Human Resources for Health

COMMENT

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A time-to-practice metric for refugee clinician integration in receiving health systems: England as a worked example

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Abstract

Receiving health systems cannot improve refugee clinician integration pathways if no actor is responsible for the denominator, milestones, or stage-specific delays. England is a useful worked example. Published UK initiatives show that already-resident refugee and asylum-seeking doctors can reach NHS employment, supervised placements and professional registration, but they use different denominators, endpoints and follow-up conventions. They demonstrate feasibility without yielding a pathway metric that system-level purchasers, funders or regulators can compare, fund or improve. A minimum time-to-practice (TTP) specification would separate two clocks. A population or pre-pathway clock would record earlier dates, such as arrival, asylum-claim lodgement, first contact or first documentation of professional background, to show upstream delay and attrition. The pathway TTP clock would begin at pathway registration, when a minimum dataset is complete, a named pathway owner can act, and the case enters the reporting denominator. Two auditable milestones would then be measured from registration: TTP-1, the verified start of the first qualifying paid supervised placement; and TTP-2, practice-enabling, profession-equivalent registration. Work-eligibility status, documentation completeness, years out of practice and route complexity should be recorded to interpret variation rather than to exclude people from the denominator. TTP is not a measure of competence, programme effectiveness or speed alone. Its purpose is workforce governance: to define the denominator, milestones, safeguards and funding conditions needed to compare and improve a poorly observed route back into practice, while remaining distinct from active overseas recruitment.

Keywords Health workforce, Refugee clinicians, Asylum seekers, Workforce governance, Professional registration, International recruitment, Health policy, England

The missing governance object

Receiving health systems confront a workforce problem that is routinely discussed but poorly governed. Refugee and asylum-seeking doctors and other health professionals already living in-country may hold substantial clinical skills and prior professional experience, yet their route back into regulated work is often mediated through fragmented local schemes, informal referrals, ad hoc voluntary roles and personal persistence rather than a visible pathway. The consequence is not simply administrative inefficiency. Professional identity, income and progression can be put on hold for years, while systems facing shortages cannot identify where delay and attrition occur. A pathway denominator and milestone structure is needed to support fair, funded progression, not to reduce displaced professionals to throughput statistics or create a more legible waiting list.

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England is a useful worked example for two reasons. First, several published UK initiatives expose the measurement problem: Building Bridges, REACHE and CAPS show that already-resident refugee and asylum-seeking doctors can reach NHS employment, supervised placements and professional registration, but they use different denominators, endpoints and follow-up conventions [1–3]. Second, England faces material workforce pressure. NHS England estimated a starting NHS staff shortfall of about 150,000 full-time equivalents and projected a 260,000 to 360,000 FTE shortfall by 2036/37 without intervention, including a projected shortfall of about 15,000 FTE-qualified GPs [4]. Current professional estimates are also too weak to function as a pathway denominator. The British Medical Association has reported that there are no definitive statistics on the number of healthcare professionals seeking asylum or holding refugee status in the UK, while estimating that there could be up to 2,000 refugee doctors living in the country [5]. That uncertainty is not incidental. It is part of the measurement problem this commentary addresses.

The problem is not confined to England, and it is not only a licencing problem. Recent syntheses show that refugee doctors' integration needs extend beyond knowledge or examination gaps to include rights and responsibilities, interrupted careers, financial precarity, identity work and rebuilding professional connections in host systems [6]. Because the published empirical base remains doctor-dominant, the illustrative pathway here is anchored mainly in medicine and should be read as a minimum specification requiring profession-specific adaptation, not a finished cross-profession template.

Existing human resources for health information systems are necessary but insufficient for this problem. National HRH information systems, workforce accounts, professional registers and employer HR systems are designed to count the workforce already visible to the system (e.g. those in training, on professional registers, on payroll or deployed in service) and to support planning and management across those stocks [7]. Professional regulators capture registration status; employers capture those already employed; payroll systems capture paid posts and absences; and broader HRH information systems aim to link education, registration, deployment, retention and payroll. None of these alone owns the denominator, stage definitions or upstream attrition for displaced professionals attempting re-entry through a fragmented pre-registration transition zone. The missing governance object is therefore the cross-institution pathway, not the worker in any single dataset. Registers observe regulated status and payroll systems observe paid work; neither reliably captures those who are verified, waiting, recycled between stages, or lost before either pathway endpoint is reached.

The population in scope is professionals already resident in the host country. It is not a mechanism for active overseas recruitment. Any pathway for this group should remain explicitly bounded by national and WHO ethical recruitment codes [8, 9]. The policy question is narrower and more concrete: what minimum governance specification would allow a receiving system to see, support and fund a currently under-observed route from in-country presence to supervised practice and, where appropriate, full registration?

What current UK programmes show, and what they cannot show

Published UK initiatives show that refugee clinicians can reach registration, supervised placements and NHS employment, but they report outcomes on different denominators, endpoints and follow-up bases (Table 1). Building Bridges highlights substantial loss to follow-up [1], the Refugee and Asylum Seekers Centre for Healthcare Professionals Education (REACHE) makes delay before structured support visible [2], and the Clinical Apprenticeship Placement Scheme (CAPS) shows why post-placement NHS employment cannot substitute for a shared pathway denominator or practice-enabling registration endpoint [3].

Together, these reports establish feasibility while exposing the measurement problem: there is no shared denominator, start rule or endpoint. Because they are programme reports rather than comparative evaluations, they cannot yet support cross-site comparison, funding or improvement.

For system-level purchasers and commissioners, this heterogeneity is not a minor methodological inconvenience. Here, a commissioner means the public body, purchaser or system-level funder with authority to specify eligibility, fund pathway capacity, require reporting and hold providers to an agreed denominator and milestone structure. The term names a governance function rather than a uniquely English institutional label. Without an owned denominator, there is no stable estimate of who has entered the pathway. Without a common start point, delays before referral, verification, placement or regulation are conflated. Without shared milestones, employment, observerships, examination success, supervised service and professional registration collapse into one another. Without recording work-eligibility status, pathway delay cannot be separated from delay generated by immigration rules [10]. The system can therefore fund activity without being able to identify whether the binding constraint is referral failure, document verification, supervision capacity, regulatory processing, or attrition

Table 1 Selected UK programme reports show feasibility, but not a shared pathway metric

Programme report	What the report shows	Measurement gap exposed	Implication for a TTP pathway
Building Bridges Programme (UK)	Supported 595 refugee health professionals across professions, including 372 doctors. Among doctors, 98/372 (26%) reached registered NHS posts, 109/372 (29%) entered associated roles, and 44% were lost to follow-up	Outcomes become difficult to interpret once people leave the programme: attrition is substantial, exits are not standardised, and the denominator is a programme cohort rather than an end-to-end pathway cohort	Use a pathway-owned denominator, standard exit categories and routine attrition reporting so apparent conversion is not censored by loss to follow-up
REACHE (UK)	Admitted 607 refugee and asylum-seeking doctors; 498 were alumni and 109 were still active in the programme. Among alumni, 258/498 (51.8%) achieved registration and NHS employment. Median completion time was 2.1 years, and median time from UK arrival to first programme contact was 1.3 years	Outcomes are reported for an alumni subgroup, not a single pathway denominator, and delay before structured support is visible but not held within one pathway-owned clock	Start the pathway clock at pathway registration, record pre-pathway time separately, and publish stage-specific TTP so delay before support and delay within the pathway are not conflated
CAPS/Clinical Apprenticeship Placement Scheme, London	Eighty-five refugee doctors entered CAPS between October 2009 and March 2020. Among 48 survey respondents, 45 were still working in the NHS. Most respondents were in non-training grade hospital roles, with general practice the most common single career choice	CAPS shows the value of funded supervised placement, but respondent employment is not the same as a pathway denominator or practice-enabling registration endpoint	Count a CAPS-like paid supervised placement as TTP-1 only if it meets the qualifying-placement rule. Report TTP-2 separately so placement, employment and registration are not collapsed

Outcomes use each source report's own denominator. They show feasibility, not directly comparable programme performance. The table identifies why a shared start rule, milestone structure and exit coding are needed before TTP can support commissioning or cross-site evaluation. Because the evidence base remains doctor-dominant, profession-equivalent milestones need pre-specification

between stages. The problem is not a lack of goodwill. It is the absence of a pathway-level reporting structure.

A minimum time-to-practice specification

Time-to-practice (TTP) should be reported as a pathway-performance clock, not as the only clock that matters. A receiving system should record earlier population or pre-pathway anchors, including arrival where known, asylum-claim lodgement where relevant, first contact with a support route, and first documentation of prior professional background. These dates show upstream delay, unmet need and attrition before a pathway can act. The TTP pathway clock should begin at pathway registration. Pathway registration is the first date on which a minimum pathway dataset is complete, a named pathway owner can act, and the case enters the reporting denominator. The minimum dataset should include identity and contact information, profession and intended regulatory route, sufficient evidence to begin document verification, baseline work-eligibility status and a named pathway owner. This separates the population question, "who might have been eligible for support?", from the pathway question, "what happened once the system had enough information and authority to act?".

TTP should have two auditable milestones. TTP-1 is the auditable start date of the first qualifying paid, supervised clinical or practice-based placement. In many systems, the payroll start date will be the cleanest proxy because it is routinely verifiable, but a pathway may instead use the formal contracted start date if that rule is specified in advance and applied consistently. The metric should not drift between the two. To count as TTP-1, the role should have a named registered supervisor, a documented supervision plan and a time-bounded review point linked to progression. Unpaid observerships, shadowing and purely administrative roles should not qualify. TTP-2 is the effective date of full, or otherwise practice-enabling, professional registration on the relevant register. Where professions use provisional, limited or supervised forms of registration, the locally equivalent practice-enabling endpoint should be pre-specified and reported consistently. The point is not to force all professions into one regulatory mould, but to ensure that each pathway has an explicit and auditable endpoint. Depending on profession and pathway design, TTP-1 may precede, overlap with, or follow an initial form of practice-enabling registration; the key requirement is that both milestones are pre-specified and auditable.

These are the right milestones because they correspond to the two transitions a receiving system most needs to see. TTP-1 marks entry into a paid, supported role in which skills can be refreshed, demonstrated and assessed in context. TTP-2 marks regulator-recognised readiness to practise. Other endpoints are weaker. Self-reported employment is too blunt because it conflates regulated progression with local service roles that may or may not offer advancement [3]. Examination success alone is too narrow because it says little about whether the candidate has entered supervised work. Unpaid experience is too easy to inflate without creating a genuine workforce asset. Arrival and asylum-claim lodgement should therefore be retained as pre-pathway anchors rather than discarded or folded into provider performance. The metric is strongest when it reports both upstream delay and pathway time without treating them as the same accountability problem.

The pathway should therefore report, rather than collapse, three temporal elements: pre-pathway time, TTP-1, and TTP-2. Pre-pathway time captures the period before pathway registration, such as the time from arrival, asylum-claim lodgement or first contact to verified pathway entry. TTP-1 captures time from pathway registration to the first qualifying paid supervised placement. TTP-2 captures time from pathway registration to practice-enabling professional registration. This separation matters because refugee doctors' integration journeys are often non-linear rather than a single uninterrupted climb [6]. Candidate-requested pauses, failed attempts, re-entry and censoring should therefore be coded separately rather than forced into one continuous clock. Figure 1 should be read as a simplified reporting model, not a literal representation of every pathway journey.

Routine reporting should present the denominator, TTP-1 and TTP-2 distributions, stage-specific attrition, exit categories and case-mix strata. At a minimum, reports should stratify by profession, work-eligibility status, years out of practice and route complexity. Post-registration outcomes such as retention, specialty entry, job quality or location of practice can be tracked separately, but they should not replace pathway milestones. A short TTP is interpretable only alongside these fields. Faster progression is not automatically better if it is achieved by selective entry, weak supervision, parking in sub-licence roles or exclusion of candidates with complex documentation or legal status.

Work-eligibility status should be recorded for interpretation, not used as the gate for pathway registration. In the UK example, asylum seekers are not normally allowed to work while their claim is being considered, but the Home Office may grant permission to work where an asylum claim has been outstanding for more than 12 months through no fault of the applicant. Under current Home Office guidance, applications submitted on or after 26 March 2026, if granted, are restricted to jobs in Appendix Skilled Occupations at RQF level 6 or above [10]. Work eligibility therefore affects when a paid

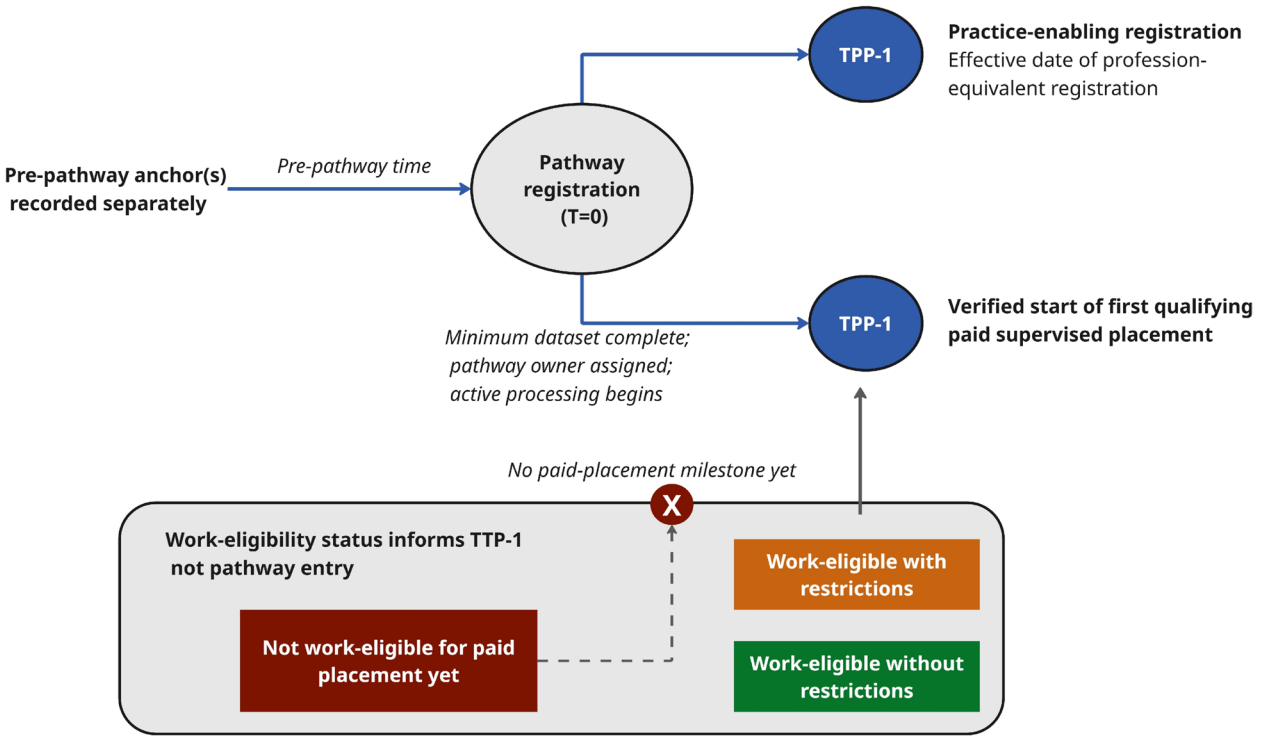


Fig. 1 Simplified time-to-practice (TTP) reporting model. Pre-pathway anchors are recorded separately; the pathway-performance clock starts at pathway registration (T = 0), when the minimum dataset is complete and a pathway owner can act. TTP-1 is the verified start of the first qualifying paid supervised placement; TTP-2 is practice-enabling, profession-equivalent registration. Work-eligibility status informs interpretation of TTP-1 but does not determine pathway entry. Pauses, re-entry and censoring should be coded separately

supervised placement can begin, but it should not determine whether a clinician is visible in the pathway denominator. Otherwise, the system will misrepresent who is waiting, why they are waiting and which delay is produced by immigration rules rather than pathway design.

Box 1. Worked example and minimum data items

A refugee doctor first contacts a local support route on 10th January. The pathway-hub records first contact but does not open the TTP pathway clock because identity, intended regulatory route and document-verification status are incomplete. On 1 March, the minimum dataset is complete, work-eligibility status is recorded, and a pathway owner is assigned. Pathway registration is therefore 1 March, which becomes T = 0 for TTP reporting. The doctor starts a qualifying paid supervised placement with a named registered supervisor and documented review point on 1st September. TTP-1 is 184 days. Practice-enabling professional registration is confirmed on 1 June the following year. TTP-2 is 457 days. Time from arrival or asylum-claim lodgement to 1 March is reported separately as pre-pathway time.

Minimum data items are: pathway identifier; profession and intended regulatory route; first contact and available pre-pathway anchors; pathway-registration date; document-verification and work-eligibility status; TTP-1 date and qualifying-placement rule; TTP-2 date and registration endpoint; pathway owner; pause, re-entry, censoring and exit codes; and case-mix descriptors needed to interpret delay.

Funding supervised progression as a workforce investment

A metric without funded supervisory capacity would merely formalise waiting. Many candidates require document verification, language preparation, readiness assessment, and supervised placement before they can reach practice-enabling registration. These activities consume supervisor time, educator time and administrative capacity. Local employers often bear the marginal cost, while the benefit of an additional registered clinician accrues to the wider health system and receiving society. That mismatch makes refugee clinician integration a public

workforce investment problem, not only a provider goodwill problem.

The financing mechanism should be chosen locally, but the principle should be explicit: supervised progression must be funded, not assumed. A staged payment linked to verified pathway milestones is one plausible instrument. In other systems, the equivalent could be a grant, workforce transformation payment, ring-fenced education budget, regional purchaser contract or regulator-supported placement scheme. The relevant policy choice is whether government, regional purchasers or other system-level funders are willing to pay for the supervision and data infrastructure required to convert already-resident skills into regulated workforce participation.

A funded pathway should require complete reporting as a condition of support. At a minimum, system-level funders and pathway owners should be able to see how many people enter the pathway, how many reach TTP-1 and TTP-2, where attrition occurs, and whether delays are concentrated in verification, placement acquisition or regulatory processing. Reporting should be stratified by profession and work-eligibility status at entry. The purpose is not to produce another dashboard. It is to create a denominator and milestone structure robust enough for comparison, funding and improvement.

Safeguards, trust and legitimacy

Any metric creates incentives, and the predictable failure modes should be designed against rather than discovered retrospectively. One risk is selective entry: enrolling only easier cases so the clock looks better. Another is denominator manipulation: delaying formal pathway registration until a placement is already near. A third is parking: retaining clinicians in supervised but sub-licence roles to satisfy employment targets without achieving regulatory progression. A fourth is case-mix drift, in which candidates with longer career gaps, more complex documentation problems or more restrictive work status are subtly deprioritised.

Safeguards should therefore be built into the minimum specification. Selective entry should be addressed by retaining all pathway-registered entrants in the denominator and reporting first contact separately from pathway registration. Denominator manipulation should be addressed by using a pre-specified minimum dataset rule rather than allowing programmes to open the clock only when a placement is near. Parking should be addressed by limiting TTP-1 to paid supervised roles with a named registered supervisor, documented supervision plan and time-bounded review point linked to progression. Case-mix drift should be addressed by stratifying results by profession, work-eligibility status, documentation completeness, years out of practice and route complexity. Poor data completeness should be reported as a pathway quality problem rather than hidden through exclusion. Maximum time-in-stage thresholds should trigger review and escalation rather than quiet extension. Independent audit should examine stage transitions, missing data, exit coding and the proportion of candidates paused, transferred, lost to contact or retained in sub-licence roles without progression.

Data collection should rely on the smallest lawful linkage that can verify milestones and reduce repeated manual reporting. The core linkage is narrow: pathway-hub records, regulator milestones, qualifying-placement or payroll confirmation, and work-eligibility status needed to interpret TTP-1. Asylum or permission-to-work records should be linked only where there is a clear legal basis or explicit consent, and only where separation from immigration-enforcement functions is visible to participants. Access to language preparation, document-verification support or supervised placements should not depend on consenting to unnecessary data sharing. If pilots test geographically targeted placements or service commitments in shortage areas, those arrangements should be voluntary, transparent and evaluated for equity, retention and candidate experience. Misreporting risks should be managed through proportionate source-document checks and milestone verification, not through a default posture of suspicion towards displaced professionals.

Because refugee and asylum-seeking professionals may reasonably fear the consequences of data sharing, trust is a condition of measurement rather than an administrative afterthought. The minimum standard should be data minimisation, role-limited access, transparent participant notice, time-limited retention of identifiable data and explicit separation from immigration-enforcement functions. Public reporting should be aggregated. Governance should include refugee-led clinician groups, employers, educators, regulators and patient or public voices to reduce arbitrary gatekeeping and strengthen legitimacy. The purpose of TTP reporting is to make fair access to supported progression governable, not to create a wider surveillance architecture.

The pathway should also remain explicitly bounded by the UK Code of Practice and the WHO Global Code [8, 9]. Eligibility should be restricted to professionals already resident in-country at pathway registration, and the pathway should not undertake overseas marketing, agency activity or active sourcing from abroad. Integrating already-resident clinicians can be ethically consistent with these codes, but it is not a substitute for domestic training expansion, retention policy or wider workforce reform.

Why this matters beyond England

England is only one worked example. What travels internationally is not the English institutional label but a small set of functions: a pathway registrar that owns the denominator; a purchaser or funder of supervised entry roles; and a verifier of practice readiness. In one country, these functions might sit with a ministry, regional purchaser and regulator; in another, they might be distributed across a university, employer consortium and professional body. The transferable unit is functional, not institutional. What matters is ownership of the denominator, funding of supervised progression, and recognition of a practice-enabling endpoint.

This matters particularly where displaced health professionals are absorbed into generic internationally educated professional pathways and become statistically invisible [6, 7]. Systems then learn about bottlenecks through anecdotes, casework and isolated programme reports rather than through owned pathway data. A transportable TTP specification does not require identical regulators or identical payment systems. It requires only a stable entry rule, two auditable milestones, separate recording of pre-pathway delay, visible case mix and a funded route into supervised practice. England's value as a worked example lies in illustrating a wider receiving-country HRH problem: how to convert already-resident skills into safe, regulated workforce participation without crossing ethical recruitment boundaries.

Boundaries and next evaluation

TTP is not a measure of competence, programme effectiveness or speed alone. A shorter TTP should not be interpreted as better unless supervision quality, case mix, progression quality and regulatory standards are also visible. Differences in work-eligibility status, documentation completeness, years out of practice, prior specialty, language-testing requirements and route complexity can all lengthen TTP without indicating pathway failure. Conversely, a shorter TTP may signal selective entry, weak supervision or parking in sub-licence roles if it is not interpreted alongside safeguards. The metric is therefore an accountability tool for pathway governance, not a ranking of individual candidates or a substitute for prospective evaluation.

The next empirical step should be a small set of regional implementation pilots, or where regulators are directly involved, sandbox-style pilots, using the same minimum TTP specification while allowing governance and financing arrangements to vary. Each pilot should report data completeness, first-contact to pathway-registration time, TTP-1, TTP-2, stage attrition, exit coding, supervision burden, costs to purchasers and providers, candidate experience, progression quality and unequal attrition by work-eligibility status or route complexity. Scale-up should not be automatic. A pathway should be adapted or paused if it improves median time by excluding complex cases, increases unpaid administrative burden, weakens supervision, parks clinicians in sub-licence roles, or produces poor data completeness.

Conclusions

Current UK programmes show that refugee and asylum-seeking doctors already resident in-country can reach regulated roles, but also reveal why local goodwill does not scale automatically into workforce infrastructure: there is no owned denominator, common milestone structure and/or consistent account of where delay accumulates. Existing workforce data systems are essential for planning the registered or employed workforce, but they do not govern the pre-registration transition zone. A pathway-level TTP specification would not solve every barrier, but it would give receiving systems a denominator and milestone structure for governing that transition zone.

A stable pathway-registration rule, separate pre-pathway timing, TTP-1 and TTP-2 milestones, case-mix, limited data use and funded supervision would turn a poorly observed integration route into an auditable, ethically bounded workforce function. For receiving health systems seeking greater workforce self-sufficiency without avoidable dependence on active overseas recruitment, this is the policy advance.

Abbreviations

CAPS	Clinical Apprenticeship Placement Scheme
HRH	Human resources for health
NHS	National Health Service
REACHE	Refugee and Asylum Seekers Centre for Healthcare Professionals Education
TTP	Time-to-practice
TTP-1	Verified start of first qualifying paid supervised placement
TTP-2	Practice-enabling, profession-equivalent registration
UK	United Kingdom
WHO	World Health Organization

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PK conceived the commentary, developed the argument, conducted the literature appraisal, drafted and revised the manuscript, and approved the final version.

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Data availability

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Consent for publication
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Competing interests
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References

1. Butt MF, Salmon L, Mulamehic F, Hixon A, Moodambail AR, Gupta S. Integrating refugee healthcare professionals in the UK National Health Service: experience from a multi-agency collaboration. Adv Med Educ Pract. 2019. https://doi.org/10.2147/AMEP.S213543.
2. Drovandi A, Barrett S, Kallingal J, Awan A. Training refugee and asylum-seeking doctors: a cohort study of the UK REACHE programme. BMJ Open. 2025;15(11):e105550.
3. Shah R, Moodambail A, Alam M, Ragiwala D, Mulamehic F. An evaluation of the CAPS refugee doctor scheme in London–a survey of outcomes. Educ Prim Care. 2021;32(2):100–3.
4. NHS England. NHS Long Term Workforce Plan 2023 [updated 22 April 2024]. https://www.england.nhs.uk/publication/nhs-long-term-workforce-plan/. Accessed 27 Jan 2026.
5. Tonkin T. In search of a future. The Doctor, British Medical Association. 2026. https://thedoctor.bma.org.uk/articles/life-at-work/in-search-of-a-future/. Accessed 22 Apr 2026.
6. Smith SE, Livingston P, Carney E, Mardon J, Tallentire VR. Snakes and ladders: an integrative literature review of refugee doctors' workforce integration needs. Med Educ. 2024;58(7):782–96.
7. McQuide PA, Brown AN, Diallo K, Siyam A. The transition of human resources for health information systems from the MDGs into the SDGs and the post-pandemic era: reviewing the evidence from 2000 to 2022. Hum Resour Health. 2023;21(1):93.
8. Department of Health and Social Care. Code of practice for the international recruitment of health and social care personnel in England 2025. https://www.gov.uk/government/publications/code-of-practice-for-the-international-recruitment-of-health-and-social-care-personnel/code-of-practice-for-the-international-recruitment-of-health-and-social-care-personnel-in-england. Accessed 26 Jan 2026.
9. World Health Organization. WHO Global Code of Practice on the International Recruitment of Health Personnel: World Health Organization; 2010. https://www.who.int/publications-detail-redirect/who-global-code-of-practice-on-the-international-recruitment-of-health-personnel. Accessed 12 Mar 2026.
10. Home Office. Permission to work and volunteering for asylum seekers. Version 18.0 2026 https://www.gov.uk/government/publications/handling-applications-for-permission-to-take-employment-instruction/permission-to-work-and-volunteering-for-asylum-seekers-accessible. Accessed 22 Apr 2026.

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