



**PAEDIATRICS**

**A NATIONAL MODEL  
OF CARE FOR PAEDIATRIC  
HEALTHCARE SERVICES  
IN IRELAND**

**CHAPTER 9:  
HEALTH SERVICES FOR  
CHILDREN IN IRELAND,  
A GUIDE TO WORKFORCE  
PLANNING**



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COLLEGE OF  
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OF IRELAND**

## 9.0 INTRODUCTION

Health services for children in Ireland are entering a period of considerable change, with the planned introduction of a new national model of care, the development of the new children's hospital and the introduction of free general practice care for children under six years of age. These changes require a modern and efficient paediatric workforce that can meet the health care needs of children and their families.

Children's healthcare needs are becoming increasingly complex and are changing due to, for example, increased survival of extreme prematurity; increased numbers of children with chronic health issues; rising levels of obesity and a sharp rise in allergic disease. Meeting the healthcare needs of our children and young people requires, amongst other things, a coordinated approach to service planning and delivery. Paediatric health services should be integrated between primary, secondary and tertiary care, with continuity ensured where reasonably possible. It is important that fragmented or duplicated services are eliminated, and that services for children and young people are resourced properly. The paediatric workforce must be available in adequate numbers with the appropriate skills to deliver safe and effective services.

High quality healthcare is reliant on effective teamwork and communication across and between teams. It is therefore paramount when planning and developing services for children and families, that all components of the multidisciplinary team are captured and budgeted for accordingly, at each stage of their care journey. This chapter examines some of the issues facing the healthcare professionals providing care to children in Ireland. The chapter is split into three sections; medical, nursing and health and social care professionals. Recommendations are made for each discipline which, if realised, would produce a workforce equipped to provide quality care to children in the most appropriate place.



## 9.1 MEDICAL WORKFORCE PLANNING

Health services for children in Ireland are entering a period of considerable change with the implementation of an agreed national model of care and the development of the new children's hospital. These changes are being introduced in order to provide a modern and efficient service that can meet the health care needs of children far in to the future. There needs to be an appropriate workforce available if these planned changes are to be realised. This chapter sets out the vision for medical workforce planning for the next 10 years.

*Certain key principles underpin the approach to paediatric medical workforce planning.*

*These include the following:*

- More patient care should be consultant-delivered.
- More services for children should be delivered in the community facilitating care as close to home as possible.
- Future health need should be considered. This will require the incorporation of projections relating to, for example, demographic changes; alterations in disease incidence and prevalence; medical and therapeutic innovations; policy initiatives and technological advances.
- The paediatric workforce should work in an integrated way to maximise opportunities for greater quality of care to children and their families.
- There should be a reversal in the ratio of non-consultant hospital doctors to consultants to 1:1.7 (currently approximately 1.7:1). The workforce needs to be re-balanced.
- The Irish health service should be self-sufficient in the production of medical graduates, with reduced dependency on international medical graduates (doctors who graduate from medical schools outside Ireland).

Development of this chapter was informed by meetings with paediatric teams nationally, the specialty chapters of the national model of care and the work of the HSE National Doctors Training and Planning unit.

## **Current Paediatric and Neonatology Specialist Workforce in Ireland**

### *Consultant Numbers*

At present, there are approximately 149 WTE consultant paediatricians working in Ireland (data derived from HSE Workforce Planning, Analysis and Informatics, September 2014).

### *Trainee Numbers and Future Entrants to the Specialist Workforce*

Postgraduate training for paediatrics consists of the Basic Specialist Training (BST) Programme (2 years duration) and the Higher Specialist Training (HST) Programme (5 years duration). On average 35 trainees are admitted to BST every year. Over recent years, the average number of trainees admitted each year to the Paediatric HST programme is 16. The intake increased from 13 in 2013 to 30 in 2014 and reduced to 22 in 2015.

### *Part-time Working in Paediatrics*

Medical Council data suggest that 84% of all doctors in paediatrics practice full-time, with 11.4% practicing part-time, and 4.6% stating "other". However, this masks a significant gender imbalance, as females are almost twice as likely as males to work part-time (14.7% versus 7.6%).

The data for all doctors shows that the prevalence of part-time working increases with age, being 17.1% for doctors aged between 55 and 64. These data suggest that in future years, the proportion of doctors practicing part-time will rise even further, paralleling the increasing feminisation of the medical profession in Ireland.

### *Feminisation of Paediatric Workforce*

While 40.3% of all paediatric doctors registered with the Medical Council are female, the proportion under the age of 35 is 57.2%. This figure rises to almost 70% for graduates of Irish medical schools, reflecting the gender balance of medical students in the previous 10 years.

Fifty-eight percent of doctors on the trainee specialist division are female, and this rises to 62% for graduates of Irish medical schools.

Within the specialty of paediatrics/neonatology, 14 of 24 newly registered specialists in 2012 were female (58.3%). This mirrors the female proportion across all specialists in paediatrics (58.6).

#### *Number of Children and Utilisation of Services*

In 2015, the number of children in Ireland under the age of sixteen is estimated to be 1,097,631. Ireland has one of the highest birth rates in the European Union with an estimated 15 births/1,000 population in 2014 (CSO, 2015). Children access healthcare services in a variety of settings from primary and community care, local and regional paediatric units, and the tertiary children's hospitals in Dublin. These children are cared for by a range of healthcare professionals including doctors, nurses and health and social care professionals.

While population change is a known driver of the demand for health care, within paediatrics and neonatology a number of epidemiological and lifestyle factors play a significant role in driving demand for services. Children's healthcare needs are becoming increasingly complex and changing due to increased survival of extreme prematurity, increasing incidence of chronic disease and rising levels of obesity and allergic disease. Children with complex medical problems are now living longer and require ongoing complex paediatric care. This is impacting the demand for specialists in the paediatric workforce.

There were an estimated 61,474 and 20,002 paediatric specialty related inpatient and day case discharges respectively across Ireland in 2014. There were an estimated 176,536 outpatient attendances for children under 16 attending paediatric specialty out-patient clinics in 2014 (Source: HSE Business Intelligence Unit for year ending 2014). This equates to 1:6 of total child population. It is estimated that approximately 8,000 – 10,000 community based appointments can be offered to children with a disability annually. Approximately 6,000 children were waiting for a paediatric specialty outpatient appointment over the target 20 weeks wait in 2014.

#### *The Current Configuration of Paediatric Care in Ireland*

Paediatric units in Ireland differ greatly in terms of size and catchment population. Apart from the three Dublin maternity hospitals and Limerick, all the paediatric and neonatal units are co-located. It is appreciated that clinical governance within paediatrics is challenging, particularly within smaller units. Further to this, it is recognised that there is a significant deficit of paediatric medical specialists in Ireland. There is an increased need for general paediatricians with a special interest in various paediatric subspecialties in order to more effectively manage the paediatric caseload.

### **Issues for Consideration for Paediatric Medical Workforce Planning**

#### *National Model of Care for Paediatrics and Neonatology*

The National Model of Care for Paediatrics and Neonatology has been developed with the changing nature of child health in mind. It has considered the current unmet need in the demand for services. It has been developed to support planning for the new children's hospital. The vision for paediatric services is an integrated national network in a 'hub and spoke' model. It is essential that workforce planning for the provision of paediatric services is in line with the national model of care.

The 'General Paediatrics' chapter of this national model of care document describes the paediatric service that should be provided in a local and regional hospital and details the minimum number of consultants required to provide a high quality service whilst continuing with current 'consultant-led' model work patterns for each; local hospitals (6WTEs), regional hospitals (12 WTEs). Each subspecialty chapter details the current and recommended consultant number. The need for additional consultants in the specialties of general paediatrics, community paediatrics and paediatric emergency medicine is emphasised.

Implementing this national model of care will require an increase in consultant paediatricians.

**Recommendation:**

Workforce planning should be in line with the vision of the national model of care.

**The Role of the Consultant Paediatrician**

In order to provide expert clinical care to patients, consultants need to be capable of independent practice and assume full clinical responsibility for their practice. To provide this standard of care, consultants in their specialty require the knowledge, skills and expertise to diagnose and manage the full spectrum of specialty conditions from the common to the rare and complex. More complex cases, rare presentations or complications, where there is limited evidence base to guide decisions, may require additional consultation from peers (nationally or internationally) with particular research and/or clinical experience in the investigation and management of the condition. Being a medical expert is central to the role of a consultant. However, additional professional core competencies are required to ensure the highest standards and quality of healthcare.

An educational framework identifying and describing seven roles that lead to optimal patient outcome have been developed by the Royal College of Physicians and Surgeons of Canada (Can MEDs) (Frank et al, 2015), which have been adopted by several governing bodies worldwide. These competencies, along with the role of medical educator, are essential requirements for consultant paediatricians:

- medical expert
- professional
- communicator
- scholar
- collaborator
- advocate
- manager

Consultant general paediatricians, most of whom will have developed, and wish to practice in an area of special interest will play an important role in the future development of child health services in Ireland. The implementation of this national model of care requires a correct balance of general paediatricians with a special interest and tertiary paediatric subspecialists and, for the most part, all children and young people should be firstly referred to such a general paediatrician. The appropriate utilisation and development of specialist services depends on appropriate 'gatekeeping' by general paediatricians. General paediatricians should continue to work more closely with medical (GPs and senior medical officers), nursing (public health nurses, specialist nurses) and health and social care professionals (HSCPs) working in primary and community care to provide a timely expert opinion with the aim of keeping children out of hospital. Having sufficient numbers of consultants in general paediatrics, community paediatrics, ambulatory paediatrics and paediatric emergency medicine is essential to ensure that undifferentiated presentations are treated in the appropriate place at the appropriate time.

**Recommendation:**

Additional consultants in general paediatrics, community paediatrics, ambulatory paediatrics and paediatric emergency medicine are required.

## Retention of the Paediatric Medical Workforce

Keeping medical graduates in Ireland on completion of training has been identified as a challenge (MacCraith, 2014). The Department of Health established a working group in 2013 to carry out a review of medical training and career structure. The report details the known barriers to recruitment and retention of consultants in Ireland; one of which is the limited opportunities for flexible working at consultant level both in terms of flexibility within the consultant role to carry out research, quality improvement initiatives or training, and also in terms of family-friendly flexible working. Based on the data from the Medical Council, there is a trend towards an increase in the feminisation of the workforce and part-time working. There is now a requirement to ensure that the retention of newly qualified specialists is maximised and to accommodate potential increased demands for flexible working arrangements. There is a need to create consultant roles that would enable working at 60% to 75% per week, for example. Such arrangements represent a trend emerging internationally.

### Recommendation:

Consultant roles must be configured in such a way to enable flexible working both in terms of within the consultant role (allowing time for research, training, quality improvement) and also in terms of family-friendly working arrangements.

## Greater consultant presence

Greater consultant presence with an evolution to consultant-delivered care is a key element for delivering better patient care in Ireland. Due to very low numbers of consultants by international per capita comparison with other developed countries such as UK and Australia, the service in Ireland is primarily 'consultant led'. This still means that the consultant is clinically responsible for the care the patient receives during the course of treatment, but that the bulk of the 'hands on' care is delivered by non-consultant doctors and staff nurses. In contrast, a 'consultant delivered' model would mean that the consultant would have an extended presence in acute hospital settings, and provide more hands-on care and more closely supervise, in the clinical setting, all aspects of the care delivered to patients by non-consultant doctors and nursing staff.

The successful implementation of a consultant-delivered service would require changes to working practices and rosters. The Faculty of Paediatrics, RCPI, has discussed potential models of extended consultant presence with the HSE, and the Faculty and the National Clinical Programme for Paediatrics and Neonatology are of the view that it would be beneficial if the HSE could fund appropriate models of extended consultant presence at one or two pilot sites where paediatrics and / or neonatology services are provided, to assess potential benefits and challenges. Medical care delivered by consultants has demonstrable benefits in terms of:

- Rapid and appropriate decision making
- Improved outcomes for patients
- More efficient use of resources
- General practitioner access to the opinion of medical experts
- Patient expectation of access to appropriate skilled clinicians and information
- Benefits for doctors in training

**Recommendation:**

A consultant-led paediatric service with an extended consultant presence would be a key element for delivering better patient care in Ireland. This model will require the appointment of additional consultants and changes to working practices and rosters. It would be beneficial if models of extended consultant presence at one or two pilot sites nationally could be funded to assess potential benefits and challenges.

**The Development of Hospital Networks /Groups**

The current health infrastructure, with a large number of acute hospitals, is based on historical arrangements and can lead to duplication of services and inefficiencies. The current model, which requires a high number of doctors to maintain inefficient rosters in all hospitals, makes it difficult to provide equitable access to senior decision makers (i.e. consultants) for all patients.

Hospital networks have been established through the hospital group structure. This structure will help to ensure the right skill set, at the right time, place and cost is provided to ensure uniform access to healthcare. Centralisation of acute care and specialised services to reduce cost expenditure and create a critical mass of services, staff and patients is needed. This will facilitate the provision of 24/7 acute care, and also specialised care. To do this, a range of service models applicable to units of varying sizes, types and locations need to be identified. The development of hospital groups will help enable improved communication and co-ordination of care.

**Recommendation:**

Hospital groups should be supported to ensure the right skill set, at the right time, place and cost is provided to ensure uniform access to quality service.

**Education and Training**

Training that doctors undergo to reach consultant level is both intensive and extensive. The high levels of additional expertise developed during that training is reflective of the highly competitive nature of applications for Higher Specialist Training and consultant paediatric positions in Ireland. When there is an absence of medical workforce planning, this leads to a disconnect between the product of training schemes and the staffing requirements. With limited workforce planning available, it is difficult for doctors in training to make career judgements. Currently there is a significant mismatch across all levels of training. There are not enough posts for medical graduates to complete internship. The number of Basic Specialist Training posts is higher than the number of Higher Specialist Training posts. The number of Higher Specialist training posts is not matched to the number of consultant posts. To remain competitive for possible future posts, many trainees travel abroad to gain additional experience at an equivalent or higher level.

**Recommendations:**

- Workforce planning needs to consider the numbers of doctors being trained at undergraduate and postgraduate levels so that the future demand for additional consultants can be met.
- Undergraduate and postgraduate training programmes should be in line with the National Model of Care for Paediatrics and Neonatology.

In order to continue to provide high quality care, in keeping with developments in medicine and technology, consultants must be supported to participate in continuing professional development (CPD) relevant to their role and take an active part in research.

**Recommendation:**

Consultants must be supported to participate in CPD and research.

**Team Based Child-centred Care**

Traditional job demarcations, conventional team structures and the divisions between community, hospital and social care are being challenged. The concept of team-working has superseded that of the independent practitioner with more flexible working within teams necessary to provide quality care to children and their families. Within teams, a range of healthcare staff contribute to the delivery of safe and successful outcomes. Inter-professional team based care has been shown to lead to better health outcomes, improved patient experience of care, improved efficiency and increased job satisfaction for health professionals.

There is a need to improve the efficiency and effectiveness of team-based care. Without changing the essential responsibilities and clinical leadership of doctors, it is possible to reconfigure ways of working and introduce support roles which help relieve unnecessary pressure. Skill mix change may be brought about by enhancement of roles or skills. Expansion of the roles of nurses and health and social care professionals is necessary as there is an opportunity to enhance patient outcomes. The expanded nursing and health and social care professional roles, and training for these expanded roles, must not interfere with opportunities for medical students and doctors in training to learn and practice clinical skills. Potential areas for exploration include the appointment of advanced nurse practitioners and the enhancement of administrative and clerical supports. Rigorous and objective assessment processes need to be put in place to closely monitor the progress and measure the impact of role expansion on patient outcomes and team function.

**Recommendations:**

- Care to patients and families should be provided by healthcare professionals working within a team structure.
- Expanded roles for nursing and paediatric health and social care professionals are necessary.

**Estimating the Future Supply Requirements for Paediatricians and Neonatologists in Ireland**

*There are multiple factors that drive the demand for paediatric and neonatology services in Ireland:*

- Current estimated specialist requirements to meet immediate unmet patient demand within the system as per waiting lists and rostering difficulties.
- The specialist requirements to support the implementation of a new national model of care, to include an extended consultant presence and the development of the new children's hospital.
- Estimated specialist requirements to meet the current UK recommendation of 39 specialists to 100,000 of the child population.
- Changing childhood morbidity and increase in chronic care requirements for complex patients.



## International Benchmarking

It is a long standing recommendation (Hanly et al, 2003), that the ratio of consultant paediatricians to the population in Ireland should be increased to reflect those in similar international health care jurisdictions. In Ireland, the current ratio of specialists to the child population is approximately 14 WTEs per 100,000. Currently there is a ratio of 29.4 per 100,000 in the United Kingdom and 29 per 100,000 in Australia. The Royal College of Paediatrics and Child Health in the UK (2011) recommend that there should be 4,625 or 39 WTE specialists per 100,000 of the child population by 2020.

## Demand for Paediatricians to Support the New Model of Care and the New Children's Hospital

There is broad agreement among the expert stakeholders engaged in the workforce planning process, including the Faculty of Paediatrics, Royal College of Physicians of Ireland, the National Clinical Programme for Paediatrics and Neonatology (NCPN), and the Children's Hospital Group that the number of paediatricians required for national implementation of the new model should be at least 395 WTEs. This recommendation equates to approximately 36 WTE per 100,000 children today in the first instance. If the UK recommendation of 39 WTEs to the child population were to be implemented, approximately 425 WTEs would be required.

*It is proposed that the increase in consultant numbers will include:*

- A significant increase in the number of general paediatricians and generalists with a special interest
- An increased paediatric specialist workforce to support the implementation of an extended consultant presence to provide earlier access to decision makers and cost benefits in limiting admissions
- Increased outpatient management of chronic diseases

The increase in the number of consultant paediatricians is required in the immediate future and should be done on a phased basis during the next five to seven years.

## Conclusion

Workforce planning in paediatrics is needed to deliver healthcare that is responsive to the needs of children and their families. Flexible consultant posts and flexible working arrangements must be developed. Current healthcare for children is largely non-consultant hospital doctor (NCHD) delivered. With the development of this national model of care for paediatrics and neonatology and establishment of the new children's hospital, there is an opportunity to re-balance the workforce to a consultant-delivered service. This is a service in which integration between teams, specialties and health care settings (acute, community) will be enabled.

In order to achieve the goal of providing quality treatment to children in the right place and at the right time, and keeping children out of hospital, an increase in consultant paediatrician numbers to at least 395 WTEs is required. This will necessitate an increase in the number of doctors trained at postgraduate level to ensure the demand for additional consultants can be met. The increase in consultant paediatrician numbers to 395 WTEs has been determined by this model of care and the Faculty of Paediatrics, RCPI, in consultation with the HSE National Doctors Training and Planning unit.

## 9.2 GUIDE TO CHILDREN'S NURSING WORKFORCE PLANNING

Nurses and midwives in Ireland are operating within a healthcare environment that is influenced by legislation, health policy and changing patient demographic and epidemiological profiles. Healthcare services are striving towards patient-centred care and cost effective health care service. Nursing has an important role in achieving national strategic objectives such as reducing hospital admissions, reducing hospital length of stay and improving access to services. Children's nurses take a critical lead in shaping how services are standardised, how children's nursing roles are developed so that children's healthcare services become more equitable, and are committed to developing new and expanded roles, addressing education needs, and work practices involved in shifting from hospital-based children's nursing towards community-based care for sick children and their families. Models for increasing community-based care for children with chronic illness or disability will be required to address the need to care for children as close to home as possible, which is the vision of this model of care.

### Workforce Survey

A survey was carried out in March 2015 by the National Clinical Programme for Paediatrics and Neonatology. Information was collected on the numbers, grades and qualifications of nurses working in acute paediatric units nationally. Additionally, data was gathered on the number of beds in each unit, current staffing vacancies and the reasons for these vacancies. Responses were received from units providing paediatric services ranging from large tertiary stand-alone children's hospitals to a general hospital without a designated paediatric unit providing limited day surgery services to children. Of note:

- There were approximately 1,849\* WTE nurses and healthcare assistants working in paediatric acute care services in Ireland at that point. This number includes staff nurses (1,214), clinical nurse managers (239) and specialists (189), assistant directors of nursing (33), advanced nurse practitioners (7.5), clinical education facilitators (CEF) (20) and health care assistants (147).
- There were 980 paediatric beds / cots. This number also included paediatric high dependency, intensive care and short stay beds.
- There were 68 paediatric beds closed at the time of the survey.
- There were 113 vacant posts reported.
- The reasons for vacant posts were due to unreplaced maternity and sick leave, leave of absence, retirement, resignation, career break, course, promotion, closed beds, moratorium and awaiting recruitment through the National Recruitment Service (NRS).
- In some cases, vacancies were occupied by temporary staff when available, others were filled partially when there was an essential need such as to cover sick leave of other staff members, but in many cases the vacant posts remained unfilled.
- The qualifications of nurses working in paediatric units included Registered General Nurses (RGN) and Registered Children's Nurses (RCN).
- Every unit employed nurses employed with the RCN qualification.

*\*This number is based on an approximation as of March 2015 from HSE/HSE funded acute paediatric units.*

This survey highlighted the following issues in relation to paediatric nursing:

### 1. *Supply and Demand*

The nursing workforce survey carried out in March 2015 gathered data to determine the current numbers, grades and qualifications of nurses working in Irish paediatric units. It gives data for a point in time. It does not examine dependency, acuity of patients or activity levels which also impact workforce planning. It does not include data from primary care or community services. There may be additional hospitals providing levels of paediatric service that are not captured in this survey. A formal supply and demand modelling exercise is required taking into account the national model of care. The exercise should incorporate the academic establishments and should consider the evolving vision for children's nursing in the community.

#### **Recommendation:**

A detailed supply and demand modelling exercise should be undertaken which is aligned to the National Model of Care for Paediatrics and Neonatology in conjunction with the academic universities.

### 2. *Skill Mix and Competencies*

It is well recognised that children have different healthcare needs to adult patients and consequently require care suited to their specific needs (Platt, 1959; Kennedy, 2001). In recent years, a number of high profile national and international inquiries into serious adverse incidents and deaths relating to the care of children have recommended that children should be cared for by children's nurses with the requisite knowledge, skills and educational preparation (Clothier, 1994; Department of Health UK, 2001; Carlile, 2002; Department of Health and Children, 2005; Royal College of Nursing, 2014). Consideration should be given to a requirement for the designated nurse in charge in a paediatric unit / hospital to have a children's nursing qualification.

Children's nurses are committed to delivering care that is underpinned by current evidence-based knowledge, which is responsive to the ever changing and evolving needs of the child and family. It is therefore essential that continuous professional development (CPD) and investment in continuing education for children's nurses is responsive, proactive and aligned to the national model of care and other key national drivers. The Nursing and Midwifery Board of Ireland (2014) recommend that all qualified nurses maintain their own professional competence by participating in CPD.

#### **Recommendation:**

All children's nurses must be practically supported to undertake continuous professional development relevant to their role and clinical area.

Healthcare assistants (HCA) play an important role in the delivery of care to children and their families. The role of the HCA can vary; there are HCA posts that do not involve direct patient care. Newly appointed healthcare assistants must hold the FETAC Healthcare Assistant qualification. Current staff without this qualification should be facilitated to achieve this level of training. HCAs should participate in continuing education and training.

#### **Recommendations:**

- The role of the HCA should be developed further to support paediatric care delivery.
- Paediatric HCAs should hold the FETAC Healthcare Assistant qualification.

### 3. Career Pathways

There are a number of challenges in the provision of a quality children's nursing service in Ireland at present. The requirements for children's nursing has changed over recent years due to the increase in complexity of services from general to specialist care in acute and community settings for an age spectrum from neonates through childhood to young adulthood. Advances in technology and medical interventions mean that babies and children who previously would not have survived can now require continued care throughout their lives.

The expanded scope of roles such as clinical nurse specialists and advanced nurse practitioners must be considered to address specific specialised areas. Consideration should be given to roles integrating the acute and community sectors. Innovative nursing roles must be explored to strengthen areas such as children's nursing research and patient safety. Staff nurses who choose to remain ward-based should be supported and encouraged to undertake courses relevant to their area of work. These developments must be supported by the multidisciplinary team. The skill mix required for specific roles such as for the paediatric intensive care nurse needs to be considered so that supply can meet demand.

#### **Recommendation:**

Nursing career pathways, including development of specialist nurses and advanced nurse practitioners should be examined. Innovative nursing roles should be explored and developed to support new ways of working, particularly for community nursing, in line with the national model of care for paediatrics.

### 4. Retention of Children's Nurses

There is now a significant issue in relation to retaining nurses once they have qualified. It has been reported that increasing numbers of nurses are leaving Ireland after graduation to take up attractive nursing positions elsewhere. While there are benefits to nurses gaining experience that may not be as readily available in Ireland and then returning with enhanced knowledge and skills back to the Irish health service, it is, however, becoming more difficult to attract nurses back to Ireland as the terms, conditions and availability of quality nursing posts can be considered more attractive elsewhere. This is an issue that must be addressed.

#### **Recommendation:**

The retention of children's nurses post qualification and career opportunities for existing staff must be explored.

Children's nurses are educated and trained in three centres in Dublin and one centre in Cork. One hundred and eighty-five nurses are approved for training in the undergraduate programmes (100) and post-registration (85) programmes. This represents the approximate number of new graduates entering the profession annually for a population in excess of 1.25 million children under 16 years of age.

The 'Children's Nursing Workforce Review 2011' recommended an increase in the number of post-registration nursing places from 85 to 150. Furthermore, a recommendation was made to review, on an annual basis, the number of places offered on the post-registration training programme each year taking into consideration changes in the healthcare environment. These recommendations have yet to be realised.

It is essential that the training provided at undergraduate level is in line with service requirements. Nurses will now be required to work in different healthcare environments, such as delivering care to patients with complex

needs in the community, and this must be reflected in the training provided. Nursing education must be in line with the national model of care for paediatrics and neonatology which promotes increased community and ambulatory service provision. There must be flexibility in terms of the clinical placements for nursing trainees with an increased focus on ambulatory and community care settings. These changes will also require clinical governance to be examined.

**Recommendation:**

- Undergraduate training programmes for children's nursing must evolve in line with the changing needs of the health service to ensure nurses can care for children in all care settings, particularly with the need to provide increased nursing in the community.
- A review of the nursing undergraduate training programme is required.

**Conclusion**

The recommendations outlined in this document will help to ensure that children's nurses have the requisite knowledge, skills and educational preparation to deliver expert care with compassion. Undertaking a more detailed nursing workforce supply and demand modelling exercise will enable the Irish health service to work towards providing sufficient numbers of quality trained nurses to work in a variety of healthcare environments, and serious consideration should be given to establishing more diverse and specialist nursing support for children, such as additional specialist nurses and advanced nurse practitioners. The academic universities should be supported to provide training programmes that will address the needs of a modern children's health service and the national model of care.

## 9.3 GUIDE TO PAEDIATRIC HSCP WORKFORCE PLANNING

**Introduction**

Paediatric health and social care professionals (HSCPs) are a distinct group of healthcare professionals who apply their specific expertise to diagnose, treat and rehabilitate children and young people, frequently as part of a multidisciplinary/interdisciplinary team. Paediatric HSCPs deliver direct care to children and families and provide rehabilitation, self-management support, enabling and health improvement interventions (The Scottish Government, 2015).

Historically, the development of HSCP services for children in Ireland has been variable, dependant on geographical location and locally available paediatric resources. In virtually all areas of the country, a dearth of HSCP services exists. This has led to high levels of inequity of access to paediatric HSCP services in tertiary paediatric, regional and local hospitals. This inequity of access is mirrored in the community where extensive local variation exists both between community areas, and between teams and disciplines in the same community area.

HSCPs are uniquely positioned to drive integration of services across a range of healthcare settings, while simultaneously providing high quality team based child and family centred services. High quality healthcare is reliant on effective teamwork and communication across and between teams. It is therefore paramount when planning and developing services for children and families, that all components of the multidisciplinary team are captured and budgeted for accordingly, at each stage of their care journey.

## HSCP Workforce Surveys

### *Acute and Community Paediatric (Primary Care and Disability Teams) HSCP staffing levels*

1. A survey was carried out in March 2015 by the National Clinical Programme for Paediatrics and Neonatology. Information was collected on the numbers and grades of HSCPs working in acute paediatric units nationally. Additionally, data was gathered on current staffing vacancies and the reasons for these vacancies. Responses were received from units providing paediatric services ranging from large tertiary stand-alone children's hospitals to a general hospital without a designated paediatric unit. Figures refer to the total number of dedicated paediatric HSCPs only.

#### **Key findings**

Total dedicated Paediatric HSCP whole time equivalent (WTE) for all acute hospitals in Ireland: dietetics 50.31, physiotherapy 45.05, social work 36.75, psychology 24.54, speech and language therapy 20.38, occupational therapy 12.4

#### *Children's Hospital Group*

- There are multiple deficits in HSCP staffing levels working across numerous specialties within MDTs across the Group.
- There is a need for expansion and further development of the role of HSCPs, including the need for HSCP led clinics.
- There is a need for dedicated HSCP staff at specialist clinics to provide a critical communication link with other hospitals/ community services providing the ongoing management in a shared care model.
- There is a need for HSCPs working in specialist teams, including HSCPs at clinical specialist grade to lead and participate in MDT research and provide support and education for local hospital or community HSCPs.

#### *Regional Hospitals*

- Improved access to paediatric HSCPs in regional units is required.
- The need for dedicated senior and basic grade HSCP staffing for inpatient and outpatient services was highlighted for specific disciplines, in particular dietetics, occupational therapy and physiotherapy.

#### *Local Hospitals*

- The need for access to all HSCPs in local hospitals was highlighted.

- Dedicated staffing is required for paediatric dietetics and paediatric respiratory physiotherapy. This should include the provision of a paediatric outreach respiratory service to community teams in a shared care model.

#### *Vacancies*

- The reasons for vacant posts were predominantly due to unreplaced maternity and sick leave, recruitment moratorium, awaiting recruitment through the National Recruitment Service (NRS), retirement and resignation.
- In a number of cases, vacant HSCP posts such as those vacated due to maternity leave were partially covered by existing HSCP staff from that department where there was an essential need to provide a priority service e.g. inpatient activity. This has led to resultant decreased access to HSCP services in many other areas in acute hospitals.
- In many cases vacant HSCP posts remained unfilled.

#### *General*

- There is a need for staff grade HSCPs to be employed in addition to senior grade paediatric staff to support service delivery and provide opportunity for training and succession planning both short and long term.

2. An additional survey was carried out for dedicated paediatric HSCPs working in the community / non-hospital sector across primary care teams (currently serving populations of 7,000-10,000 people approximately) and primary care networks/ health and social care networks (serving populations of 30,000-50,000 people approximately). Paediatric HSCP services for children and families A summary of key findings are included below:

### Key findings

- There are limited paediatric HSCP staffing levels for certain disciplines with resultant limited access to paediatric HSCP services at primary care network level.
- Paediatric HSCP services, where they exist, are fragmented with a unidisciplinary rather than multidisciplinary approach adopted by clinicians due to decreased staffing levels
- There is a lack of integration between services in the community
- There is a lack of HSCPs with specific paediatric expertise to work with children at primary care network level, in particular for the professions of physiotherapy, occupational therapy and dietetics, with resultant decreased access to services
- Vacancies - The reasons for vacant posts were predominantly due to unreplaced maternity and sick leave, recruitment moratorium, awaiting recruitment through the National Recruitment Service (NRS), retirement and resignation. The majority of vacant HSCP posts remained unfilled with cover provided for very high priority cases by existing HSCP staff.
- Combined paediatric primary care team and primary care network level staffing of all grades was as follows; Speech and language therapy - 289.5 WTE, vacancies - 51.2WTE,
- Paediatric occupational therapy - 72.0 WTE, vacancies - 10.83,
- Paediatric physiotherapy - 24.38 WTE, vacancies - 5.3,
- Dietetics - 0 WTE. There are currently no dedicated paediatric dietetic posts in community. In some cases, children who should be seen in the community are seen in the acute hospital setting. However, referrals from primary care teams for conditions such as weight management, faltering growth, constipation or anaemia may be seen by the dietetic service in the health and social care network.
- Social work - 81 WTE (working across adult and children's services)

### Recommendations:

- The majority of paediatric HSCP services for children and families with non complex needs should be organised and delivered at primary care network level, via a primary care network level team (with each network serving a population of 50,000).
- An appropriate complement of paediatric HSCPs at primary care network level is required to manage the range of clinical presentations referred via the child health screening and surveillance programme, PHNs and GPs, and these services should be led by therapists at senior grade. Paediatric HSCPs are also required to manage the future needs of children with a disability whose needs will be defined as non-complex, and who will no longer have their needs met by children's disability network team under the recommendations of the PDSCYP programme.
- These services should be led by therapists at senior grade. Minimal requirements are detailed below

#### *Speech and language therapy:*

The minimum requirement is two WTE senior SLT per primary care network to lead the paediatric service, supported by one WTE staff grade per primary care team, as service activity demands. This staffing level is required to deal with the existing caseloads of SLT staff and the children with disability with needs defined as non-complex who will no longer have access to the children's disability network teams. In addition, one WTE clinical specialist paediatric SLT is required for each CHO to lead quality improvement, training and research.

#### *Dietetics:*

The minimum requirement is one WTE dedicated paediatric dietitian per primary care network, with 50% of this post allocated to children with disabilities. The early identification and referral of those who are at nutritional risk and require dietetic services is an integral component of the care of these children.

#### *Occupational Therapy:*

The minimum requirement is one WTE senior paediatric OT per primary care network to lead the paediatric service, supported by staff grades as service activity demands. This staffing level is required to deal with the existing caseloads in the community and the children with disability with needs defined as non-complex who will no longer have access to the children's disability network teams. In addition, one WTE clinical specialist paediatric OT is required for each CHO to lead quality improvement, training and research.

#### *Physiotherapy:*

The minimum requirement is one WTE senior paediatric physiotherapist and one WTE dedicated staff grade physiotherapist per primary care network to lead the paediatric service, supported by additional staff grades as service activity demands. This staffing level is required to deal with the existing caseloads of child health presentations and the children with disability with needs defined as non-complex who will no longer have access to the children's disability network teams. In addition, one WTE clinical specialist paediatric physiotherapist is required for each CHO to lead quality improvement, training and research. Access to local paediatric respiratory physiotherapy outreach service as required (shared care model).

#### *Social work:*

The recommendation from the Irish Association of Social Workers (IASW) is one principal social worker per CHO area, five to six social work team leaders per CHO and three to five social workers to work with each social work team leader. These social workers would continue to work across both paediatric and adult services.

### 3. Disability Services

HSCP Disability Services for children and families are provided by both statutory and voluntary providers. In 2009, a report of the National Reference Group on Multidisciplinary Services for Children aged 5-18 years was published, and it made a number of far-reaching recommendations: <http://www.hse.ie/eng/services/list/4/disability/progressingservices/reportsguidancedocs/refgroupmultidisciplinarydeiservchildren.pdf>

Following from that, the Progressing Disability Services for Children and Young People (PDSCYP) initiative was launched. In 2014 a mapping exercise of both statutory and voluntary providers of services to children with a disability aged between 0-18 was undertaken by the PDSCYP programme and published by the National



Disability Authority in February 2015 (<http://nda.ie/nda-files/Children%E2%80%99s-Disability-Services-in-Ireland-PDF-version-.pdf>). The HSCP staffing levels detailed were shared by the PDSCYP with the National Clinical Programme for Paediatrics and Neonatology (NCPN) in 2015. This table also makes recommendations in relation to what the minimal requirements are for HSCPs working either in early intervention teams (EIT) or school aged teams (SAT).

Discipline	Staffing WTE 2014	Vacancies	Requirements
Speech and language therapy	270.00	Staffing levels include all vacant post both permanent and temporary e.g maternity leave.	Senior led service. Ratio of 1.5 WTE per 100 children with a disability on Children's Disability Network teams (EIT and SAT). Ratio of one WTE per 150 children with a disability for specialist support services.
Occupational therapy	261.22	It is estimated that due to the female nature of the workforce a minimum of 10% of maternity leave is ongoing. This needs to be considered to sustain staffing levels and maintain access to services.	Senior led service. Ratio of 1.5 WTE per 100 children with a disability on Children's Disability Network teams (EIT and SAT). Ratio of one WTE per 150 children with a disability for specialist support services.
Physiotherapy	184.18		Senior led service. Ratio of 1.5 WTE per 100 children with a disability on Children's Disability Network teams (EIT and SAT). Ratio of one WTE per 150 children with a disability for specialist support services. Access to local paediatric respiratory physiotherapy outreach service as required (shared care model).
Psychology	186.45		Early Intervention and School Aged Teams each require one WTE psychologist per Network of 50,000 population.
Social work	101.80		Early Intervention and School Aged Teams each require one social worker per 100 children with a disability.
Dietetics	4.88		The INDI recommends that all EITs, SATs and specialist support disability services have a dedicated paediatric dietetic service. Dietetics needs to be included as part of the core children's network disability team. Staffing levels required are 0.5 WTE dietitian as a member per disability team EIT and SAT (1 WTE in total per Network covering a population of 50,000).

The Progressing Disability Services for Children and Young People (PDSCYP) initiative acknowledges the need for provision of specialist services for children with complex needs, and in its recent report on guidance on specialist services published in June 2015 (see <http://www.hse.ie/eng/services/list/4/disability/progressingservices/GSS.pdf>), it made recommendations for specialist service provision considerations for specific groups of children with complex needs:

1. Children with Autism Spectrum Disorders (ASD) and / or Intellectual Disability and / of other developmental problems;
2. Children with severe / complex physical disability
3. Children with visual impairment
4. Children with hearing impairment

There is a need to increase paediatric HSCP staffing levels for children's disability network teams as recommended in the table above. These teams will deliver services to all children with a disability from 0-18 with complex needs and in particular, to the groups listed above.

Nationally, there is a severe under-resourcing of paediatric HSCPs to children's disability network teams, with resultant lengthy waiting lists in excess of 2 years in many CHO areas in Ireland. Diagnostic assessments, e.g. for Autism Spectrum Disorder or assessment of children with complex physical disability, are necessarily labour intensive, and require the expertise of paediatric HSCPs. The difficulties that existing children's disability network teams have in trying to manage long waiting lists results in the teams prioritising assessments to confirm or exclude a diagnosis. This results in very little post diagnosis therapeutic intervention for children who are diagnosed with Autism Spectrum Disorder. Often, such families seek therapy from the private sector because of the inability of these teams to provide appropriate intervention. These teams need a huge amount of additional paediatric HSCP resources to adequately deal with referrals needing assessment and more timely provision of essential post-diagnosis intervention.

Children with severe or profound learning disability are another group who have insufficient resources. The special schools which provide educational support for these children have insufficient paediatric HSCP resources, including psychology, occupational therapy, speech and language therapy, physiotherapy and child & adolescent mental health services (CAMHS) for intellectual disability, which are each critical to the care and wellbeing of children with these high-level needs.

Children with severe and complex physical disability (approximately 1 in every 200 children under 18) need access to paediatric HSCPs and in some instances to specialist multidisciplinary teams and professionals to provide services to promote and maintain body posture and function. This is done by providing specialist orthotics, seating, hip surveillance, tone and spasticity management, specialist 3-dimensional gait analysis, feeding eating drinking and swallowing (FEDS) management and access to consultants in paediatric neurodisability, orthopaedics and respiratory medicine.

Children with visual and hearing impairment also need more resources to access specialist paediatric HSCPs, and other specialist services including ophthalmology, orthoptist, audiology, ENT, assistive communication and specialist educators.

## Issues for Consideration for building a sustainable Paediatric HSCP workforce

### *Supply and Demand*

It is imperative that when planning services whether in the hospital or community setting that the stakeholders contributing to these services are considered as a whole. It is often the case that a business case is submitted considering only the need for a consultant. In an acute hospital, access to HSCP services is often restricted as it is provided by a limited and finite pool of resources shared across many specialties, and often shared with adult services in regional and local hospitals. Poor access to community HSCPs is a frequent factor in delayed hospital

discharges. In other instances, paediatric HSCP services which should be delivered in the community continue to be delivered by acute hospitals in the absence of an alternative. Paediatric HSCP services in the community require urgent development to allow the entire paediatric health system to flow in an integrated manner more efficiently and effectively. It is imperative that there is appropriate planned allocation in the HSCP work force to meet the current and future needs of children and families. Services should be planned so that they are needs driven, evidence based and in line with best practice. Paediatric HSCP services have a distinct disadvantage in that they are already coming from a particularly low base. The surveys detailed above are evidence of this for many disciplines. Basic minimal recommendations are included above. Succession planning for all forms of leave including shorter term maternity leave should be included in the workforce plan to ensure that they system has both the capacity and capability to meet the needs of children and families in the future.

In 2014 a National Occupational Therapists Managers Advisory Group (in partnership with AOTI) identified the Clinical Redesign and Workload Measurement (CRew) Programme, designed by the OT department in Beaumont Hospital as an appropriate practical approach to addressing present and future workforce requirements. This project concluded in July 2015. Early indications from an ongoing multidisciplinary CRew pilot project in Beaumont Hospital are pointing to the benefit of the CRew Programme for the development of integrated care pathways across multidisciplinary teams (Enright & Naughton, 2014).

**Recommendation:**

A detailed workforce planning and measurement programme such as CRew should be rolled out across MDTs which aligns with the vision of the National Model for Care for Paediatrics and Neonatology, in conjunction with the academic universities.

**Clinical Governance, Skill Mix and Competency**

All HSCPs working with children should have appropriate paediatric clinical skills and clinical experience. HSCP services for children and families should be led by a clinician at senior grade or above, with support from staff grade therapists to ensure high quality services with best health outcomes. In particular the specific skills and competencies required of the HSCPs providing services to children and families in primary care must be considered. Circumstances where there are demands on primary care therapists of any grade to provide a service to both adults and children without an adequate competency framework within a clearly defined clinical governance and support structure to both populations would pose significant clinical risk to children and families, and must be avoided. It is recognised that competency in assessment and intervention within disciplines is maintained through frequency of use of assessment and intervention, supported through a structured clinical supervision arrangement.

For the professions of physiotherapy, speech and language therapy, occupational therapy, psychology and dietetics, paediatrics is a subspecialty requiring specific training and clinical expertise. These paediatric HSCPs work with children at tertiary, regional and local hospital level and also at paediatric primary care network level and in children's network disability teams. These HSCPs should work with a solely paediatric caseload which provides sufficient critical mass of paediatric presentations to retain each professional's clinical competence.

**Recommendation:**

- HSCP services for children should be led by clinicians at senior grade or above, which will allow provision of the necessary clinical governance, clinical supervision and support required for more junior staff working with children and families in a flexible manner based on the individual's needs.

- Competency frameworks should be devised for each HSCP working across the spectrum of Paediatric and Neonatology services with children and families (both HG and CHO HSCPs) to ensure that each professional is clear about what is expected of them to fulfil their roles, and that discipline specific managers can support their staff by implementing the appropriate performance management cycle for each staff member.

#### *Career Pathways – HSCPs as advanced practitioners/extended scope*

The HSCP Education & Development Unit set up an advanced practice subgroup of the HSCP Advisory Board in 2013 to develop a position paper on advanced practice and associated terms in Ireland. The release of this position paper in 2014 “Progressing Advanced Practice in the Health and Social Care Professions” involved a process of engagement with professional bodies, research, analysis and consultation which spanned an eighteen month period. The purpose of this position paper was to formalise a shared HSCP position across the professions to facilitate the realisation of the potential benefits flowing from advanced practice for service delivery and for service users. This position paper was submitted to Dr Aine Carroll in January 2015 by the HSCP Education and Development Unit. One of the key findings of the position paper was the extent of largely unrecognised HSCP advanced practice in many different disciplines all providing enhanced services, thus maximising the impact of existing limited resources. The position paper recommended that the service delivered by the HSCP advanced practitioner should be embedded in the health service both at strategic and operational levels to ensure sustainability. It also stated that supporting the development of relevant HSCP advanced practice would provide an opportunity to address some of the current challenges facing the Irish health service.

#### *Examples of Advanced Practice in the area of Paediatrics include:*

- Paediatric physiotherapy orthopaedic triage & ponsetti clinics which are in operation in tertiary and regional units. Physiotherapy triage has been shown to be effective in decreasing waiting lists
- MDT led upper limb clinics
- MDT led spasticity management clinics
- MDT led specialist feeding clinics
- MDT led obesity management programmes

#### **Recommendation:**

Paediatric service delivered by HSCP advanced practitioners should be embedded in the health service both at strategic and operational levels to ensure sustainability.

#### **Clinical Governance, Training and Education for Paediatric HSCPs**

Robust clinical governance arrangements should be in place for each discipline in line with the Report of the Quality and Safety Clinical Governance Development Initiatives (HSE 2014). HSCP staff should have access to the performance review cycle. Clinical governance for each professional working in either hospital groups or CHOs should be provided by their relevant head of discipline to ensure adherence to professional standards, monitoring of clinical effectiveness and facilitation of appropriate continuing professional development (CPD). Access to paediatric CPD must be encouraged across all hospital groups and CHOs and managed in a consistent standardised manner.

Appropriate, dedicated time for all HSCPs to complete continuing professional development is essential. Senior staff should have the opportunity to participate in the performance review cycle with their head of discipline. Staff

grade therapists should have the opportunity to participate in an appraisal process with their supervising senior therapist. All staff members should have access to professional support delivered in a variety of ways, including attendance at relevant paediatric courses, peer support, preceptorship and shadowing other clinicians. Sharing of skills between team members is highly recommended both formally through in-services, and informally through joint working. Study leave should be facilitated for all staff in a standardised manner across all community areas. The clinical specialist role is important and these lead clinicians in hospital groups and CHOs are required to develop and participate in research, drive integration and provide training across the hospital group and CHO paediatric clinical networks.

#### **Recommendations:**

- Clinical governance for each professional working in either hospital groups or CHOs should be provided by their relevant head of discipline/senior, depending on the grade, to ensure adherence to professional standards, monitoring of clinical effectiveness and facilitation of appropriate continuous professional development

### **Recruitment of Paediatric HSCPs**

The first strategic goal of An integrated workforce planning strategy for the health services (DoHC & HSE, 2009) is to ensure a health workforce that is based on the four principles of patient/client focussed, sustainable, available and flexible.

#### *Objectives recommended to meet this goal include:*

- Workforce planning should take into account the needs of patients and clients in order to meet the health and social care needs of the population
- Workforce planning projections should be sustainable
- Workforce planning should take into account the availability of the health workforce
- The health workforce should be trained and supported so that it is flexible enough to meet current and future health care needs.

In addition to the recommendations above, the National Standards for Safer Better Healthcare (Health Information and Quality Authority, 2012) highlight the importance of workforce as one of its eight key themes. Outlined in detail, this workforce theme describes that it is necessary that the “individual members of a workforce must be skilled and competent and the workforce as a whole must be planned configured and managed to achieve these objectives.”

There are a number of challenges for developing and sustaining a paediatric HSCP service. The first is presented by the current national recruitment system within the Health Service Executive (HSE). At present national competitions are run sporadically to create senior and staff grade panels from which vacancies may be filled over time. To date staff grade panels have been generic in nature. Senior panels are also in existence for long periods and frequently are not specific enough for paediatrics. The current recruitment process poses a number of challenges:

- Recruitment embargoes and staff ceilings imposed on both the HSE and HSE supported voluntary agencies over the past few years have posed a challenge to service delivery due to the loss of resources, knowledge, skills and experience.
- The non-filling of vacant posts has led to the loss of posts with detrimental effects including skeletal service provision for children with little/no opportunity for service development. As highlighted above, where limited resources are available they are targeted predominantly at high priority issues. In services where there is an absence of a specific therapy service, children and families are at risk where high priority issues cannot be addressed.

- The national process has taken away accountability from local to a more national level with excessive levels of approval to go through before any post can be approved.
- Newly qualified therapists in addition to therapists coming to Ireland from abroad are unable to access the panels unless the competition is open at the time of graduation/arrival to Ireland.
- Therapists seeking to move to another geographic location cannot do so as once they are in a position they are removed from the panel and there is no national transfer policy.
- Suitably interested and qualified therapists cannot access vacant posts within the HSE. The lack of a national transfer policy results in therapist accepting posts to secure employment in preferred locations resulting in the loss of clinical knowledge and experience.

### Recommendations:

Responsibility for recruitment should devolve to hospital groups and CHOs with increased local accountability for paediatric HSCP line managers.

### Conclusion

Paediatric HSCP services in Ireland require specific planning to ensure they can meet the evolving needs of our children, young people and their families. The focus needs to shift from simply improving access to limited HSCP services to a responsive accessible service which delivers excellent health outcomes. The recommendations outlined in this chapter describe the way in which the HSCP role can be enhanced to further provide high quality care to children in Ireland.

### Abbreviations

CHO	Community Health Office
CPD	continuing professional development
EIT	early intervention team
HSCP	health and social care professional
HSE	Health Service Executive
IASW	Irish Association of Social Workers
INDI	Irish Nutrition and Dietetic Institute
NCPPN	National Clinical Programme for Paediatrics and Neonatology
NRS	national recruitment service
OT	occupational therapy
SAT	school aged team
SLT	speech and language therapy
WTE	whole time equivalent

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