



# Future career intentions of higher specialist trainees in general Paediatrics

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Received: 12 December 2017 / Accepted: 20 March 2018 / Published online: 27 March 2018  
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## Abstract

**Background** A survey of paediatric higher specialist trainees was carried out in 2002 assessing career intentions and perception of training. Fourteen years later, with increased numbers of trainees and a national model of care and a tertiary paediatric hospital on the horizon, we re-evaluated the career intentions of the current trainee workforce.

**Aims** To assess the career intentions of the current paediatric higher specialist trainees.

**Methods** A 28-item questionnaire was developed based on a previously validated instrument and distributed online using the Royal College of Physicians of Ireland trainee database.

**Results** We distributed the questionnaire to 118 eligible trainees and received responses from 92 (78%). Seventy-nine (86%) respondents desire a consultant post in Ireland. Seventy-five (82%) indicated that their preferred consultant post location was in a tertiary paediatric centre. Sixty-two trainees (67%) intend to become subspecialists with 25 (27%) planning a career in general paediatrics. This contrasts with the 2002 survey when 76% wished to work in urban centres and 61% of trainees planned a career in general paediatrics.

**Conclusion** There appears to be a mismatch between the career goals of the future paediatric consultant workforce and the requirements for staffing paediatric units nationally. This has the potential to complicate the proposed expansion of general paediatricians in regional centres and result in a significant proportion of current trainees failing to secure a post in their desired location.

**Keywords** Careers · Paediatrics · Training · Workforce

## Introduction

The Higher Specialist Training (HST) programme in General Paediatrics commenced in July 2000. Since its inception, it has grown to become the largest individual HST programme in the Royal College of Physicians of Ireland (RCPI) with 111 approved training posts across 21 training sites. In 2002, a survey of Paediatric HST trainees was conducted to examine

satisfaction with training, perceived career impediments and ultimate career ambitions in terms of Consultant post type and location [1]. The mean age of respondents was 31 years with 63% female. Findings included a preference among 61% of respondents for a career in General Paediatrics with 31% planning a career in a subspecialty. In addition, trainees favoured Consultant posts in an urban rather than in a rural location (76 vs. 18%).

Since the previous survey, significant changes have occurred in HST trainee numbers and working conditions. Resourcing of hospitals remains persistently inadequate. In addition earlier reports regarding Consultant manpower such as Hanly [2] have become outdated, having never been realised. Future paediatric manpower projections are now outlined in a new National Paediatric Model of Care and with a new National Paediatric Hospital on the horizon, we aimed to survey current HST trainees with a view to establishing their career intentions.

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## Methods

### Questionnaire development

The 28-item study questionnaire represented a modification of a previously validated instrument [1]. The purpose of modification was to obtain additional information regarding issues such as flexible training, the stage of training when career intentions were formulated, plans for additional qualifications and experience, centres where trainees would not consider working as Consultants and the reasons underpinning this and acceptable Consultant on-call rosters. The survey was piloted by trainee representatives and the National Specialty Directors for Paediatric HST to establish face validity [3]. Question formats included dichotomous answers, interval-scales (Likert) multiple choice answers and ordinal scales (ranked preferences).

### Questionnaire distribution

The survey was created and published online in October 2016 using SurveyMonkey® (CA, USA). Eligible participants were identified using the RCPI database of current paediatric HST trainees, including those on Out of Clinical Programme Experience (OCPE) and flexible training schemes. The Uniform Resource Locator (URL) for the survey was both embedded in an email sent to eligible trainees and posted to a trainee website. Two follow-up reminders to complete the survey were sent by email at fortnightly intervals and the survey was closed after a 5-week period. Approval for the study was granted by the Dean of the Faculty of Paediatrics, RCPI.

### Statistical methods/data analysis

Continuous data are presented as means and standard deviation (SD). Differences between groups were assessed by the Mann-Whitney *U* test. Categorical variables were analysed by Fisher's exact test. Calculations were performed using GraphPad prism 6. A *p* value less than 0.05 was considered statistically significant.

## Results

We sent the questionnaire to all 118 trainees (92 females, 26 males) on the Higher Specialist training scheme in General Paediatrics. We received responses from 92 (78%) trainees, of whom 73 (79%) were females. The mean (SD) age of respondents was 31.4 (2.9) years and 88 (96%) were in full-time training. Eighty-six (94%) trainees who were surveyed were Irish citizens. Fifty-nine (64%) were currently employed in clinical posts in Ireland, and the remainder were on OCPE (12 in Ireland, 20 overseas).

## Career intentions

Seventy-nine (86%) trainees expressed a preference to work as a consultant in Ireland, while three (3%) would prefer to work overseas and 10 (11%) were undecided. Seventy-five (82%) hope to work as full-time consultants, and 16 (17%) would prefer a part-time consultant post with no observed gender effect ( $p = 0.51$ ). Seventy-five (82%) trainees who preferred consultant post location was in a tertiary centre, and a further 15 trainees (16%) preferred in the four largest regional centres. Sixty-two trainees (67%) intended to become subspecialists with 25 (27%) planning a career in general paediatrics, again with no gender effect ( $p = 0.77$ ). Forty-eight (54%) reported deciding on consultant career intentions prior to commencing HST and a further 32 (36%) had decided by the end of their second year. Neonatology was the most popular subspecialty with 16 (18%) trainees ranking it as their preferred option. This was followed by general paediatrics with a special interest (13%), emergency paediatrics (8%), respiratory medicine (7%), infectious diseases (5%), and endocrinology (5%). The most commonly cited reasons for not considering a post in a non-tertiary centre were geographical concerns or distance from family (43%), reputation of a unit (34%), onerous on-call rosters (10%), and a lack of consultant colleagues who have trained through a formal structured training programme (8%).

### Perceived barriers to career progression

When asked to rank perceived impediments to their future career plans, 45 (49%) ranked the potential lack of a consultant post in a desired location first, followed by antisocial hours 21 (23%), and having children 12 (13%). Six trainees believed that gender was the major barrier and four trainees said that their partner's careers would be the biggest impediment. There was no significant differences in perceived impediments to future career based on gender (see Tables 1 and 2).

Trainees were asked to rank what they perceived were the most important factors preventing HST trainees from taking up consultant posts in Ireland. Reasons ranked first included the lack of desirable consultant posts (44%), current consultant salary (16%), the consultant workload (16%), a lack of resources available to consultants (13%), and the lack of clarity in future consultant workforce planning as the most important factor (10%).

### Training areas important for career progression

Trainees were asked to rank which factors they perceived as most important in attaining their desired consultant post. Fifty-three (58%) trainees ranked obtaining a clinical fellowship overseas as most important, followed by 15 (16%) who opted

**Table 1** Perceived impediments to career progression

Perceived impediment	N (%) Ranked no. 1	Mean ranking
Lack of consultant post in desirable location	45 (51)	1.9
Antisocial hours	21 (25)	2.4
Children	12 (14.6)	2.5
Gender	6 (7.4)	3.8
Partners career	4 (4.7)	3.0

for a level 10 award (MD or PhD), nine (10%) ranked publications in international peer-reviewed journals as most important, six (7.5%) chose an Irish Post-CSCST fellowship, and four (4.5%) ranked Masters/diploma as highest. Of the 15 trainees who ranked an MD or PhD as most important, 11 (73%) were planning careers as subspecialists with six ranking Neonatology as their post of choice. With regard to additional postgraduate qualifications, 30 (35%) planned a PhD, 51 (57%) an MD and 59 (66%) a Masters. In addition, 33 (36%) indicated they would consider doing an Irish post CSCST fellowship. However, a minority (29%) felt that it would give them a competitive advantage when applying for consultant posts. Fifteen (60%) of this group cited subspecialty consultant posts as their ultimate preference. When asked about flexible training, 54 (59%) trainees would consider taking up a flexible training. There was a statistically significant preference for flexible training among female trainees, 48/66 vs. 6/18 male trainees ( $p = 0.004$ ). Six female trainees and one male trainee reported not knowing what flexible training was involved.

## Discussion

Our survey of paediatric HST trainees had a response rate of 78% [1].

The majority of Higher Specialist trainees in General Paediatrics wish to work in a tertiary hospital, either in a subspecialty or in a General Paediatrics, with a minority (2/92, 2%) targeting a career in General Paediatrics in a regional paediatric unit. The model of care for Paediatrics proposes expansion of posts for General Paediatricians in smaller units.

**Table 2** Perceived impediments to career by gender

Perceived impediment	% Total	% Male	% Female	<i>p</i> value
Lack of consultant post in desirable location	51	58	46.6	0.44
Antisocial hours	25	26	22	0.76
Children	14.6	5	15	0.45
Gender	7.4	10.5	5.4	0.6
Partners Career	4.7	0	5.4	0.58

We therefore face the possibility that trainees will remain overseas rather than return to work in smaller units. For the proposed “hub and spoke” model of Paediatric care to work, increased numbers of Paediatricians will be needed in local and regional centres [4]. While geographical barriers have been cited as preventing many from pursuing careers in regional centres (43%), the alternative for many may be to pursue posts outside of Ireland. Factors which influence the reputation of units among trainees can be tackled. Thirty-four percent cited reputation as the major deterrent for taking up a post in a non-tertiary unit, with a further 10% citing onerous on call rotas. Increasing the focus on research and training locally may improve trainee experiences and perceptions of these centres. In addition, investment in secondary regional centres needed to increase consultant and trainee numbers and provide additional infrastructural support would reduce the on-call burden, improve the working environment and desirability of such positions. Unfilled consultant posts covered by locums are costly for local units and may compromise continuity of care, service development and training.

There are currently approximately one hundred and eighty-three whole-time equivalent Paediatricians in Ireland. The National Model of Care for Paediatrics in Ireland along with the RCPI Faculty of Paediatrics and the Children’s Hospital Group recommends an increase up to 395 whole time equivalent Paediatricians to implement the new plan. With the costings for the National Children’s Hospital already far in excess of original proposals, it is hard to envisage that this degree of investment in increased consultant numbers will proceed. At present, we have 118 higher specialist trainees in Paediatrics and this number is set to increase this year. Without adequate investment in expanding the consultant workforce, trainees will be left with little option but to stay in overseas posts. Our health service loses out on skilled personnel who are unlikely to return home to Ireland to work. Of all trainees surveyed, 79 (86%) would prefer to work in Ireland for a long term. This supports data previously published in 2012 [5].

The drive to experience training overseas is still strong with 53 (61%) of trainees listing it as the most important determinant of their career progression to a consultancy compared to six (7.5%) who believe an Irish post-CSCST fellowship will suffice. To date, there have been a limited number of Post CSCST fellowship positions in paediatrics. In addition, only 27 (29%) of the trainees felt Irish Paediatric post-CSCST fellowships as currently structured that would give them a competitive advantage when applying for consultant posts. Trainee feedback suggests that an excess of service commitment over that of training makes current post-CSCST fellowships compare less favourably with fellowships overseas. It appears that in order to retain senior trainees in Ireland for the duration of their training a re-examination of the structure and funding of post-CSCST fellowship is required.

Despite 54 (59%) of the trainees saying that they would consider taking up flexible training posts, only three (3%) are currently in flexible training posts. This represents an increased level of interest in comparison to 35% previously [1]. However, this increased level of interest has not materialised into participation in the national flexible training scheme. The Health Service Executive (HSE) National Supernumerary Flexible Training Scheme which is managed and funded by the National Doctors Training and Planning unit (NDTP) was undersubscribed for July 2017. It is unclear whether this was due to insufficient information regarding the scheme or a cultural issue within medicine deterring trainees from taking this route. Although there was an expansion of the scheme in July 2016, it remains limited to 16 whole time equivalent (WTE) training places, i.e., 32 participants across all the postgraduate medical training programmes nationally. There are proposed initiatives to facilitate further part time training opportunities in the future but the National Flexible Training Scheme is currently the only official pathway. Our results compare poorly to The Royal College of Paediatrics and Child Health in the UK where 18.3% of trainees were reported to be in less than full time training (LTFT) posts in 2015 [6, 7]. The statistically significant difference identified in female preference for flexible training was not identified in the previous survey ( $p = 0.004$  vs  $p = 0.29$ ) [1].

## Conclusion

We found a mismatch between trainee career goals and the future requirements for consultant staffing on a national level. A pro-active approach is required to both a local and

governmental level to attract more paediatricians to secondary level care hospitals outside of Dublin.

## Compliance with ethical standards

This article does not contain any studies with human participants or animals performed by any of the authors. Informed consent was obtained from all individual participants included in the study.

**Conflict of interest** The authors declare that there are no conflicts of interests.

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