International migration and the health sector: Our analysis plans

Our analysis plans on the contribution and impact of international migration on the health sector, where we will look at migrants both as a workforce and users of public services.

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1. Introduction

We are transforming the way we produce population and migration statistics to put administrative data at the core of our statistics and better meet our user needs. Our users have told us that they need more information on the contribution and impact migrants have while they are in the UK, including the sectors in which they work, the communities they live in, and their use of and access to public services.

This article sets out our future analysis plans to look at international migration and the health sector and expands on previous plans reported in our population and migration statistics transformation update in January 2019. Whilst our initial focus is on the health sector, we plan to extend our research to include the social care sector at a later date.

We will consider migrants’ contribution to and impact on the health sector, as a workforce and also in terms of their use of and needs for health services. Here we present our plans to provide better evidence and fill some of the evidence gaps drawing on all available data sources as no single source gives us a definite picture. We have worked in partnership across the Government Statistical Service (including the Department for Health and Social Care, NHS Digital and Public Health England) and with users of health statistics to develop our plans.

Alongside our analysis plans, we have also published analysis and a blog showing how many migrants work in health care in the UK and explored their age structure, location and changes over time. We also present data on specific health professions in England, such as hospital nurses and General Practitioners.

2. Current evidence

International migration and its contribution and impact on the health sector is a complex topic. There are a wide range of data available on health services and access to these services, but there are limited official statistics and no regular releases of data on service use by migrants or their needs for different services.

In January 2019, we reported on our analysis of NHS Personal Demographics Service (PDS) data linked to the Migrant Worker Scan (MWS), which helped us to understand when overseas nationals arrive in England and Wales and how long it typically takes them to register for public services. We found non-EU nationals tend to register quicker with the NHS than EU nationals, with a median time lag between arrival and NHS registration of 276 days for EU nationals and 60 days for non-EU nationals.

Other current research and evidence available on international migrants’ contribution to and impact on the UK health sector is limited. Most analyses of the available evidence conclude that migrants make a more significant contribution to the NHS workforce than they consume through the use of services but acknowledge that there are limited data to confirm this (for example, Kings Fund, 2015; Full Fact, 2015; and Migration Advisory Committee, 2018). Recent publications have focussed on attitudes to health care (ESRC Centre for Population Change, 2018) or the health of migrants (Migration Observatory, 2019), rather than their use of or need for health and social care services.

There are more published data available on the migrant health sector workforce but this varies across the UK and between health professions, as well as by definition of a migrant. For example, there are good data on self-reported nationality of the NHS workforce in Hospital and Community Health Services (HCHS) in England.

Annex A lists available data for users of health services. Annex B lists available data for the healthcare workforce.
3. Our analysis plans for understanding international migration and the health sector

We have identified three areas of analysis based on our review of current evidence and the feedback we have received from engaging with users and stakeholders:

Understanding data sources

We plan to explore how each available data source can be used to understand migrants’ contribution to and impact on the health sector, including how migrants are defined. Annex A lists the sources that we have identified on users of health services and Annex B lists the sources for the healthcare workforce. We have indicated where data are available for the wider UK, or where equivalent sources are available for England, Scotland, Wales and Northern Ireland. Our ambition is to provide a UK-wide perspective and, working with the devolved administrations, to bring together analysis by constituent country, region and local authority.

One of our main challenges is how to define migrants in our research. Different data sources will hold different types of information about migrants, depending on what is collected. We therefore need to understand what each source enables us to measure and how we can best use each to answer our research questions. In Annex C we discuss defining international migrants further.

Understanding users of health services

Our review of current evidence (as set out in Section 2, Current evidence) suggests that there is little data on migrants’ use of and need for health services. Our analysis of NHS Personal Demographics Service (PDS) data linked to the Migrant Worker Scan (MWS) improved our understanding of what administrative data can tell us about international migration and how migrants interact with the NHS. But there is more we can do to understand which services are needed, by linking other data sources such as Hospital Episodes Statistics data (see Annex A). We therefore plan to explore this further, including how needs and use vary by different population groups, such as long- or short-term migrants, by using linked data.

Understanding the healthcare workforce

Today we have published an article bringing together available data on how many migrants work in health care in the UK. Our future analysis plans will look to broaden our understanding of international migration and the healthcare workforce, including how this is changing over time and how many workers (both non-British and British) leave the healthcare workforce to work in other non-healthcare sectors or emigrate.

These future analysis plans, outlined above, will provide further clarity on what the available data can tell us about international migrants’ need for these services and international migrants as a workforce, and what further work we need to do to provide better evidence to inform planning, policy and decision-making at both national and local levels. We also plan to present analysis for different population subgroups to provide fair comparisons. For example, we will present analysis, where possible, by both British and non-British nationalities or by country of birth. We will also take age, sex and nationality into consideration, as these are the likely main determinants of health.

In February 2019, we presented our analysis plans to the National Statistician’s Data Ethics Advisory Committee where we were granted ethical approval to proceed with our research. A full version of our application is available on the UK Statistics Authority website. We will work within our principles and policies on the use, management and security of data. These principles set out how we use, manage and secure data, while providing the best standard of statistical information for the public.
4. Next steps

This article sets out our plans to better understand how migrants interact with health services (both as users and as a workforce). As set out in our transformation overview, we will regularly engage with our users to understand their needs and review emerging gaps in the evidence base. We will publish updates on our health sector research as it develops, including how our findings feed into the wider Population and Migration Statistics Transformation Programme and our plans to put administrative data at the core of our statistics in the future.

We want your feedback

If you have any feedback on this article or would like to feed your requirements into the next phase of our research, please email us at pop.info@ons.gov.uk. We would like to hear about how our research can provide evidence for local-level health service decision-making and planning.

Please indicate in your response if you do not wish for the Centre for International Migration (ONS) to keep your details. Your personal information will be stored and processed securely as outlined in the Privacy information for our stakeholders document.

What other opportunities are there to engage with our transformation work?

We regularly engage with users of our population and migration statistics to keep them informed about our work. There are a number of ways we will update users of our population and international migration statistics including:

- our regular ONS Centre for International Migration and Centre for Ageing and Demography newsletters
- presentations at the Royal Statistical Society (RSS) conference on 2 to 5 September 2019 and the British Society for Population Studies (BSPS) conference on 9 to 11 September 2019
- presentations at the Migration Statistics User Forum on 10 October 2019

You can find more details of our upcoming activities.

5. Annex A – Data for users of health services

Hospital Episode Statistics | England (NHS Digital)


Improving Access to Psychological Therapies | England (NHS Digital)

Interactions with Improving Access to Psychological Therapies (IAPT) services will help with the understanding of multiple service use by linking to Hospital Episode Statistics.
Health and Care Statistics Landscape for England | England (Government Statistical Service)

The English Health Statistics Steering Group have developed a health and social care landscape that provides links to all main official health and social care statistics in a central place. The landscape is intended to help all users find relevant statistics and associated information on specific health topics and cross-cutting themes. The landscape is new and experimental and will continue to be developed. User feedback is welcomed.

Patient Register / Personal Demographics Service | England and Wales (NHS Digital)

A record of all persons registered with a General Practitioner in England and Wales. These data will allow us to explore the numbers of people registered for primary care.

Patient Episode Database for Wales | Wales (NHS Wales)

Hospital admissions for NHS hospitals in Wales including A&E, inpatient, day case and maternity admissions plus data on Welsh residents treated in English Trusts.

NHS Central Register | Scotland (National Records of Scotland)

The Scotland equivalent to the Patient Register / Personal Demographics Service data. These data will allow us to quantify those who have access to primary care in Scotland.

Scottish Morbidity Record | Scotland (NHS National Services Scotland)

The Scottish Morbidity Record is an episode-based record relating to all inpatients and day cases discharged from non-psychiatric, non-obstetric wards in Scottish hospitals (acute hospital admissions).

Registrations for Primary Healthcare Services | Northern Ireland (Business Services Organisation)

The Northern Ireland equivalent to the Patient Register / Personal Demographics Service data. These data will allow us to quantify those who have access to primary care in Northern Ireland.

Hospital Activity Statistics | Northern Ireland (Department of Health)

Presents information on activity at consultant-led outpatient, integrated clinical assessment and treatment service (ICATS) inpatient, and day case services in Northern Ireland.

6. Annex B – Data for the healthcare workforce

Annual Population Survey | UK (Office for National Statistics)

Continuous household survey covering the UK. The Annual Population Survey (APS) provides a high-level overview of those working in the health sector by nationality and age.
NHS Workforce Statistics | England (NHS Digital)

NHS Hospital and Community Health Services (HCHS) staff groups working within Trusts and Clinical Commissioning Groups in England. Allows for quantifying those working in secondary care.

NHS Workforce in Wales | Wales (Welsh Government)

Numbers of staff directly employed by the NHS (excluding locum or agency appointments), and rates of sickness absence. Does not include nationality breakdowns.

NHS Workforce in Scotland | Scotland (ISD Scotland)

NHS Hospital and Community Health Services (HCHS) staff groups working within Health Boards in Scotland. Allows for quantifying those working in secondary care. ISD Scotland is part of NHS National Services Scotland. Does not include nationality breakdowns.

Health and Social Care Workforce in Northern Ireland | Northern Ireland (Department of Health)

Detailed statistics on health and social care employees and vacancies in Northern Ireland. Does not include nationality breakdowns.

General Practice Workforce Experimental Statistics | England (NHS Digital)

Numbers and details of General Practitioners, nurses, direct patient care and administrative or non-clinical staff working in general practice in England. Allows for quantifying those working in primary care.

Welsh Government has also published some data on doctors by country of qualification.

Independent Healthcare Provider Workforce Statistics | England (NHS Digital)

Includes staff directly employed in a range of independent healthcare organisations in England. It does not represent the entire workforce employed across this sector and does not only show the staff providing NHS-commissioned services.

These data are provisional experimental statistics. Data are based on those organisations that provided data to NHS Digital or whose data could be extracted from the Electronic Staff Record system.

General Medical Council Data Explorer Tool | UK

Includes data on licensed doctors in the UK by country of primary medical qualification. The data are updated daily. These data may overlap with the data we have used from NHS Digital on hospital doctors and General Practitioners.
Register of nurses, midwives and nursing associates currently able to practise in the UK. Includes data by location – UK, EEA or non-EEA – for initial registration, first-time registration and people who left the register.

Certificates of sponsorship for applications for visas and extensions of stay. Provides overview of non-EU nationals applying to work in the health sector.

Data for students in higher education linked to workforce data can provide insight into those studying medicine in the UK that go onto work in the health sector.

The English Health Statistics Steering Group have developed this health and social care landscape, which provides links to all main official health and social care statistics in a central place. The landscape is intended to help all users find relevant statistics and associated information on specific health topics and cross-cutting themes. The landscape is new and experimental and will continue to be developed. User feedback is welcomed.

Skills for Care maintain an adult social care workforce dataset and have made workforce nationality estimates.

The World Health Organization (WHO) and the Organisation for Economic Co-operation and Development (OECD) make comparisons across countries for the healthcare workforce. For example, the WHO report on the international migration of doctors and nurses in their recent report on Health Employment and Economic Growth.

In our migration statistics, we currently use UN definitions to define long- and short-term migrants when reporting international migration trends to the UK and to England and Wales respectively. These definitions are primarily based around people who have changed their country of residence for a period of time.

In wider statistics and research, country of birth (foreign-born or non-UK born), nationality (non-British national) or citizenship (non-British citizen) are often used to determine who is a migrant. For example, people who were born abroad and migrated to the UK at some point. Using country of birth, nationality or citizenship can produce different estimates or counts of the migrant population. Children who are UK-born or British nationals but whose parents are foreign-born are typically not counted as migrants. The Migration Observatory’s briefing ‘Who counts as a migrant?’ explains this further.

For some health-related datasets, no or limited data are collected on country of birth, nationality or citizenship. An example is the General Practitioner Patient Register, which has a flag to indicate if new registrants have a previous address outside of the UK, regardless of country of birth, nationality or citizenship.
We therefore plan to draw on the best available indicators of international migration for our analysis of the health sector. By linking data sources, we will be able to use nationality, citizenship, country of birth, domicile country, immigration status or travel patterns available on other sources to further categorise migrant groups into long-term, short-term or circular migrants.  

As part of our wider transformation programme for population and migration statistics, we are considering additional or alternative definitions alongside current UN definitions. Having a more flexible approach will enable us to better reflect the complexity of migrant journeys and understand the impact that an increasingly mobile population has on different services, such as health and social care. We will report our progress on our concepts and definitions work later in the year.

Notes for Annex C – Defining international migrants

1. For long-term migration this is 12 months or more; for short-term migration this is 3 to 12 months for work or study purposes. For short-term migration, ONS also produce estimates for 1 to 12 months for work or study purposes and 1 to 12 months for any purpose.

2. The United Nations Economic Commission for Europe (UNECE) has set out the concept of circular migration as a repetition of migration by the same person between two or more countries.