



Ireland's international medical workforce:

an analysis of linked medical council and
medical workforce databases

Improving the monitoring of health workforce and health workforce migration

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The presentation covers

1. The profile of Ireland's non-consultant hospital doctor (NCHD) workforce by nationality and country where graduated – for EU and non-EU countries.
2. Profiles (nationality and age) of foreign and Irish NCHDs working in public sector posts.
3. Types of posts filled by Irish/EU and non-EU NCHDs – training v non-training posts.
4. Lessons learned for policy and health workforce monitoring.

Background:

- Ireland's Health Service Executive (HSE) National Doctor Training and Planning (NDTP) Unit is tasked with monitoring Ireland's medical workforce.
- As in other countries, the Irish Medical Council has statutory responsibility for the registration of medical doctors and ensuring their fitness to practice.
- The RCSI health workforce research group was funded by the European Union through the WHO Brain Drain project to use routine data to generate a better understanding of the migration patterns of Ireland's health professional workforce.

Method

- From 2011, Ireland's NDTP started to capture a minimum dataset on NCHDs working in public sector posts. This was made possible through requiring these doctors to enter data in a National Employment Record, as they moved from hospital to hospital, 6- or 12-monthly.
- The NDTP database includes doctors' Medical Council registration number, the unique identifier for each doctor, which is supplied by the Irish Medical Council to the NDTP.
- Nationality (passport) and country of medical graduation are fields with high completion rate on the medical council register, but were less complete on the NDTP database. Consequently, a linkage of these two datasets – data collected in 2015 –was undertaken by the RCSI in 2016.
- Data linkage involved working with databases, with different structures and that were maintained for different purposes, with a view to creating an anonymised linked dataset. This was undertaken before the 2018 General Data Protection Legislation came into force.

TABLE 1: Top nationalities of doctors (NCHDs) working in Ireland

| Nationality | Number | Percentage of those working in public sector posts | Numbers graduated in own country | % of nationals who graduated in own country |
|-------------|--------|--|----------------------------------|---|
| Ireland | 2177 | 49% | 1979 | 91% |
| Pakistan | 669 | 15% | 592 | 88% |
| Sudan | 266 | 6% | 242 | 91% |
| India | 164 | 4% | 87 | 53% |
| Nigeria | 134 | 3% | 58 | 43% |

Top nationalities

- Irish nationals represent less than half (49%) of NCHDs working in Ireland.
- 4 LMICs (2 Asian and 2 African) provide over one quarter (28%) of the NCHD workforce.
- 9 out of 10 Pakistani and Sudanese nationals trained in their own countries, compared with around half of Indians and Nigerians – more in Table 3.

Message: Ireland is highly reliant on non-national doctors to staff its hospitals.

TABLE 2: Nationalities of doctors working in Ireland who graduated from Irish medical schools

| Nationality | Number of doctors working in Ireland * | Percentage of those working in public sector | Numbers trained in Ireland | % of nationals who trained in Ireland |
|-------------|--|--|----------------------------|---------------------------------------|
| Ireland | 2177 | 49% | 1979 | 91% |
| Malaysia | 156 | 3.5% | 130 | 83% |
| UK | 96 | 2% | 45 | 47% |
| Canada | 59 | 1% | 25 | 43% |
| Others | 1650 | 44% | 134 | 8% |
| Total | 4138 | 100% | 2313 | 56% |

Nationality of graduates from Irish Medical Schools:

- 91% of Irish nationals and 8% of other nationalities working in Ireland graduated from Irish medical schools.
- Over 4/5ths of Malaysian doctors, and close to half of UK and Canadian nationals, working in Ireland graduated from Irish medical schools.

Message: Some of Ireland’s non-EU graduates have stayed on to work in Ireland, or returned to Ireland later?

TABLE 3: Country of Graduation of selected non-EU nationals working in Ireland

| Nationality | Country where graduated | Number working in Ireland | Percentage of nationals working in Ireland |
|----------------------|-------------------------|---------------------------|--|
| India (164) | India | 87 | 53% |
| | Romania | 36 | 22% |
| | Bulgaria | 19 | 12% |
| | 11 other countries | 22 | 13% |
| Nigeria (130) | Nigeria | 58 | 43% |
| | Hungary | 28 | 21% |
| | Romania | 20 | 15% |
| | Poland | 15 | 11% |
| | Ireland | 9 | 7% |
| | 4 other countries | 4 | 3% |

Internationalisation of medical school training: many foreign doctors working in Ireland trained outside of their home countries – 1/3rd of Indians and almost ½ of Nigerians trained in a central European country. (Note also some Nigerians trained in Ireland)

TABLE 4: Country of graduation of Irish nationals (passport holders) working in Ireland

| Country where graduated | Number working in Ireland | Percentage of 2177 Irish doctors working in Ireland |
|-------------------------|---------------------------|---|
| Ireland | 1979 | 91% |
| UK | 65 | 3% |
| Sudan | 23 | 1% |
| Pakistan | 19 | 1% |
| Hungary | 15 | 1% |
| Czech Republic | 14 | 1% |
| Other 21 countries | 62 | 3% |

Internationalisation of medical school training:

- Traditionally, some Irish national have migrated to study medicine (usually to the UK). It may be that some are now migrating to Central European (Czech and Hungarian) medical schools for training.
- Are the 23 graduates from Sudanese medical schools and the 19 from Pakistani medical schools, who are Irish nationals (passport holders), those who gained Irish citizenship *after* moving to Ireland?

Table 5A Division of the Medical Council Register by Nationality (passport) EU

| Country | Non-training scheme doctors Number (%) | Trainee Specialist doctors Number (%) | Total |
|----------------|---|--|-------|
| Ireland | 435 (20%) | 1699 (78%) | 2177 |
| Romania | 91 (71%) | 17 (13%) | 128 |
| United Kingdom | 35 (36%) | 58 (60%) | 96 |
| Poland | 7 (26%) | 13 (48%) | 27 |
| Croatia | 4 (20%) | 6 (30%) | 20 |
| Total | 622 | 1844 | 2579 |

- The highest proportion of doctors in the trainee specialist division are Irish – close to 80%. Trainees are on track to become permanent specialists or GPs
- The proportions of other European (EU) nationals in the trainee division range from a high of 60% (UK) to a low of 13% of doctors from Romania. Other Western and Central European EU countries (not shown) provide small numbers, ranging from 29% to 48% in the trainee division

Table 5B. Division of the Medical Council Register by Nationality (passport): Non-EU

| Country | Non-training scheme doctors Number (%) | Trainee Specialist doctors Number (%) | Total |
|--------------|---|--|-------|
| Pakistan | 534 (80%) | 64 (10%) | 669 |
| Sudan | 229 (86%) | 36 (14%) | 266 |
| India | 120 (73%) | 30 (18%) | 164 |
| Malaysia | 103 (66%) | 52 (33%) | 156 |
| Nigeria | 85 (63%) | 48 (36%) | 134 |
| Egypt | 91 (94%) | 6 (6%) | 97 |
| Canada | 27 (46%) | 31 (53%) | 59 |
| Total | 1402 | 365 | 1864 |

- Ireland recruits internationally, mainly from LMICs, to fill the non-training posts that Irish doctors won't work in. The largest numbers (883) are from Pakistan, Sudan and India. Between 63% and 94% of LMIC nationals are outside of training schemes.
- Many / most of the Malaysian and Canadian nationals came to Ireland to study medicine. Some / many of the Nigerian nationals migrated to Ireland at an earlier point and studied medicine in Ireland.

Table 6A. Stage of Training by Nationality (EU)

| Nationality | Stage(Stage of Training) | | | | |
|--------------------|--------------------------|------------------|-------------------|----------------------------|-------|
| Frequency Row Pct. | BST Number (%) | GP Number (%) | HST Number (%) | Non-training Number (%) | Total |
| Ireland | 633 (29%) | 494 (23%) | 678 (31%) | 372 (17%) | 2177 |
| Romania | 13 (10%) | 1 (1%) | 3 (2%) | 111 (87%) | 128 |
| United Kingdom | 22 (23%) | 18 (19%) | 21 (22%) | 35 (36%) | 96 |
| Poland | 3 (11%) | 7 (26%) | 6 (22%) | 11 (41) | 27 |

BST = Basic Specialist Training
HST = Higher Specialist Training

GP = General Practice
Missing = mainly doctors in non-training post

- Irish doctors are more likely to have progressed to HST, which is the final step before a permanent hospital consultant specialist post.
- The distribution for other EU nationals shows a hierarchy: UK and Polish nationals are generally on track towards permanent posts (consultants or GPs). Romanians are mainly outside training programmes.

Table 6B. Stage of Training by Nationality (Non-EU)

| Nationality | Stage(Stage of Training) | | | | |
|--------------------|--------------------------|------------------|-------------------|--------------------------------|-------|
| Frequency Row Pct. | BST Number (%) | GP Number (%) | HST Number (%) | Non- training Number (%) | Total |
| Pakistan | 62 (9%) | 5 (1%) | 22 (3%) | 580 (87%) | 669 |
| Sudan | 20 (8%) | 0 | 21 (8%) | 225 (85%) | 266 |
| India | 22 (13%) | 1 (1%) | 11 (7%) | 130 (79%) | 164 |
| Malaysia | 27 (17%) | 3 (2%) | 26 (17%) | 100 (64%) | 156 |
| Nigeria | 32 (24%) | 9 (7%) | 8 (6%) | 85 (63%) | 134 |
| Egypt | 4 (4%) | 0 | 3 (3%) | 90 (93%) | 97 |

Few of the LMIC nationals from the Indian Subcontinent and Africa are on course to achieve permanent posts. The Malaysians are unusual (often graduated in Ireland) and are more likely to progress to HST.

Message: Most non-EU nationals from LMICs become ‘stuck’ in non-training scheme posts in smaller hospitals, for years and sometimes decades – see Tables 7 and 2018 Update. Some call these ‘dead-end posts’, because the post-holders have little prospect of progressing towards a consultant specialist post.

Table 7A Age at Retention (Quartiles) by Nationality (EU)

| Nationality | (Age Group) | | | | |
|--------------------|--------------------|-----------------------|-----------------------|--------------------|-------|
| Frequency Row Pct. | < 28 Number (%) | 28 – 31 Number (%) | 31 – 36 Number (%) | > 36 Number (%) | Total |
| Ireland | 796 (37%) | 596 (27%) | 463 (21%) | 322 (15%) | 2177 |
| Romania | 15 (12%) | 49 (38%) | 42 (33%) | 22 (17%) | 128 |
| United Kingdom | 25 (26%) | 21 (22%) | 23 (24%) | 27 (28%) | 96 |
| Poland | 3 (11%) | 4 (15%) | 5 (19%) | 15 (56%) | 27 |
| Croatia | 0 | 6 (30%) | 4(20%) | 10 (50%) | 20 |

EU national NCHDs (especially the Irish) are young – most on a fast-track through training posts to obtain permanent posts – in Ireland or abroad (if they emigrate) –see www.healthworkforceireland.com.

Table 7B Age at Retention (Quartiles) by Nationality (Non-EU)

| Nationality | (Age Group) | | | | Total |
|--------------------|--------------------|-----------------------|-----------------------|--------------------|-------|
| Frequency Row Pct. | < 28 Number (%) | 28 – 31 Number (%) | 31 – 36 Number (%) | > 36 Number (%) | |
| Pakistan | 103 (15%) | 198 (30%) | 137 (20%) | 231 (34%) | 669 |
| Sudan | 37 (14%) | 49 (18%) | 56 (21%) | 124 (47%) | 266 |
| India | 21 (13%) | 28 (17%) | 41 (25%) | 74 (45%) | 164 |
| Malaysia | 29 (19%) | 55 (35%) | 44 (28%) | 28 (18%) | 156 |
| Nigeria | 23 (17%) | 31 (23%) | 30 (22%) | 50 (37%) | 134 |

NCHD Nationals of non-EU countries, who are mainly in non-training scheme posts, are generally older.

Message: Non-training scheme doctors from LMICs get good salaries compared with their countries of origin.

However, there are disadvantages to these posts, in addition to the lack of career prospects.

The post-holders have short contracts that necessitate them uprooting their families (taking their children out of school) to move them around the country every 6 or 12 months.

2018 trends

Despite efforts to tackle Ireland's reliance on foreign doctors, the numbers and proportions of non-training scheme doctors are continuing to grow, having more than doubled from 1,278 in 2010-11 to 2724 by May 2018* – or 50% of all NCHDs . . .

. . . while the numbers of training scheme posts have risen slowly or stagnated.

One reason for the worsening trend has been the nature of Ireland's response to the introduction of the European Working Time Directive (EWTB), which has forced smaller peripheral hospitals to recruit internationally, because these hospitals are not recognised for training and few Irish doctors will work there.

For further details on the policy responses that Ireland needs to implement, see *Retaining our Doctors: Medical Workforce Evidence 2013-18* at www.healthworkforceireland.com.

* Provisional data from the HSE National Doctor Training and Planning Unit, presented 5th October 2018



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CONCLUSIONS 1



Ireland is highly reliant on international recruitment of doctors – mainly international medical graduates (IMGs) from Pakistan, India and Sudan who are passively recruited – to staff its hospitals.

Ireland does not provide most of these doctors with a career path, which leaves them stuck in non-training scheme posts for which Irish trained doctors will not apply.

Medical workforce commentators have concluded that it has been Ireland's failure over the last 50 years to reconfigure its hospital system, maintaining too many small hospitals that cannot provide comprehensive care (or get accreditation for training specialists), that is driving:

- large scale emigration by Irish trained doctors, which in turn drives:
- large scale international recruitment of doctors.



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CONCLUSIONS 2



Much can be learned from analyses of medical workforce (health workforce account) data – however measures of nationality are difficult to interpret because of

- multiple nationalities
- doctors make decisions around which nationality to declare; and
- changes in nationality as doctors acquire citizenship in the destination country;

It is important to distinguish country of training from nationality.

There is some evidence of new trends in the internationalisation of medical training, where nationals from Pakistan, India and perhaps Ireland graduate from central European medical schools and then migrate to Ireland, though caution is required in interpreting workforce data.

The data analysed for this meeting are from 2015 and were linked in 2016. Data linkage by external groups that was feasible prior to the introduction of the 2018 General Data Protection Regulation is now more difficult.



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Further evidence on medical retention and migration into and out of Ireland

see: <http://www.healthworkforceireland.com/publications>. For the proposed policy responses for retaining the doctors that Ireland trains, see *Retaining Our Doctors: Medical Workforce Evidence, 2013-18* on: www.healthworkforceireland.com

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The interpretations and conclusions drawn from the data are solely the views of the author and can under no circumstances be regarded as reflecting the position of the European Union, WHO or RCSI.