market.
- c) Impact of health worker immigration on performance of health systems in host countries: This section of the study looked at the impact based on functions of a health system as outlined by the WHO. Wismar et al., (2011) provided some information on the issue for European countries.
- d) Impact of health worker immigration on quality of care of health systems in host countries. There was more information on the issue of quality of care for the United Kingdom (GMC 2012; Humphrey et al., 2011; Slowther et al., 2009; Norcini et al., 2010; Cooper, 2008; Cortes and Pan, 2012).

### 3.2 Mobility of health professionals: some evidence

As mentioned above, there have been large inflows from developing countries to developed countries in the past two decades.

Figures provided by Mullan (2005) on the proportions of IMGs in the physician workforce in four major destination countries show the transnational nature of the health workforce (Table 1).

**Table 1. Characteristics of IMGs in Physician Workforces of the United States, the United Kingdom, Canada, and Australia (early 2000s)**

Country	No. of Physicians per 100 000 Population	Total No. of IMGs	% of IMGs in Workforce	% of IMGs from Lower-Income Countries	% of IMGs from the Three Other Developed Countries
United States	293	208 733	25	60.2	6.5
United Kingdom	231	39 266	28.3	75.2	2.5
Canada	220	15 701	23.1	43.4	22.3
Australia	271	14 346	26.5	40.0	33.5

Source: Mullan, 2005.

Updated data from the OECD shown in Table 2 indicates the distribution of doctors and nurses from abroad in selected OECD countries. The reliance on foreign trained/foreign doctors is highest in New Zealand (close to 40 per cent), followed by Ireland, the United Kingdom, the United States, Australia and Switzerland, all accounting for more than 20 per cent of the total workforce.

**Table 2. Doctors and nurses trained abroad working in OECD countries<sup>7</sup>**

Country	Year	Numbers	Share in %	Country	Year	Numbers	Share in %
Foreign-trained doctors				Foreign-trained nurses			
Australia	2007	15 673	23.0	Australia	2007	34 886	16.4
Austria	2008	1 556	4.1	Canada	2007	20 319	7.9
Belgium	2008	2 989	6.7	Denmark	2005	5 109	6.2
Canada	2007	14 051	17.9	Finland	2008	530	0.5
Denmark	2008	1 282	6.1	Ireland	2008	37 892	47.1
Finland	2008	2 713	11.7	Netherlands	2005	3 479	1.4
France	2005	12 124	5.8	New Zealand	2008	9 895	22.1
Ireland	2008	6 300	35.5	Sweden	2007	2 585	2.6
Netherlands	2006	3 907	6.2	United Kingdom	2001	50 564	8.0
New Zealand	2008	4 106	38.9	United States	2004	100 791	3.5
Poland	2005	734	0.6	Foreign nurses*			
Sweden	2007	6 034	18.4	Belgium	2008	2 271	1.5
Switzerland	2008	6 659	22.5	France	2005	7 058	1.6
United Kingdom	2008	48 697	31.5	Germany	2008	24 892	3.4
United States	2007	243 457	25.9	Italy	2008	33 364	9.4
Foreign doctors*				Portugal	2008	2 037	3.6
Germany	2008	21 784	5.2				
Greece	2001	897	2.5				
Italy	2008	14 747	3.7				
Japan	2008	2 483	0.9				
Norway	2008	3 172	15.9				
Portugal	2008	4 400	11.1				
Slovak Republic	2004	139	0.8				

Note: \*No information on the place of their training.

Source: OECD: <http://www.oecd.org/health/health-systems/44783714.xls> (accessed 5 April, 2013).

The information for nurses is weak compared to that for doctors. The highest reliance on overseas nurses is in Ireland (47 per cent) followed by New Zealand and Australia.

India and the Philippines are major countries of origin of health professionals (Annex 4a and Annex 4b). Both the United Kingdom and the United States have been important destinations for Indian

<sup>7</sup> OECD data relate to registered foreign-trained physicians and nurses and foreign doctors and nurses, because in some countries the only information available relates to foreign doctors and foreign nurses (without information on the location or place of their training).



health professionals, while the United States has been the major destination for Filipino doctors and nurses. These were mostly permanent movements, although immigration policy changes have made it increasingly harder to get permanent placements in the United Kingdom (Hazarika et al., 2011; Khadria, 2007; ILO, 2005). The United Kingdom also entered into bilateral agreements to recruit nurses from the Philippines and India, but by the time, the period of active recruitment had more or less ended.

There are large flows of health professionals to the Gulf, mainly to Saudi Arabia, as temporary workers from India and the Philippines (IHPDS and NIH, 2012; Lee and Macdonald, 2011; Hazarika et al., 2011; Khadria, 2007). These movements have not been studied, although protection issues would be quite important in the case of Gulf countries for foreign health professionals as well.

India also sends to some other European countries, as shown by Bhattacharjee (2013), who studied recent trends and prospects for Indian health professionals in Denmark, Netherlands, Norway and Sweden. It was found that there was not much migration to these destinations despite growing demands, the major barriers being language and the lack of recognition of qualifications.

### **3.3 UK situation**

There have been a number of studies dealing with the UK health workforce and migration in recent years (Bach, 2007; Buchan, Baldwin et al., 2008; Bach, 2010a; Young, 2011a). Young (2011: 4-5) identifies four “policy periods” in UK health-worker immigration policy:

- a) from 1998 to 2006: “Active international recruitment of health professionals and general immigration openness”;
- b) from 2006 to 2008: “International recruitment wound down, plus tighter general immigration rules introduced”;
- c) from November 2008: “Further tightening of general immigration rules, which also affects health professionals”; and
- d) from 2010 onwards: “Another phase of general immigration rule tightening which also affects health professionals.”

The first period marks the UK’s high profile recruitment policy and its openness to immigration across the health professions. At the same time the United Kingdom also opened its borders to health workers from the ten EU accession countries that joined the EU in 2004.

The change of active international recruitment in 2006 and tightening of immigration rules for non-EU/EEA health professionals was a result of the expansion of the UK training. The first preference now had to be for UK resident workers (or EEA nationals) before looking to other candidates, and several health professional categories were removed from the shortage occupations list (which officially indicates whether or not there are enough resident workers in the United Kingdom to fill the available jobs in a particular sector).

The “biggest shake up of the [UK] immigration scheme for 45 years”, as described by the NHS in 2008 (cited in Young, 2011a) reduced opportunities drastically for non-EEA nationals. The introduction of the five Tier systems consolidated 80 previous immigration routes within a new points-based system, with a sharp reduction in the list of identified shortage occupations that did not require labour market tests for admission.



The election of the Conservative/Liberal Democrat Coalition to government in 2010 marked a major shift in migration policies towards controls. A major objective of immigration policy is that of reducing total immigration levels between 2010 and 2015 to 1990's levels -- in effect below 100,000 admissions per annum. The restrictions are mainly for non-EEA/EU nationals, and are being enforced through ceilings on some immigration categories, drastic reduction of shortage occupations, labour market tests, and reducing international student admissions, among others.

Parallel to these immigration restrictions, professional registration bodies also tightened their requirements for non-EU/EEA health professionals to ensure quality and patient safety in the face of the large-scale migration of earlier years. These changes include: more stringent language requirements for non-EU/EEA nurses, the removal of top-up courses for midwives with no UK-equivalent qualifications, and the removal of reciprocal recognition for Australian and New Zealand pharmacists and associate health professionals (Young, 2011a; Buchan and Seccombe, 2011). The NMC imposed a mandatory induction programme for overseas nurses intending to practise in the United Kingdom -- the Overseas Nursing Programme (ONP). The Home Office shortage occupation list also removed entry level clinical grades. This was followed by the raising of the English language test requirements by the NMC in 2007 (Buchan and Seccombe, 2012).

At the same time, EU-wide free mobility provisions facilitate the movement of health professionals through a system of mutual recognition of professional education, training and qualifications based on EU-level directives. This applies to both doctors and nurses. Buchan and Seccombe (2012) made this observation in relation to nurses:

They are not subject to immigration controls, and from a UK policy and planning perspective, are an “unmanaged” inflow; they cannot be directed, and the length of their stay in the United Kingdom cannot be determined .... These changing dynamics highlight that international flows will be less open to management by UK policy makers and regulators, with the majority inflow from the EU, and length of stay in the United Kingdom, being determined primarily by individual choice and circumstances of the nurse (Buchan and Seccombe, 2012: 15).

### 3.3.1 Doctors

The GMC report for 2012 gives a clear picture of trends in the medical doctor workforce (GMC, 2012). It noted that more than a third of registered doctors on the register qualified outside the United Kingdom, indicating that “the United Kingdom has relied heavily on the skill and dedication of doctors who were trained overseas”.

#### **UK GMC Medical Register data on 31 December 2011**

Number of doctors in the register: 245,903

Doctors with a non-UK primary medical qualification: 37 per cent

Doctors from countries in the EEA: 24,031 (10 per cent of all registered doctors)

Doctors from countries in the rest of the world: 66,608 (27 per cent of all registered doctors)

Source: GMC, 2012.

The list of top-17 countries in 2011 has not changed since 2010. India continues to provide by far the largest number of overseas doctors, followed by Pakistan and South Africa. During 2011, the greatest number of doctors joining the register came from Pakistan (550), India (489), Romania (449), Italy (386) and Greece (365). For India, the peak was in 2004 when 3,641 doctors were registered.

While doctors with a primary medical qualification from India are the largest group of overseas doctors on the register, current flows have dropped about 500 a year. The GMC (2012) attributes this to both UK immigration rule changes and Indian government policy to arrest brain drain. However, the latter explanation is unlikely because the Indian government has been generally liberal as regards to skilled emigration, and has not launched any programmes to limit the outflow of Indian health workers as the MoHProf study on India has shown (Hazarika et al., 2011).

Pakistan represents the second largest group of doctors on the register, but flows have not declined -- as seen by the fact that they were the largest number of doctors joining the register during 2011.

In line with changes in the composition of the EU, doctors from Eastern Europe have increased sharply from 758 in 1996 to 8,581 in 2011.

South Africa, another traditional source, has seen a sharp decline in new inflows with only 50 in 2011, while the peak was in 2003 when 3,206 joined the register. Doctors coming from Australia have followed a similar declining pattern, reflecting changes applied to registration of doctors from Commonwealth countries.

The final outcome is that while the number of doctors on the UK register from most countries has increased since 1996, the numbers from traditional sources -- Australia, Canada, Hong Kong (China), Republic of Ireland, Malaysia, the Netherlands, New Zealand, Singapore and South Africa -- have fallen.

Another study (Lee and Macdonald, 2011) confirms this trend:

Between 1998 and May 2009, the GMC registered 56,987 doctors trained in the United Kingdom, 26,609 with qualifications from the EEA and 57,140 doctors with qualifications from outside the EEA. These totals hide a change in trend with very large numbers of international registrations in the mid-2000s, but a rapid decline in international registrations since 2003 and a steady upward trend in UK-trained registrants over the ten-year period.

Changes in immigration rules pertaining to visa and employment requirements are probably the most important reason for the declining numbers of doctors joining the register from non-European countries. These changes commenced in 2006 when NHS organizations wanting to employ a doctor from outside the EEA had to carry out a labour market test to prove that the post could not be filled by a doctor who qualified in the United Kingdom or the EEA.

Table 3 provides information on new registrations of doctors from 1986.

**Table 3. Yearly number of new full GMC registrations (doctors) by place of qualification and UK qualified as a percentage of total**

Year	Place of Qualification			Total	United Kingdom as a % of total
	United Kingdom	EEA	Overseas		
1986	3 637	650	1 664	5 951	61
1987	3 666	1 080	1 870	6 616	55
1988	3 760	1 308	1 753	6 821	55
1989	3 751	1 184	2 100	7 035	53
1990	3 564	1 031	2 093	6 688	53
1991	3 717	966	2 659	7 342	51
1992	3 586	1 054	2 312	6 952	52
1993	3 675	1 188	2 500	7 363	50
1994	3 657	1 444	2 539	7 640	48
1995	3 710	1 779	3 327	8 816	42
1996	3 822	2 084	4 047	9 953	38
1997	3 920	1 860	3 678	9 458	41
1998	4 010	1 590	3 580	9 180	44
1999	4 242	1 392	2 889	8 523	50
2000	4 214	1 192	2 993	8 399	50
2001	4 462	1 237	3 088	8 787	51
2002	4 288	1 448	4 456	10 192	42
2003	4 443	1 770	9 336	15 549	29
2004	4 662	3 491	4 610	12 763	37
2005	4 829	4 037	5 977	14 843	33
2006	5 154	2 788	5 547	13 489	38

Source: GMC data reported in Buchan, Baldwin et al., 2008: 34.

Table 4 shows the latest information of the distribution of UK doctors by the world region of Primary Medical Qualification (PMQ) -- in which a doctor gained their initial qualification, but it does not necessarily reflect the nationality of the doctor.

**Table 4. Doctors by World Region of PMQ\***

PMQ World Region	No. of doctors	%	%	%	No. of Specialist	%
EEA (excluding United Kingdom)	25 866	10.2	3 927	6.3	11 767	15.5
International	67 223	26.6	10 289	16.5	18 048	23.8
UK	159 304	63.1	48 221	77.2	45 928	60.6
Total	252 393	100	62 437	100	75 521	100

Note: While all doctors need to be registered and licensed with the GMC to practise in the United Kingdom, only doctors who have completed specialty or general practice training can apply to be included in the GMC's general practitioner (GP) register or specialist register. Some doctors may be on both registers.<sup>8</sup>

Source: [http://www.gmc-uk.org/doctors/register/search\\_stats.asp](http://www.gmc-uk.org/doctors/register/search_stats.asp) (accessed 5 April, 2013)

George et al., (2007) carried out an analysis of doctors working for the NHS who had obtained their primary qualifications from a country outside the EU. The online survey was completed by 1,619 doctors of different nationalities, with 90 per cent of the respondents from India.

The study found that the primary reason for many non-European doctors to migrate to the United Kingdom is for training within the NHS. Other reasons were better pay, better work environment, and having friends and family in the United Kingdom (Table 5).

**Table 5. Reasons for moving to the UK: Survey of doctors obtaining primary qualifications outside Europe**

Reasons for moving to the United Kingdom	Main reason % of total	Other reasons % of total
Training	76.7	18.9
Better pay	7.2	33.3
Better work environment	7.1	30.8
Family and friends in the UK	2.8	7.1
Preference of living in the UK	2.7	7.4
Refuge or asylum seekers	0.1	0.0
Other reasons	3.4	2.4
Sample		1,619

Source: George et al., 2007.

<sup>8</sup> See [http://www.gmc-uk.org/Routes\\_to\\_the\\_GP\\_and\\_Specialist\\_Register\\_Final\\_Report.pdf\\_48195178.pdf](http://www.gmc-uk.org/Routes_to_the_GP_and_Specialist_Register_Final_Report.pdf_48195178.pdf)

The study was conducted in 2006, and the findings may have less relevance to the situation now. But the conclusion of the study is interesting:

In conclusion, a large majority of non-European doctors in the United Kingdom have been attracted by prospects of post-graduate training. Changes to immigration policy that fail to factor in the aspirations and needs of doctors who have already migrated to the United Kingdom are likely to disrupt the career paths of many non-European doctors, many of whom have spent a considerable duration of time working and training in the NHS (George et al., 2007: 5).

Current UK immigration policies tend to ignore this important fact.

### 3.3.2 Nurses

The Nursing labour market review by Buchan and Seccombe (2012) provides comprehensive information on the trends of the nursing workforce and the role of immigrant nurses. It reports a total of 669,953 qualified nurses, midwives and health visitors registered with the NMC in March 2012, representing the total pool of potential nurses and midwives available for employment. There have been fluctuations in the number registered in recent years, though no clear trend can be observed (Buchan and Seccombe, 2012). Table 6 gives some time series data on new registrations by origin.

**Table 6. Initial entries of nurses/midwives to the NMC Register 1993/4/91 to 2005/06 by country/region and & respective percentage share of total entries**

	UK Total	EEA Total	Other overseas total	Grand Total	UK%	EEA%	Other overseas total
1993/94	17 948	456	1 665	20 069	89.4	2.3	8.3
1994/95	17 411	798	1 654	19 863	87.7	4.0	8.3
1995/96	16 870	763	1 999	19 632	85.9	3.9	10.2
1996/97	14 210	1 141	2 633	17 984	79.0	6.3	14.6
1997/98	12 082	1 439	2 861	16 382	73.8	8.8	17.5
1998/99	12 974	1 413	3 568	17 955	72.3	7.9	19.9
1999/00	14 035	1 416	5 967	21 418	65.5	6.6	27.9
2000/01	15 433	1 295	8 414	25 142	61.4	5.2	33.5
2001/02	14 538	1 091	15 064	30 693	47.4	3.6	49.1
2002/03	18 216	802	12 757	31 775	57.3	2.5	40.1
2003/04	19 462	1 030	14 122	34 614	56.2	3.0	40.8
2004/05	20 588	1 193	11 499	33 280	61.9	3.6	34.6
2005/06	20 940	1 753	8 709	31 402	66.7	5.6	27.7
2006/07	21 388	1 484	4 830	27 702	77.2	5.4	17.4
2007/08	21 661	1 872	2 309	25 842	83.8	7.2	8.9

Source: UKCC/NMC annual reports; cited in Buchan, Baldwin et al., 2008; Nursing and Midwifery Council, Statistical Analysis of the Register, 1 April, 2007 to 31 March, 2008.

Buchan and Seccombe (2012) conclude that the impact of financial pressures is reflected in the current and future NHS nursing workforce, resulting in “reductions in the numbers of commissioned training and education places, to reductions in staff numbers, pay freezes and reduced training budgets for the nursing workforce” (page 1).

Between 1998 and 2006, there were approximately 100,000 new non-UK nurse registrations with the NMC, followed by a rapid decline in the flow of nurses to the United Kingdom from other countries reflecting reduced demand, and changes in policy towards EEA preference and higher NMC requirements. As a result the share of international recruitment fell from about 50 per cent of the NMC register annual inflow to 18 per cent (Buchan and Seccombe, 2012). General nursing has been removed from the shortage list of occupations by the MAC, and the latest list of February 2013 (Annex 5) includes only “specialist nurses working in neonatal intensive care units”. (MAC, 2013: 98).

Buchan and Seccombe (2012: 2) state: “In the international context, the United Kingdom has moved from a situation of net inflow of nurses to a position of net outflow in recent years, meaning that more nurses are moving abroad than are coming to the United Kingdom to practice in mainly Australia, Canada, New Zealand and the United States.”

While in the 2010/12 period, both EU and non-EU nurses had increased, the former now comprise the majority of the inflow (Buchan and Seccombe, 2012).

The nursing labour market review concludes that given funding pressures, and an increased demand as well as an ageing nursing workforce, there is a growing risk of insecurity of future nurse supply across the United Kingdom (Buchan and Seccombe 2012).

## **4. Assessment of impact of immigration -- general studies**

### **4.1 Approaches to impact studies**

There are two generally accepted methods of testing the effects of immigration on wages and employment: area analysis and factor-proportions analysis.

#### **4.1.1 Area approach or spatial correlations approach**

The “area approach” uses cross-sectional data to determine how wages and employment of native workers in different regional or local labour markets are affected by differences in the share of immigrants in the local labour supply. It is also called the “spatial correlation approach” because the geographical labour markets or areas correspond to the spatial units (Dustmann and Frattini, 2010). Analysts have generally used Metropolitan Statistical Areas (MSA) or states in the context of the United States (Card, 2001; Cook, 2009), while some UK studies have used UK regions (Dustmann, Fabbri et al., 2005). The assumption is that states or MSAs or regions represent separate labour markets, and that wages are determined by supply and demand factors in those markets. The usual practice is to regress a

measure of employment, or wages of native workers in a given area, on the share of immigrants in that area controlling for measurable characteristics of workers.

The general finding of these studies is that immigration has a minimal effect on native employment and wages (Cook, 2009; Dustmann and Frattini, 2010).<sup>9</sup>

The area approach has some limitations, and studies based on it underestimate the actual impact for several reasons. The approach implicitly assumes that local labour markets are closed, whereas this need not be the case because of worker mobility. Immigrants may choose high-wage regions or high-growth regions for better prospects. Historical settlement patterns also may make some regions more immigrant-concentrated. Capital may move into such areas to take advantage of immigrant labour.

At the same time, immigration may induce changes in internal migration patterns, with native workers leaving an area when many migrants move in. This may dampen any wage or employment impact because of immigration.

For instance, Borjas et al., (1996) highlighted the displacement effects of immigration that make it difficult to detect the effect of immigrants on the labour market opportunities of natives in a given location, because immigrants subsequently move out or native workers may move out. Thus there is hardly any increase in labour supply in the locality. But other studies have not found any consistent results on this score (Dustmann and Frattini, 2010). Card and co-authors find little to no evidence of this for US data (Card and DiNardo, 2000; Card, 2001).

Therefore, researchers have tried to remove such ‘fixed effects’ by adopting two methods.

- a) Estimation of relationships using first differences: for example, relate the changes in immigrant concentration between two points in time to changes in economic outcomes. If there is no time series data, other methods can be used to address such fixed effects. For instance, Card (2001) allocates immigrants and natives to six different skill groups, assuming that within each skill group, immigrants and natives are perfect substitutes.
- b) Use of instrumental variables regression<sup>10</sup>: the idea is to use an additional variable that is not related to the wage directly. Researchers have used variations in regional concentration of immigrants to consider network effects and historic settlement patterns as the relevant instrument. The approach amounts to regressing differences in regional economic outcomes on differences in immigrant/resident ratios, using past immigrant densities as an instrument for the latter. Other examples of instruments in the context of measurement error would be alternative measures of immigrant flows from other surveys, or variables believed to exert a causal influence on the true immigrant flows, and which are measured with uncorrelated measurement error.

---

<sup>9</sup> See Table 1 of Dustman et al., 2010.

<sup>10</sup> Please see the paper by Lozano and Steinberger, 2010. *Empirical Methods in the Economics of International Immigration*, for an explanation of this technique.



#### 4.1.2 Factor Proportions Analysis

The “factor proportions” approach posits a national labour market, and generally uses time series data to simulate the relationship of changes in national wages or employment of a particular skill group to changes in the share of immigrants in that group. The different skill groups serve as the different “areas”. This approach attempts to avoid the problems of identification of the effects of immigration from local labour market information only (Cook, 2009; Dustmann and Frattini, 2010). The counterfactual -- the labour market conditions in the absence of immigration -- is constructed by simulation (Borjas, 2003). It compares the actual supplies of workers in particular skill groups to those that would prevail in the absence of immigration. These changed factor proportions due to immigration will lead to different wages and employment situations for native skilled and unskilled workers. Factor proportions analyses take a general equilibrium perspective, treating immigrants as a source of an increased national supply of workers of the relevant skill, and applying an elasticity of substitution to estimate the effects of changes in the labour supply on native wages (Borjas et al., 1996).

An important assumption underlying the skill cell correlation approach is the perfect substitutability between natives and immigrants within skill cells. With imperfect substitutability of natives and immigrants within skill cells, the group most affected by new immigrant inflows are previous immigrants. Moreover, some studies that employ the “factor proportions” approach have found significant negative effects of immigration on employment opportunities of natives.

Several researchers have pointed out some problems of this approach as summarized in Dustmann and Frattini, 2010.

- The assumption that the labour market is nationwide in scope may not be appropriate for occupations with location-specific human capital.
- Changes in relative wages of skill groups may result from changes in demand and it may be difficult to isolate them from changes in supply.
- Because the counterfactual situation is developed based on a structural economic model and pre-estimated parameters, rather than on direct estimation, the estimates are sensitive to the chosen model structure and parameters used for simulation. As Dustmann and Frattini observe: “The key difficulty for the estimation of the effects of immigration relates to the construction of a “counterfactual” situation: whenever immigration occurs we always observe how the labour market of the receiving country changes through immigration; however, we do not observe how the labour market would change in the absence of immigration. Computing this counterfactual situation is one of the greatest challenges in the literature.” (Dustmann and Frattini, 2010: 104). They identify the “lack of high-quality data” as a major problem in estimating the immigration impact on the labour market.
- A premise of this approach is that immigrants can be allocated to skill groups based on their observed characteristics. This will not hold if immigrants have to accept jobs below their qualifications and experience soon after arrival and upgrade their position over time only. Research shows that there is substantial downgrading in the case of the UK labour market (Dustmann and Frattini, 2010).



The next section reviews the findings of empirical studies using this approach.

## **4.2 Review of the literature**

This section reviews general studies of the effects of immigration on employment and wages which are the main labour market indicators based on the above approaches.

### **4.2.1 Employment impact of immigration**

The employment impact of immigration on native workers has continued to be the subject of debate in both United States and Europe. The issue is whether the employment of foreign workers leads to displacement of native workers.

One would normally expect a displacement effect of native workers if immigrants are substitutes for native workers. The skill profile of migrants and native born workers would determine this: if the skill mix is different, then migrants will be complementing rather than competing with native workers.

JK Galbraith refers to the displacement idea as “...a classical error in economic calculation -- one that economists have rightly sought to combat, with slight success, for nearly a century. That is the belief that the available employment is a fixed quantity, and immigrants simply replace those who have already arrived. The economy does, of course, grow with the labour force and ... with increasing returns.” (Galbraith, 1979: 107)

Münz et al., (2007) also make a similar observation:

The displacement idea is often based on the concept of “a lump of jobs”, i.e. a fixed number of jobs in the immigrant receiving country. In such a situation, some natives must lose their jobs to immigrant workers (i.e. substitution effect). If productivity increases due to the more efficient allocation of labour, then the demand for native labour also would increase, and the total number of jobs created by the presence of immigrants offsets the displacement of natives, if favourable dynamic effects fully unfold (Münz, Straubhaar et al., 2007: 7).

As Münz and others point out, empirical evidence from several EU countries shows that in most cases immigrants are complements to the natives in the labour market, and thus have no negative effects on job prospects and wages of native workers (Münz, Straubhaar et al., 2006).

Many studies on Europe and the United States surveying the literature on the employment impact of migration on native employment have pointed to small negative employment effects (Kerr and Kerr, 2011). Table 7 provides a summary of empirical studies of the employment impact using econometric methods.

**Table 7. Survey of Immigration's Employment Effect for Native Workers**

Study	Country	Year	Employment effect
<b>A. European studies</b>			
Winkelmann & Zimmermann (1993)	Germany	1974-84	Small negative employment effect
Mühleisen & Zimmermann (1994)	Germany	1982-89	None
Pischke & Velling (1997)	Germany	1986-89	Employment +2% Unemployment ±0%
Hatzius (1994)	Germany		None
Velling (1995)	Germany	1988-93	Employment rate +0.24%
Gang & Rivera-Batiz (1994)	Germany	1988	None
Winter-Ebmer & Zweimüller (1997)	Austria	1988-91	None
Winter-Ebmer & Zimmermann (1998)	Austria & Germany		An increase in the foreigner share by 1% increases (decreases) total employment by 0.002% (Austria) and 0.025% (Germany), and native employment by -0.25% (Austria) and -0.04 % (Germany)
Dolado et al., (1996)	Spain		Negative employment effect
Hunt (1992)	France	1968	Unemployment +0.2%
Gross (2002)	France	1975-95	Unemployment rate -0.16%
Carrasco et al., (2004)	Spain	second half of the 1990s	-0.17: No significant negative effect of immigration on the employment rates of native workers
Villosio & Venturini (2002)	Italy		Ambiguous signs for both, displacement risks and entry probability
Parasnis et al.	Australia	1981-2001	An increase in the proportion of immigrants has a significant positive effect on labour market outcomes for native workers
Angrist & Kugler (2003)	EEA	Census data	Unemployment -0.07% to -0.02%
Gang & Rivera-Batiz (1999)	EU-12	1983-99	Weak, but significant positive correlation between unemployment probability and foreigner density
Dustmann, Fabbri and Preston (2005)	UK	1983-2000	-0.07% of native employment rate from 1% increase in immigration of native population

Study	Country	Year	Employment effect
<b>A. European studies</b>			
Lemos and Portes 2008	UK	2004-2006	No impact on native unemployment
Reed and Lattore 2009	UK	2001-2007	No significant impact on native employment
<b>B. Northern America other studies</b>			
Card (2001)	USA 1989	1989	Employment -0.12%
Altonji & Card (1991)	USA 1980	1980	Employment rate -0.23%
Friedberg (2001)	Israel	1994	Employment -0.16%

Sources: Compiled from the following (details of most references listed in the same sources, the list of references of this study includes only those newly added): (Brücker, 2002: Table 5.3.7); (Kerr and Kerr, 2008); (Parasnis, Fausten et al.); (Carrasco and Jimeno, 2004); (Reed and Latorre, 2009; Dustmann and Frattini, 2010); (Lucchino, Rosazza-Bondibene et al., 2012).

At the same time, some researchers have attempted to explain the reasons for the small and insignificant results observed (Angrist and Kugler, 2003; Kerr and Kerr, 2008; Longhi et al., 2008).

- Lack of distinction between the short term and the long-term impact. Data constraints and estimation problems lead research to focus on short-run effects and recent experiences, which cannot capture long-run effects of demographic change and shrinking native labour force (Kerr and Kerr, 2008).
- Broad macro level findings may not reveal the outcomes in specific labour markets for specific workers.
- Most indicators of the labour market impact considered have been limited to the primary indicators of labour market performance: employment, unemployment, wages and labour force participation. Yet longitudinal data that measure layoffs, unemployment spells, changes of residence and occupational and industrial mobility may be more relevant in studying displacement (Longhi et al., 2008).
- Most studies have a partial equilibrium view looking only at direct impacts of immigration without accounting for general equilibrium factors such as price levels and real wages. Also, most studies do not estimate effects of immigration on economic growth -- for example, through increased demand for domestic goods and services (Longhi et al., 2008).

#### 4.2.2 Impact on wages and earning

Another controversial issue is the impact of migrant workers on the wages of national workers. The popular view is that migrant workers compete with national workers, depressing their wages and worsening income distribution.

Yet most research does not support this view of immigration's negative impacts on wages. The general finding of a wide range of studies is that any negative effect of immigration on wages is small, if it exists at all (Table 8). A survey of literature in the United Kingdom concluded that the "overwhelming majority of empirical studies agree that there is essentially no statistically significant effect of immigration on labour market outcomes". (Cited in Glover, Gott et al., 2001).

Some research supports the view that low-skilled migrant workers are relatively close substitutes for national workers, but found that the impact is not likely to be large, because the share of low-skilled national workers in destination countries is falling. With the rise in educational levels, nationals often shun manual work and move out of low-skilled jobs, thereby creating a demand for low-skilled migrant labour.

In relation to the United States, Holzer stated: "An extra million immigrants a year cannot possibly explain why the vast majority of workers in a labour market of 150 million workers have had stagnant wage growth." (Cited in Dia, 2012).

Shierholz (2010: 2) points out: "Although new immigrant workers add to the labour supply, they also consume goods and services, creating more jobs. In other words, as the labour force expands (as it is always doing, due to both native population growth and immigration), the economy adjusts and expands with it, and average wages are not hurt."

**Table 8. Survey of Immigration's Wage Effect for Natives**

Study	Country	Year	Wage elasticity
<b>A. European studies</b>			
DeNew & Zimmermann (1994a)	Germany	1984-89	-0.16
DeNew & Zimmermann (1994b)	Germany	1984-89	-0.35 (-0.54 to +0.12)
Bauer (1997)	Germany	1994	0.082
Bauer (1998)	Germany	1994	-0.021 to +0.035
Pischke & Velling (1994)	Germany	1985-89	±0 (+0.033)
Hatzius (1994)	Germany	1984-91	-0.058 to ±0
Winter-Ebmer & Zweimüller (1996)	Austria	1988-91	regional +0.037 industry +0.01
Winter-Ebmer & Zimmermann (1998)	Germany		±0 to +0.01
Gang & Rivera-Batiz (1994)	Austria	1986-89	-0.16 to ±0
	Netherlands		-0.09 to + 0.02
	Great Britain		-0.08 to +0.02
	France		-0.11 to -0.01
	Germany		-0.05 to +0.11

Study	Country	Year	Wage elasticity
<b>A. European studies</b>			
Zorlu & Hartog (2005)	Netherlands	1998	-0.04 to +0.02
	Great Britain	1997-98	-0.036 to +0.056
	Norway	1996	-0.063 to +0.180
Hunt (1992)	France	1968	-0.08 to -0.14
Dolado et al., (1996)	Spain		+0.02 to +0.04
Glitz (2007) Germany (1996-2001) IAB	Germany	2007	No adverse effect on wages
Dustmann, Frattini and Preston (2008)	UK 1997-2005 LFS		Average wages: approx. +0.35%
Nickell and Saleheen (2009)	UK	1992-2006	Occupational wages Average:-0.04%; semi/ unskilled services:-0.52%; skilled production:0.24%
<b>B. North American and Other Studies</b>			
Grossman (1982)	USA	1970	-0.1
Card (2001)	USA	1989	-0.04 to -0.01
Goldin (1994)	USA	1890-1921	-1.6 to -1.0
LaLonde & Topel (1991)	USA	1970, -80	-0.6 to -0.1
Borjas, Freeman, & Katz (1992)	USA	1967-1987	-1.2
Altonji & Card (1991)	USA	1970, -80	-0.86
Borjas (2003)	USA	1960-2001	-0.4 to -0.3
Pope & Withers (1993)	Australia	1881-1981	±0
Friedberg (2001)	Israel	1994	0.03

Source: Table 6: (Kerr and Kerr, 2011): Kerr, S. P. and W. R. Kerr, (2011). Economic effects of immigration: a survey, NBER Working Paper 16736, National Bureau of Economic Research, Massachusetts, January, 2011: Please see these papers for reference details of studies mentioned.

Docquier et al., (2011a; 2011b) undertook a more recent analysis of labour market and wage effects internationally (Docquier, Ozden et al., 2011a; Docquier, Ozden et al., 2011b). The labour market impact study arrives at the following conclusion:

Employment effects of immigration in the 1990s and in the 2000s were rather small and always positive for less-educated workers of all OECD countries. Less-educated workers in Canada, Australia, the United States, Luxembourg, the United Kingdom and Switzerland, which were among the magnet of international migrants, all experienced

positive long-run effects from immigration, between 1 per cent and 5 per cent, according to our calculations.” (Docquier, Ozden et al., 2011a: 26).

Longhi and others (Longhi et al., 2011) have adopted a different approach in using meta-regression analysis of various statistical estimates of wage and employment effects by other researchers. “Meta-analysis refers to the statistical analysis of a large collection of results from individual studies for the purpose of integrating the findings.” (Gene V. Glass cited in: Poot, 2012). It is believed to be a more rigorous exercise than narrative discussions of summaries of empirical results. Based on pooling of 344 estimates reported in 18 studies, the simple average of the wage impact of a 1 percentage-point increase in the proportion of foreign born in the population is a decline in wages of about 0.12%. They used 165 estimates derived from nine studies for assessing the employment effect and found a decline in employment of the host population of -0.24%, following a 1 per cent increase in the share of foreign born in the population. However, the range of estimates is very wide for both cases. They also conclude that on average, the impact on employment of the native born is smaller than on wages, and impacts are generally smaller in the United States than in other countries studied to date (Table 9).

**Table 9. Meta evidence on wages and employment effects of immigration**

Study features	Wages effect/ magnitude	Employment effect/ magnitude
Number of studies	18	9
Number of effect sizes	344	165
Mean coefficient	-0.12%	-0.24%*
Minimum and maximum	-5.4%; 4.5%	-3.9%; 6.2%

Source: Based on Table 2 in Longhi et al., 2011: 2.

The general findings for other European countries also reveal little or no impact on wages and employment as a result of immigration (Brucker, 2012).

The overall conclusion seems to be that the impact on local wages is limited, and when it is present, it may affect the wages of earlier cohorts of low-skilled immigrants.

### 4.3 Studies of impact of migration on United Kingdom in general

The MAC recently issued a number of studies on impact of immigration into the United Kingdom (Dustmann and Frattini, 2010; MAC Secretariat, 2010; Dustmann and Frattini, 2011; MAC, 2012). The 2012 report on analysis of the impact of migration applied to immigration of all workers, not only health workers. Its review found that migrants had little impact on average wages or native employment rates.

A study of labour market effects of immigration in the United Kingdom by the Institute for Public Policy Research (Reed and Latorre, 2009) reported the following findings:

- a 1 percentage point increase in the share of migrants in the UK working-age population (for example, from 10 per cent to 11 per cent of the population) would reduce wages by around 0.3 per cent; and

- the estimated effect for the UK-born population of leaving school when aged between 17 and 19 as opposed to the minimum leaving age of 16, is to increase wages by around 10 per cent. This effect is “around 35 times larger than that caused by increasing the migrant share of the population by 1 percentage point”.

They conclude that “...migration is of very little concern from a labour market perspective. There is simply no evidence to suggest that migration has any substantial negative impact on either wages or employment.” (Read and Lattore, 2009: 6).

Dustman and Frattini (2010: 107-110) provide a summary table of the labour markets’ effects of immigration based on major studies carried out in Europe and elsewhere, classified according to different frameworks. Their conclusion also is that the observed impact is small.

## **5. Studies of medical migration and its economic impact on the UK studies**

Overall there are hardly any studies on the impact of medical migration on the UK labour market. This may be because it is a highly regulated market with the public sector (NHS) acting as the major employer.

### **5.1 Rutten’s analysis of macroeconomic impacts of migration of medical workers**

In a series of papers, Rutten (Rutten, 2004; Rutten, Blake et al., 2006; Rutten, 2007; Rutten, 2008) has reported on the analysis of the macro-economic impacts of migration of skilled medical personnel from a receiving country’s perspective, using the United Kingdom as a specific case study.

The methodology employed is general equilibrium analysis, which can cover economy-wide effects of immigration of health workers into the NHS. For estimation, she uses a computable general equilibrium (CGE) model accommodating more economic sectors, an extended health sector component, factors of production (capital and labour -- skilled and low-skilled; she uses the term “unskilled”), the household sector, “a tax-charging, transfer- and public good-providing government”, intermediate inputs and welfare gains from public goods.

The hypothesis is that an increase in the size of the health sector reduces the supply of skilled workers available to other sectors, and thereby the output of these sectors. But the strengthened health sector simultaneously helps increase the effective supplies of labour by improving the health of workers. The final impact depends on the factor bias (changes in the ratio of skilled to unskilled labour), and the scale effect of effective labour supply impacts. The model is able to predict general welfare gains from different policy options by analysing simultaneous changes in all sectors.

She argues that “an expansion of the health sector by recruiting immigrant skilled workers” (Rutten, 2007: 26) is a better option in some cases than the alternative of using domestic (low skilled) workers.



The main finding from the model is that admitting foreign doctors and nurses into the United Kingdom would generate higher overall welfare gains than a generic increase in the NHS budget.

On the whole, empirical evidence suggests that the benefits of saving on training costs and tax contributions seems to outweigh costs of social security, unemployment and (small) declines in wages, so that migration benefits the industrialised countries such as the United Kingdom (Rutten, 2007: 50).

The author finds that even if all foreign worker income is (hypothetically) remitted abroad, there are overall welfare gains, because admission of foreign workers results in higher government tax revenues. The immigration of doctors and nurses addresses the bottleneck of the scarcity of this type of labour in the United Kingdom, while increasing the NHS budget generically aggravates it (by putting upward pressure on the wages of doctors and nurses).

She also identifies areas for future research: increasing the level of disaggregation in health care in terms of types of treatments and care (which differ in effectiveness) and in terms of types of health-care staff (distinguishing among managers, doctors, nurses and ancillary staff separately), and equipment to allow for differential elasticity of substitution between them. Another issue is allowing for the fact that “domestic and migrant workers are (initially) imperfect substitutes, the latter earning a lower wage as they start working in the United Kingdom”. (Rutten, 2007: 51).

The optimistic conclusions of the study could be partly due to the fact that it was conducted in 2003/04 when there was active international recruitment with concerns about the shortage of health workers at the national level. The context since then has changed much, as outlined above. Rutten argues that her results do not necessarily imply that migration is also a desirable policy in view of the adverse effects of the medical brain drain from developing origin countries. Her observation is that in the long-term, “the only sustainable policy which addresses the root cause of the shortage of medical personnel is to increase the number of medical school places in the United Kingdom”. (Rutten, 2008: 43).

## **5.2 The impact of migration on the provision of UK public services including health services**

**(Report prepared for MAC, United Kingdom (Dustmann and Frattini, 2011)).**

Dustmann and Frattini (2011) reviewed the role of immigrants in three main sub-sectors of public services: health and social care, education, and public administration using the UK labour force survey data for the years 1994-2010. What is interesting is that they compared three groups: natives, EEA immigrants, and non-EEA immigrants. They found that immigrants in the public sector are more likely to work in the health and social work sector than natives. The share of non-EEA immigrants in the health sector has increased over time, from 36 per cent in the period 1994/1996 to 41 per cent for 2008/2010. They concluded that overall, both EEA and non-EEA immigrants were less represented in public employment, relative to their share of the working age population.

As regards wages, only immigrants (both EEA and non-EEA) enjoyed a wage advantage on average relative to natives in both the private and the public sector until the mid-2000s. While the relative wage position for EEA immigrants deteriorated thereafter, the gap for non-EEA immigrants was stable over time. The authors explain this in terms of the “relatively favourable position of immigrants ... they are

better educated and more experienced than natives, and are concentrated in London”. (Dustmann and Frattini, 2011: 7). Yet a comparison of natives with immigrants of the same age, education, regional distribution, and gender composition, found a wage disadvantage of immigrants relative to natives with the same characteristics. The difference was largest for non-EEA immigrants, and in the private sector. The study failed to detect any evidence of an association between the relative proportion of immigrants in public employment, and the public sector wage premium in some regions. Another finding is that the share of public sector employment is higher for immigrants who had been in the United Kingdom longer.

The above study on the impact of migration on UK public services (Dustmann and Frattini, 2011) has raised a number of interesting questions on the impact of immigrant workers on public sector employment, especially health sector employment. But it could only provide partial or limited answers to the issues of concern because the construction of the counterfactual situation required far more detail, which could not be done based on the available data. A few selected questions and analysis as raised in the above study are presented below.

- *Are there subsectors of the public sector that are more reliant on immigrants, and why?*

The study notes that it is the share of immigrants in the health and social work sub-sector that recorded the most increase among the public sub-sectors, from 10 per cent to 14 per cent during 1994-2010. Whether the expansion in the health and social work sector would have been possible at the same wages in the absence of immigration could not be answered based on available data.

- *What is the impact of (non-EEA) migration on the provision of UK public services? Do immigrants affect the quality and scope of public services in the United Kingdom? What would be the impact of having fewer non-EEA migrants employed in the sectors that provide these services?*

While the report raised a number of relevant issues, what is relevant for the present report is the impact on the health sector. It recognized that immigrants greatly contributed to the growth of the public sector since 1994, with nearly one in three new jobs in the public sector since 1994 having been filled by immigrants. The share of non-EEA immigrants in the health sector has increased from 36 per cent to 41 per cent in the period 1994-2010. “Thus, immigrants played an important role in the expansion of the public sector in the United Kingdom, in particular in health and education.” (Dustmann and Frattini, 2011: 43).

Regarding the impact of immigrants on quality of public services, the study argues that since immigrants in the public sector are on average younger, and better educated, they should have a positive impact on quality. Immigrants were found to work in higher-skilled occupation groups (63 per cent and 64 per cent of EEA and non-EEA immigrants work in the three highest occupation groups, compared to 52 per cent of natives), which suggest that “immigrants contribute importantly, and over- proportionally, to the quality of public sector services”, (p.44) including the health and social services.

- *What are the limitations to analysis and how to overcome them?*

The report notes that a major shortcoming is that the analysis is based on a repeated cross section that does not permit fully addressing the life-cycle developments of immigrant engagement in the different sectors. A longitudinal survey of immigrants, or at least access to longitudinal administrative social security data, would be needed for this purpose.

- *What would be the consequence of restrictions -- in the short run -- if employment of non-EEA immigrants were suddenly constrained?*

The conclusion of the study that “it may be difficult to fill some jobs in the public sector with equally skilled natives, and at the same wages, if employment of non-EEA immigrants was suddenly constrained”, would also apply to the health sector.

### **5.3 Determinants of doctor wages in the UK by Morris et al., (2009)**

While the above study Morris et al., (2009), does not analyse the impact of immigration on wages, it has some interesting findings on wages based on ethnicity. They have reviewed general practitioner wages in the United Kingdom, although it does not distinguish between immigrant and native doctors directly (Morris, 2009). But its findings on discrimination by ethnicity have some relevance to the issues under study. The study analysed the determinants of annual net income and wages (net income/hours) of general practitioners (GPs) using data for 2,271 GPs in England in Autumn, 2008. Variations in net income and wages were related to “gender, experience, list size, partnership size, whether or not the GP worked in a dispensing practice, whether they were salaried or self-employed, whether they worked in a practice with a nationally or locally negotiated contract, and the characteristics of the local population (proportion from ethnic minorities, rurality, and income deprivation)”. (Morris, 2009). They conclude that the findings have implications for discrimination by GP gender and ethnicity, among others. Being from an ethnic minority was found to have a statistically significant negative effect on wages.

Ethnic minority GPs had lower income but similar hours to white GPs and their wages were 6.7% less. Our analysis suggests that if there is discrimination it seems to be more obvious for ethnic minority than for female GPs (Morris et al., 2009: 10).

### **5.4 Observations on the UK situation**

As previously mentioned, the author carried out a series of interviews with key resource persons in the United Kingdom during 13-16 March, 2013. A few observations have been made below based on these discussions and review of literature.

- The labour market for health professionals is highly regulated, with NHS being the largest employer. The immigration of health professionals has therefore not had much impact on wages and employment conditions.
- Some impact may be seen in the concentration of immigrant doctors and nurses in less popular specialities and regions. For instance, family practice, geriatrics, psychiatry, and out-of-hours

services are areas where there is more concentration of overseas doctors (Simpson and Esmail, 2011). Asian doctors have contributed in a large manner to geriatric medicine (known as the “Cinderella” specialty), as revealed by a series of studies (Bornat et al., 2008; Bornat., 2009). Asian doctors also have suffered discrimination in the NHS over the years (Esmail 2007).

- Frequent and abrupt changes in immigration policies have caused difficulties for health sector workforce planning and individual immigrant health professionals, particularly those who immigrated under old rules such as the Highly Skilled Migrant Programme (HSMP). The retrospective provision of new rules was unfair by the latter. Current immigration policies driven by a target to bring it down to 1990s levels does not provide a conducive environment for workforce planning. One example is the bilateral agreements for admission of health workers signed with India and the Philippines, which have become defunct under new immigration rules.
- If at all, current policy may contribute towards circular migration of health professionals within the EU/EEA by default. The shortage list is compiled taking into account the potential supply from the EU member states.<sup>11</sup> This is not consistent with considerations for the development impact of migration from developing countries, as reflected in earlier advocacy by the Department for International Development (DFID, 2007). The only programme resembling a circular migration initiative is the aforementioned MTI of the Academy of Medical Royal Colleges (see section 8: Box 2).
- There is some debate on whether there is competition between international medical doctors and locally qualified doctors in access to limited postgraduate training slots. This has been highlighted in the United Kingdom with the ending of the HSMP abolishing permit-free training for overseas doctors. New rules have also made the role of the United Kingdom as a centre of postgraduate medical training less accessible. In the case of nurses, the competition for training places between immigrant and local nurses cannot be considered high because most immigrant nurses acquire their qualifications and training before immigration.
- New rules have also made the role of the United Kingdom as a centre of postgraduate medical training less popular. Especially in Commonwealth countries, UK higher medical qualifications are considered an asset by teachers in universities, health administrators, medical researchers, and also practising doctors. These opportunities have been largely undermined by recent policy changes. The BMA made this point in its submission to the Select Committee on Economic Affairs of the House of Lords:

Whilst the government must ensure that it complies with ethical recruitment policies, it must also recognise that some doctors from developing countries wish to come to the United Kingdom for specific training, and then return to their home country to put these skills into practice. The BMA recognises the importance of this, and in particular, doctors receiving training in specialties/procedures that are not available in their home countries. We recognise that a balance is needed between the excellent service migrant doctors provide to the NHS, ensuring fair and equal opportunities in the NHS and the long-term effects on damage to health-care services in the developing world (BMA, 2007).

---

<sup>11</sup> MAC interview, 12 March, 2013.

## **6. Selected US studies on the impact of immigrant doctors and nurses**

There are several specific studies which have directly addressed the issue of the impact of nurse migration on wages for the same profession in the destination country. This section deals with the major identified studies in this respect.

### **6.1 Immigration of physicians and the impact on the US labour market and wages**

The study by Fanny B. Cook (Cook, 2009), “Globalization, migration and the US labour market for physicians: The impact of immigration on local wages”, is the only systematic evaluation of the economic impact of immigration of foreign physicians in a destination country, according to our knowledge. It focuses on wages only, and does not consider employment impacts directly.

The study starts with the hypothesis that an increase in the physician stock is expected to have a negative impact on area wages, based on basic economic theory of labour supply and demand. It states: “Immigration of foreign physicians has a negative impact on area wages, and that this negative impact comes not only from the increase in physician supply caused by immigration, but also from the fact that immigrant physicians will be willing to accept lower wages than their native counterparts.” (Cook, 2009: 30). It also posits that immigration of foreign-educated doctors has a more negative impact on area wages than immigration of US-educated foreign-born doctors, because the latter are “likely to be more similar to their US counterparts”.

The methodology is based on the area approach with some modifications to address common criticisms. The basic econometric tool used is multivariate regression including ordinary least squares, instrumental variable analysis, two-stage least squares and a first-difference approach. The dependent variable in the analysis is the mean hourly wage earnings of physicians. The main explanatory variables are: immigration share, percentage of physicians in a given area and year who are foreign-born, sex, age, source of medical training (United States or abroad), measure of physician stock (number of physicians as a percentage of the area population in a given year), and the instrument variable-percentage of area population that was foreign-born as of the 1990 Census.

Four sources of data were used: (1) the American Medical Association (AMA) Physician Masterfile; (2) the Occupational Employment Statistics (OES) Survey published by the Bureau of Labor Statistics (BLS); (3) data published by the US Department of Health and Human Services, Centers for Medicare and Medicaid Services; and (4) data from the US Census Bureau.

The sample consisted of 170,858 physicians from the AMA survey for which country of birth was available: 26 per cent (44,503) were born outside the United States (foreign-born) and 74 per cent (126,355) were born in the United States. The sample was further classified into four groups based on the place of birth (US or foreign-born) and the source of medical training (whether trained as doctor in the United States or abroad) to assess the influence of the source of medical education. Seventy two per cent of foreign-born doctors had received medical training abroad, while only 4 per cent of US-born doctors had attended foreign medical schools. The largest single origin country of immigrant physicians

was the Philippines (18.8 per cent), followed by India (8.8 per cent). Seventy four per cent of the foreign born physicians were from developing countries.

The main conclusion is that “in the short-run, the impact of immigration of physicians on area wages is “small but positive”. (Cook 2007: vi). However, wages adjust and the impact becomes negative and statistically significant in the long-run, although the magnitude of a 1 percentage point increase in the share of immigrant physicians in an area is less than 0.2%. It also found that “the negative wage effects of immigration tend to be larger for foreign-born physicians educated in the United States, compared with foreign-born international medical graduates”. (Cook, 2009: vii).

While the initial OES regressions showed a negative impact of immigrant physicians on area wages, more refined analysis involving first differences, instrument variables, and education and specialty variables show a positive impact of the immigration of foreign-born and foreign-educated physicians on wages. The author explains this in terms of immigrants tending to settle in higher-wage areas and immigrant physicians specializing in somewhat higher paying fields. The conclusions drawn from the study are consistent with the conclusions of many previous studies, in that immigration, including skilled immigration, causes only a very small negative effect on wages.

The author concludes that the results of this analysis have different policy implications depending on the goals of policy makers. The choices are: a) keeping health costs to consumers low through immigration, which tends to have a negative impact on physician wages; b) relieving physician shortages through increasing local supply and more training, or through relaxing immigration of doctors; and c) increasing the supply of primary care physicians through immigration, since foreign-trained doctors are likely to choose this field.

## **6.2 Immigration of nurses and the impact on the labour market and wages**

Murthy (2009) conducted a major study on “Effects of migration of workers in the health sector”, which focuses on the impact of immigration in the US nursing labour market and its role in explaining observed wage trends. A series of other papers also have reviewed the impact of nurses on the US labour market, particularly wages. The next section deals with these studies.

Murthy’s study -- again a doctoral theses like Cook’s -- complements the work of Cook (2007) on the impact of physician immigration. While the thesis highlights effects on the labour market, most of the analysis is on the impact on wages.

The main objectives of her work are: to estimate the impact of high-skilled immigration in the US nursing labour market; and assess the extent to which observed wage trends can be explained by nurse immigration. It develops a theoretical model, which is testing using standard econometric techniques.

The methodology employed consists of both factor proportions analysis to estimate elasticity of substitution, and the area approach. She distinguishes between countries of origin (developed and developing) and skills levels (high and low-skilled), and between registered nurses (RNs) who are high-skilled, and limited practical nurses (LPNs) and certified nursing aides (CNS) who are low-skilled. Given immigration requirements of nurses, she assumes that all nurse immigrants are RNs with high skills.



Two sources of data are used: time series data based on the Current Population Survey (CPS), and cross-section data from the National Sample Survey of Registered Nurses (NSSRN). The NSSRN data is considered because the CPS data includes only the country of birth, and has no information on whether foreign nurses have been educated in the United States or outside. This factor was also considered an important issue in Cook's analysis above.

Murthy uses multivariate regression analysis with controls for observed characteristics and location, among others. Instrument variable analysis is also incorporated to address concerns with the area approach.

She first uses the CPS data to assess the impact of foreign nurses on observed wage trends. The theoretical model which distinguishes between high-skilled and low-skilled nurses is then estimated by examining the wage trends in a cross-section of cities during 1994-2005 -- "a period of growing inflows of foreign nurses into the US labour market". (Murthy, 2009: 4). She found close substitutability between migrants and natives, indicating that the immigration of high-skilled nurses would not affect the relative wage structure. "...since migrants and natives compete in the same labour market, the increases in supply of migrant labour through immigration will decrease the wages of natives as well as migrants, and hence the relative wages remain unaffected". (Murthy, 2009: 59). Model simulations also indicated that immigration does not hurt the wages of native workers -- a finding different from Borjas (2003), but consistent with a study by Card (2001).

Murthy used an alternative dataset (NSSRN) to go deeper into the impact of immigrants on the nursing labour market. Using the NSSRN data, which identifies foreign nurses as those who receive their education outside the United States, Murthy re-tests the impact of an inflow of foreign nurses on the wages of migrant and native-born nurses in the US nursing labour market, using the 1980, 1990, and 2000 Decennial Census data and the NSSRN data from 1988-2004. The analysis employs a cross section of cities and states in the United States during the period 1988-2004 at the MSA level, and during 1980-2004 at the state level.

The estimation of relative migrant wage equation supports findings based on the CPS data that migrants and natives are perfect substitutes. It is also found that developing-country and developed-country immigrants are perfect substitutes. Developing country immigrants command a higher wage (given that they are all high skilled). Since the two types of immigrants close substitute competing in the same labour market, there is no change in relative wages as they are unaffected by any changes in the relative supply ratios.

The study also raises the issue whether the immigration of foreign-born nurses has an impact on internal mobility patterns of native-born registered nurses in the US nursing labour market. This addresses the endogeneity problem in estimation when native workers may move out of high-immigrant concentration areas. But Murthy found no credible evidence to support this view.

The study found that migrants receive a slightly higher wage than native RNs after controlling for education, experience, gender, marital status and industry (Table 10). This wage differential was highest in 1992, but has declined thereafter.



**Table 10. Immigrant/native wage differential using NSSRN data, 1980-2004**

YEAR	RELATIVE WAGES
1980	.073 (.029)
1984	.090 (.016)***
1988	.076 (.012)***
1992	.125 (.011)***
1996	.085 (.014)***
2000	.085 (.014)***
2004	.066 (.024)***
Notes: Regressions run for each year. Standard errors in parentheses. ***, **, *; significantly different from 0 at the 1%, 5% and 10% level, respectively. Source: Table 3.4 -- (Murthy 2009: 55)	

She finds that migrant and native-registered nurses are perfect substitutes, and the simulations indicate that a 10-per cent immigration-induced increase in the immigrant supply has no effect on the wages of native workers, and reduces wages of immigrant workers by less than 0.05 per cent.

She next uses instrument variable analysis -- the instrument selected being the “immigrant to native ratio” -- to account for endogenous factors and fixed effects. Murthy notes that there are more developing country immigrants than developed country immigrants in the total immigrant RN population. She found that developing country nurse immigrants received higher relative wages than developed country ones after controlling for education and experience. She attributes this increasing immigrant quality to developing country RNs.

Murthy noted that this wage experience of immigrant RNs was different from the experiences of the overall immigrant population in the United States, who generally receive lower wages than natives, being mostly low-skilled.

### 6.3 Review of other studies on nursing immigration in the US labour market

This sub-section undertakes a comparative review of three other important studies of nurse immigration and its impact.

- Kaestner and Kaushal (2012: 2009) studied the effect of immigration of foreign-trained RNs on the employment and wages of native RNs.

They use the popular “area approach” with states defined as labour markets, and instrument variables (lagged number of foreign-trained nurses) were used to deal with endogeneity. The main source of data is from the NSSRN. The wage equation used individual characteristics including age, sex, marital status, education level, experience in nursing, and race (white vs. other). A few demand side factors were also included, covering per-capita hospital inpatient admissions, per-capita hospital outpatient visits, and the proportion of persons that are elderly.

The two studies come to different conclusions. The 2009 study mentions:

While we find substantial evidence that immigration by foreign-trained nurses increases the supply of nurses in local labour markets (e.g. counties), we find little (no) evidence that such increases in the supply of nurses has any appreciable effect on wages, annual earnings or employment status of domestic nurses (Kaestner and Kaushal, 2009: 20).

The 2012 study was more refined and used the lagged number of foreign-trained nurses to instrument for the current supply of nurses. It found “substantial evidence that immigration by foreign-trained nurses increases the supply of nurses and that this increase in supply is associated with a decrease in annual earnings”. They estimated that a 10 per cent increase in supply due to immigration was associated with a 1 per cent to 4 per cent decline in annual earnings (which is dependent on weeks/hours worked and the applicable wage rate), with the increase of supply of nurses within state boundaries through immigration, but most estimates were not statistically significant. At the same time, the increase in nurse supply was not associated with a decrease in wage rates. The authors believe this may have been due to the weak instrument specification, measurement errors in wages, or differences in hours worked per week or weeks worked.

An interesting aspect of the analysis was the attempt to look at the mobility of local nurses as a result of immigration. It tested the probability of native nurses moving out of the labour forces or moving to different occupations as a result of competition with foreign-trained nurses. They also assessed whether immigration of foreign RNs had any impact on hours of work by natives.

Overall, we conclude that immigration has not induced a significant (i.e. relatively large) shift out of nursing by US nurses. We also examined the effect of immigration of foreign-trained nurses on hours of work per year ... the increased supply of nurses due to immigration was unrelated to hours of work per year of US nurses (Kaestner and Kaushal, 2012: 228).

According to the authors, the overall “findings are consistent with many of the results in the broader literature, which finds a weak association between immigration and labour market outcomes of US-born (trained) workers”. (Kaestner and Kaushal, 2012: 220). In this sense, their conclusion that “... using immigration policy to solve the current and expected ‘shortage’ of nurses may adversely affect the earnings of US-trained nurses”, (Kaestner and Kaushal, 2012: 228), seems rather strong, given the “at best suggestive” nature of the evidence. They also refer to reduction in costs through “importing lower-priced, skilled labor”, which is not substantiated in the study given that there was no direct association between wage rates and the increase in supply. While they raise the “additional question of whether immigrant nurses are of the same quality as domestic nurses and whether patient care is being affected by the immigration”, (p.228), it is out of context, since the study did not address this issue.

**Table 11. Comparison of three US studies on impact of foreign nurses**

Item	(Schumacher, 2010)	(Kalist, Spurr et al., 2010)	(Kaestner and Kaushal, 2012)
Objective	Provide better understanding of foreign born RNs in US labour market	To determine the extent to which immigration might have reduced the earnings of RNs in the United States	To study the effect of immigration of foreign-trained RNs on the employment and wages of domestic RNs
Methodology	Area approach; regression analysis controlling for measurable characteristics, comparison groups	Area approach; regression analysis using instrument variables (% of immigrants from a given country)	Area approach: instrument variables (lagged number of foreign-trained nurses)
Data	Current Population Survey (CPS) (1995-2008) and National Sample Survey of Registered Nurses (NSSRN) (1988 to 2004)	NSSRN 1980 & 2000	NSSRN
Sample size	25,986 native-born & 921 foreign-born RNs	12,733 and 18,072	27 states; 120,000-150,000?
Hypotheses			
Findings	4.6% lower wage for RNs born outside US; better outcome for Canadian and Phil RNs; wage penalty in early years only; no significant or very small effect on native RNs	Immigration of nurses: <ul style="list-style-type: none"> <li>• Strong positive effect on the earnings of native nurses</li> <li>• Higher RN wages were positively correlated only with the supply of immigrant nurses</li> <li>• No adverse effect of immigration on native workers in this occupation</li> </ul>	Immigration of foreign-trained nurses: <ul style="list-style-type: none"> <li>• Significantly increased the supply of nurses in state level labour markets. This increase in supply is associated with a decrease in annual earnings -- a 10% increase in the total number of nurses due to immigration associated with a 1--4% decrease in annual earnings</li> <li>• Above estimates not statistically significant</li> <li>• No impact found on wage rates</li> <li>• Overall, findings consistent with many of the results in the broader literature that finds a weak association between immigration and labour market outcomes of US-born (trained) workers</li> </ul>

- Study by Schumacher (Schumacher, 2010)

The objective of the study by Schumacher was to assess the effects of foreign-born nurses migrating into the United States on the wages of native-born nurses. It claims to differ from previous studies, in that it focuses on a “well-defined, high-skilled labour market”.

The methodology used is the area approach. It used two major sources of data: CPS (1995-2008), which provides information on country of birth and citizenship status; and NSSRN (1988-2004), which provides information of basic nursing education. According to these, 3.1 per cent of the RN workforce in 2004 was foreign-born, non-US citizens, and 3.3 per cent had received their basic education elsewhere. The largest countries of origin were found to be: Philippines (33 per cent), Canada (13 per cent), and India (6 per cent). The sample was 25,986 native-born and 921 foreign-born RNs.

The study used multivariate regression techniques to estimate the effect of immigrant share of RNs on native wages, after correcting for measurable characteristics such as degree type, years of experience, gender, race, city size, region and marital status. Further extensions control for country of origin, and the number of years in the US nursing market. Non-nursing workers were also used as a comparison control group in the estimation.

The findings of the study show that foreign-born nurses suffer a wage disadvantage with a 4.6 per cent lower wage for non-citizen nurses born outside of the United States (Canadian nurses being an exception). The study also found that the wage disadvantage applied to new nurses and over time there was no significant wage handicap. Such wage differentials were largest in early years of US entry, with those with less than four years stay receiving a wage 10 per cent lower than their native counterparts. After this time, the differential disappears, suggesting that immigrant nurses acquire comparable skills and establish job competencies to match native-born counterparts.

It also found that the presence of foreign-trained nurses decreased earnings for native RNs, but the effects were small.

The study concluded that the reliance on foreign RNs did not result in any major negative consequences in US markets. “Thus, while foreign-trained nurses do not appear to be the sole long-term solution to the nursing shortage ... the use of foreign nurses is a viable strategy for easing shortages.” (Schumacher 2010: 378). This is different from views of others, who consider ethical aspects of such recruitment.

- Study by Kalist et al., (Kalist, Spurr et al., 2010)

Kalist et al., (2010) also addressed the issue of effects of immigration on wages of registered nurses in the United States.

They use the area approach based on NSSRN data for 1980 and 2000 for the county level. Multiple regression analysis was used with instrument variables and first differences, among others, to control for endogeneity.

The wage equation used also incorporates other characteristics of nurses such as gender, education level, experience, marital status, specific nursing position, and the immigrant RN share. They noted that

the labour market for RNs is associated with a positive correlation between wages and the percentage of workers in the area who are immigrants. This is because migrants choose to go to areas with high wages. Kalist et al., (2010) therefore used the instrument variable estimation approach, with the proportion of county residents born outside the United States as an instrument. This is expected to be highly correlated with the share of nurses who received their nursing education outside the United States, but it should have no direct impact on the wages of nurses. The results on the effects on earnings of native nurses in 1980 and 2000 remained “positive and highly significant, but are now substantially greater than the previous estimates”.

Kalist et al., also adopted the methodology of Borjas, dividing nurses into different skill groups for the wage estimation. There was a small negative coefficient that was not significant. They also tested whether natives would move out of areas when immigrants arrived, which could offset the negative effects on wages. But it found no support for such a hypothesis in the market for registered nurses. The overall conclusion was that immigration of foreign nurses had no adverse effect on native workers in nursing.

## 6.4 Summary points from the literature review

- While there have been some important studies of mobility of health professions for European countries in recent years, these have not addressed the wage and employment impacts of medical migration. The total impact of health worker migration goes well beyond labour market impacts.
- The study of health worker immigration impact in the United States has also used area and factor proportions approaches, which had been developed in regard to general assessment of immigration. Most studies had used the area approach apart from Murthy (2007). Both time series and cross section data have been used in estimations. Given the common criticism of endogeneity issues, instrument variable approach has been generally adopted.
- All studies concur in one finding: the impact is either absent or not significant. This finding is common to the general studies of immigration on the labour market. This may suggest that even for skilled workers in the health sector, the impacts are not that strong.
- Most studies also agree that these findings have less validity for formulation of long-run immigration policies in the health sector, mostly because of ethical considerations regarding brain drain.
- The following areas for further research may be identified:
  - o documenting the contributions of immigrant health professionals to destination countries;
  - o in regard to the United Kingdom, a special analysis as to the relevance of immigration impact models to a highly regulated labour market, and factors to be taken into account in assessment of immigrant health professionals;
  - o identification of urgent data requirements for analysis of the contribution and impact of immigrant health professionals on the destination country economies; and
  - o extent of brain waste of immigrant health professionals in destination countries, and related costs to all parties.

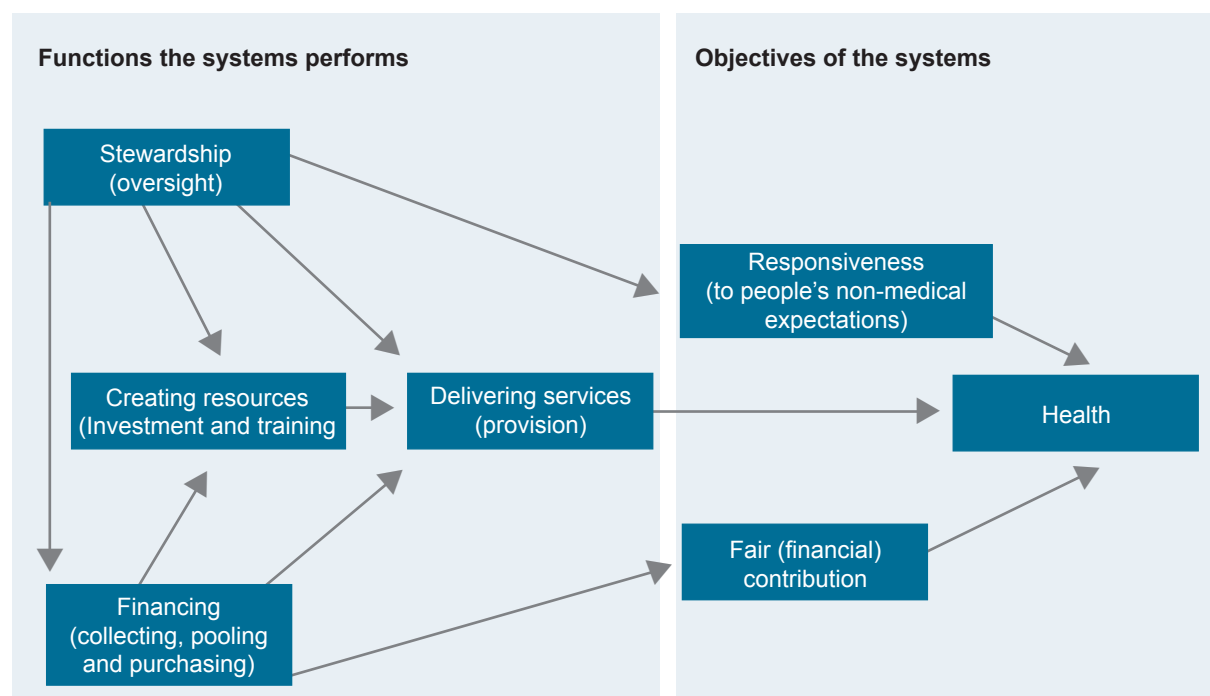
## 7. Immigration and the impact on the performance of health systems and quality care

### 7.1 Health system performance and immigration of health professionals

The World Health Report 2000 of the WHO has identified goals and functions of a national health system to be used in assessing its performance. The overall goals are: good health, responsiveness to the expectations of the population, and fairness of financial contribution. Progress towards them depends crucially on how well systems carry out four vital functions. These are: service provision (delivering personal and non-personal health services); resource generation (raising, pooling and allocating the revenues to purchase those services); financing (investing in people, buildings and equipment); and stewardship (acting as the overall stewards of the resources, powers and expectations entrusted to them). (WHO, 2000: 24).

Figure 2 shows how these objectives and functions interact, and are related to one another and to the objectives of the system.

**Figure 2. Relations between functions and objectives of a health system**



Source: Reproduced from WHO (2000). The World Health Report 2000: health systems, improving performance, WHO, Geneva.

In this framework, the health workforce has a central role in delivering services and creating resources. Table 12 captures the critical aspects of health-worker performance, and possible indicators and levers to influence the four dimensions of performance. Immigrant health professionals contribute in terms of all four attributes. They provide additional supply, skills and competence, and health systems achieve higher productivity. For optimizing their contribution, there are job-related and support-system related factors, in addition to an “enabling work environment” as the last column.

**Table 12. Dimensions of health workforce performance**

Dimension	Description	Possible indicators	Levers to influence
Availability	Availability in terms of space and time: encompasses distribution and attendance of existing workers	Staff ratios Absence rates Waiting time	<b>Job related</b> Job descriptions Norms and codes of conduct Skills matched with tasks Supervision
Competence	Encompasses the combination of technical knowledge, skills and behaviours	Individual: prescribing practices Institutional: readmission rates; live births; cross-infections	<b>Support system related</b> Remuneration Information and communication Infrastructure and supplies
Responsiveness	People are treated decently, regardless of whether or not their health improves or who they are	Patient satisfaction; assessment of responsiveness	<b>Enabling work environment</b> Lifelong learning Team management Responsibility with accountability
Productivity	Producing the maximum effective health services	Occupied beds; outpatient visits; interventions delivered per worker or facility	

Source: Compiled from tables in World Health Report 2006b, WHO.

The following section discusses the contribution of immigrant health workers to the four functions identified above.

- *Services delivery*

WHO (2000) stresses that the service provision function is the most familiar of a health system. “The quantity, appropriateness and quality of services delivered will depend on the geographical distribution, skill mix and size of the health workforce.” (Wismar et al., 2011: 48). Migrant health workers contribute considerably to expansion of the delivery of these services, since they are often brought in to address particular shortages. These staff shortages may be localised because of the maldistribution of the health worker force. It is common to find the bulk of health staff in major cities, while rural areas are under-served. Wismar et al., (2011) highlight that all 17 countries studies under the project experienced geographic maldistribution of the health workforce. Case studies of France, Germany (parts of eastern Germany) and Spain under the above study indicate how immigrant workers contribute to relief in underserved localities. The US J-1 visa for doctors is an arrangement to admit health professionals for serving in under-served areas.



Mick and Lee (1997) have raised the important safety-net role of international medical graduates in addressing maldistribution of physical resources within different areas in the United States.

The possible safety-net role of IMGs is the notion that IMGs have been and are practicing medicine in places that are avoided by US medical graduates (USMGs), so that even though a physician surplus may exist, maldistribution of USMGs has created pockets of opportunity for IMGs (Mick and Lee, 1997: 143).

This applies to other countries that also see large disparities between urban and rural densities of physicians to population.

A US study found that: “...IMGs are more likely to be located in areas where administrators report trouble recruiting, where medical staffs are smaller, and where hospitals are located in persistent poverty counties”. (Hagopian et al., 2004: 57). However, a more recent study in 2009 found that the contribution of IMGs to reducing the rural-urban maldistribution of physicians in the United States was unclear, and added: “IMGs fill gaps in the primary care workforce in many rural areas, but this varies widely between states. Policies aimed to redress the rural-urban physician maldistribution in the United States should take into account the vital role of IMGs.” (Thompson et al., 2009: 124). Leon et al., (2008) show that IMGs in the United States serve in medically underserved areas (MUAs), which are large rural regions with suboptimal health coverage.

One indicator of this contribution is reduced waiting times for patients. Young points out that improvement of staff coverage rates with immigration of health professionals had contributed to reductions in waiting times for NHS treatment (Young, 2011b). In its evidence to the House of Lords Economic Committee, the BMA stated: “...BMA recognises the extremely valuable contribution that migrant workers make to the NHS medical workforce and would welcome government policy acknowledging the same”.

Some impact may be seen in the concentration of immigrant doctors and nurses in less popular specialities and regions. For instance, family practice, geriatrics and psychiatry are areas where there was more concentration of overseas doctors. Asian doctors have contributed in a large manner to geriatric medicine in the United Kingdom. Encountering discrimination in the hierarchical system of the British medical profession, South Asian doctors found opportunities to career progression in geriatric medicine.

Both the pioneers and the later South Asian geriatricians worked to change the quality of health care available to older people in the United Kingdom, emptying the old workhouse wards and introducing medical interventions that rehabilitated those who had previously been denied treatment (Bornat et al., 2009: 1).

Elliott (2010: 120) makes a similar point: “Migrants have filled nursing vacancies in those regions where nurses' pay is least competitive. Migrants have also provided a supply of GPs to otherwise hard-to-fill posts in deprived inner-city areas, and they are disproportionately represented in the least attractive medical specialities.”

According to Cohen (2006): “At 25 per cent of the nation's physician workforce, IMGs contribute significantly to the US health-care system. Beyond their sheer numbers, however, IMGs have played critically important roles, both in aggregate and as individuals. By choosing to pursue specialties less attractive to US medical graduates, IMGs have filled important gaps that otherwise would have

seriously compromised the effectiveness of the US health-care system. Moreover, individual IMGs have made notable contributions to the improvement of clinical practice, to biomedical and health services research, and to medical education.” (Cohen, 2006: S17).

In the case of Canada, Ruiter-Kohn observes:

The substantial and long-standing contribution IMGs make to Canada's national physician supply has been, and will continue to be, of immense importance to all Canadians. At the health service level, many provinces and territories have come to rely heavily on IMGs to address their physician supply and to fill vacancies in under-serviced fields of practice and under-served communities. Historically, Canada's reliance on IMGs has been, quantitatively, in the 20 per cent to 30 per cent range (Ruiter-Kohn, 2010: iii).

Maier et al., (2011) highlight another important contribution of immigrant health professions:

“In Spain and Germany, a culturally diverse health workforce is more likely to respond to an increasingly culturally diverse population. Polish medical doctors fly to Irish cities to cater for the needs of the Polish diaspora during weekends.” (Wismar et al., 2011: 50). In general, it can be assumed that ethnic groups usually prefer to consult general practitioners from their community, given language problems.

For the United States, Leon et al., (2008) point out that cultural diversity may be an asset rather than a barrier in a multicultural setting. They state: “Cultural diversity in medicine is a must to deal with these immigrants’ health-care issues. Multi-lingual physicians do aid in avoiding medical errors secondary to language barriers, not to mention savings on translation services that are, in many cases, expensive or inaccurate.” (Leon et al., 2008: 175).

- *Resource creation function*

This refers to “the manpower, skills and knowledge required by a health system”. (WHO, 2000). In developed destination countries, immigration of health professionals is a strategy for expanding staff resources. Australia, the United States and the United Kingdom are good examples of resource expansion through immigrant health professionals. Young (2011) points out that greater workforce stability enabled the United Kingdom to expand training capacity.

According to Young, “...mobility clearly has resource benefits for the British system, because it reduces domestic spending on health professional education and postgraduate training”. (Young, 2011b). She adds that the United Kingdom has always educated fewer medical graduates than would be necessary in the absence of immigration. In its evidence to the House of Lords the BMA points out: “By virtue of being IMGs, the United Kingdom will not have paid for their undergraduate medical education, a saving of £250,000 per doctor”. (BMA, 2007).

The Royal College of Nursing, in its submission to the House of Lords (2008b), made a similar observation:

One of the reasons that active international recruitment has been so attractive to policy makers in the United Kingdom is that it offers the possibility of a “quick fix” -- the

nurses are trained elsewhere at someone else's expense, and can be recruited and working in the United Kingdom within a few months, not the four years it would take to commission and train a UK-educated nurse. The rapid nature of the policy response can work both ways, if and when funded demand for nurses in the United Kingdom falters or reduces, the numbers of international recruits can also be reduced, virtually overnight (RCN, 2008: 188).

Young (2011) points out that the United Kingdom has always called on international staff when workforce shortfalls and associated capacity problems in service provision were identified. One major issue affecting this function is the absence of good mobility data -- who enters the workforce and who leaves, and their profiles. As Maier et al., (2011) point out, this issue has become acute under EU Directive 2005/36/EC on the recognition of professional qualifications, whereby EU health professionals are not obliged to inform public authorities when entering or leaving a country. Buchan and Seccombe (2012) pointed out that this had led to a growing risk of insecurity of future nurse supply across the United Kingdom. The problem is that "governments have no legal instruments with which to limit or steer inflows and outflows between their own countries and other EU Member States". (Maier et al., 2011).

However Maier et al., (2011) caution on the dangers of too much dependence on immigration flows:

If reliance on a foreign workforce grows as domestic shortages worsen, health systems will become increasingly susceptible to the directions and intensity of flows, which remain hard to predict. Hence, domestic production of a health workforce seems a more sustainable (and responsible) approach to resource creation (Maier, Glinos et al., 2011: 51).

The Select Health Committee of the House of Commons also makes a similar point:

However, we also welcome the Government's view that planning of the UK health and care workforce should not be dependent on significant future flows of trained staff from overseas, both in order to improve "security of supply" and in order to avoid "poaching" skilled staff from developing countries. This approach should apply to public and private healthcare employers (Health Committee, 2012: 25).

- *Financing function*

Given that immigrant health professionals enter destination countries in search of higher wages, mobility has obvious implications for the financing function of the health system. As the BMA points out: "Given the existence of national terms and conditions for the majority of medical posts in the NHS, there is little correlation between recruiting migrant workers and the reduction in associated labour costs." (BMA, 2007).

Maier et al., (2011) refer to the case of Spain as an important destination country where foreign health workers inflows from Latin America have served to keep salary levels in the public sector fiscally sustainable. Yet high outflows have probably contributed to salary increases in source countries to retain medical professionals as in Lithuania, Poland and Slovakia (Maier et al., 2011).

In the United Kingdom, the Reform Research Trust report by the Reform think tank (Cawston, Haldenby et al., 2012) has argued for the relaxation of immigration rules, to bring in more overseas doctors to keep costs down.

The Government should also relax immigration rules for doctors. In the past, workforce planning and medical training were concerned with avoiding medical unemployment. In the future all health-care providers should have the freedom to decide how they will recruit and reward employees. Doctors and nurses are highly skilled professionals and they would be able to find work in other countries or elsewhere in the labour market (Cawston, Haldenby et al., 2012: 7).

While they have not explained how it reduces costs, Nick Seddon, a former deputy director of the Reform Trust explains: “It should be possible with increased immigration to increase standards and push down pay.”

It is inappropriate to think of immigrant professionals as cheap labour to drive down pay. These proposals have been criticised by the BMA and UNISON.<sup>12</sup> BMA Chairman Dr Mark Porter said: “Demotivating staff by attacking their terms and conditions would be hugely damaging to the NHS. Nationally agreed contracts are fundamental to a national health service. Regionally negotiated pay would undermine the national ethos of the NHS, waste resources, and lead to recruitment problems for some areas.” He also commented that relaxing immigration would cause more unemployment for British medical graduates as well as heighten brain drain from developing countries. Christina McAnea, head of health at UNISON, had commented that: “Reform’s report is writing the wrong prescription for NHS pay” and ignores “the fact that Agenda for Change [the national NHS pay deal] has a proven track record of delivering fairness and for keeping the industrial peace across the NHS.”<sup>13</sup>

- *Stewardship*

The fourth function, stewardship, “encompasses the tasks of defining the vision and direction of health policy, exerting influence through regulation and advocacy, and collecting and using information”. (WHO, 2000: xiv). It is basically governance of the health system, providing strategic direction for all the different actors involved in careful and responsible management. A large part of stewardship consists of regulation, whether undertaken by the government or by private bodies that regulate their members, often under general rules determined by government. There is not much evidence on the contribution of migrant health professionals in this area, since the majority may not reach the ranks of senior management levels of health systems in destination countries.

*“Migrants do not just bring a colourful presence, different cultures, music and food. They shape nations by working in industry, public services and becoming involved in civil society. The history of the British National (or should that be International?) Health Service provides us with an excellent illustration of such processes at work”.*

Simpson, J. M., A. Esmail, et al., (2010: 395). “Writing migrants back into NHS history: addressing a ‘collective amnesia’ and its policy implications.” *Journal of the Royal Society of Medicine*, 103 (10).

<sup>12</sup> <http://www.telegraph.co.uk/health/healthnews/9667025/Hire-foreign-doctors-to-drive-down-pay-urges-think-tank.html>

<sup>13</sup> op. cit. above.

## 7.2 Impact of migrant health professional on quality of care

Quality of care is a multi-dimensional concept, and the Quality Assurance Project (2002) identified nine dimensions of quality that are important to a health-care delivery system's various internal and external stakeholders. These are: technical performance; access to services effectiveness of care; efficiency of service delivery; interpersonal relations; continuity of services, safety, physical infrastructure and comfort; and choice of services.

Immigrant health professionals contribute to a number of these dimensions including access to technical performance, care, effectiveness and efficiency of service delivery and continuity of services.

Destination countries use rigorous licensing, registration and induction programmes with the aim of maintaining quality assurance of services of immigrant health professionals. This is the function of health professional accreditation and registration bodies (medical councils/boards and nursing boards) in different countries. The main purpose of registration is to protect the public, for which medical boards are given wide powers. These cover ensuring that applicants possess recognized medical qualifications, investigation of allegations of unprofessional conduct or malpractice, and taking required disciplinary action -- including cancellation of licenses or suspension (Breen et al., 2010).

In general, there is limited literature on the contribution of immigrant health professionals to quality of care (Rao et al., 2007). Pillinger's research on Australia underlined " ...the significant contribution made by migrant workers to the quality of healthcare". (Pillinger, 2012: 3). She added:

Australian nurses were overwhelmingly of the view that migrant workers contributed to high quality care: "They contribute a high quality of care, work very hard and adjust to local ways very well." One nurse stated that this was particularly notable in aged care (Pillinger, 2012: 42).

Cortes and Pan (2012) carried out an indirect test of the quality of care offered by foreign-trained nurses in the United States. They looked at "one of the main concerns raised by the inflow of foreign trained nurses -- the quality of care that they provide". Using Census data from 1980 to 2010 and wages as a measure of skill, the study found a positive wage premium for nurses educated in the Philippines, but not for foreign nurses educated elsewhere. This difference remained even when other factors such as differences in demographics, education, work experience, location, or detailed job characteristics between foreign and native nurses were accounted for. They attribute this premium to quality differences of Filipino nurses resulting from strong positive selection into nursing among Filipinos, based on active government support for nurse migration in the Philippines. They attribute this to the fact that the United States may be attracting the best Filipino nurses (and possibly doctors switching into nursing) by offering much higher wages.

The study also highlighted that Filipino nurses were more likely to be hired by "better quality" hospitals, which hire more educated nurses at higher wages.

These findings should alleviate concerns that foreign educated nurses offer a lower quality of care and also provides evidence against the claims by native nurse associations that nurses educated abroad are willing to work for lower wages and that exploitation by employers is a common phenomenon (Cortes and Pan, 2012: 20).

There is considerable debate on the quality of care by international medical professionals. A British Medical Journal editorial mentioned: “One of the more controversial aspects of the migration of doctors is whether IMGs offer the same quality of care as doctors who train and practise in destination countries.” (Editorial, 2011). The increasing dependence on foreign doctors has heightened this concern. The evidence can be summarised under three areas.

- a) Fitness to practice procedures based on complaints from patients, public bodies, hospital trusts or peers (GMC, 2012; Humphrey et al., 2011). The issue is whether there is objective evidence to show that there are more complaints against immigrant health professionals than native health professionals.
- b) Educational measures of quality: equivalence or shortfalls in qualifications obtained abroad; language competencies; and failure rates in competitive qualifying examinations (Cooper, 2008; GMC, 2012; Vaughan, 2012). This compares success or failure rates between immigrant professionals and native professionals.
- c) Clinical outcomes for patients cared for by immigrant health professionals and native health professionals (Norcini, et al., 2010; Ko et al., 2005). If there is no difference, then it can be argued that the quality is the same between the two categories.

The paper deals briefly with these three areas below.

### **7.2.1 Fitness to practise procedures**

The fitness to practise process or its equivalent is used in many countries to investigate and adjudicate on concerns about the fitness of individual doctors to practise medicine. The process of licensure for doctors migrating to developed countries is rigorous.

Yet there is concern about the effect of racism and discrimination in the health systems at many levels regarding complaints procedures.<sup>14</sup> The common media exaggeration is typified by a Daily Telegraph report, “Revealed: 3 in 4 of Britain's danger doctors are trained abroad” (Leach and Donnelly, 2012). A high-profile case was the death of a British patient caused by an overdose of a drug by a temporary German-trained doctor.<sup>15</sup> The Daily Telegraph report quoted Niall Dickson, Chief Executive of the GMC, stating that the NHS would not have survived without the contribution from overseas doctors, and that it was important “not to demonise tens of thousands of professionals who had brought their skills” to the United Kingdom. Also quoted was Dr Umesh Prahbu, national Vice-Chairman of the British International Doctors Association, who referred to problems with discrimination and racism in the NHS as part of the problem among the many complex reasons for this situation (Leach and Donnelly, 2012).

The paper next reviews some of the studies looking at the quality of overseas doctors in a comparative setting.

---

<sup>14</sup> Please see Humphrey et al., (2011) for references to this literature.

<sup>15</sup> <http://www.bbc.co.uk/news/uk-england-14085641>



### *Analysis of UK General Medical Council complaints by Allen (2003)*

Allen (2003) carried out an analysis of nature and outcome of complaints received by the GMC, considered by the Preliminary Proceedings Committee (PPC) and the Professional Conduct Committee (PCC) in 1999, 2000 and 2001.

The study noted that in all three years, higher proportions of overseas qualifiers than UK qualifiers were referred to the PPC by screeners, a ratio of 2:3, repeating the differential found in 1997 and 1998.

The referral rates were as follows:

- 1999 -- 22 per cent of United Kingdom: 34 per cent of overseas qualifiers
- 2000 -- 19 per cent of United Kingdom: 30 per cent of overseas qualifiers
- 2001 -- 18 per cent of United Kingdom: 27 per cent of overseas qualifiers

It also found that UK qualifiers are more likely to be referred to the health procedures and overseas qualifiers to the performance procedures by the screeners. There were notable differences between screeners, not only in the proportions of cases they refer to the PPC in general, but also in the relative proportions of UK and overseas qualifiers they refer.

The proportion of UK qualifiers sent to the PCC was much lower than the proportion of overseas qualifiers in all five years. The proportion of overseas qualifiers sent by the PPC to the PCC increased disproportionately between 1997 and 1999 -- from 35 per cent to 52 per cent of overseas qualifiers considered. The ratio of United Kingdom to overseas qualifiers referred to the PCC by the PPC has remained at roughly 2:3 between 1999 and 2001, although it was much more even in 1997. The author could not find an explanation for this increase.

The study noted the “continuing differences between the outcomes of cases concerning United Kingdom and overseas qualifiers at the PCC”, but mentioned that it was difficult to gauge the reasons and factors without a detailed analysis of the reasons for the decisions made by the PCC.

It concludes:

We found in that report that there were many areas where a lack of transparency and consistency led to the conclusion that it was difficult to demonstrate that all doctors in all cases were treated fairly, although we found no evidence that they were not ... However, until there are some objective measures that can demonstrate this, the GMC remains open to accusations of bias ... We conclude that the main problem in analysing the differences in outcomes between United Kingdom and overseas qualifiers at all stages of the GMC fitness to practise procedures remains the fact that there is no discernible common agreement on the criteria and threshold to be applied in reaching a judgment on the seriousness or gravity of cases. This has led to problems in ensuring consistency both within and between the different stages of the GMC procedures (Allen, 2003: A2).



### *Study by Humphrey et al., (2011)*

Humphrey et al., (2011) attempted to evaluate whether the country of medical qualification is associated with “higher impact” decisions at different stages of the GMC’s fitness to practise process, after allowing for other characteristics of doctors and inquiries. It reviewed 7,526 inquiries to the GMC concerning 6,954 doctors. Table 13 summarizes the information. The relative odds ratios are in relation to UK qualified doctors. The data clearly show that the likelihood of non-UK qualified doctors receiving high impact decisions at each stage of the GMC process is much higher, based on percentage shares and odds ratios.

**Table 13. GMC Fitness to Practise Process by place of primary qualification of doctors**

Stage of Inquiry of Fitness to Practice	UK-qualified	EU/EEA-qualified	Non-EU qualified
1. Initial stage -- High impact decision Relative Odds Ratio	4 702	624	2 190
2. Investigation Stage Relative Odds Ratio	1 398 (30%)	267 (43%)	998 (46%)
3. Adjudication Stage: Erasure or suspension	228 (5%)	1.67 63 (10%)	1.61 221 (10%)
Relative Odds Ratio	69 (1%)	2.14 24 (4%)	1.68 71 (7%)

Source: Compiled from Humphrey et al., 2011.

The study also showed that non-UK qualified doctors of black and minority ethnic origin had much higher odds ratio of high impact decisions than the reference category of UK-qualified, confirmed white doctors in all stages.

The basic conclusion drawn was: “Inquiries to the GMC concerning doctors qualified outside the United Kingdom are more likely to be associated with higher impact decisions at each stage of the fitness to practice process. These associations were not explained by measured inquiry-related and doctor-related characteristics, but residual confounding cannot be excluded.” (Humphrey et al., 2011: 1).

The study indicates two different possible explanations for the findings: a) there are real differences in fitness to practise between groups of doctors referred to the GMC; and, b) the “GMC processes tend to discriminate against certain groups of doctors”. The authors clarify that it is difficult to clearly support either conclusion due to limitations of the data, and that both might be valid.

### ***Non-UK trained doctors and ethical regulatory framework***

Another study by Slowther et al., (2009) had the overall objective to explore the experience of doctors who have qualified outside the United Kingdom in working within the ethical regulatory framework of GMP and to make recommendations to the GMC to develop specific approaches to assist these doctors qualified in adhering to this framework.

The study found that the main information, training, and support available to non-UK qualified doctors wishing to work in the United Kingdom had little emphasis on ethical and professional standards,

but focuses mainly on practicalities of immigration, registration, availability of posts and, where required, passing the relevant examinations. Therefore most non-UK qualified doctors had no access to information on ethical standards and guidance prior to registration with the GMC. There was also limited opportunity for training for non-UK qualified doctors prior to registration, or on entering the NHS workplace:

Many non-UK qualifiers identify having concerns about communication on entering practice in the United Kingdom. These concerns range from difficulties with subtleties of language and dialect to misunderstandings of the nuances of non-verbal communication and social and behavioural norms. Training in communication skills was identified as particularly useful in the induction programmes attended by some non UK qualifiers (Slowther et al., 2009).

The study noted that many European doctors have similar difficulties with communication or lack of familiarity with the shared decision-making model of health care to their non EEA counterparts.

This study identified a number of difficulties experienced by non-UK qualified doctors in their transition to practice within the United Kingdom ethical and professional regulatory framework. These include a lack of relevant information about legal ethical and professional standards and guidance prior to registration, variable levels of training and support specifically in the areas of communication and ethical decision making, and isolation in non-training posts. The key difference between non-UK qualifiers and UK qualifiers is the emphasis on individual autonomy and shared decision making between doctor and patient, which is the current norm in the United Kingdom, and the contrast with their experience of a more paternalistic model of the patient doctor relationship in their country of qualification. Non-UK qualifiers are presented with the guidance and regulatory frameworks but lack tacit knowledge held by UK graduates of the context in which the law and guidance was developed. Provision of specific information and educational resources prior to registration, accompanied by in-practice support, would help to develop a more effective understanding of GMP and its implications for practice in the United Kingdom.

### ***UK General Medical Council (2012) analysis***

The GMC 2012 report reviewed the fitness to practise complaints (GMC, 2012). The GMC had received 8,781 complaints in 2011, which continues an upwards trend since 2007. The three most prevalent types of allegations the GMC investigated were similar to previous years: investigations or treatment (2,643); effective communication (789); and respect for patients (679). It concludes:

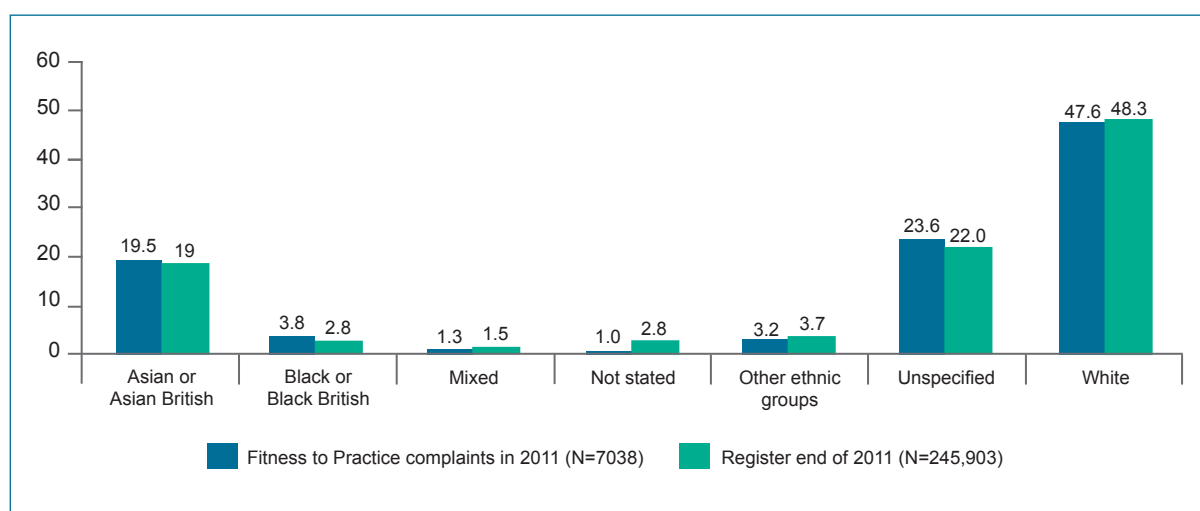
Where in the world doctors qualified didn't affect the overall likelihood of them being complained about, but did affect the type of complaint. Older IMG doctors were more likely to be complained about than doctors in the same age group who qualified in the United Kingdom or EEA (GMC, 2012: 51).

Figure 3 shows the distribution of complaints by ethnicity of doctors.

Independent research to test the objectivity of patient questionnaires about the quality of doctors' practice found that patients were likely to score doctors who qualified outside of Europe less favourably. The same study found that doctors who qualified outside of the United Kingdom were likely to be scored lower by their colleagues.

It noted three trends: a) among IMG doctors, there were more complaints for older doctors; b) doctors who qualified outside the United Kingdom were proportionally more likely to be subject to a GMC investigation about issues such as poor clinical skills and knowledge, lack of knowledge of the law or codes, and an inadequate participation in medical education. They were also more likely to be investigated about these issues within the first two years of joining the UK register; and, c) a larger proportion of complaints about overseas qualified doctors were sent to a fitness to practice panel following investigation.

**Figure3. Distribution of complaints received by the GMC relative to the distribution of ethnic groups on the medical register in 2011 (in %)**



Source: Based on data in GMC, 2012.

The report quoted the Humphrey et al., (2011) study, and added that “it is important to emphasize here that the study showed that increased risk for this group of doctors is not about their ethnicity, but about the fact that they qualified outside the United Kingdom”, (GMC, 2012: 62). However, this is not strictly correct because the study also analysed the results by ethnicity, which showed higher odds ratios for doctors of black and minority ethnic origin, as highlighted above.

### *Some evidence from Canada*

A survey of Canadian practice (Belluz, 2012) suggests that IMGs are disproportionately more likely to be charged with professional misconduct. “The survey, the first one of its kind to be conducted in Canada, showed that in nearly every province, doctors who received their MDs outside this country and the United States -- including Canadians who studied abroad -- appear to have been disciplined disproportionately more often than their North America-trained colleagues”. Table 14 summarises the findings. New Brunswick, Alberta and Quebec have the worst ratios respectively.

**Table 14. IMG/Native doctors discipline information: Canadian Provinces**

Province of Canada	Period	Discipline ratio	% disciplined who are IMGs	% IMGs of total MDs	Total disciplined	No of IMGs disciplined
British Columbia	2002-2011	1.3	37.5	28.2	80	30
Alberta	1995-2011	1.5	44.6	29	74	33
Saskatchewan	1999-2011	1.1	51.1	49.2	29	16
Manitoba	2001-2011	1.0	32.0	32.2	50	16
Ontario	1973-2011	1.2	33.7	28.5	501	169
Quebec	1997-2011	1.4	16.2	11.3	172	28
New Brunswick	1993-2011	2.2	52.9	24.4	17	9
Nova Scotia	1995-2011	1.3	36.8	28.1	38	14
Prince Edward Island	2007-2011	1.1	20.0	17.8	5	1
Newfoundland & Labrador	2005-2011	1.0	40.0	41.2	5	2

Source: Table compiled based on research by Vera Abdel Malek and Julia Belluz (Belluz, 2012).

### 7.2.2 Differences in performance in tests and competitive examinations

Regarding the question of the comparative quality of USMGs and IMGs, Cooper summarizes:

Overall, foreign-IMGs are adjudged to be of good quality. However, their performance on the United States Medical Licensing Examination (USMLE) is poorer than the performance of USMGs and a smaller per cent are certified by specialty boards. Of the 100 medical schools whose graduates have the highest frequency of disciplinary actions, 70 per cent are foreign. On the other hand, foreign-IMGs perform better on the internal medicine board exam and on in-service exams (Cooper, 2008: 58).

Similar concerns have been raised in the United Kingdom by the GMC. It found some evidence that “doctors in postgraduate training who gained their primary medical qualification overseas are proportionally more likely to experience challenges in progressing through training”. (GMC, 2012: 63).

Although the absolute numbers are small, overseas qualified doctors were significantly more likely to have an unsatisfactory outcome in 2010–11. There was no difference between outcomes for EEA and other overseas graduates (IMGs) – 19 per cent of both had unsatisfactory outcomes (1,813 of EEA trainees and 10,601 of IMG trainees). By comparison, the percentage of UK-qualified doctors with unsatisfactory outcomes was less than half this at 9 per cent (28,382). (GMC, 2012: 63).

While it could not explain the trend, the GMC surmised that it may be partly due to the fact that the UK-qualified doctors are better prepared to undertake UK postgraduate training than non-UK colleagues in general.

The British Association of Physicians of Indian Origin (BAPIO) has argued that there is some “unconscious bias” against black and minority ethnic groups in conduct of these examinations, given the wide disparities in pass rates between white UK graduates and black and minority graduates.<sup>16</sup> It has drawn particular attention to the clinical skills assessment (CSA) test by the Royal College of General Practitioners. According to Chand (2013): “IMGs from South Asian backgrounds are much more likely to fail certain components of the new compulsory assessment for all doctors wishing to become GPs (Member of the Royal College of General Practitioners – MRCGP), than UK white graduates. It would be hard to argue that this marked difference in failure rates is a matter of chance, diligence or intelligence.”

### **7.2.3 Comparisons based on quality of care and patient outcomes**

There is one US study that addressed this issue directly. Norcini et al., (2010) carried out a test of quality of IMGs by looking at mortality rates of patients cared for by them and native doctors.

Our analysis of 244,153 hospitalizations in Pennsylvania found that patients of doctors who graduated from international medical schools and were not US citizens at the time they entered medical school had significantly lower mortality rates than patients cared for by doctors who graduated from US medical schools, or who were US citizens and received their degrees abroad ... We found no significant mortality difference when comparing all IMGs with all US medical school graduates (Norcini et al., 2010: 1461).

Leon et al., (2008) also looked at the issue of clinical competence, and concluded: “Objective and subjective evaluations have clearly demonstrated that selected IMGs can indeed excel in the United States.” (Leon et al., 2008: 174).

Ko et al., (2005) carried out a retrospective cohort study of 127,275 heart patients admitted between 1 April, 1992, and 31 March, 2000, to acute care hospitals in Ontario, and treated by IMGs (22 per cent of total patients) and Canadian medical graduates (78 per cent).

The study did not find a significant difference in mortality rates, secondary prevention medications and cardiac procedures of patients treated by IMGs and Canadian medical graduates. The study thus supports that IMGs provide competent and quality care comparable to native graduates.

## **7.3 Relevance of conditions of work and treatment of immigrant professionals on their performance**

Immigrant health professionals face a number of problems in the workplace as well as general living conditions in destination countries. There is evidence that they often work under more difficult conditions (e.g. late or night shifts, home care), and their conditions of work may be inferior in some cases to those of native works. Another DWAB Project study is looking into this issue. There is also documented evidence of racism and discrimination in the workplace by fellow workers and patients. An analysis

---

<sup>16</sup> <http://drunacoales.blogspot.ch/2013/06/bapio-awaits-judicial-review-permission.html>

of recently recruited overseas nurses in the NHS in the United Kingdom on how they perceived equal opportunity and opportunities for skill development and training in the NHS highlighted the inequitable treatment that is apparent throughout the United Kingdom (Alexis and Vydelingum, 2009).

In a Canadian study by Higginbottom (2011), many interviewed internationally educated nurses reported negative experiences related to their work contract and overall support upon arrival. In the United Kingdom, South Asian doctors have gone into unpopular fields because of lack of prospects for career progression in other fields, as highlighted earlier. As Wismar et al., (2011) point out: “Unfavourable working (and living) conditions may increase risks for both patients and providers.” These factors may cause overseas health professionals to perform below their potential. Research evidence from different countries confirms that IMGs face discriminatory obstacles to exercise their rights and practise their professions in developed countries.

A study by the Royal College of Nursing on the experience of non-white nurses in the NHS found: “The working lives of the majority of black nurses that participated in this study had, to one degree or another, been structured by racism. This had taken various forms: most significantly racist stereotyping by colleagues and the public and institutionalised racism, which had meant that work cultures, particularly relations with colleagues and managers, operated to exclude them.” (Dhaliwal and McKay, 2008: 8). It concluded:

The research finds that stereotypical assumptions about the role of black nurses has categorised them as not having the potential to achieve supervisor or manager status. Consequently, black nurses have found it more difficult to achieve promotion, and in the past many have been actively discouraged from seeking it (Dhaliwal and McKay, 2008: 4).

Regarding IMG doctors in the United States, Cooper (Cooper 2008) identified the main issues confronting IMGs as cultural and subtle discrimination in the workplace. Others included language proficiency, being older when they complete training, and family responsibilities.

A study of the experiences of internationally educated nurses (IENs) in the south-eastern United States (Wheeler et al., 2013) highlighted that IENs faced additional challenges compared to native RNs in adjusting to the attitudes of US patients, the perceived lack of respect for nurses and delivering total patient care. It concluded that IENs would benefit from orientation regarding the cultural differences in the United States.

## **8. Circular migration and voluntary partnerships in optimizing benefits from medical migration**

In recent years, there has been a call for temporary forms of migration, particularly circular migration systems, to maximise the positive benefits from migration-development linkages. Circular migration is nothing new, as it has long been rooted in internal migration and cross-border migration flows. What is new is the current emphasis on managed circular migration as a triple win, bringing benefits to all three parties involved -- migrant workers, destination countries and origin countries.



The DWAB Project, under which this study has been conducted, is based on the premise that the circular migration of professionals would promote mutual benefits. It aims to foster policy dialogue to promote circular migration and mitigate the risks of brain drain in a pro-active manner.

Simply defined, circular migration refers to temporary movements of a repetitive character, either formally or informally across borders, usually for work, involving the same migrants (Wickramasekara, 2011a). By definition, all circular migration is temporary. It is different from permanent migration (for settlement), and return migration (one-trip migration and return). It is also necessary to distinguish between two types of circular migration:

- spontaneous (voluntary) circular migration and managed circular migration; and
- circular migration of persons from developing countries, and circular movement of persons from the diaspora to their home countries.

I have shown elsewhere the limitations of this triple-win argument because most circular programmes may be at the expense of migrant rights. (Wickramasekara, 2011). Pillinger (2012) has also documented the vulnerability and exploitation suffered by female migrant health workers under temporary migration schemes in Australia.

This section briefly reviews recent initiatives that apply to circular migration and voluntary partnerships.

The EU strategy on global health (European Commission, 2010) called on member states to facilitate circular migration as a means to mitigate brain drain from countries experiencing such strain in its brief remarks on migration. It also made explicit reference to the WHO Global Code of Practice.

On migration, the EU Member States should ensure that their migration policies do not undermine the availability of health professionals in third countries whilst respecting the individual freedom of movement and personal and professional aspirations. In this respect, the EU should speed up progress towards the agreed commitments under the EU Strategy for Action on the Crisis in Human Resources for Health in Developing Countries and contribute to the WHA Code of Practice on the International Recruitment of Health Personnel. The EU should facilitate circular migration as a means to mitigate brain drain from countries experiencing such strain. EU Member States should step up their efforts to ensure that everyone -- including migrants -- in the EU has access to quality health services without discrimination (European Commission, 2010: 8).

The first type of circular migration -- managed circular migration from developing origin countries to developed countries -- is best promoted through bilateral agreements (MOUs). Such agreements are not common, and the UK-South Africa exchange of health workers' agreement was one of the few schemes combining training and return to home countries. More recently the UK's MTI has been advanced as a form of circular migration, although it does not involve repeat migration. Box 2 provides a description of the scheme and its limitations. The proposals by the UK Border Agency to reduce duration of the scheme to one year, and deny family union for those who come under the MTI scheme, have no logical basis, and would seriously undermine most of the benefits of the scheme. Current UK policies indicate major deviations from the guiding principles advocated in the EU strategy on global health cited above.



Given the shift of the composition of health professions from developing countries to the EU/EEA area, it is reasonable to conclude that there will be greater circular migration of health professionals within the EU/EEA area rather than between developing countries and Europe. For example, the UK-shortage list is compiled taking into account the potential supply from the EU Member States.<sup>17</sup> This may not be consistent with considerations for the development impact of migration from developing countries, as reflected in earlier advocacy by the Department for International Development (DFID, 2007).

Lawrence (2010) has also made a case for promoting circular migration in the context of the United Kingdom to improve global health outcomes:

The potential advantages of open-ended circular migration for receiving countries such as the United Kingdom include more flexible, accurate, and longer-term staffing, new approaches to development assistance for sending countries, and improved health outcomes. For sending countries, benefits would include better planning and data on migrants, maintaining or increasing health workforce staffing through the predictable availability of overseas career ladders and remittance income, and the migrants themselves would benefit from more flexible and secure work arrangements, increased options for residency and training, and enhanced ability to balance income with non-income considerations (Lawrence, 2010: 49-50).

Yet there is no indication that current UK policies would move towards such an approach.

**Box 2:**

**Medical Training Initiative (MTI) in the UK -- A form of Circular Migration?**

The MTI scheme is designed to provide short-term training opportunities for selected overseas postgraduate medical specialists from developing countries wishing to work normally within the NHS. The scheme operates within Tier 5 of the points-based immigration system of the UK Border Agency. It is a sub-category of the Government Authorised Exchange (GAE), which is available to any migrant -- not just in healthcare -- coming to the United Kingdom through approved schemes aimed at sharing knowledge, experience and best practice.

The maximum period of training permitted is two years, after which the individual is expected to return home. "There is no prospect of developing a medical career in the United Kingdom via this route of entry. The scheme is aimed mainly at doctors from less developed economies such as sub-Saharan Africa or parts of Asia to help health sector development in their home countries" (NHS Employers 2010). It has been promoted as a "circular migration scheme" with development impact (Interview with NHS Employers, 15 March, 2013; (VSO 2010; Wiese and Thorpe, 2010?).

The Academy of Medical Royal Colleges is the coordinating body in England responsible for sponsorship of the scheme, taking over this role from NHS Professionals since April, 2010.

Since its inception in 2009 to August 2011, there have been 467 MTI placements. The figure is capped at 750 at any one time. The number of MTI placements is very small (0.6% of all T5 visas issued in 2010). (ASGBI, 2011). In November 2012, there were 427 doctors in the United Kingdom on MTI

<sup>17</sup> Communication at the MAC interview on 12 March 2013.

placements, of which 221 were new placement since April 2012. The 427 MTI doctors came from 34 different countries, with the top three countries being: Sri Lanka -- 104; India -- 98; and Egypt -- 39 (Howard, 2012).

### **Assessment**

There has been no overall assessment of the scheme as yet. Most IMGs working in the NHS feel that this is going to be a Medical "Workforce" Initiative rather than Medical "Training" Initiative, because the period of two years is too short a period to make a difference to training. "The introduction of MTI has proved controversial, with some IMGs arguing it's just a way of getting cheap labour in a time of shortages." (Stephenson, 2010). There have been a number of negative feedbacks on the scheme (See: <http://careers.bmj.com/careers/advice/view-rapid-responses.html?id=20000127>).

There has been one evaluation of the MTI scheme in dentistry (Wilson and Burke, 2012). The study reported positive outcomes for trainees in this particular field:

The initial objectives of the MTI for dentistry under Tier 5 immigration have been satisfied. The scheme has been successful in terms of attracting clinicians of sufficient experience to benefit from their time in the United Kingdom. The ITFs (international training fellows) have obtained new skills and international networks have been set up. Spare capacity in training has been utilized without detriment to existing trainees in the NHS (Wilson and Burke, 2012: 235).

The UK Border Agency proposed to bring down the training period to 12 months and not allow spouses to join without any logical reason except for migration control: this has been criticized by training providers. The Association of Surgeons of Great Britain & Ireland (ASGBI) (2011) pointed out that 12 months was not long enough given the induction period. It added: "The MTI will collapse if reduced to a maximum of 12 months because overseas colleges and universities will look elsewhere." (ASGBI, 2011: 5). It also contradicts with the Government's policy of strengthening health systems in the developing world. The ASGBI has maintained that the regulations for MTI should remain the same.

It also needs to be highlighted that the MTI does not represent a typical circular migration programme, since it involves a one migration episode -- not repeat migration -- as highlighted in recent international debates (Wickramasekara, 2011). The ASGBI (2011) has drawn attention to a different aspect of circular migration in that in the year up to 30 June, 2011, 463 UK trainee doctors had volunteered to work abroad. This means that in the same year, more than twice the number of UK trainees left the country as MTI trainees entered it. It adds: "This circular migration is an important factor in supporting health systems in developing countries, and is in keeping with the Government's commitment to promote global health exchanges abroad." (ASGBI, 2011: 2).

\*\*\*\*\*

What seems increasing relevant in UK policy approaches is the concept of volunteerism and two way exchanges. Lord Crisp's 2007 report on global and regional partnerships made a number of recommendations to promote the UK's contribution to global health. It made the following recommendations in regard to training opportunities (Crisp, 2007: 16).

The United Kingdom should support international efforts to manage migration and mitigate the effects on developing countries of the reduction in training and employment opportunities in the United Kingdom by:

- using codes of practice, country-level agreements and other means to shape and manage the migration of health workers and encourage all other developed countries to do the same;
- continuing to provide, by agreement with developed countries, some training and limited periods of work experience in the United Kingdom; and
- creating exchange programmes for training and work experience for United Kingdom and developing countries health workers.

It also called for promotion of volunteerism further supported in recent initiatives. The Academy of Royal Medical Colleges (AORMC, 2013) issued a statement on health professional volunteers and global health development:

Volunteering in low resource health-care settings provides one of the several ways that UK healthcare professionals can increase their expertise in global health. In combination with a career in the NHS, volunteering can provide additional value to the individual and the NHS, as well as making a critical contribution to improving health in developing countries. (AORMC, 2013: 1).

While recognizing the mutual benefits to NHS and volunteers, the statement highlighted the main challenges faced by volunteer health professionals. These problems also apply to diaspora health workers settled in destination countries:

- granting of time out from training and/or employment for volunteers;
- formal recognition of volunteering for professional development;
- a fragmented environment for volunteering activities;
- monitoring, evaluation and research of volunteering activities;
- information, training and support for volunteers; and
- additional expenditures and the loss of employment entitlements for volunteers.

The Academy urged its members and concerned actors to work together to deal with these challenges “in view of the potentially enormous benefits of engaging in global health”.

The recent All-Party Parliamentary Group on Global Health report (APPG on Global Health, 2013), on overseas volunteering and international partnerships recognized the key role of such schemes “in improving health worldwide, and bring benefits to the United Kingdom, as well as to the countries where they work”. It makes three recommendations: spreading good practice, creating a movement, and providing the right environment to sustain success. The APPG report has highlighted some on-going pilot partnership projects, which try to promote health systems in low-income countries. It is also important to promote two-way flows of health professionals between origin and destination countries for a substantive impact.

What is important is to assess whether the benefits to origin countries from volunteerism are likely to outweigh the loss of immigration opportunities to such countries. It needs to be recognized that

volunteerism is still in experimental stages, and the numbers involved are not large enough to make an impact. Similarly, there are few opportunities for circular migration of health professionals from developing origin countries to work in destination countries in Europe. One aspect of circular migration that is, however, relevant for volunteer initiatives is the involvement of the diaspora from origin countries in these initiatives. But the Crisp report argued for initiatives to supporting the diaspora to contribute to their country of origin. Recommendation 12 of the Report was: “Enabling migrants from developing countries to return home -- for long or short periods -- through participation in partnership programmes.” (Crisp, 2007: 128). This was consistent with UK government policy at the time. However, the APPG report has not referred to this option, probably reflecting current UK policies.

## **9. Conclusions and policy implications**

### **9.1 Summary points and conclusions**

The above desk review of the impact of the migration of health professionals on the labour market and performance and quality of health services in major countries of destination, particularly the United Kingdom, looked at three major aspects of the impact: the labour market in terms of employment and wages, performance of the health system, and the quality of care. Since the executive summary covers the essential points, I shall mainly focus on broader implications of the findings below.

#### ***Impact of immigration of health professionals on the labour market***

The employment impact of immigration on native workers has continued to be the subject of debate in both United States and Europe. The issue is whether the employment of foreign workers leads to displacement of native workers in the profession. As regards the impact on wages and earnings, the popular view is that migrant workers compete with national workers, depressing their wages.

In relation to migrant health professionals, the related questions are whether they displace national professionals in the health sector, and whether immigrant health professionals drive down wages of native workers.

There are hardly any studies of the labour market impact of immigrant health professionals in Europe, and a few studies are available for the United States. The issue may not even be that relevant to the situation of the United Kingdom, which runs the largely public-sector managed NHS. The review undertaken for the study has not brought out any negative significant employment or wage impact on native health workers as a result of immigrant health professionals, which is common to findings of general studies of immigration impact on employment and wages of native workers. Even in the case of the United States, where the health services are more market-oriented, the impact is neither consistent nor large. This serves to highlight that the more interesting issues in relation to health professional migration relate not so much to the labour market impact, but to broader issues of their contribution to destination country health systems, their integration in the health labour market, and the obstacles they face in contributing optimally to the destination country health systems. These issues have been less well undocumented.

### ***Impact on health sector performance***

The second area of investigation was the impact of immigrant health professionals on the performance of health systems. In addressing this, the framework provided by the WHO World Health Report 2000 was adopted. The analysis showed that migrant health workers contribute considerably to expansion of the delivery of services, resource expansion, and saving training costs, among others. Major destination countries such as Australia, Canada, the United Kingdom and the United States continue to make substantial savings in training costs recruiting overseas trained doctors and nurses through their selective admission policies, often at the expense of developing countries. There has been considerable discussion of the implied brain drain, ethical dimensions of these recruitments, and whether and how destination countries should compensate origin countries adversely affected.

### ***Impact on quality of care***

The review of evidence on the impact of immigrant health professionals on the quality of care has been less researched. The most common approach used by destination countries has been on regulation -- investigation of complaints made against health professionals by patients, public bodies, and hospital trusts or peers, with a view to ascertaining their fitness to practice. Direct patient outcomes and equivalence or shortfalls in qualifications obtained abroad and success rates in competitive qualifying examinations are also used in assessing the quality of immigrant health professionals, and thereby on the quality of care.

A number of studies have found that doctors qualified outside the United Kingdom are more likely to be associated with higher impact adverse decisions at each stage of the fitness to practice process. According to one UK study, during 1999-2001, higher proportions of overseas qualifiers than UK qualifiers were referred to the Preliminary Proceedings Committee by screeners, a ratio of 2:3. Other studies also point to the fact that a larger proportion of complaints about overseas qualified doctors were sent to a fitness to practise panel following investigation. Similar patterns of complaints have been reported from Canada. Yet there has also been concern about the effect of racism and discrimination regarding complaints procedures in the health systems at many levels.

In the assessment of performance and quality of care, it is important to keep in mind that immigrant health professionals face a number of special problems in the workplace, as well as general living conditions in destination countries. There is evidence that they often work under more difficult conditions (e.g. late or night shifts, home care), and their conditions of work may be inferior in some cases to those of native workers. There is also documented evidence of racism and discrimination in the workplace by fellow workers and patients. Immigrant health professionals often do not receive proper induction on ethical and professional standards expected in the country of destination.

### ***Summary of impact discussion***

In short, there is not much evidence that migration of health professionals has had any significant adverse labour market impacts, while their positive contributions to the performance of health systems have been recognized. Individual migrants have also improved their welfare by migrating to developed destinations.

There is some debate on whether there is competition between international medical doctors and locally qualified doctors in access to limited postgraduate training slots. This has been highlighted in the United Kingdom with the ending of the HSMP abolishing permit-free training for overseas doctors. New rules have also made the role of the United Kingdom as a centre of postgraduate medical training less accessible. UK higher medical qualifications are considered an asset as teachers in universities, health administrators, medical researchers, and also practising doctors -- especially in Commonwealth countries. These opportunities have been largely undermined by recent policy changes. The Crisp report (Crisp, 2010) also drew attention to the reduction of training opportunities in the United Kingdom and proposed some countering measures. In the case of nurses, the competition for training places between immigrant and local nurses cannot be considered high, because most immigrant nurses acquire their qualifications and training before immigration.

### ***Discussion of brain drain and ethical recruitment of health workers***

There was considerable international concern on the brain drain of health workers from origin countries until recently. There is less discussion on this issue currently due to several reasons. One is the adverse impact of the global financial and economic crisis which dampened new recruitments in most countries. Second, the attention may have shifted to promotion of the landmark “WHO Global Code of Practice on the International Recruitment of Health Personnel”, which is regarded as a strategy to address the above issue effectively. In the case of the EU, the shift to new sources of health workers from accession countries in Central and Eastern Europe has diverted attention from initial concerns of health worker exodus from sub-Saharan Africa and other at-risk poor countries.

As pointed out earlier, while the United Kingdom had shown some concern on development impact and ethical issues relating to immigration of health professionals in the past, other major destination countries (Australia, Canada, New Zealand, and the United States) have rarely considered adverse impacts on source countries in their health worker admission policies. Their immigration policies also lead to brain waste, which undermines the benefits for all three parties -- migrant workers, origin countries and destination countries.

## **9.2 Policy implications**

### ***Going beyond impact assessments***

The previous sections reviewed labour market impact assessments. But it is clear that the findings are mixed, and have not yielded results which are helpful for policy. There has been little difference from results of general immigration impact studies, while highly regulated markets like the United Kingdom have not been analysed. In regard to health-worker immigration, it is important to look beyond mere economic assessments and look at performance, quality of care, and productivity issues and diversity -- which are often ignored in the literature. It will be useful to look at contributions of immigrant health workers that may be easier to quantify than general impact on labour markets. It will also highlight situations where immigrant health workers are not able to make their best impact due to various constraining factors.

In this context, it is important also to assess the extent of deskilling of immigrant health professionals, and the phenomenon of brain waste. While Australia and Canada use rigorous assessment schemes for



admission of skilled workers, including health workers, the migrants find it difficult to find employment commensurate with their qualifications on arrival. This results in a triple waste: to source countries which lose valuable skills, to destination countries that cannot benefit from migrant skills, and to migrant workers who cannot make full use of their potential and integrate (Wickramasekara, 2010).

### ***Towards better governance of immigration policy on health professionals***

Destination countries have the right to develop their immigration policies, including those covering immigration of health workers, but as the ILO Multilateral Framework on Labour Migration has highlighted, these need to be guided by international standards and instruments (ILO, 2006). Eleven EU member countries have ratified at least one of the two ILO migrant worker instruments.<sup>18</sup> The United Kingdom has ratified the Convention on Migration for Employment, 1949 (No. 97), while Italy and Portugal have ratified both.

#### **Principle 4: ILO Multilateral Framework on Labour Migration**

All States have the sovereign right to develop their own policies to manage labour migration. International labour standards and other international instruments, as well as guidelines, as appropriate, should play an important role to make these policies coherent, effective and fair. (ILO, 2006: 12).

The ILO (2010) has spelled out major criteria for good governance of migration policy: normative foundation in line with international standards and good practices, policy coherence, gender sensitivity, transparency and flexibility, social dialogue, and evidence base (ILO 2010).

The analysis of the UK experience has shown that abrupt changes in immigration policies, particularly those with retrospective provisions, cause a number of hardships for all parties. This has led Khadria to recommend: “Stabilize policies by making it mandatory to put a ‘transparent expiry date’ on any change in immigration policy, to be honoured by the enacting States unless abnormal circumstances warrant otherwise”; and “develop ‘bad–practice guidelines’ that identify bad practices for the purpose of reforming immigration and visa regimes.” (Khadria, 2010: 15). Retrospective provisions are obviously a bad practice, because persons who took migration decisions in the past could not anticipate the changes that were going to adversely affect them in future legislation.

Bilateral agreements and MOUs are a good practice recommended in international instruments (ILO, 2006). They have been advocated particularly to address issues of brain drain and due respect for migrant rights in the case of migration of health professionals. Article 5.2 of the WHO Global Code of Practice states:

Member States should use this Code as a guide when entering into bilateral, and/or regional and/or multilateral arrangements, and to promote international cooperation and coordination on international recruitment of health personnel. (WHO, 2010: 4).

<sup>18</sup> The two conventions are: Migration for Employment Convention (Revised), 1949 (No. 97); and the Migrant Workers (Supplementary Provisions) Convention, 1975 (No.143).



The DWAB Project has commissioned another research on the role of bilateral agreements on health worker mobility, and the findings (not seen by the author) should be relevant for designing further policies in this area.

***Promoting migrant rights, particularly principles of equal opportunity and non-discrimination***

The study has brought out findings of different studies that highlight impediments on equal access and opportunities for immigrant health professionals for career advancement, and racism and discrimination in the workplace. International instruments provide clear guidance on these areas. Article 4.5 of the WHO Global Code of Practice states:

Member States should ensure that, subject to applicable laws, including relevant international legal instruments to which they are a party, migrant health personnel enjoy the same legal rights and responsibilities as the domestically trained health workforce in all terms of employment and conditions of work (WHO, 2010: 3).

The Royal College of Nursing study by Dhaliwal and McKay (2008) has made a number of recommendations to promote representation of immigrant nurses in the Royal College of Nursing, and combat racism and discrimination against immigrant non-white nurses. Research by Public Services International (PSI) on Australia has suggested ways in which trade unions, employers and the government can jointly promote ethical recruitment and a rights-based migration policy to achieve decent work, equality and inclusion for migrant health and social care workers (Pillinger, 2012).

***Proper induction and orientation of foreign medical workers***

Given a number of problems identified previously regarding the integration of immigrant health professionals in destination countries, it is important to give priority to proper induction and orientation programmes, assessment of impediments and discrimination faced by such workers in access to good working conditions, training, career progression and representation, among others. A cross reference should be made here to another DWAB study looking into the conditions of work, and its findings (not seen by the author as yet) should be complementary.

The EPSU-HOSPEEM<sup>19</sup>(2008) code of conduct and follow-up on Ethical Cross-Border Recruitment and Retention in the Hospital Sector points out:

A sound and comprehensive induction policy developed by employers and workers must be in place for all internationally recruited workers to ensure that recruited staff is able to settle into their new environment as quickly as possible. The policies should take into account the national, regional and local circumstances, and the specific background of recruited staff. The induction itself should at least include in-house training on the work practices and relevant regulatory framework, but also information on local housing and community facilities (EPSU-HOSPEEM, 2008: 3).

As noted earlier, there is lack of arrangements for proper orientation of foreign medical workers on ethical and regulatory frameworks on good medical practise in countries of destination. Slowther et al.,

---

<sup>19</sup> HOSPEEM: The European Hospital and Healthcare Employers' Association

(2009) have made a number of recommendations for providing specific information and educational resources prior to registration, accompanied by in-practice support.

### ***Options for origin country health professionals***

Given the shift of composition of the migrant health professional workforce in Europe, especially in the United Kingdom, in favour EU/EEA professionals, what options can be considered for Asian health professionals who want to migrate for training or work in developed destinations?

This report accepts the position of the WHO Global Code of Practice brain drain of health professionals on balancing the health needs of populations and the right of individuals to migrate for better prospects. It is arguing for better circulation consistent with human and labour rights of migrant workers.

3.4 Member States should take into account the right to the highest attainable standard of health of the populations of source countries, individual rights of health personnel to leave any country in accordance with applicable laws, in order to mitigate the negative effects and maximize the positive effects of migration on the health systems of the source countries. However, 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. (WHO, 2010: 2)

While there are fewer opportunities to the United Kingdom with immigration policy changes, other destinations for employment and training such as Australia and the United States do not seem to have changed their admission policies in a major way. The WHO Global Code of Practice recognized the importance of bilateral agreements as mentioned above, and proposed a series of measures to enhance the impact:

- the provision of effective and appropriate technical assistance;
- support for health personnel retention, social and professional recognition of health personnel;
- support for training in source countries that is appropriate for the disease profile of such countries;
- twinning of health facilities;
- support for capacity building in the development of appropriate regulatory frameworks;
- access to specialized training, technology and skills transfers; and
- the support of return migration, whether temporary or permanent.

There are calls for global partnerships and circular migration of health professionals, but current policies in destination countries do not seem to provide a conducive environment for such initiatives. Supporting and facilitating the circulation of the medical diaspora to work in their home countries should be promoted along with volunteer partnerships between origin and destination countries.

### ***Immigrant health professionals and fitness to practice procedures***

There is general agreement in several studies about the lack of common understanding of what does and does not constitute serious professional misconduct (Allen, 2009). The continuing differences between

the outcomes of cases regarding the United Kingdom and overseas qualified doctors in the fitness to practise procedures regarding conduct, health and performance suggest that such guidelines are a matter of priority, and that a close and continuing audit of decisions and outcomes at all stages of the fitness to practise procedures, analysed by country of qualification of the doctor, is essential (Allen, 2009). The author adds:

Guidelines should be drawn up to ensure that a clear and agreed definition could be put into operation by all GMC staff, screeners and members of committees, with agreement on the criteria, standards and threshold to be reached in making a judgment on whether a case represents, or might represent, a departure from the standards of conduct expected of doctors sufficiently serious to call into question a doctor's registration.

The GMC has committed itself to continuing to explore these issues through several measures (GMC, 2012):

- commission research to carry out an independent analysis of investigation decisions to check that decisions are consistent and made in accordance with published guidance;
- commission independent research to examine GMC decision making guidance and the framing of allegations to ensure that there are no unintended consequences for any groups from the GMC approach to these issues;
- conducting surveys of doctors who have been through fitness to practice procedures to ask for feedback on their experiences; and
- a new national GMC induction programme for doctors new to UK practice will be introduced later this year.

### ***Promotion of social dialogue in migration policies affecting health workers***

While the ultimate responsibility for migration policies and legislation lies with governments, they are more likely to be effective when based on widespread consultation with key actors, particularly the employers and the workers -- social partners -- and other concerned civil society organizations (ILO, 2006; 2010).

Formal mechanisms for social dialogue on migration issues are limited in Europe, according to a study commissioned by the EPSU (Hardy et al., 2012): it found that only Norway, Sweden and Finland had formal and active mechanisms in this area. Still there are regular consultations by UK migration authorities with the Department of Health, Royal College of Nursing, and other stakeholders. Good examples are the BMA (with about 141,000 members) looking after interests of doctors, and UNISON in the United Kingdom, with has about half a million members working in the NHS and in organizations providing NHS services. BAPIO is a grouping of immigrant doctors who provide a range of services to their members as needed. They successfully managed to challenge some immigration rule changes following the ending of the Highly Skilled Migration programme. Some examples of social partner involvement in consultations are: the House of Lords consultation on the economic effects of immigration, and the formulation of the Health and Social Care Act 2012, although all their concerns may not have been incorporated.

It is important to promote social dialogue to establish support for a country's approach to governing migration. In destination countries, taking account of the concerns of employers will contribute to formulating policies that address business and employment

needs. Doing so should encourage compliance by the private sector. Incorporating the counsel and experience of worker organizations will certainly contribute to effective protection of both migrant and native workers, and to the prevention of conflicts within the working population (ILO, 2010: 152).

Unions have always played a key role in mobilizing and organizing migrant workers to better articulate and defend their rights and dignity, and they should be closely involved along with employers in discussions on migration policies and legislation. The EPSU-HOSPEEM code of conduct and follow-up on Ethical Cross-Border Recruitment and Retention in the Hospital Sector is a good practice example of social dialogue.

The need for better information and data on health workforce and health-worker migration

The above analysis has highlighted that there are serious problems with data on inflows and outflows of health professionals, which affect attempts to capture the impact of health-worker immigration in both origin and destination countries.

Some obvious gaps in data are:

- Available data is not useful for policy. In a global review of human resource information systems (HRIS), Riley et al., (2012) reported that only 23 per cent of health systems reviewed explicitly stated they collect data on workforce attrition. They also found that the majority of countries experiencing crisis levels of Human Resources for Health (HRH) shortages (56 per cent) did not report data on health worker qualifications or professional credentialing as part of their HRIS.
- Both origin and destination countries do not have good data about health worker movements.
- Destination countries do not track emigration of national and other health workers out of the country. Verification data requested by other countries are not always accurate on actual movements.
- The place of training is not recorded for immigrant health professionals in some countries.
- Registrations by medical authorities do not indicate whether those registered eventually find employment as seen in the case of the UK GMC and NMC registration information.
- With EU free mobility within the EU/EEA, it is difficult to capture the movement of health workers, especially in relation to temporary movements.
- Circular migration of health professionals are not adequately captured in existing data systems.

Recent years have seen increasing emphasis on information and data systems on human resources for health (Riley, 2012). In relation to Indian nurse migration, Khadria observed that given the “serious risk of selective depletion of the most qualified nurses in the country”, it was “critically important that data on nurse production, employment, retention, and migration be tracked and analyzed by the Indian government” to inform public policy in this area (Khadria, 2007: 1,433).

The Global Health Workforce Alliance (GHWA) called for reliable and updated information on human resources for health:

There is a need for strong national capacity in all countries to regularly collect, collate, analyze and share data to inform policy-making, planning, and management.

New benchmarks, beyond the density of physicians, nurses and midwives, will be required. Attention should be paid to aspects such as geographic distribution, retention, gender balance, minimum standards, competency frameworks, and reflect the diverse composition of the health workforce (GHW, 2011: 1).

Tjadens and Weilandt (2012) also called for the establishment of close monitoring of intra and international migration flows of health professionals.

At the national level, resources should be allocated for creating a reliable and comprehensive national database on health professionals, so as to enable governments to effectively assess and address the impact of the mobility of health professionals on the country's health system. Such a database is currently missing for all researched African countries (Tjadens and Weilandt., 2012: 172).

## References

- Alexis, O., Vydelingum, V. 2009. "Experiences in the UK National Health Service: The overseas nurses' workforce," in *Health Policy*, Vol. 90, pp. 320-328.
- Allen, I. 2003. *Summary and conclusions from an analysis of the nature and outcome of complaints received by the GMC, considered by the PPC and considered by the PCC in 1999, 2000 and 2001*, Policy Studies Institute (London).  
[http://www.psi.org.uk/pdf/2003/GMC\\_complaints\\_followup.pdf](http://www.psi.org.uk/pdf/2003/GMC_complaints_followup.pdf)
- Anand, S.; Bärnighausen, T. 2011. "Health workers at the core of the health system: Framework and research issues," in *Health Policy* 2011, doi: 10.1016/j.healthpol.2011.10.012. *Health Policy*, Vol. 105, pp. 185-191.  
[http://www.who.int/workforcealliance/knowledge/resources/frameworkandresearch\\_dec2011.pdf](http://www.who.int/workforcealliance/knowledge/resources/frameworkandresearch_dec2011.pdf)
- Andalon, M.; Fields, G. 2011. *A labor market approach to the crisis of health-care professionals in Africa*, Discussion Paper No. 5483, Institute for the Study of Labor, (Bonn).  
Available at SSRN: <http://ssrn.com/abstract=1765648>.
- Academy of Medical Royal Colleges (AOMRC) 2013. *Academy statement on volunteering: Health professional volunteers and global health development*. (London).  
[http://www.aomrc.org.uk/publications/statements/doc\\_download/9682-academy-statement-on-volunteering-health-professional-volunteers-and-global-health-development.html](http://www.aomrc.org.uk/publications/statements/doc_download/9682-academy-statement-on-volunteering-health-professional-volunteers-and-global-health-development.html)
- All-Party Parliamentary Group (APPG) on Global Health. *Improving health at home and abroad: How overseas volunteering from the NHS benefits the UK and the world*. A report on overseas volunteering and international partnerships, All-Party Parliamentary Group on Global Health, July 2013.  
<http://www.appg-globalhealth.org.uk/>
- Association of Surgeons of Great Britain & Ireland's (ASGBI) response to the UK Border Agency's consultation document on changes to Tier 5 of the Points-Based System (temporary workers), with regard to the implications for the Medical Training Initiative (MTI), ASGBI, London, 19 August 2011.  
[http://www.internationalsurgery.org.uk/pdf/reports/MTI\\_Consultation\\_doc\\_for\\_home\\_office\\_190811.doc](http://www.internationalsurgery.org.uk/pdf/reports/MTI_Consultation_doc_for_home_office_190811.doc)
- Bach, S. 2007. "Going global? The regulation of nurse migration in the UK," in *British Journal of Industrial Relations*, Vol. 45, No. 2, pp. 383-403.
- Bach, S. 2010a. "Achieving a self-sufficient workforce? The utilization of migrant labour in healthcare," in M. Ruhs and B. Anderson (eds): *Who Needs Migrant Workers? Labour Shortages, Immigration, and Public Policy* (London, Oxford University Press), pp. 87-118.
- Bach, S. 2010b. "Managed migration? Nurse recruitment and the consequences of state policy," in *Industrial Relations Journal*, Vol. 41, No. 3, pp. 249-266.

Belluz, J. April 20, 2012. "Is Canada discriminating against foreign-trained doctors?" in *Maclean's Magazine* (Toronto).

<http://www2.macleans.ca/2012/04/20/is-canada-discriminating-against-foreign-trained-doctors/>

Bhattacharjee, A. 2013. *Migration of Indian health professionals to selected European nations: The case of Denmark, Netherlands, Norway, Sweden*, CARIM-India Research Report 2013/07, Robert Schuman Centre for Advanced Studies, European University Institute.

<http://www.india-eu-migration.eu/media/CARIM-India-2013-07.pdf>

British Medical Association (BMA) 2007. *BMA evidence to the House of Lords Economic Affairs Committee Inquiry into the economic impact of immigration*. (London), accessed 7 July 2009.

<http://www.publications.parliament.uk/pa/ld200708/ldselect/ldeconaf/82/7112702.htm>

BMJ Editorial. 2011. "Migration of doctors and the 'fitness to practise' process," in *British Medical Journal*, 342:d1641.

Borjas, J.G. June 2003. *The labor demand curve is downward sloping: re-examining the impact of immigration on the labor market*, NBER Working Paper No. 9755 (Cambridge, MA).

Borjas, G. J. et al., 1996. "Searching for the effect of immigration on the labor market", *The American Economic Review*, Vol. 86, No. 2, pp. 55-60.

Bornat, J., et al., 2009. *Overseas-trained South-Asian doctors and the development of geriatric medicine*, Open University and the London Metropolitan University (United Kingdom).

[http://www.open.ac.uk/hsc/\\_assets/GeriatricMedicineFindings.pdf](http://www.open.ac.uk/hsc/_assets/GeriatricMedicineFindings.pdf)

Bornat, J., et al., 2008. "Overseas-trained South Asian doctors and the development of Geriatric Medicine," in *Generations Review*, July 2008, British Society of Gerontology, Vol. 18, No. 3.

Breen, K.J., et al., 2010. *Good Medical Practice: Professionalism, Ethics and Law*, (Cambridge University Press), pp. 124-144.

Brucker, H. 2012. *The labor market impact of immigration and its policy consequences*, Migration Policy Centre, European University Institute (Florence).

Buchan, J., Baldwin, S. et al., 2008. *Migration of Health Workers: The UK Perspective to 2006*, OECD Health Working Paper No. 38 (Paris).

Buchan, J.; Seccombe, I. 2012. *Overstretched. Under-resourced.: The UK nursing labour market review 2012*, Royal College of Nursing (RCN), London (United Kingdom).

[http://www.rcn.org.uk/\\_\\_data/assets/pdf\\_file/0016/482200/004332.pdf](http://www.rcn.org.uk/__data/assets/pdf_file/0016/482200/004332.pdf)

Card, D.; DiNardo, J. 2000. "Do immigrant inflows lead to native outflows?" in *American Economic Review*, Vol. 90, No. 2, pp. 360-367.

Card, D. 2001. "Immigrant inflow, native outflows and the local labor market impacts of higher immigration," in *Journal of Labor Economics*, Vol. 19, No. 1, pp. 22-64.



Cawston, T.; Haldenby, A. et al., 2012. *Doctors and Nurses*, Reform Research Trust.  
[http://reform.co.uk/resources/0000/0508/121107\\_Doctors\\_and\\_Nurses\\_WEB.pdf](http://reform.co.uk/resources/0000/0508/121107_Doctors_and_Nurses_WEB.pdf)

Chand, K. “Why is racism rife in the NHS?” *The Guardian*, 5 Feb 2013.  
<http://www.theguardian.com/healthcare-network/2013/feb/05/racism-rife-nhs/print>

Chen, L.C.; Boufford, J.I. 2005. “Fatal flows -- doctors on the move”, in *New England Journal of Medicine*, Vol. 353, No. 17, pp. 1850-1852.

Clark, P.F.; Stewart, J.B., et al., 2006. “The globalization of the labour market for health-care professionals,” in *International Labour Review*, Vol. 145, No. 1/2, pp. 37-64.

Cohen, J. J. 2006. “The Role and Contributions of IMGs: A US Perspective,” in *Academic Medicine*, Vol. 81, No.12, S17-S21.

Commonwealth Secretariat. *Commonwealth Code of Practice for the International Recruitment of Health Workers*, adopted at the Pre-WHA Meeting of Commonwealth Health Ministers 2003 (Geneva).  
[http://www.thecommonwealth.org/shared\\_asp\\_files/uploadedfiles/%7B7BDD970B-53AE-441D-81DB-1B64C37E992A%7D\\_CommonwealthCodeofPractice.pdf](http://www.thecommonwealth.org/shared_asp_files/uploadedfiles/%7B7BDD970B-53AE-441D-81DB-1B64C37E992A%7D_CommonwealthCodeofPractice.pdf)

Connell, J.; Buchan, J. 2011. “The impossible dream? Codes of practice and the international migration of skilled health workers,” in *World Medical and Health Policy*, Vol. 3, No. 3.

Cook, F.B. 2009. *Globalization, migration and the US labour market for physicians: The impact of immigration on local wages*, A dissertation submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy, Department of Economics, College of Business, University of South Florida.  
<http://scholarcommons.usf.edu/etd/1906>

Cooper, R.A. 2008. *The US physician workforce: Where do we stand?*, OECD Health Working Paper No. 37, OECD, Paris, DELSA/ELSA/WP2/HEA(2008)4.  
<http://www.oecd.org/els/health-systems/41500843.pdf>

Cortes, P.; Pan, J. 2012. *The Relative Quality of Foreign Nurses in the US*, seen 10 Dec 2012.  
[http://www.afd.fr/webdav/site/afd/shared/PORTAILS/RECHERCHE/evenements/Migrations-developpement-2012/nurses\\_june.pdf](http://www.afd.fr/webdav/site/afd/shared/PORTAILS/RECHERCHE/evenements/Migrations-developpement-2012/nurses_june.pdf)

COSTIGLIOLA, Vincenzo. 2011. “Mobility of medical doctors in cross-border healthcare”. in *EPMA Journal*. Vol 2. Issue 4. December. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3405407/>

Crisp, N. 2007. *Global health partnerships: The UK contribution to health in developing countries* (London).

Department of Health UK (2010). *Framework for NHS involvement in international development* (London).

Dessault, G.; Frontiera, I. et al., 2009. *Migration of health personnel in the WHO European region*, WHO (Geneva).

Dhaliwal, S.; McKay, S. 2008. *The work life experiences of black nurses in the UK: a report for the Royal College of Nursing*, Royal College of Nursing (London).

Dia, I.A. 2012. *Migration, health policies and the international mobility of skilled health professionals: A comparative analysis of the governance of migrant flows in the health sector of Switzerland, UK, France, Sweden (with reference to Canada)*, draft report, Department of Sociology, University of Geneva (Geneva).

Diallo, K. 2004. "Data on the migration of health-care workers: sources, uses and challenges", *Bulletin of the World Health Organization*, Vol. 8, No. 82, pp. 601-607.

DFID 2007. *Moving out of poverty -- making migration work better for poor people*, Department for International Development UK (London).

[http://www.sarpn.org/documents/d0002755/Moving\\_out\\_of\\_Poverty\\_DFID\\_Mar2007.pdf](http://www.sarpn.org/documents/d0002755/Moving_out_of_Poverty_DFID_Mar2007.pdf)

Docquier, F.; Ozden, C. et al., 2011a. *The labor market effects of immigration and emigration in OECD countries*, University of California.

[http://www.econ.ucdavis.edu/faculty/gperi/Papers/DOP\\_dec\\_23\\_2011.pdf](http://www.econ.ucdavis.edu/faculty/gperi/Papers/DOP_dec_23_2011.pdf)

Docquier, F.; Ozden, C. et al., 2011b. *The wage effects of immigration and emigration*, World Bank Policy Research Working Paper Series, The World Bank (Washington DC).

Available at SSRN: <http://ssrn.com/abstract=1754349>

DUSSAULT, Gilles, Ines Fronteira and Jorge Cabral. 2009. *Migration of health personnel in the WHO European Region*. WHO-Europe. : [http://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0010/95689/E93039.pdf](http://www.euro.who.int/__data/assets/pdf_file/0010/95689/E93039.pdf)

Dustmann, C.; Fabbri, F. et al., 2005. "The impact of immigration on the British labour market," *The Economic Journal*, Vol. 115, No. 507: F324-F341.

Dustmann, C.; Frattini, T. 2010. *Can a framework for the economic cost-benefit analysis of various immigration policies be developed to inform decision making and, if so, what data are required?*, report prepared for the UK's Migration Advisory Committee.

<http://www.ukba.homeoffice.gov.uk/sitecontent/documents/aboutus/workingwithus/mac/dustmann-and-frattini/report.pdf?view=Binary>

Dustmann, C.; Frattini, T. 2011. *The impact of migration on the provision of UK public services*, (SRG.10.039.4), report prepared for the UK's Migration Advisory Committee.

European Commission. *On circular migration and mobility partnerships between the European Union and third countries*, COM (2007) 248 final, Commission of the European Communities (Brussels).

European Commission. *The EU Role in global health*, COM (2010) 128 final, Commission of the European Communities (Brussels).

[http://ec.europa.eu/development/icenter/repository/COMM\\_PDF\\_COM\\_2010\\_0128\\_EN.PDF](http://ec.europa.eu/development/icenter/repository/COMM_PDF_COM_2010_0128_EN.PDF)

EPSU-HOSPEEM. 2008. *EPSU-HOSPEEM code of conduct and follow up on ethical cross-border recruitment and retention in the hospital sector*; European Federation of Public Service Unions and the European Hospital and Healthcare Employers' Association (London, Brussels).

[http://www.epsu.org/IMG/pdf/EPSU-HOSPEEM\\_Code\\_of\\_conduct\\_07-04-08\\_with\\_signatures-2.pdf](http://www.epsu.org/IMG/pdf/EPSU-HOSPEEM_Code_of_conduct_07-04-08_with_signatures-2.pdf)

Esmail, A. 2007. "Asian doctors in the NHS: service and betrayal," in *British Journal of General Practice*, Vol. 57, pp. 827-831.

Esmail, A.; Abel, P. 2010. *Measuring organizational attitudes to workplace discrimination, prejudice and diversity: an exploratory study to assess these factors in public bodies which refer cases to the General Medical Council*, A report to the ESRC: Project RES-153-25-0103, Primary Care Research Group (University of Manchester). <https://www.escholar.manchester.ac.uk/uk-ac-man-scw:108768>

Fujisawa, R. and F. Colombo. 2009. "The Long-term Care Workforce: Overview and Strategies to Adapt Supply to a Growing Demand", *OECD Health Working Paper*, No. 44, OECD Publishing, Paris.

Galbraith, J.K. 1979. *The nature of mass poverty*. (Cambridge, Harvard University Press).

General Medical Council (GMC) 2012. *The state of medical education and practice in the UK 2012*, General Medical Council (London). <http://www.gmc-uk.org/publications/somep2012.asp>

George, J. T. et al., 2007. "Non-European Union doctors in the National Health Service: why, when and how do they come to the United Kingdom of Great Britain and Northern Ireland?" in *Human Resources for Health*, Vol. 5, No. 6.

GFMD Platform for Partnerships (PfP) 2011. *M&D Practices shared within the GFMD context by steering group members (2007-2011)* (Geneva).

<http://www.gfmd.org/documents/pfp/Compilation%20SG-MD%20Practices%202007%20-2011.pdf>.

GHWA 2011. *From Kampala to Bangkok: reviewing progress, renewing commitments: outcome statement*, Second Global Forum on Human Resources for Health Bangkok, 27-29 January 2011, Global Health Workforce Alliance. <http://www.who.int/workforcealliance/forum/2011/Outcomestatement.pdf>

Glover, S.; Gott, C. et al., (2001). *Migration: an economic and social analysis*, Occasional Paper No. 67, Research Development and Statistics Directorate (RDS), Home Office (London).

Grignon, M. et al., (2012). *The international migration of health professionals in IZA discussion paper*, No. 6517, Institute for the Study of Labour (Bonn).

Hagopian, A. et al., 2004. "The role of international medical graduates in America's small rural critical access hospitals," in *Journal of Rural Health*, Vol. 20, No. 1, pp. 52-58.

Hardy, J.; Calveley, M. et al., 2012. *Opportunities and challenges related to cross border mobility and recruitment of the health sector workforce*, study and report commissioned by the European Federation of Public Service Unions (University of Hertfordshire).

[http://www.epsu.org/IMG/pdf/EPSU-Report-Migration-Health-Workers-Final-Version\\_Appendices-EN-2.pdf](http://www.epsu.org/IMG/pdf/EPSU-Report-Migration-Health-Workers-Final-Version_Appendices-EN-2.pdf)

Hazarika, I. et al., 2011). *India: Mobility of health professionals*, Public Health Foundation of India (New Delhi).

Health Committee 2012. *Education, training and workforce planning: first report of session 2012–13*, Vol I, House of Commons Health Committee (London).  
<http://www.publications.parliament.uk/pa/cm201213/cmselect/cmhealth/6/6i.pdf>

Higginbottom, G.M. 2011. “The transitioning experiences of internationally educated nurses into a Canadian health-care system: a focused ethnography,” in *BMC Nursing*, Vol. 10, No. 14.

Howard, J. 2012. *Medical Training Initiative: MTI orientation Day 22 November 2012*, Royal College of General Practitioners, Chair of Academy International Forum, Academy of Medical Royal Colleges.

Humphrey, C.; Hickman, S. et al., 2011. “Place of medical qualification and outcomes of UK General Medical Council ‘fitness to practise’ process: cohort study,” in *British Medical Journal*, 342:d1817.

Hurley, J. 2000. “An overview of the normative economics of the health sector,” in A.J. Culyer and J.P. Newhouse (eds): *Handbook of Health Economics*, (Amsterdam). Vol. 1, pp. 55-118.

IHPDS and NIH 2012. *Philippines: Mobility of Health Professionals*, national report prepared for the EC-WIAD mobility of health professionals project, Institute of Health Policy and Development Studies and the National Institutes of Health (University of the Philippines, Manila).

ILO 2005. *Migration of health workers: country case study, Philippines*, working paper WP.236, Sectoral Activities Programme, International Labour Office and the Institute of Health Policy and Development Studies, ILO (Geneva).

ILO 2010. *International labour migration: A rights-based approach*, Geneva, International Labour Office (Geneva).  
[http://www.ilo.org/wcmsp5/groups/public/---ed\\_protect/---protrav/---migrant/documents/publication/wcms\\_208594.pdf](http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---migrant/documents/publication/wcms_208594.pdf)

ILO 2012. *International Standard Classification of Occupations (ISCO-08): Volume 1 -- Structure, group definitions and correspondence tables*, International Labour Office (Geneva).  
[http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms\\_172572.pdf](http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_172572.pdf)

Inoue, J. 2010. *Migration of Nurses in the EU, the UK, and Japan: regulatory bodies and push-pull factors in the international mobility of skilled practitioners*, Discussion Paper Series A No.526, Institute of Economic Research (Hitotsubashi University, Kunitachi, Tokyo).

Kaestner, R.; Kaushal, N. 2012. “Effect of immigrant nurses on labor market outcomes of US nurses,” in *Journal of Urban Economics*, Vol. 71, pp. 219-229.

Kalist, D.; Spurr, S. et al. 2010. “Immigration of nurses,” in *Industrial Relations*, Vol. 49, No. 3, pp. 406- 428.

Kerr, S.P.; Kerr, W.R. 2011. *Economic effects of immigration: a survey*, NBER Working Paper 16736, National Bureau of Economic Research (Massachusetts).  
<http://www.nber.org/papers/w16736>

Khadria, B. 2007. "International nurse recruitment in India," in *Health Services Research*, Vol. 42, No. 3, pp. 1429-1436.

Khadria, B. 2010. *The Future of Health Worker Migration*, background paper for the World Migration Report 2010, International Organization for Migration (Geneva).  
[http://publications.iom.int/bookstore/free/WMR2010\\_health\\_worker\\_migration.pdf](http://publications.iom.int/bookstore/free/WMR2010_health_worker_migration.pdf)

Ko, D.T. et al., 2005. "Quality of care of international and Canadian medical graduates in acute myocardial infarction", in *Archives of Internal Medicine*, Vol. 165, No. 4, pp. 458-463.

Lawrence, A. 2010. "'Circular migration' and the potential to improve health outcomes," in *Public Policy research*, Vol. 17, No. 1, pp. 49-54.

Leach, B.; Donnelly, L. "Revealed: 3 in 4 of Britain's danger doctors are trained abroad," in *The Daily Telegraph*, 29 Dec. 2012.

Lee, H.; Macdonald, M. 2011. *United Kingdom: Mobility of Health Professionals* (Birmingham City University).  
[http://www.mohprof.eu/LIVE/DATA/National\\_reports/national\\_report\\_UK.pdf](http://www.mohprof.eu/LIVE/DATA/National_reports/national_report_UK.pdf)

Leon, L.R. et. al., (2008). "The journey of a foreign-trained physician to a United States residency: controversies surrounding the impact of this migration to the United States," in *Journal of the American College of Surgeons*, Vol. 206, No. 1.

Longhi, S. et al., 2011. *The economic impact of immigration on the labor market of host countries -- meta-analytic evidence*, TI 2011-103/3, Tinbergen Institute discussion paper (Tinbergen Institute, Amsterdam).

Lorenzo, F.M.; dela Rosa, J. 2012. *Philippines: mobility of health professionals*, *Institute of Health Policy and Development Studies*; National Institutes of Health (University of the Philippines, Manila).

Lozano, F.A.; Steinberger, M.D. 2010. *Empirical methods in the economics of international immigration*, Discussion Papers IZA DP No. 5328, Institute for the Study of Labour (IZA), (Bonn).

Lucchino, P.; Rosazza-Bondibene, C. et al., 2012. *Examining the relationship between immigration and unemployment using National Insurance Number registration data*, NIESR Discussion Paper No. 386, National Institute of Economic and Social Research.  
[http://www.niesr.ac.uk/pdf/090112\\_163827.pdf](http://www.niesr.ac.uk/pdf/090112_163827.pdf)

Maier, C.B.; Glinos, A.I. et al., 2011. "Cross-country analysis of health professional mobility in Europe: the results," in C.B. Maier, M. Wismar, I. Glinos, G. Dessault and J. Figueras: *Health professional mobility and health systems: evidence from 17 European countries*, European Observatory on Health Systems and Policies and the World Health Organization (Geneva), pp. 23-66.



<http://www.euro.who.int/en/who-we-are/partners/observatory/studies/health-professional-mobility-and-health-systems.-evidence-from-17-european-countries>

Mick, S.S.; Lee, S.Y. 1997. "The safety-net role of international medical graduates," in *Health Affairs*, Vol. 16, No. 4, pp.141-150.

Migration Advisory Committee 2012. *Analysis of the impact of migration*, Migration Advisory Committee (London).

Migration Advisory Committee 2013. *Skilled shortage sensible: full review of the recommended shortage occupation lists for the UK and Scotland, a sunset clause and the creative occupations*, Migration Advisory Committee (London).

<http://www.ukba.homeoffice.gov.uk/sitecontent/documents/aboutus/workingwithus/mac/34mac-sixth-review/mac-report?view=Binary>

Migration Advisory Committee Secretariat 2010. *Which sectors and occupations use more immigrant labour and what characterises them? A quantitative analysis, working paper*, Migration Advisory Committee Secretariat (London).

Morris, S., et al., 2009. *Determinants of general practitioners' wages in England*, CHE Research Paper 36, Centre for Health Economics (University of York).

[http://www.york.ac.uk/media/che/documents/papers/researchpapers/rp36\\_general\\_practitioners\\_wages.pdf](http://www.york.ac.uk/media/che/documents/papers/researchpapers/rp36_general_practitioners_wages.pdf)

Mullan, F. 2005. "The metrics of the physician brain drain," in *New England Journal of Medicine*, Vol. 353, No. 17, pp. 1810-1818.

Münz, R.; Straubhaar, T. et al., 2007. *What are the migrants' contributions to employment and growth? A European approach*, policy paper 3-3, Migration Research Group, HWWI Institute of International Economics (University of Hamburg).

<http://www.oecd.org/dev/38295272.pdf>

Murthy, S. 2009. *Effects of migration of workers in the health sector*, thesis submitted in partial fulfilment of the requirements for the Degree of Doctor of Philosophy, Moore school of Business (University of South Carolina).

NHS Employers 2010. *Medical Training Initiative*, National Health Service (NHS) Employers (Leeds).

Nicholson, S.; Propper, C. 2012. "Medical workforce," in M. Pauly, T. McGuire and P.P. Barros: *Handbook of Health Economics*, (Amsterdam), Vol. 2, pp. 873-925.

Norcini, J.J. et al., 2010. "Evaluating the quality of care provided by graduates of international medical schools," in *Health Affairs*, Vol. 29 No. 8, pp. 1461-1468.

OECD 2007. *Immigrant health workers in OECD countries in the broader context of highly skilled migration*, in International Migration Outlook: SOPEMI 2007 Edition, Organisation for Economic Co-operation and Development (Paris), pp. 161-228.

OECD. 2010. *Policy Brief on International Migration of Health Workers Improving International Cooperation to address Global Health Workforce Crisis*. Available at: <http://www.oecd.org/health/healthpoliciesanddata/44783473.pdf>

OECD 2011. *Long-Term Care Workers: Needed but often undervalued*. Providing and paying for long term care, OECD Publishing (Paris), pp.159-187.

OECD. 2011. *Health at a Glance 2011: OECD Indicators*, OECD Publishing. Available at <http://www.oecd.org/health/healthpoliciesanddata/49105858.pdf> (

Ognyanova, D. et al., 2012. “Mobility of health professionals pre and post 2004 and 2007 EU enlargements: evidence from the EU project PROMeTHEUS,” in *Health Policy*, Vol. 108: pp. 122-132.

Pillinger, J. 2011. *Quality healthcare and workers on the move: South Africa National Report*, PSI, International Migration and Women Health and Social Care Workers Programme, Public Services International.

[http://www.world-psi.org/sites/default/files/documents/research/south\\_africa.pdf](http://www.world-psi.org/sites/default/files/documents/research/south_africa.pdf)

Pillinger, J. 2012. *Quality healthcare and workers on the move: Australia National Report*, Public Services International (Ferney-Voltaire).

Poot, J. 2012. *Learning from the flood of findings: meta-analysis in economics*, National Institute of Demographic and Economic Analysis (NIDEA) (University of Waikato).

<http://www.nzae.org.nz/wp-content/uploads/2012/09/NZAE-2012-Poot-meta-analysis.pdf>

Quality Assurance Project 2002. *Sustaining quality of healthcare: institutionalization of quality assurance*, The Quality Assurance (QA) Project (funded by USAID), Center for Human Services (Maryland).

Raghuram, P. 2008. “Thinking UK’s medical labour market transnationally”, in J. Connell (ed): *The International Migration of Health Workers*, Routledge Research in Population and Migration (Routledge, London), pp. 182-198.

Raghuram, P.; Kofman, E. 2002. “The state, skilled labour markets, and immigration: the case of doctors in England,” in *Environment and Planning A*, Vol. 34, No. 11, pp. 2071-2089.

Rao, N.R.; Kramer, M. et al. 2007. “An annotated bibliography of professional literature on international medical graduates,” in *Academic Psychiatry*, Vol. 31, No. 1, pp. 68-83.

RCN 2008. “Memorandum by the Royal College of Nursing, 18 November 2007, in: *The Economic Impact of Immigration, Volume II: Evidence*, Select Committee on Economic Affairs, 1st Report of Session 2007-08, published 1 April 2008 (Authority of the House of Lords, London).

Reed, H.; Latorre, M. 2009. *The economic impacts of migration on the UK labour market*, Institute for Public Policy research (London).



Ruhs, M.; Vargas-Silva, C. 2012. *Briefing: The Labour Market Effects of Immigration*, COMPAS (University of Oxford).

Ruiter-Kohn, R. *A qualitative investigation of factors contributing to the successful licensure of international medical graduates*, PhD dissertation submitted to University of Calgary, Alberta, December 2010.

Rutten, M. 2004. *The economic impact of health-care provision: A CGE assessment for the UK*, Thesis submitted for the degree in Doctor of Philosophy (University of Nottingham).

Rutten, M. 2007. *The economic impact of medical migration: A receiving country's perspective*. I.D.P. 200708-04, Institute for International and Development Economics (Rotterdam).  
<http://www.i4ide.org/content/wpaper/dp20070804.pdf>

Rutten, M. 2008. *Medical migration: what can we learn from the UK's perspective?*, Policy Research Working Paper 4593, Development Research Group, The World Bank (Washington DC).

Rutten, M.M.; Blake, A. et al., 2006. *The economic impact of health-care provision: a general equilibrium assessment of some policy options in the UK's NHS*, Leverhulme Centre for Research on Globalisation and Economic Policy (University of Nottingham). Available at SSRN: <http://ssrn.com/abstract>

Schumacher, E. J. 2010. "Foreign born nurses in the US market," in *Health Economics*, Vol. 20, No. 3, pp. 362-378.

Scheffler, R.M. 2012. *The labour market for human resources for health in low and middle-income countries*, Human Resources for Health Observer, 11, WHO (Geneva).  
[http://www.who.int/hrh/resources/Observer11\\_WEB.pdf](http://www.who.int/hrh/resources/Observer11_WEB.pdf)

Simpson, J. M.; Esmail, A. 2011. "The UK's dysfunctional relationship with medical migrants: the Daniel Ubani case and reform of out-of-hours services," in *British Journal of General Practice*, March 2011.

Slowther, A. et al., 2009. *Non-UK qualified doctors and Good Medical Practice: the experience of working within a different professional framework*, Report for the General Medical Council, Warwick Medical School, Institute of Health (Warwick University).  
[http://www2.warwick.ac.uk/fac/cross\\_fac/healthatwarwick/publications/occasional/final\\_gmc\\_warwick\\_report.pdf](http://www2.warwick.ac.uk/fac/cross_fac/healthatwarwick/publications/occasional/final_gmc_warwick_report.pdf)

Stalker, Peter. 2000. *Workers Without Frontiers: The Impact of Globalization on International Migration*. ILO Geneva and Lynne Rienner Publishers Boulder. 163 p.

Stephenson, J. 2010. "Out of India," in *BMJ Careers*.  
<http://careers.bmj.com/careers/advice/view-article.html?id=20001064>

Stracansky, P. "East Europe: health care falls as doctors, nurses migrate," *Global Information Network, Inter Press Service*, 17 June 2010 (New York).

Thompson, M.J.; Hagopian, A. et al., 2009. “Do international medical graduates (IMGs) ‘fill the gap’ in rural primary care in the United States? A national study,” in *Journal of Rural Health*, Vol. 25, No. 124-133), pp. 52-58.

Tjadens, F.; Weilandt, C. 2012. *Mobility of health professionals: health systems, work conditions, patterns of health workers’ mobility and implications for policy makers*, MohProf summary report, WIAD Scientific Institute of the Medical Association of German Doctors (Bonn).  
[http://www.mohprof.eu/LIVE/DATA/National\\_reports/national\\_report\\_Summary.pdf](http://www.mohprof.eu/LIVE/DATA/National_reports/national_report_Summary.pdf)

UNDP. 2009. Human Development Report : Overcoming Barriers : Human mobility and development.

Vaughan, B. et al., 2012. “Assessing fitness-to-practice of overseas-trained health practitioners by Australian registration & accreditation bodies,” in *BMC Medical Education* 2012, Vol. 12, No. 91, pp. 1-13.

VSO 2010. *Brain gain: making health worker migration work for rich and poor countries*, VSO briefing: the perspective from Africa, VSO (London).

Vujicic, M.; Zurn, P 2006. “The dynamics of the health labour market,” in *International Journal of Health Planning and Management*, Vol. 21, pp.101-115.

Wismar M, Glinos IA, Maier CB, Dussault G, Palm W, Bremner J, Figueras J. 2011. *Health professional mobility and health systems: evidence from 17 European countries*. in *The Health Policy Bulletin of the European Observatory on Health Systems and Policies*. Available at: [http://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0006/145158/EuroObserver-Summer-2011\\_web.pdf](http://www.euro.who.int/__data/assets/pdf_file/0006/145158/EuroObserver-Summer-2011_web.pdf)

Wheeler, R.M. et al., 2013. “The experiences of internationally educated nurses in the south-eastern United States of America,” in *International Nursing Review*, Vol. 60.

WHO 2000. *The World Health Report 2000: health systems, improving performance*, WHO (Geneva).  
<http://www.who.int/whr/2000/en/>

WHO 2006a. *The World Health Report 2006: working together for health*, WHO (Geneva).

WHO 2006b. “Chapter 4: Making the most of existing health workers,” in *The World Health Report 2006: working together for health*, WHO (Geneva).

WHO 2010. *WHO Global Code of Practice on the international recruitment of health personnel*, adopted by the sixty-third World Health Assembly, WHA63.16, WHO (Geneva). [http://www.who.int/hrh/migration/code/code\\_en.pdf](http://www.who.int/hrh/migration/code/code_en.pdf)

Wickramasekara, P. 2010. “Development, mobility, and human rights: rhetoric and reality,” in *Refugee Survey Quarterly*, Vol. 28, No. 4, pp. 165-200.

Wickramasekara, P. 2011. *Circular migration: a triple win or a dead end*, Global Union Research Network Discussions Papers No. 15, ILO (Geneva).  
<http://www.gurn.info/en/discussion-papers/no15-mar11-circular-migration-a-triple-win-or-a-dead-end>

Wilson, M.A.; Burke, M. 2012. "Evaluation of Tier 5 medical training initiative opportunities in dentistry," in *British Dental Journal*, Vol. 212, pp. 231-235.

Wiese, J. L.; Thorpe, K. 2010? *Empirical evidence, current policy practice and future options in EU Member States*, report prepared for the European Migration Network (EMN) by the UK National Contact Point (NCP), UK Border Agency, Home Office.

Wismar, M.; Maier, C.B. et al., (eds) 2011. *Health professional mobility and health systems: evidence from 17 European countries*, European Observatory on Health Systems and Policies and the WHO (Geneva).

<http://www.euro.who.int/en/who-we-are/partners/observatory/studies/health-professional-mobility-and-health-systems.-evidence-from-17-european-countries>

Young, R. 2011a. *Ethical integration of internationally educated health professionals: ethical and regulatory contexts in the United Kingdom*, paper prepared for the 13th International Health Workforce Collaborative, October 24th-26th 2011 (Brisbane).

[http://rcpsc.medical.org/publicpolicy/imwc/UK\\_Ethical\\_Integration%20\\_Ruth\\_Young.PDF](http://rcpsc.medical.org/publicpolicy/imwc/UK_Ethical_Integration%20_Ruth_Young.PDF)

Young, R. 2011b. "A major destination country: the United Kingdom and its changing recruitment policies," in C.B. Maier, M. Wismar, I. Glinos, G. Dussault and J. Figueras: *Health professional mobility and health systems: evidence from 17 European countries*, European Observatory on Health Systems and Policies and the World Health Organization (Geneva), pp. 205-336.

<http://www.euro.who.int/en/who-we-are/partners/observatory/studies/health-professional-mobility-and-health-systems.-evidence-from-17-european-countries>

## Annexes

### Annex 1: ISCO-08: Categories of Health Professionals

- 22 Health professionals
- 221 Medical doctors
- 222 Nursing and midwifery professionals
- 223 Traditional and complementary medicine professionals
- 224 Paramedical practitioners
- 225 Veterinarians
- 226 Other health professionals
- 2211 Generalist medical practitioners
- 2212 Specialist medical practitioners
- 222 Nursing and midwifery professionals
- 2221 Nursing professionals
- 2222 Midwifery professionals
  
- 322 Nursing and midwifery associate professionals
- 3221 Nursing associate professionals
- 3222 Midwifery associate professionals

Source: (ILO 2012) International Standard Classification of Occupations (ISCO-08): Volume 1 - Structure, group definitions and correspondence tables, International Labour Office, Geneva

[http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms\\_172572.pdf](http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_172572.pdf)

## **Annex 2: List of contacts**

### **• Discussions with migration experts in the field of health worker migration**

- i. Ms Christiane Wiskow, Sector Specialist in Health Services, Sectoral Activities Programme, ILO, Geneva, Switzerland
- ii. Ms Genevieve Gencianos, Coordinator, International Migration and Health and Social Care Workers Programme, Public Services International, 45, avenue Voltaire, 01210 Ferney-Voltaire, France
- iii. Professor Phil Martin, University of California-Davis, Dept. of Agriculture and Resource Economics, 1 Shields Ave, 2101 SSH Davis, CA 95616, USA
- iv. Dr Martin Ruhs, COMPAS, University of Oxford, UK
- v. Professor Richard Black, Co-Director, Sussex Centre for Migration Research, Sussex University, Brighton, UK

### **• Email correspondence with researchers and experts for information**

- o Professor James Buchan, School of Health, Queen Margaret University, Edinburgh: Email: [jbuchan@qmu.ac.uk](mailto:jbuchan@qmu.ac.uk)
- o Professor Gilles Dessault, Professor, Institute of Hygiene and Tropical Medicine (IHMT), Lisbon, Portugal
- o Dr Mireille Kingma, Migration and Health Expert, retired from ICN
- o Dr (Ms) Caren Weilandt, Coordinator of MoHProf Project, Scientific Institute of the Medical Association of German Doctors, Bonn, Germany
- o Dr Ibrahima Dia, University of Geneva, Switzerland
- o Professor Sandro Cattacin, Professor of Sociology, University of Geneva
- o Ms Mairin Power, UNISON, UK
- o Dr Jane Pillinger, Independent Researcher and Policy Adviser, Ireland
- o Dr Ruth Young, Reader, Florence Nightingale School of Nursing & Midwifery, Kings' College, London, UK (no response received)
- o Dr Chistian Dustmann, Professor of Economics, University of London (No response received).

### **• Interviews with experts during UK visit (March 2013)**

- o Ms Vanna Aldin, Head of Economics and Research of the Migration Advisory Committee Secretariat
- o Ms Susan Williams, Senior International Adviser, Policy and International Department, Royal College of Nursing UK, London
- o Ms Rachael McIlroy, Research & Information Officer, Employment Relations Department, Royal College of Nursing
- o Professor Stephen Bach, Professor of Employment Relations, King's College, Department of Management
- o Dr Vandana Nath, Teaching Fellow in Human Resource Management at the Department of Management
- o Ms Caroline Waterfield, NHS Employers, Deputy Head of Employment Service, Leeds, UK

- o Ms Rachel Dean, Programme Lead -- Healthcare Science & International Recruitment, NHS Employers, Leeds, UK
- o Mr Don Flynn, Director, Migrant Rights Network
- o Ms Susan Cueva, Trade Union Officer, Migrant Workers' Unit, UNISON, London, UK
- o Ms Beryl Steeden, Head of Membership and External Affairs, British Association of Occupational Therapists, College of Occupational Therapists

**Annex 3: OECD countries:  
Practicing health professionals by occupation and place of birth  
circa 2000**

Country of residence	Nurses (ISCO 223+323)			Health professionals (except nurses) (ISCO 222)			Doctors (ISCO 2221)		
	Total	Foreign-born	% Total (excl. unknown places of birth)	Total	Foreign-born	% Total (excl. unknown places of birth)	Total	Foreign-born	% Total (excl. unknown places of birth)
Australia	191 105	46 750	24.8	114 184	38 333	33.9	48 211	20 452	42.9
Austria	56 797	8 217	14.5	40 353	5 794	14.4	30 068	4 400	14.6
Belgium	127 384	8 409	6.6	62 101	6 350	10.2	39 133	4 629	11.8
Canada	284 945	48 880	17.2	116 370	37 220	32.0	65 110	22 860	35.1
Switzerland	62 194	17 636	28.6	32 154	8 595	26.7	23 039	6 431	28.1
Germany	781 300	74 990	10.4	445 550	39 097	9.5	282 124	28 494	11.1
Denmark	57 047	2 320	4.1	22 665	2 112	9.3	14 977	1 629	10.9
Spain	167 498	5 638	3.4	201 685	12 937	6.4	126 248	9 433	7.5
Finland	56 365	470	0.8	22 220	755	3.4	14 560	575	4.0
France	421 602	23 308	5.5	331 438	48 823	14.7	200 358	33 879	16.9
United Kingdom	538 647	81 623	15.2	218 369	63 786	29.2	147 677	49 780	33.7
Greece	39 952	3 883	9.7	21 920	1 621	7.4	13 744	1 181	8.6
Hungary	49 738	1 538	3.1	45 411	4 215	9.3	24 671	2 724	11.0
Ireland	43 320	6 204	14.3	13 293	3 735	28.1	8 208	2 895	35.3
Luxembourg	2 551	658	25.8	1 436	438	30.5	882	266	30.2
Mexico	267 537	550	0.2	294 867	3 596	1.2	205 571	3 005	1.5
Netherlands	259 569	17 780	6.9	66 640	9 649	14.5	42 313	7 032	16.7
Norway	70 698	4 281	6.1	20 104	2 906	14.5	12 761	2 117	16.6
New Zealand	33 261	7 698	23.2	15 027	5 790	38.6	9 009	4 215	46.9
Poland	243 225	1 074	0.4	163 791	4 389	2.7	99 687	3 144	3.2
Portugal	36 595	5 077	13.9	36 258	6 238	17.2	23 131	4 552	19.7
Sweden	98 505	8 710	8.9	42 065	8 420	20.1	26 983	6 148	22.9
Turkey			..	128 700	6 984	5.4	82 221	5 090	6.2
United States	2 818 735	336 183	11.9	1 229 221	256 893	20.9	807 844	196 815	24.4
OECD	6 708 570	711 877	10.7	3 685 822	578 676	15.9	2 348 530	421 746	18.2

Note: This refers to ISCO-88 categories.

Source: (OECD 2007) Immigrant Health Workers in OECD Countries in the Broader Context of Highly Skilled Migration. International Migration

Outlook: SOPEMI 2007 Edition, Organisation for Economic Co-operation and Development, Paris, Table III.1, p. 165.



#### Annex 4a: UK doctors -- Top 20 countries of qualification

PMQ country	No. of doctors	%
United Kingdom	159 304	63.1
India	25 255	10.0
Pakistan	9 105	3.6
South Africa	5 603	2.2
Ireland	3 999	1.6
Nigeria	3 969	1.6
Germany	3 283	1.3
Egypt	3 165	1.3
Greece	2 840	1.1
Italy	2 580	1.0
Sri Lanka	2 327	0.9
Iraq	2 313	0.9
Australia	2 007	0.8
Romania	2 007	0.8
Poland	1 929	0.8
Spain	1 457	0.6
Hungary	1 439	0.6
Sudan	1 439	0.6
Czech Republic	1 085	0.4
Bangladesh	867	0.3
<b>Total</b>	<b>236 393</b>	<b>93.5</b>

\*End of 2012

Source: [http://www.gmc-uk.org/doctors/register/search\\_stats.asp](http://www.gmc-uk.org/doctors/register/search_stats.asp) (accessed 5 April 2013).

## Annex 4b: USA -- Top 20 countries of medical education for IMG physicians

Country	Total	%
India	51 447	20.7
Philippines	20 601	8.3
Mexico	13 834	5.6
Pakistan	12 111	4.9
Dominican Republic	7 979	3.2
Grenada	6 749	2.7
USSR	6 450	2.6
Dominica	5 854	2.4
China	5 375	2.2
Egypt	5 266	2.1
Iran	4 940	2
Republic of Korea	4 845	2
Italy	4 732	1.9
Spain	4 343	1.8
Germany	4 197	1.7
Syria	3 869	1.6
UK	3 698	1.5
Montserrat	3 569	1.4
Colombia	3 343	1.3
Ireland	3 302	1.3

Source: Cooper, 2008.

## Annex 5: UK Shortage occupation list: health workers (February 2013)

SOC code and description	Job titles included on the UK Shortage Occupation List and further criteria	Minimum appropriate salary rate
2211 Medical practitioners	<p><b>ONLY</b> the following jobs in this occupation code:</p> <ul style="list-style-type: none"> <li>consultant in the following specialties: emergency medicine haematology old age psychiatry</li> <li>non-consultant, non-training, medical staff post in the following specialties: anaesthetics general medicine specialties delivering acute care services (intensive care medicine, general internal medicine (acute), emergency medicine (including specialist doctors working in accident and emergency), rehabilitation medicine psychiatry</li> </ul>	<p>Specialty doctor and equivalent: <b>£36,807</b> Consultant and equivalent: <b>£74,504</b></p> <p><i>[Source: NHS Employers Medical and Dental Pay Circular 2012]</i></p>
2217 Medical Radiographers	<p><b>ONLY</b> the following jobs in this occupation code:</p> <ul style="list-style-type: none"> <li>HPC registered diagnostic radiographer</li> <li>HPC registered therapeutic radiographer</li> <li>sonographer</li> </ul> <p>Sponsors must retain evidence of the individual's HPC registration and provide this to the UK Border Agency on request. (Registration may need to be done after the individual has entered the United Kingdom but must be done before starting work).</p>	<p>Band 5 and equivalent: <b>£21,176</b> Band 6 and equivalent: <b>£25,528</b> Band 7 and equivalent: <b>£30,460</b> Band 8a and equivalent: <b>£38,851</b> Band 8b and equivalent: <b>£45,254</b> Band 8c and equivalent: <b>£54,454</b> Band 8d and equivalent: <b>£65,270</b> Band 9 and equivalent: <b>£77,079</b></p> <p><i>[Source: NHS Agenda for Change 2012]</i></p>
2231 Nurses	<p><b>ONLY</b> the following job in this occupation code:</p> <ul style="list-style-type: none"> <li>specialist nurse working in neonatal intensive care units</li> </ul> <p>Sponsors must retain evidence of the individual's provisional/full NMC registration and provide this to the UK Border Agency on request.</p>	<p>Supervised practice nurses (Band 3 and equivalent): <b>£16,110</b> Band 5 and equivalent: <b>£21,176</b> Band 6 and equivalent: <b>£25,528</b> Band 7 and equivalent: <b>£30,460</b> Band 8a and equivalent: <b>£38,851</b> Band 8b and equivalent: <b>£45,254</b> Band 8c and equivalent: <b>£54,454</b> Band 8d and equivalent: <b>£65,270</b> Band 9 and equivalent: <b>£77,079</b></p> <p><i>[Source: NHS Agenda for Change 2012]</i></p>

[Source: NHS Agenda for Change 2012]

## **Annex 6: Preliminary list of data requirements to analyse the health worker labour market**

- I. Number of health workers prepared to work (potential supply)
  - a. by health occupation
  - b. by gender
  - c. by location (urban versus rural)
  - d. graduates of training programme
  - e. immigration and emigration of workers
- II. Hours worked by qualified health workers
  - a. by health occupation
  - b. by facility
  - c. working in the public and private sector
  - d. by gender
  - e. by location (urban versus rural)
- III. Wages
  - a. paid by government, private sector
  - b. paid in full and part-time work
  - c. paid in urban/rural areas
  - d. paid by facility
- IV. Other non-wage compensation
  - a. health benefits
  - b. housing
  - c. moving expenses
  - d. pension
  - e. job security
- V. Vacancy data by the categories in II above
  - a. unfilled positions
  - b. turnover
  - c. time-to-hire
- VI. Unemployment data by the categories in I above
- VII. Productivity of health workers in all categories in I
  - a. visits per hour
  - b. hours worked per week
  - c. number of health workers per hospital patient day, or per patient day in other types of facilities
- VIII. Performance of health worker
  - a. training level of each health worker
  - b. quality of service they deliver, as measured by medical guidelines
  - c. ability of worker to perform as measured by the equipment and drugs they need

## **Assessment of the impact of migration of health professionals on the labour market and health sector performance in destination countries**

The Assessment of the impact of migration of health professionals on the labour market and health sector performance in destination countries is an attempt to understand the impact of the migration of health professionals on the labour market and performance and quality of health services in major countries of destination, particularly the United Kingdom. It focuses on two categories of health professionals: doctors and nurses. It discusses this possible impact in relation to three major aspects: the labour market in terms of employment and wages; performance of the health system; and the quality of care.

Migration, and the migration of health-care professionals in particular, has raised concerns from both source and host countries. Health professional mobility impacts on the performance of health systems by changing the composition of the health workforce and outcomes in both origin and destination countries. The migration of health workers is both a response to the challenges of health systems in host and source countries, and a challenge in itself.

The assessment concludes that there is not much evidence that migration of health professionals has had any significant adverse labour market impacts, while their positive contributions to the performance of health systems have been well documented. Individual migrants also have improved their welfare by migrating to developed destinations. Still, studies have shown that immigrant health professionals have not had equal opportunities for career progression. But there is continuing concern about brain drain of health workers from origin countries. While the United Kingdom had shown some concern on this development impact until recently, other major destination countries (Australia, Canada, New Zealand, and the United States) have rarely considered adverse impacts on source countries in their health worker admission policies. While circular migration involving short-term temporary migration back and forth between origin and destination countries has been advocated to address this situation, it has not been seriously considered by any country as an option to minimise brain drain while ensuring migrant rights and welfare.

ILO Country Office for the Philippines  
19th Floor, Yuchengco Tower,  
RCBC Plaza, 6819, Ayala Avenue  
Makati City, Philippines  
Telephone : +63-2-580-9900  
Website: [www.ilo.org/manila](http://www.ilo.org/manila)  
Email: [MANILA@ilo.org](mailto:MANILA@ilo.org)

**DECENT WORK**

*A better world starts here.*

ISSN: 2227-4391; 2227-4405