

Neurology

Table 1.1 outlines the current number and ratio of consultant neurologists per 100,000 of the population in Ireland. Included in this table are the projected numbers of specialists per 100,000 of the population in 2024, should the current ratio remain static at the 2014 level. Table 1.1 also includes the research informed range of specialists per head of population as per expert stakeholder perspectives, the Hanly (2003) recommendations and the ratios in place, projected and/or recommended in comparable healthcare jurisdictions.

Table 1.1 Neurology Consultant Posts (Private and Public) 2014-2024

2014		2024*		Research informed range of specialists per head of population to 2024 **	
N	Ratio per 100,000 pop	N	Ratio per 100,000 pop	N	Ratio per 100,000 pop
46 (40 WTE)	1	49.5 (43 WTE)	1	43 - 115 (37 - 98 WTE)	0.87 - 2.3

* Accounting for population growth and an unchanged ratio of consultants

** The recommendation is based on information in Table 1.2 and represents a range from the lowest to the highest ratio considered

Table 1.2

Hanly (2003)	Hanly (2003) recommended a ratio of 1: 115,000 consultant neurologists per head of population to achieve a consultant-provided service and to comply with the European Working Time Directive (EWTD) in 2013. This represents approximately .87 consultants per 100,000 of the population. Using CSO population projections (CSO, 2011), we estimate the recommended ratio to equate to 40 consultant neurologists today and approximately 43 consultant neurologists in 2024 approximately. Using a WTE rate of .86, this would equate to 34 and 37 whole-time equivalent (WTE) consultants in 2014 and 2024 respectively.
National Clinical Programme in Neurology	<p>Equitable neurological care is significantly hampered by the lack of consultant neurologists nationally and it is the case that the chance of being seen quickly by a neurologist in Ireland depends primarily upon your postcode. In 2003, the Association of British Neurologists (ABN) recommended one consultant neurologist per 100,000 population. The HSE Clinical Strategy and Programmes in 2010 used this figure to support a request for additional consultants. Thirty-two of the 34 posts are now in place (10 in Dublin Mid-Leinster, 8 in Dublin North-East, 7 in HSE West, 7 in HSE South) and there are 10 HSE-appointed clinical neurophysiologists in place. In 2007, the Association of British Neurologists recommended one consultant neurologist per 40,000 population (ABN, 2007). However, a more recent conservative guideline of the Association of British Neurologists recommends one consultant neurologist per 70,000 population (ABN, 2011). Using the more recent 2011 Association of British Neurologists recommendation, there is a need for 45 consultant neurologists in Ireland. However, it is important to note that the United Kingdom has the second lowest ratio of neurologists per population in Europe, after Ireland, with fewer than one-quarter of the number of neurologists per capita compared to the United States and most of Europe. For example Germany has a ratio of one consultant neurologist per 50,000 population. Therefore, using the most recent Association of British Neurologists recommendation as a guide means that at least thirteen additional consultant neurology posts are required in Ireland. In addition, there is expected to be between 2 to 5 retirements in the coming 5-10 years, therefore provision should also be made for these posts.</p> <p>There is a need for one clinical neurophysiologist per consultant neurologist or one per 250,000 population. The Irish Society of Clinical Neurophysiology recommends 18 consultants for the general clinical neurophysiology service, 2 additional consultants for the National Children's Hospital, 1 additional consultant for intra-operative monitoring and 1 extra consultant for epilepsy surgery work up. Consultant clinical neurophysiologists tend to be grouped in clinical</p>

	<p>neuroscience centres such as those in Dublin and Cork. As clinical neurophysiology is important for some neurological emergencies such as status epilepticus, coma, encephalopathy, and encephalitis, there is a need to develop Departments of Clinical Neurophysiology in Northwest, including Galway and Sligo, Donegal, and the Midwest, including Limerick and Tralee. Paediatric neurology is dealt with by the Paediatric Programme but is a crucial service Ireland which is based mainly in the major neuroscience centres in Dublin and Cork. Both adult and paediatric neurology work very closely with many related neuroscience disciplines including neuroradiology, neuropathology, clinical neurophysiology, neurosurgery, neurorehabilitation medicine, neuropsychology, and services allied to medicine.</p>
Royal College of Physicians of Ireland (RCPI)	<p>Ireland currently needs a minimum of 1.4 consultants per 100,000 which constitutes 64.3 consultant neurologists. It is unclear what role neurology will play in the running of modern stroke care/intervention which currently varies between hospitals. The National Cardiovascular Strategy made recommendations to significantly increase the number of neurologists to support stroke care. To equal the United States ratio of 3.92 per 100,000, 89.6 neurologists would be needed in Ireland, representing a shortfall of a minimum of 32.3 (or 57.6 as compared with the United States). The number of trainees varies annually as neurology SpRs usually complete a minimum of two years research during training. There is a need to increase significantly the number of SpR training posts and it is estimated that there needs to be at least one extra SpR per new consultant post, implying that 32-40 new SpR posts are needed. While the number of non-SpR registrars and house staff need to increase in order to reflect increased activity and increased consultant numbers, the number of SpRs needs to be capped in order to reflect future consultant prospects and minimise excessive service commitments for the existing cohort.</p>
United Kingdom – Royal College of Physicians (2013)	<p>The Royal College of Physicians and Association of British Neurologists advise that in order to provide a comprehensive District General Hospital neurology service that includes both scheduled and unscheduled neurological care, at least 3.6 whole-time equivalent (WTE) neurologists per 250,000 population are required, which is a total of around 880 consultants in the United Kingdom. There is increasing demand for 7-day 24-hour expert services. This will be difficult to provide for neurology with the current consultant numbers, particularly at District General Hospital level. It is unrealistic that all existing District General Hospitals will provide such specialist neurology service so the absolute minimum ratio to be maintained is one neurologist per 70,000. If there aren't enough neurologists to allow for that level of staffing, then there will need to be a rationalisation of the number of hospitals that are able to admit, investigate and manage patients with neurological illness. The projected greater liaison with community services is also likely to be demanding on time to allow for a neurologist to teach and supervise community nurses in a range of topics including Parkinson's disease, multiple sclerosis and motor neuron disease, brain injury, headache and epilepsy. Achieving key government targets for the delivery of high-quality services requires the expansion in consultant numbers to:</p> <ul style="list-style-type: none"> • Deliver services close to the patient's home where possible to impact on health outcome (e.g. improving seizure control and so reduce sudden death in patients with epilepsy) • Provide continuous cover (e.g. thrombolysis and hospital at night) • Deal with changing population demographics and the resultant increase in chronic neurological illness • Assess, administer and monitor new technologies (e.g. new drugs for multiple sclerosis)
England - Centre for Workforce Intelligence (2011)	<p>According to the 2010 National Health Service Information Centre census (NHS IC, 2011), there were 523 whole-time equivalent (552 headcount) consultants employed in England as of September 2010 (1.1 per 100,000 approximately). The report <i>Local Adult Neurology Services for the Next Decade</i> (RCP/ABN, 2011) estimates that one consultant neurologist per 70,000 population is required which equates to a target of 753 whole-time equivalent consultant posts in England and a recommended ratio of 1.4 per 100,000 (WTE) and 1.6 per 100,000 (headcount).</p>
Australia	<p><i>Health Workforce Australia</i> predicts that Australia will have more neurologists than it needs by 2018 as more doctors join the specialty than leave it (Wood, 2012b). There are also concerns that training takes too long and that an ageing neurologist workforce could strain the system. It is predicted that the country will have 522 neurologists by 2018, but demand for just 493 which constitutes a surplus of 29. By 2050, the surplus is projected to balloon to 43 (536). Taking the demand figure of 493 and dividing it into an Australian Bureau of Statistics (ABS) estimate of population in 2021 of 23.8 million, a ratio of 2.1 per 100,000 results to service demand. Taking</p>

	account of the surplus in supply (522) results in a ratio of 2.3 per 100,000. Despite the projected surplus, specialty stakeholders advise that increasing subspecialisation paired with the concentration of neurologists in cities could compound inequalities in care. Therefore, even with the projected surplus, there are workforce issues that need to be addressed. The Australian Institute of Health and Welfare (2014) estimate that there were 408 specialists working in neurology in 2012 (whereby neurology was their main specialism). This equates to a ratio of 1.8 per 100,000 of the population for 2012 (the population of Australia in 2012 was 22.68 million).
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Notes:

- Neurology: 36 specialists were employed in the public sector (excluding specified purpose contract employees and those on career breaks). Source: HSE Workforce Planning, Analysis, & Informatics Unit, Dec 2013
- Neurology: 10 specialists were estimated to be employed in the private sector. Source: Medical Directory; Google and hospital websites
- WTE rate used herein is .86. Source: HSE Workforce Planning, Analysis, & Informatics Unit, Dec 2013
- Population 2014 is projected to be 4,626,423 using the M2F2 scenario CSO (2011)
- Population 2024 is projected to be 4,979,921 using the M2F2 scenario CSO (2011)
- Information in Table 1.2 does not necessarily represent the views of HSE-NDTP