

## Clinical Genetics

Table 1.1 outlines the current number and ratio of consultant clinical geneticists 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 Clinical Genetics 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
8 (7 WTE)	.2	10 (8.6 WTE)	.2	10-25 (8.6-21.5 WTE)	.2 - .5

\* 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

<b>Hanly (2003)</b>	Hanly (2003) recommended a ratio of 1: 490,000 consultant clinical geneticists 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 0.2 consultants per 100,000 of the population. Using CSO population projections (CSO, 2011), we estimate the recommended ratio to equate to 9 consultant clinical geneticists today and approximately 10 consultant clinical geneticists in 2024 approximately. Using a WTE rate of .86, this would equate to 8 and 9 whole-time equivalent (WTE) consultants in 2014 and 2024 respectively.
<b>Royal College of Physicians of Ireland (RCPI), Faculty of Medicine</b>	<p>Currently in Ireland, there are 4 full time posts (2 male, 2 female, with three of which aged over 50) all based at the National Centre for Medical Genetics (NCMG) in Our Lady's Children's Hospital, Crumlin. The Royal College of Physicians in the United Kingdom (2011) recommend 3 consultants per million population. Based on this UK recommendation and predicting for known retirements, there should be 14 whole-time equivalent (WTE) consultants in Ireland. One post per million should be dedicated to cancer genetics, the other two should be general geneticists. The Irish birth rate is double (15.6 per 1,000) that of the United Kingdom (8 per 1,000) and there is double the live born malformation rate in Ireland so there may be a strong case for more than 14 WTE consultants. The incidence of Down Syndrome in the Republic of Ireland is 1 in 400 whereas the incidence in Western Europe is 1 in 800 (data from NCMG). Based on this information, there is a shortfall of at least 10 in consultant numbers for Ireland.</p> <p>At present, there are no SpRs in the field of clinical genetics. There is currently one RTP who started biochemical genetics in July 2013, and started at the National Centre for Medical Genetics in January 2014. This is their first ever trainee. A training programme was stalled for 8 years by the Irish Medical Council. Interviews for the first SpR post were due to be held on 27th February, and the successful candidate is expected to start in July 2014. In order to ensure that a clinical genetics service which is fit for purpose continues for the Irish population into the future, the specialty recommends 4 SpRs with 2 SpRs in biochemical genetics (1 paediatric service and 1 adult service HST trainee). The shortfall in whole-time equivalent (WTE) consultant numbers indicates that a rapid increase in trainee intake is required as follows: one permanently based in biochemical genetics, one in cancer, and one in general in TSCH (there is enough business for two).</p>

<b>National Cancer Control Programme (NCCP)</b>	As 10% of cancers are hereditary, the National Cancer Control Programme (NCCP) established the Hereditary Cancer Programme which offers access for families and individuals to dedicated public service genetics clinics in the Mater hospital and St. James's hospital. A similar service is planned for Cork University Hospital. The programme is run in collaboration with the National Centre for Medical Genetics (NCMG) in Crumlin. It is primarily focused on hereditary breast, ovarian and bowel cancer. The small number of current consultants in clinical genetics and the need for training of future specialists in Ireland is of concern to the National Cancer Control Programme.
<b>United Kingdom</b>	The Royal College of Physicians estimates that the ratio of consultants to population should be 0.75 whole-time equivalent (WTE) clinical geneticists per 250,000 population in order to provide a specialist service (both general and cancer genetics). For a population of 52 million in England, this equates to 156 WTE (RCP, 2008). The National Health Service Information Centre census recorded 109 WTE (123 headcount, representing a ratio of 0.24 per 100,000) consultants working in England as of 30 September 2010 (NHS IC, 2011). Increasing the estimated ratio of 0.75 WTE per 250,000 at the rate of population growth will increase it to about 169 whole-time equivalent in 2020. The supply of consultants is expected to reach and then exceed the RCP estimated level in 2017, when the consultant WTE is expected to reach about 165. The supply of clinical geneticists is forecast to increase to 184.7 WTE by 2020 (approximately 209 headcount, representing 0.37 per 100,000) which represents an average increase of 5.2 per cent annually.
<b>Australia</b>	The Australasian Association of Clinical Geneticists (undated) refer to a World Health Organisation estimate for a future requirement of a minimum of 5 clinical geneticists per million population (0.5: 100,000) which was to have been achieved in 2010.

**Notes:**

- Clinical Genetics: 8 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
- Clinical Genetics: No 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