# **Final Report**

**March 2001** 

Current and Future Supply and Demand Conditions in the Labour Market for Certain Professional Therapists

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# **Executive Summary**

- 1. Evidence from a variety of sources has indicated that a situation of excess demand exists in the labour market for qualified personnel in the Therapy Healthcare sector. This evidence includes the perceptions of personnel in these services and in healthcare management, research undertaken by representative associations and others, and the difficulties that have been experienced in filling posts and retaining personnel. This report aims to provide a comprehensive quantitative assessment of the situation. The three categories of professionals covered are Chartered Physiotherapists, Occupational Therapists, and Speech and Language Therapists.
- 2. The context of the report is important in two respects. First, the history of funding difficulties in the health cervices where demand was effectively set by budget constraints is changing. This means that new methods to determine service such as achieving qualitative healthcare outcomes are likely to attain a much enhanced prominence in the future. Second, even with current demand, the education and training system as it currently operates does not deliver an adequate supply of qualified personnel. This is important given the expectation that demand is likely to increase further. However, this does not reflect in any way on the quality of those who do qualify.
- 3. The manpower situation in the therapy professions is analysed in terms of four gaps that exist in the number of personnel that are employed. Together these gaps total the additional personnel that will need to be available for employment to meet future demand. These gaps comprise the following: the number of unfilled vacancies at present, the number of posts that would be created if services in Ireland reached objectively set targets, the number of additional places that will arise due to demographic and survival trends, and the number of new posts that will arise due to demands for an enhanced quality of health care services.
- 4. It is impossible to be precise about the size of the gaps and occasionally conflicting data are presented. However, on the basis of surveys undertaken for this study and other sources, the following figures are presented as indicative estimates of the increase in supply that is required up to 2015.

**Projected Requirements of Therapists** 

|                                 | Chartered        | Occupational | Speech &   |
|---------------------------------|------------------|--------------|------------|
|                                 | Physiotherapists | Therapists   | Language   |
|                                 |                  |              | Therapists |
| Gap 1: Current Vacancies        | 58               | 60           | 78         |
| Gap 2: Additional Requirements  | 208              | 239          | 388        |
| Gap 3: Quantitative trends      | 667              | 362          | 326        |
| Gap 4: Quality of service       | 395              | 214          | 193        |
| Total additional requirements   | 1328             | 875          | 985        |
| % Increase over existing supply | 102              | 159          | 328        |
| Total in 2015                   | 2628             | 1425         | 1285       |

- 5. While the estimates that are produced are based on the best information available, there are possible sources of error and the numbers supplied should be treated as indicative. However, the magnitude of the under-supply calculated means that the conclusion is robust under all reasonable arguments in relation to the accuracy of these figures. In addition, after a period of tight constraints, it is inevitable that there are distortions in the labour market that will only be reduced by a situation of relatively liberal availability conditions. Thus, it is necessary and desirable that supply should exceed demand by some percentage.
- 6. Even with more precise estimates of requirements, it is unlikely that the problems of educating and training the required personnel could be overcome within the system as currently structured. As a result, it is recommended that a major overhaul of the system is required. Without wishing to imply any judgement in relation to the expertise that exists within the training system, the inescapable conclusion is that it is a system which, to date is unable to meet the demands of a modern healthcare service. Reform should proceed on the basis of a greenfield approach. Finding

a solution to the problems that exist calls for a radical approach that discards incremental or marginal changes as viable options, and that examines the education of therapists, and other healthcare professions, as more than a numbers game. This means that the question of how to proceed relates to the design of an optimal training system rather than uncovering how the current system should be reformed in an incremental manner.

- 7. Recommendations in relation to the management of the therapy professions are also made, although these mostly relate to the need for initiatives in advance of a direct examination of management. These include issues such as the need to know just how many people are actually working at any time, the way in which they are funded and, most importantly, the need to develop methodologies for the estimation of demand. In other words, there is need to improve the basic data-base of statistics in relation to the supply and demand for these professions. Should the personnel constraints be eased in future years this final point will take on an immediacy that may not be fully comprehended at present, given the existing approach of dealing with successive crises
- 8. A number of the recommendations are put forward in recognition of the fact that making incremental changes to one part of the system alone will be inadequate and would probably open up opportunities for rent-seeking on the part of incumbents. However, detailed analysis and examination of all the relevant systems has not been attempted, but would be required in advance of implementing a new model. As a result, many of these recommendations relate to what should be seen as preliminary work that is required in advance of the design of new procedures.
- 9. The recommendations of this report include the following:
- (i) The main recommendation is that initiatives should be formulated and put in place as a matter of urgency to improve the supply of qualified personnel in each of the three therapy professions. These will need to cover areas of finance, clinical training and regulation. The following expansion of course places is recommended, in order to achieve equilibrium in the market. (Details of the timeframe and pattern over which this would be expected to occur is contained in the Report, see Section 3.3):

**Annual Output of Therapists: Actual & Recommended Additions** 

|                           | Current | Additional | Total |
|---------------------------|---------|------------|-------|
| Physiotherapy             | 120     | 25         | 145   |
| Occupational Therapy      | 35      | 75         | 110   |
| Speech & Language Therapy | 25      | 75         | 100   |
| Total Places              | 180     | 175        | 355   |

The current and prospective balance between demand and supply requires immediate action but there are problems in trying to resolve it in too short a time frame. It is important that the number of places in the adjustment period is not overly out of line with the number that will be required on an ongoing basis to maintain supply at its new higher level. To attempt a more immediate solution would risk moving the constraint to the clinical training point and a considerable over-supply of training places in the long-term future.

- (ii) It is recommended that as a guiding principle, the interests of service recipients must at all times take precedence over the interests of service providers.
- (iii) It is recognised that increases in the output of courses of the magnitude recommended will cause serious problems in relation to clinical training. It is recommended that the Department of Health and Children review the career structure within these professions to ensure that the health sector is positioned to deal with the increased placement level.
- (iv) It is noted that the Department proposes the introduction of Clinical Placement Co-ordinators for each of these professions within each Health Board area to deal with this increased activity level. The consultants support this initiative.
- (v) It is recommended that a fundamental review of the training system in all its aspects should be undertaken. However, any process of review should not delay the expansion of training places in the short-term.
- (vi) It is recommended that consideration should be given to the development and validation of courses at different institutions. A much greater amount of flexibility needs to be introduced into

- the system. In this connection, it is recommended that consideration should be given to options for more flexible training courses that integrate training for the therapy professions with general science degrees and other healthcare training. A good example of this is provided by the suggested reforms in the Report of the Commission on the Points System.
- (vii) Furthermore, it is recommended that appropriate courses should be made available in sufficient numbers to enable assistant therapy grades to be expanded significantly, freeing some of the time of fully qualified therapists for additional duties including, in particular, an expansion in clinical placement work.
- (Viii) It is recommended that such measures as may be practical should be undertaken to relieve the situation of shortage in the short term. These include: the establishment of an assistant therapy grade, suitably qualified; a review of workload and work practices; the use of therapy assistants and qualified physical therapists; and certain options contained in the Report of the Expert Group on Various Health Professions. For example, the Group recommended that initiatives should be undertaken to facilitate the return to work of qualified personnel who wish to do so, that the issue of establishing 'out-of-hours' clinics should be explored and that the role of therapy assistants should be developed to alleviate labour shortages.
- (ix) It is recommended that the Department of Health and Children should formulate and implement detailed models for the estimation of demand for healthcare services as a basis for supply planning.
- (x) It is recommended that a comprehensive system of professional registration should be introduced across all three professions. Furthermore, it is recommended that this should be undertaken centrally in a manner that separates registration from the professional representative organisation.
- 10. A balance is required between the interests of different groups in the healthcare system. These groups include training providers, professional service providers, managers and patients. Where the interests of any of these groups might clash, it is recommended that a principle should be applied that the interests of the service recipients should dominate.
- 11. Although high economic growth alone is no guarantee of rising standards of living, it has facilitated real improvements in Ireland in actual standards and in the potential for what can be achieved. However, the problems that have been overcome are quite different from the challenges that remain and those that will be faced in the next decade. High economic growth, high employment and rising income per capita provide the means for overcoming these challenges. They do not, in themselves, provide the solutions, as the problems are structural rather than financial. Any failure to address, as a matter of urgency, the deficiencies that are highlighted in this report will undermine the process of translating the means to solve problems into desirable outcome and real improvements.

#### 1. Outline of the Report

#### 1.1 Background and Context

Evidence from a variety of sources indicates that a situation of excess demand exists in the labour market for qualified personnel in the Therapy Healthcare sector. This evidence includes the perceptions of personnel in these services and in healthcare management, research undertaken by representative associations and others, and the difficulties that have been experienced in filling posts and retaining personnel. However, to date, there has not been a comprehensive quantitative assessment of the situation.

This report aims to provide such an assessment. However, as elaborated on in subsequent sections, this is not a straightforward task. There are difficulties in assessing the precise supply of trained personnel, particularly in the case of those engaged in the private sector. Furthermore, it cannot be assumed that the existence of unfilled vacancies is a full indication of the extent of insufficient supply. Instead, it is necessary to attempt some approximation of actual demand independently of, but in relation to, supply. Furthermore, given the development of the healthcare sector in general and the need to plan long-term to meet future requirements, some projections of future demand are also required. This is provided in Section 2.

The estimates made are set against two important contexts. The first is that the history of funding difficulties in the health services – where demand was effectively limited by budget constraints – is changing. This means that new methods to determine service – such as achieving qualitative healthcare outcomes – are expected to attain much enhanced prominence in the future. The second is that, even with current demand, the education and training system as it currently operates appears to be incapable of delivering an adequate supply of qualified personnel. At the same time, the courses leading to the relevant qualifications have attained prestige status, with very high entry requirements and with the number of applicants being a large multiple of the places available. There has been some change in this with greater places becoming available in recent years, but it is suggested that this is too little and that a more radical approach is required to the system of training provided. This issue is addressed in Section 3 of the report.

#### 1.2 Description of the Sector

The three categories of professionals covered by this report are Chartered Physiotherapists (CPs), Occupational Therapists (Occupational Therapists) and Speech and Language Therapists (Speech & Language Ts). The precise roles of these professions have been identified as follows:

# • Occupational Therapists

"The purpose of occupational therapy is to maximise the 'fit' between what an individual wants and needs to do and his/her ability to achieve this. Occupational therapists have an intricate knowledge and understanding of the physical sciences, including anatomy, physiology and kinesiology, as well as the human sciences of psychology and sociology. All these essential elements combine to provide an occupational therapist with a unique understanding of occupational performance."

# • Speech & Language Therapists

"The speech and language therapy services provide assessment, diagnosis, treatment, advice and counselling to people of all ages with communication disorders and feeding/swallowing disorders. Communication disorders may be associated with a wide variety of medical factors (and) may also be associated with social, cognitive or linguistic impairment. Speech and language therapists are

<sup>&</sup>lt;sup>1</sup> These descriptions are taken from the *Report of the Expert Group on Various Health Professions* (April 2000) and are based on submissions from the individual professions to the Expert Group.

clinically accountable for acceptance of clients for assessment, diagnosis of disorder and for the provision of therapy."

# • Chartered Physiotherapists

"Physiotherapy is a health care profession with an emphasis on analysis of movement based on the structure and function of the body and the use (of) physical approaches for the promotion of health and the prevention, treatment and management of disease and disability. Physiotherapy as a profession in healthcare examines, assesses, plans and implements treatment programmes, monitors and evaluates patient responses, counsels and advises patients and carers. Physiotherapists work in both the private and the public sector in Ireland. Traditionally, physiotherapy has been a hospital-based service, providing care for in-patients and out-patients. In recent years, many more physiotherapists have been employed in the community by some health boards where they provide a service for the very young and very old."

There are a number of common traits among the three professions. Professionals in all three therapies work in both the public and the private sectors. In addition, all three have been experiencing increasing pressures in the public sector due to an expansion of services and the growth of private sector demand. This gives rise to a number of issues that are discussed further below. All three are governed by detailed sets of regulations, however, only Chartered Physiotherapists are registered and represented by an independent chartered institute: the Irish Society of Chartered Physiotherapists (ISCP). However, it is not a statutory system of registration. Occupational Therapists are represented by the Association of Occupational Therapists of Ireland (AOTI) and Speech & Language Therapists by the Irish Association of Speech and Language Therapists (IASLT). A further important issue for all three-therapy professions is the role of assistants in the practice of the service and the optimal allocation of work duties, for example, the administrative burden.

Each therapist requires considerable training including a degree in the relevant subject and practical clinical experience. Crucially, in the case of all three therapies, the number of places available in the universities has been tightly controlled over the years resulting in high application to acceptance ratios and high entry requirements, in terms of Leaving Certificate points. In summary therefore, there are a number of common characteristics – unrelated to the skill content of each profession – that mean that the problems that exist are common across all three professions and, at the initial stage, can be dealt with in terms of a common analysis.

#### 1.3 Approach Taken in this Report

There is considerable evidence that there is insufficient supply of trained and qualified personnel in these professions. Furthermore, there is an expectation that demand is likely to rise in the future. As a result, the approach taken in this report is not primarily an evaluation of the performance of the existing structure in meeting demand. It is clearly inadequate and is currently failing to provide sufficient numbers of adequately trained personnel. Instead, the focus is an attempt to estimate the likely current and future supply and demand for personnel. This is quite a complex calculation with a number of unknowns.

The manpower situation in the therapy professions can be analysed in terms of four gaps that exist in the number of personnel that are employed. Together these gaps total the additional personnel that will to be available for employment to meet future demand. This approach is illustrated in Figure 1.1.

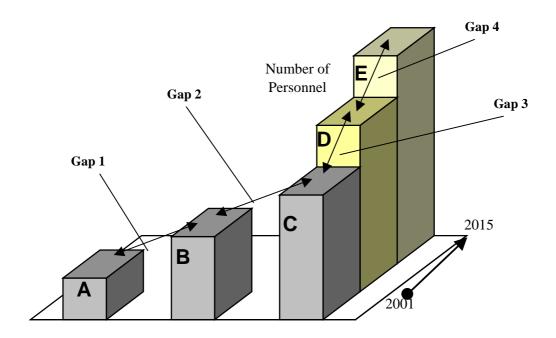
In the figure, <sup>2</sup> the following number of personnel are represented:

- **A.** The number currently employed in the health services
- **B.** The number that would be employed if all the existing positions for which finance is sanctioned were filled

<sup>&</sup>lt;sup>2</sup> This figure is a stylised representation of the problem and is not drawn to scale. The relative sizes of the various elements are not necessarily representative of the actual number of personnel involved.

- **C.** The number that would be employed if employment in Ireland corresponded to some objectively set target, for example, the number employed in other developed countries as estimated by relevant population ratios.
- **D.** The number of personnel that will be required in 2015 as a result of increases in the number of people requiring care under these ratios.
- E. The number of personnel required in 2015 as definitions and ratios change and the quality of care goals of health services rise.

Figure 1.1: Outline of Approach to Estimation



This analysis gives rise to four gaps that together constitute the difference between the number of therapists currently available and the number that will be required in the future.<sup>3</sup>

Gap 1 ( $A \rightarrow B$ ): This gap is the difference between the number of official posts and employment. It arises due to labour shortages and administrative delays only. Given that the gap is persistent and growing, it is clear that the former is by far the most important determinant of the gap, i.e the number of official posts. By definition, finance is not an issue in the size of this gap. Its estimation is unequivocal on the basis of available data.

Gap 2 (B  $\rightarrow$  C): Gap 2 arises from a number of reasons but can be characterised as a carryover from earlier times when the funding constraint was the primary determinant of the number of posts in healthcare. This provided the number B. However, good practice benchmarks can be derived from experience in other countries to provide an estimate of the number of therapists that are required in Ireland under normal conditions, given the size of Ireland's population.

Gap 3 ( $C \rightarrow D$ ) This is an estimate of the increase in the demand for therapy services that will result from an increase in the population of patients. There are a number of factors driving this increase, the primary ones being increased survival rates from accidents and difficult births, and rising life expectancy among older people.

<sup>&</sup>lt;sup>3</sup> There is an implicit assumption in this analysis that unemployment among qualified personnel is no higher at present than it will be in 2015.

Gap 4 (D  $\rightarrow$  E): This estimate is more speculative in nature, but it is definitely positive and non-trivial. Health care has seen rapidly rising demand throughout the developed countries in recent decades, despite rapidly rising costs. This is mainly a result of two factors: rising disposable incomes and increased competencies of healthcare personnel. Quality-of-life care – the principal activity of therapy professionals – is one of the most rapidly increasing sectors. This process is far from complete, particularly in Ireland. This phenomenon is translated into increased claims to care as a right and to an expansion of the definitions of ailments to include people who may previously have been excluded. There is little doubt that the easing of the funding constraint in Ireland will provide a stimulus to this process.

#### 1.4 Some Issues which Arise

In almost all cases, the estimates that are provided are subject to error intervals. This arises for a number of reasons. Where the estimates are on the basis of actual employment it has, in some cases, been necessary to combine information from different sources. The employment structure is complex with 10 health boards, various voluntary services and the private sector all employing personnel. Employment levels and labour market conditions in the private sector are particularly difficult to ascertain precisely. However, it is possible to get around this issue. The core objective of the report is not to estimate total employment levels, but to assess existing deficits and future requirement above existing levels. There is a widely accepted view that the private sector is capable of drawing personnel from the public services. Thus, while the private sector may experience a tight labour market and occasional shortages, it is assumed that *persistent* deficits are observed in the public sector only.

A further point strengthens the validity of the underlying assumption here that the deficit can be estimated on the basis of the public sector only. It is assumed that the private sector will not experience any growth independent of conditions in the public health service. The size of the private sector and its manpower requirements are not independent of the public sector but are a direct result of conditions in public healthcare service provision. Thus, it can be assumed that the private sector will only grow as a result of deficiencies in the provisions of public services. As a result, the increased demand in the future will fall first on the public sector and then on the private sector if not adequately met. As is widely accepted, this then provides extra problems for the public services through reducing further the available supply of qualified personnel. On the other hand, as public service provision improves, both the demand for services and the availability of personnel rise as the residual activity of the private sector declines.

A second problem requiring strong assumptions relates to the estimation of a target or benchmark level of provision for Ireland under current conditions. The size of the estimated gap (Gap 2) is difficult to authenticate since no widely accepted international standards of therapy healthcare provision exist. Even where some estimates or ratios are available it may be inappropriate to apply these directly to Ireland. However, while this problem is noted, it is not solved in this report. It is addressed by the argument that, in terms of the overall conclusion, errors in the estimates at this stage would be counteracted somewhat by the estimates at Gap 4. For example, if excessive, then a smaller additional number would be required to meet increased quality definitions in future years.

A third issue relates to the speculative nature of some of the estimates that are provided. It is clear from Figure 1.1 that numbers D and E are projections of future requirements. Consequently, and particularly in the case of D, informed opinion rather than observed data forms the basis of the estimates. This relies on the assumption that observed trends are likely to continue.

Finally, it should be noted that there is a fifth gap also. A properly functioning labour market is not one where the supply of qualified personnel is precisely equal to the demand for labour. Instead a certain percentage in excess of identified demand is required. This allows for the efficient functioning of the labour market and facilitates the timely filling of posts as they arise. In addition, it provides some flexibility to allow the removal of distortions that will have arisen as the health services have adjusted to the reality of the severe restrictions on supply that have existed for years.

It is arguable that these distortions need to be eliminated at an early stage. Indeed, it is unlikely that the particular mindset that has been required to operate in the period of shortage could adequately contemplate the move to C, let alone the future development of services to D and E. As a result, the

actual supply required is, perhaps, 3 to 5% above the levels of demand that can be estimated at C, D and E. This would result in an efficient labour market that is capable of meeting the needs of the sector. However, it may be somewhat simplistic to assume that, just because previous deficiencies are removed, that these distortions will cease to exist in even the medium term.

## 2. Quantitative Assessment of Employment, Deficits and Targets

# 2.1 Existing Public Sector Vacancies: Gap 1

Health Boards<sup>4</sup> were asked to supply details of the number of full time posts under each of the 3 therapy headings and the number of current vacancies. Using this as a basis on which to estimate the current level of excess demand for personnel assumes that the private sector is able to fill vacancies as they arise, and that vacancies in the public sector are the total for unfilled posts in the entire system.<sup>5</sup>

#### Physiotherapists

The number of posts for physiotherapists is shown in Table 2.1.

Table 2.1: Number of Physiotherapist Posts in Health Boards<sup>6</sup>

|            | Existing | Filled | Vacant | % Vacant |
|------------|----------|--------|--------|----------|
| Eastern    | 75.7     | 67     | 8.7    | 11.5     |
| Mid West   | 20       | 14.5   | 5.5    | 27.5     |
| Midlands   | 20       | 16.5   | 3.5    | 17.5     |
| North East | 19       | 10.5   | 8.5    | 44.7     |
| North West | 57.5     | 52.0   | 5.5    | 9.3      |
| South East | 11       | 8.5    | 2.5    | 22.7     |
| Southern   | 37.3     | 34.7   | 2.6    | 7.0      |
| Western    | 44.5     | 42     | 2.5    | 5.6      |
| Totals     | 285      | 245.7  | 39.3   | 13.8     |

This indicates that 13.8%, or 39.3, of 283 FTE posts for Chartered Physiotherapists remained vacant at the time of the survey<sup>7</sup>. However, this varies considerably across the country reaching a maximum of 44.7% in the North-East. It is likely that recruitment and reporting practices have some impact on the variation shown in the table, but it is also possible that supply factors are important. The existence of lower vacancy rates in the Western region (mostly Galway), the Southern region (Cork) and the Eastern region (Dublin) suggests that urban centres may act to make it easier to fill vacancies. However, this conclusion is offered tentatively.

In public sector employment, it is required that all physiotherapists must be eligible for registration as members of the Irish Society of Chartered Physiotherapists (ISCP). The ISCP records show that 1,453 qualified persons were registered and entitled to practice in Ireland in 1999/2000. This was an increase of 97 (7.2%) on the previous year. Irish people accounted for 69 first time registrations in 1999/2000. The ISCP estimates from information obtained at registration that about 1,300 of the total register were actually working in Ireland in 2000. However, without knowing the ratio of personnel to FTEs means that this cannot be converted to FTEs. However, assuming that 80% of working therapists work full time and that this is the same in the public and private sectors indicates that there are over 900 FTEs outside the health board system. This would mean that over 1,000 people or about 70% of registered

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<sup>&</sup>lt;sup>4</sup> To simplify the text, the Eastern Regional is treated throughout as one region and referred to as the Eastern region or the Eastern Health Board.

<sup>&</sup>lt;sup>5</sup> The data in this section are based on the returns from a questionnaire sent to the Health Boards by the Department of Health and Children in November 2000. While every effort has been made to ensure that the figures are comprehensive, there remains some level of possibility that some omissions may persist. However, there is no evidence that these are of material importance for the purpose of this exercise, apart from as indicated in the estimation of the additional posts that are required.

<sup>&</sup>lt;sup>6</sup> The figures in this and following tables include posts in the Health Board Services (Intellectual Disability, Physical & Sensory Disability, Autism, Older People and Palliative Care) former direct-funded agencies and Section 65 Agencies (Intellectual, Physical & Sensory). The Western Region includes data for Galway Regional Hospitals (University College and Merlin Park).

<sup>&</sup>lt;sup>7</sup> It should be noted that the totals for vacancies in each of these tables vary significantly, even over short periods of time, which can make comparison at any point in time difficult.

physiotherapists in Ireland work in the private sector. The ISCP estimates that at least 500 of their membership work in private practice,<sup>8</sup> the employment location of the remaining 500 is unknown. What this does indicate, however, is that the existing deficit – as defined by vacancies in the public sector – is only a small percentage (3%) of the total potential labour supply of registered physiotherapists. However, as developed below, this does not lead to a conclusion that a marginal increase in the supply would resolve the problem.

#### Occupational Therapists

The data for employment of occupational therapists in the health boards are shown in Table 2.2.

**Table 2.2: Number of Occupational Therapists Posts in Health Boards** 

|            | -        | -      |        |          |
|------------|----------|--------|--------|----------|
|            | Existing | Filled | Vacant | % Vacant |
| Eastern    | 85.1     | 77.1   | 8      | 9.4      |
| Mid West   | 23.1     | 14.8   | 8.3    | 35.9     |
| Midlands   | 26.5     | 22.5   | 4      | 15.1     |
| North East | 22       | 12.5   | 9.5    | 43.2     |
| North West | 29.0     | 26.5   | 2.5    | 8.2      |
| South East | 14       | 7.5    | 6.5    | 38.2     |
| Southern   | 25.9     | 17.3   | 8.6    | 33.2     |
| Western    | 17.5     | 12.5   | 5      | 28.6     |
| Totals     | 243.1    | 190.7  | 52.4   | 21.6     |

These data show that the vacancy rate for Occupational Therapists is significantly higher than for Chartered Physiotherapists and that the high rate is consistent across a much greater part of the country. Once again, the North Western and the Eastern regions report lower vacancies. This would appear to add credence to the suggestion that the existence of a large urban area – at least in the case of Dublin – might make recruitment easier, <sup>9</sup> although it does not explain the low vacancy rates in the North West. The Association of Occupational Therapists (AOTI) has produced figures that indicate that there are a total of 461.5 posts for Occupational Therapists in Health Boards. The precise reason for the discrepancy between these figures and those obtained in the survey conducted by the Department for this study is unknown, but differences in interpretations of who is actually working for the health boards is certainly part of the reason. In addition, changes to the method of allocating funding and the posts covered may lead to differences. The AOTI work uncovered 86 vacancies for Occupational Therapists (18.7%). Whatever, the precise magnitude, it is clear that there is a serious shortage of trained personnel.

The lack of a statutory requirement to be a registered practitioner in Occupational Therapy means that it is not possible to present a verifiable estimate of the percentage of total employment accounted for by the public sector, or the total potential supply of occupational therapists. In total, however, research by the AOTI has led to an estimate that there are in the region of 550 FTE Occupational Therapists working in Ireland. There are 190 FTEs employed by Health Boards. This leaves a balance of 360FTEs, which is employed outside the Health Board sector.

#### Speech and Language Therapists

Table 2.3 shows the returns for speech and language therapists. The vacancy rate is even higher among Speech & Language therapy posts and, once again, the problem appears to be less acute in the Eastern region.

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<sup>&</sup>lt;sup>8</sup> Private practice is a sub-set of the private sector as defined in this report. The private sector – that part of the medical sector where the employment is not publicly funded – but includes also the Dublin Academic Teaching Hospitals (DATHS) and various other organisations, which nevertheless are publicly funded..

<sup>&</sup>lt;sup>9</sup> The implication of this is that an efficient labour market requires that supply exceeds demand by some small percentage. This and associated issues are returned to in the final part of this report.

Table 2.3: Number of Speech & Language Therapists Posts in Health Boards

|            |       | 0 0    |        |          |
|------------|-------|--------|--------|----------|
|            | Total | Filled | Vacant | % Vacant |
| Eastern    | 91.7  | 85.7   | 6      | 6.5      |
| Mid West   | 40.2  | 24.2   | 16     | 39.8     |
| Midlands   | 25.4  | 13.8   | 11.6   | 45.7     |
| North East | 16    | 4      | 12     | 75.0     |
| North West | 34.3  | 19.8   | 14.5   | 42.3     |
| South East | 33.5  | 26.5   | 7      | 20.9     |
| Southern   | 57    | 45.8   | 11.2   | 19.6     |
| Western    | 38.5  | 32.5   | 6      | 15.6     |
| Totals     | 336.6 | 252.3  | 84.3   | 25.0     |

The Irish Association of Speech and Language Therapists (IASLT) has independently estimated that there were 446.9 posts in the Health Boards of which 288.8 were filled in October 2000. This is close to the estimates obtained in the current study for posts filled but indicates a much higher level of vacancies (158 or 35.4%). The problem with estimating the number of posts when such a large number of vacancies exist is that the total is, effectively, notional: there is no hope of filling all posts so the existence or otherwise of a post becomes almost a matter of opinion.

As with both other therapies, there is no statutory requirement for registration. However, the IASLT estimates that the public sector accounts for most (over 90%) of those working in Speech & Language therapy in Ireland.

In total, 19.2% of all approved therapists' posts in the public health sector are vacant<sup>10</sup>. This is clearly excessive in terms of an effective labour market. It also raises the possibility that the creation of posts has been held back due to the knowledge that there is little chance of filling them, thus creating a level of hidden vacancies. This would certainly seem to be a possibility given the figures that arise from Health Boards' estimates of current additional requirements in Section 2.2 below.

A final issue of note is the dominance of females in total employed qualified people. While a gender breakdown of total employment is not available for the whole sector some public sector data are available. This indicates that over 95% of personnel across all three, therapy professions are female. While one would expect a majority to be female this is a remarkable outcome. A cause is that the difficulty of securing a place in existing courses weights the likelihood of entry in favour of females given their higher scoring in the Leaving Certificate. However, this may not be the only issue.

Dublin Academic Teaching Hospitals (DATHS)

A considerable number of therapists are employed in the Dublin Academic Teaching Hospitals (DATHS). These hospitals were surveyed to discover the level of vacancies and the likely developments they foresee in demand for therapy services. Table 2.4 contains information in relation to the posts and vacancies in these hospitals.

Table 2.4: Employment and Vacancies in Dublin Academic Teaching Hospitals (DATHS)

|               | Physiotherapists |        | Occupational | Therapists | Speech & Language Therapists |        |
|---------------|------------------|--------|--------------|------------|------------------------------|--------|
|               | Employed         | Vacant | Employed     | Vacant     | Employed                     | Vacant |
| Beaumont      | 28               | 3      | 10           | 3          | 7                            | 0      |
| Mater         | 38               | 3      | 8            | 1          | 6                            | 0      |
| St. James     | 28               | 7.5    | 15.5         | 1.5        | 8                            | 1      |
| St. Vincent's | 28.5             | 3      | 10           | 1.5        | 3                            | 1      |
| Tallaght      | 33               | 2      | 11.5         | 1          | 12                           | 2      |

<sup>&</sup>lt;sup>10</sup> In the UK in 1999, only 2.5% of all posts for occupational therapists, physiotherapists and speech and language therapist had remained vacant for over 3 months, compared to 1.7% of posts for all NHS staff. The figures were 1.2% for S&L and 1.9% for OT. This suggests a somewhat higher figure in the region of 4.4% for Chartyered Physiotherapists (assuming an equal number of posts for all 3 therapies). See: *Retention and Vacancies Survey 1999*, UK Department of Health Recruitment (HMSO).

| Total    | 155.5 | 18.5 | 55 | 8  | 36   | 4 |
|----------|-------|------|----|----|------|---|
| % Vacant | 10.   | 6    | 12 | .7 | 10.0 | 0 |

The most striking point about this table is that the incidence of vacant posts is much lower than in the health boards. Indeed, the vacancy rates are not much more than a few percentage points above what might be considered normal in a profession where even a moderately tight labour market exists.

However, this analysis ignores the fact that systems have been adapted to accommodate the undersupply leading to a latent demand. This is certainly suggested by the data in Table 2.6, below. When asked to estimate the number of additional therapists required to supply a 'desirable' objectively set level of service, the results indicate that considerable further posts would exist if the hospitals believed that they could fill them.

#### 2.2 Relevant Targets and Benchmarks: Gap 2

The size of the Irish health service, its modes of operation and the range of services that are delivered – including gaps in the services – has been overwhelmingly determined by the resources that have been available to it in the past. This has been the case rather than transparent objective targets such as best international practice. While errors are possible in any generalisation, it seems appropriate to assume that the level of services is less than would have been the case if the balance of determining forces was different. This would appear to be very likely in regard to services such as those supplied by the therapy professionals since these are often viewed as non-essential in terms of achieving some level of critical care<sup>11</sup>. However, this balance is likely to change, or at least has the potential to change in the near future.

Two approaches are adopted here in determining the likely impact of these changes on the demands for therapists. The first is to ask the Health Boards to estimate the additional number of posts that are required during their current planning period. Since planning horizons differ and since no criteria for service provision were identified, there is inevitably going to be some element of arbitrariness in this approach. Some estimates are in terms of needs over the next five years, some are for the next year and some are current requirements. However, the value of this exercise arises from the fact that the respondents who compiled these estimates are also the people who are charged with achieving some level of healthcare provision.<sup>12</sup>

The Health Boards were asked to supply estimates of the additional posts that would be required to enable them to respond to the needs of persons with intellectual, sensory or physical disabilities, to people with autism, to older people and to persons requiring palliative care <sup>13</sup>. Their estimates are contained in Table 2.5. The most striking feature of this table is the huge number of extra, required posts that are identified by the Health Boards. In total, this amounts to almost 1,100 more full time posts (FTEs) – and considerably more posts in total – across the three-therapy professions. Since the qualified personnel are overwhelmingly female, some weighting will need to be applied: a higher proportion of females than males work part-time at some stage of their career. As a result, the number of additional personnel required to meet these requirements would certainly exceed 1,100.

Table 2.5: Estimated Additional Full-time Posts Required by Health Boards

| Region | Chartered        | Occupational | Speech     |
|--------|------------------|--------------|------------|
|        | Physiotherapists | Therapists   | &Language  |
|        |                  |              | Therapists |

<sup>&</sup>lt;sup>11</sup> As ever, the consultants have no wish to, and are in no position to, make any professional assessment of the relative importance of difference branches of the healthcare professions in determining the health and wellbeing of the country.

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<sup>&</sup>lt;sup>12</sup> Once again, these totals are for the publicly funded sector only. It is assumed that the private sector is supplying the level of service that is being determined by the market and will not experience any need for change.

<sup>&</sup>lt;sup>13</sup> It is implicitly accepted that these estimates relate to the meeting of current demand as distinct from the forces that will alter demand in the future in Section 2.3, below.

| Eastern                  | 45.5           | 38      | 38.5    |
|--------------------------|----------------|---------|---------|
| Mid Western              | 22.2(e)        | 38.4(e) | 44.4(e) |
| Midlands                 | 38             | 116     | 68      |
| North Eastern            | 42             | 31      | 25.5    |
| North Western            | 53             | 42.5    | 22      |
| South Eastern            | 20.5           | 24.5    | 24      |
| Southern                 | $41.5(e)^{14}$ | 43.0(e) | 62.9(e) |
| Western                  | 54.3           | 70.5    | 86.3    |
| Totals                   | 317            | 403.9   | 371.6   |
| % Increase over Existing |                |         |         |
| Posts                    | 111.2          | 166.1   | 110.4   |

A similar type of exercise carried out by the AOTI found similar magnitudes of projected increases. For four Health Boards (Eastern, Western, South Eastern and Midlands) the total additional requirement for Occupational Therapists is estimated at 274 in the period 2001-2005 similar to the 249 found in this study, although the distribution across regions differed considerably. This is on top of an increase of 158, in the number of Occupational Therapists posts in these regions since 1996.

The Dublin Academic Teaching Hospitals (DATHS) also indicated that the number of current posts is considerably lower than the number required to supply a desired level of service. Their estimates are contained in Table 2.6.

**Table 2.6: Additional Posts Required Immediately** 

|                                | Chartered<br>Physiotherapists | Occupational<br>Therapists | Speech & Language |
|--------------------------------|-------------------------------|----------------------------|-------------------|
| Beaumont                       | 9                             | 6.5                        | Therapists 3      |
| Mater                          | 6.5                           | 8.5                        | 3                 |
| St. James                      | 24.5                          | 17.5                       | 6                 |
| St. Vincent's                  | 5                             | 3                          | 2                 |
| Tallaght                       | 4                             | 9.5                        | 2                 |
| Total                          | 49                            | 45                         | 16                |
| % Increase over Existing Posts | 28.2                          | 71.4                       | 40.0              |

These posts arise from unsatisfied demand. However, while not insignificant, this level of shortage is not as significant as was found in the case of the health boards.

Altogether, the number of additional therapists required immediately is about 1,200.

There are two main problems with the approach used to compile these tables. The first is that it is totally subjective and not verifiable in any way. In other words, it is subject to the influences and biases inherent in asking a bureaucracy to estimate its desirable growth rate over the future. It is not inconceivable that there could be an upward bias in any such estimate. The second problem is that the estimate is produced by a system that has been operating in an environment that is changing rapidly. Inevitably, there will be a strong stochastic influence in any such system that would result in errors in any projections. In other words, these projections are based on the past with mindsets and targets that may now be obsolete. It is impossible, *a priori*, to assess the likely direction of any such error.

A second, and alternative, approach is to adopt some objective standard as a target that Ireland could aim for in the next decade. This calculation is the difference between the total number of posts in Ireland and the number that would exist if Ireland had a similar number of posts as other countries adjusted for population and its demographic features. It is necessary to take the total number employed in the professions in Ireland, since to concentrate on the public sector alone would require some estimate of the proportion of the population that uses these services in the private sector. This is not available.

<sup>&</sup>lt;sup>14</sup> The figures for the Southern and Mid Western regions are the consultants' estimates obtained by applying the average projected increase across other regions to the existing totals in these two regions.

International data on the actual ratios of therapists to population, let alone the desirable ratio, are rare and difficult to handle. Definitions and means of measurement differ, the role of assistants is important but variable and reliable measurements are few. However, a small number of indicative ratios are included here.

The most obvious country for comparisons would be the UK. However, while detailed data on employment in the NHS are readily available, centralised statistics on total employment are not collected. As a result, the problem of translating this to the whole population requires some assumptions. Detailed data on total employment are published by some US states. However, there is a much more developed role for therapy assistants in the US and their occurrence often appears to be in the region of 50 per cent of full therapists. In fact, US therapists representative associations have been voicing many concerns in recent years regarding the number of therapy assistants being trained by the colleges. In addition, the role of many professions differs considerably. New Zealand makes a useful comparison as it is a country of comparable size with reasonably similar definitions and some similarities in the health services. With these points in mind, Table 2.7 provides some indication of the data that are available.

Table 2.7: Ratio of Therapists to Population in Selected Areas

|             | Number per 100,000 Population   |            |           | Ratio Th         | erapists:Population | n        |
|-------------|---------------------------------|------------|-----------|------------------|---------------------|----------|
|             | Chartered Occupational Speech & |            | Chartered | Occupational     | Speech &            |          |
|             | Physiotherapists                | Therapists | Language  | Physiotherapists | Therapists          | Language |
| England     | 29.7                            | 8.7        | 9.6       | 1:3,350          | 1:11,500            | 1:10,400 |
| New Zealand | 29.7                            | 15.7       | 11.4      | 1:3,350          | 1:6,375             | 1:8,900  |
| Indiana     | 44.0                            | 34.0       | 29.0      | 1:2,275          | 1:2,925             | 1:3,500  |
| Ireland     | 35.0                            | 14.9       | 8.1       | 1:2,850          | 1:6,725             | 1:12,350 |

Durces: England – Parliamentary Questions, Hansard House of Commons Written Answers, 26/7/'00 New Zealand – Selected Health Professional Workforce in New Zealand 1999, New Zealand Health Information Service, March 2000

Indiana – Annual Report 1999, Indiana Health Care Professional Development Commission

The totals for Ireland on which these data are based are 1,300 Chartered Physiotherapists, 550 Occupational Therapists and 300 FTE Speech & Language Therapists <sup>15</sup>. While recognising that this table is clearly selective <sup>16</sup> – the locations being based on the data that are available – the somewhat unexpected outcome is that it does not support the conclusion that there is a major under-supply of physiotherapists or Occupational Therapists in Ireland. The figures for Ireland and New Zealand are actually very close for both these professions. The figures for the UK and Indiana are as would be expected – much lower for the UK since the private sector is excluded, much higher for the US since definitional problems are important, particularly in the case of Occupational Therapists. However, the situation with regard to Speech & Language therapists is clearly different.

It would be ill-founded to base overly strong conclusions on this table. However, it should be stated that, in as far as this evidence is relevant, international comparison of the number of therapists available in other countries does not seem to agree with the conclusion that there is an overall major undersupply in Ireland, apart from Speech & Language therapists. However, this is not to suggest that there is no shortage in the Irish publicly funded healthcare system.

The IASLT has estimated that 23.37 speech and language therapist posts per 100,000 population – about 3 times the current concentration – are required to provide an adequate level of service. On this basis, a total of 876.3 posts are required in Speech & Language therapy in Ireland, compared to the existing 446.9 posts and 288.3 FTE people employed (IASLT figures). This figure, of 288.3 FTEs, is in broad agreement with the number found in the surveys undertaken for this report. These found 252.3 Speech & Language therapists working in the health boards and 34 in the hospitals, while a small number in the region of 20 FTE positions exist in the private sector. This research suggests that a further 588 qualified Speech & Language therapists are required to meet current demand adequately.

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<sup>&</sup>lt;sup>15</sup> These figures are taken as most likely estimates on the basis of data from the IACP, the AOTI, the IASLT, and the survey results presented in Section 2.1 above.

<sup>&</sup>lt;sup>16</sup> Some data are also available for other parts of the UK and US but the ratios would all fall within the limits set by the examples included in this table.

However, the New Zealand figures in Table 2.7 indicate that a total in region of 420, implying an additional 140, would be more appropriate.

#### 2.3 Future Trends in Demand: Gaps 3 and 4

In making projections in respect of these influences, it is assumed that the private sector is already providing a level of service that would meet the full quality driven needs that will exist in 2015. However, there is a quantity driven increase imminent. It is assumed that this will all be met by the public sector, with no increase in the number required in the private sector, from this source.

#### 2.3.1 Quantity of Healthcare Services Demanded

To get an estimate of the expected growth in demand as a result of trends in the population, figures compiled by the Department of Health and Children for the purpose of estimating funding applications under the National Development Plan were used. These are based on the increased requirements over the next 7 years. Because of the different objectives, the data from this source are available in aggregate across the three therapies and certain assumptions in relation to the composition of teams of specialists where funding was sought on this basis are also required. These indicate additional requirements as detailed in Table 2.8.

Table 2.8: Additional Funding for Full-time Therapists

**Sought by Health Boards (Number of FTEs)** 

|               | ,    |
|---------------|------|
| Eastern       | 147  |
| Mid Western   | 12.5 |
| Midlands      | 10   |
| North Eastern | 15   |
| North Western | 77.5 |
| South Eastern | 31   |
| Southern      | 56   |
| Western       | 80   |
| Total         | 429  |
| 2             |      |

**Source:** Department of Health and Children

The DATHS were also asked to estimate the likely effect of observable trends in the population on the demand for therapists over the next five years. This led to the result that demand for chartered physiotherapists would be likely to grow by 94 (8% per annum), demand for Occupational Therapists by 38 (7% per annum) and Speech & Language therapists by 28 (10% per annum). These rates are considerably higher than those foreseen by the health boards. The figures in Table 2.8 indicate growth in the region of 5% per annum across the three therapy professions.

It is clear that these figures cannot be considered in isolation from those in Tables 2.5 and 2.6 above, although neither the magnitude nor the distribution bears comparison. However, they are an additional source of information since the method of compilation was quite different being based on expected changes in demand as a result of identified trends in the populations being services. As discussed in Section 1.3 above, these imply increased demand for a number of reasons that are mostly concerned with increased longevity and increased survival rates from critical injury. In theory, if not in practice, this amounts to an exponential type of growth in demand: the better the service that is supplied in period 1, the greater will be the demand for the service in period 2 because the population requiring the service has increased. This is quite different from the trend identified in Section 2.3.2 below.

The trend is definitely towards increased demand, but any conclusion as to what this means in terms of the number of therapists required is somewhat tentative. It does appear reasonable to conclude, however, that growth in the population that will require therapy over the next decade or so would require in the region of an additional 500 to 600 qualified personnel in Ireland over the medium term. This implicitly assumes that the current level of public service is maintained – but this is not a recommendation for a particular target. To allow for this growth, a figure of a constant 4% growth per

annum in demand is assumed for the next 5 years, falling to 2% per annum thereafter, in the projections below.

### 2.3.2 Quality of Healthcare Demanded

For a number of reasons, mostly related to rising disposable incomes and the growing horizon of what is possible, there is a persistent increase in demand for healthcare services in developed countries that is present even in otherwise static populations. For simplicity, this is described here as a quality related determinant of demand. This force is not consistent across all parts of the health sector, but it is likely to be particularly evident in 'quality of life' related healthcare. The therapy professions fall into this category. Given its stage of development, this is going to be important in Ireland in the next decade.

The problem with identifying the impact of this development is that it is not a separate demand that can be observed independently from other factors. However, it is positive. To provide an estimate of its relative importance, an – admittedly crude – approach is taken. The value of healthcare services has been rising in developed countries. Healthcare inflation, the 'per-unit' cost of care, has exceeded the general rate of inflation. However, by deflating the total cost of healthcare by a suitable inflation index an estimate of the real growth of healthcare expenditure and some indication of changes in the quality of services can be obtained.<sup>17</sup>

Healthcare expenditure has been rising in real terms even when allowance is made for the increasing cost of providing the service. Henderson (1999)<sup>18</sup> estimates that real expenditure on healthcare in the US rose by 5% annually in the period 1971 to 1998, and while accepting that population and demographic factors were important he also indicates the importance of quality of care factors. Expenditure on the NHS in the UK has been rising at 4.7% per annum after general inflation during the life of the present government and is planned to increase in real terms at 6.1% annually up to 2005. Figures from Australia indicate that real expenditure on health care has been rising annually at 3.1% over a prolonged period. Similar developments have been occurring in Europe although efforts to reduce state expenditure commitments in some countries have resulted in positive albeit lower growth rates. For example, total expenditure in Denmark grew annually by 1.2% in real terms in the 1990s. In total, growth in expenditure on healthcare outpaced GDP growth in 1996-99 in 21 out of 29 OECD countries.

Some of this growth is due to changes in population as discussed earlier. Controlling for population as well as price changes provides an estimate of the impact of 'quality of care' factors on overall service demand. This is shown for a range of countries in Table 2.9. This table clearly shows the slowdown in the real per capita growth that has occurred in the 1990s when compared to earlier decades. This development, particularly in Europe had more to do with the macroeconomic efforts of governments to control the growth in public expenditure, a progression that was more in evidence in the 1980s in the UK. Exactly comparable figures for Ireland are not available, but it is very likely that this retrenchment was also more evident in the late 1980s and early 1990s. As this period passes, it is likely that the higher long-term trend will begin to assert itself.

Table 2.9: Real Expenditure on Healthcare per Capita (% annual growth)

| ( / o ammaan gro ( til) |         |         |           |
|-------------------------|---------|---------|-----------|
|                         | 1970-80 | 1980-90 | 1990-1996 |
| Australia               | 3.3     | 2.6     | 3.0       |
| Austria                 | 4.1     | -0.1    | 0.4       |
|                         |         |         |           |

<sup>&</sup>lt;sup>17</sup> This is described as crude for a number of reasons. First, it assumes that there is some sort of a market mechanism operating, albeit in the long run. Second, some of the increase is related to increased demand due to a greater population. Third, international trends are not always relevant in Ireland. Finally, the calculation of one sector wide figure and its application to different specific sectors is always problematic. However, despite these issues, general trends will tend to assert themselves in the long run.

<sup>&</sup>lt;sup>18</sup> Henderson, James (1999) *Health Economics and Policy* South Western College

<sup>&</sup>lt;sup>19</sup> There may be still a small over estimate since particular changes in the structure of populations may be relevant. For example, growth in the population of older people at 2.7% annually is more rapid than overall population growth (1.7%).

| Canada         | 3.1  | 2.5  | 0.4  |
|----------------|------|------|------|
| Denmark        | 7.4  | 0.6  | 2.6  |
| France         | 6.6  | 4.5  | 2.3  |
| Germany        | 5.6  | 1.3  | 2.2  |
| Italy          | 7.8  | 1.9  | 0.9  |
| Netherlands    | 1.4  | 1.8  | 2.1  |
| New Zealand    | -1.1 | -0.7 | -1.3 |
| Spain          | 7.9  | 2.3  | 1.8  |
| United Kingdom | 4.7  | 1.8  | 2.2  |
| United States  | 3.6  | 2.8  | 1.1  |
| EU average     | 5.7  | 2.4  | 0.7  |
| OECD average   | 4.8  | 2.3  | 1.2  |

**Source:** OECD Health Data 1999

This suggests that an assumption of annual growth per capita in line with the average seen in the early 1990s would be reasonable, if cautious. Since this is a real figure and productivity gains in health service sectors are notoriously difficult to achieve, this translates directly into an extra 1.2% per annum therapists required. Over a decade this amounts to an additional 12.5% of the personnel that would be requirement if no real growth were to take place. There is growing recognition of the need for additional non-acute or 'step-down'/rehabilitation beds. In addition, a number of health boards have argued the need for an expansion in the number of acute beds. This will have obvious implications for the demand for therapists, and from speaking to those who are involved in the early stages of this project, it is anticipated that the increased beds will generate a demand for a 25% increase in therapists. However, this initiative falls within the category of change contained in Gap 2, involving improvements in quality of care.

#### 2.4 Summary

This part of the report has attempted to quantify the numbers of therapists that are currently required to fill vacancies in the profession, to develop the level of service that is provided, and to meet demand up to 2015. There is serious under-supply at present with widespread vacancies. It is also suggested by the people who operate in the sector that even if these vacancies were filled there would be additional requirements due to the need for the Irish health sector to reach some objectively determined level of service provision. Estimates for extra requirements over the next decade indicate that in the region of 4% extra personnel per annum will be required in the medium term, falling to 2% per annum in the longer term to meet increased demand due to underlying changes in the population from which the demand emanates. Finally, an extra 1.2% of therapists per annum will be required to meet increased demand as a result of real increases in the demand for healthcare services. Table 2.10 presents this in terms of total additional requirements i.e. the increase required over those currently working in Ireland

Table 2.10: Additional Therapists Required up to 2015

|                                 | Chartered        | Occupational | Speech &   |
|---------------------------------|------------------|--------------|------------|
|                                 | Physiotherapists | Therapists   | Language   |
|                                 |                  |              | Therapists |
| Gap 1: Current Vacancies        | 58               | 60           | 78         |
| Gap 2: Additional Requirements  | 208              | 239          | 388        |
| Gap 3: Quantitative trends      | 667              | 362          | 326        |
| Gap 4: Quality of service       | 395              | 214          | 193        |
| Total additional requirements   | 1328             | 875          | 985        |
| % Increase over existing supply | 102              | 159          | 328        |
| Total in 2015                   | 2628             | 1425         | 1285       |

Some further comment on this table is required. The figures for Gap 1 are taken directly from Tables 2.1 to 2.4 above. Estimating the additional therapists required to meet some objective level of service – Gap 2 – is more problematic. It does appear certain that it is a non-trivial number given the very high likelihood that the existing allocation and funding of posts has been determined with reference to constraints – funding in earlier years, personnel in recent years – other than the delivery of an objectively determined level of service. In other words, the current level of service, even if all

vacancies were filled, would have been distorted due to the shortages in the past. However, the estimates contained in Table 2.5 appear high in the case of Physiotherapists and Occupational Therapists, given the arguments in the text. Therefore, this table uses 50% of these figures, plus the figures in Table 2.6. For Speech & Language therapists the estimates are accepted. They lie in the middle of the range of 140 – the number required to meet New Zealand's concentration – to 588 – the number estimated by the IASLT. The estimates for Gap 3 are the 4% growth per annum up to 2006 and 2% growth per annum thereafter. Finally, Gap 4 is based on 1.2% growth per annum of the total for the previous lines plus the number currently working.

It is immediately clear from the manner of their construction and the data constraints that were recorded that these estimates should be treated as indicative. However, such is the magnitude of the under-supply that has been recorded that the conclusions can be drawn with confidence. A major increase in supply is urgently required. Failure to do so will inevitably lead to a further undermining of the ability of the health service to meet the needs of the population. Ongoing leakage from the public to the private sector is likely, but the solution to this will not be provided by incentives to maintain personnel in the public sector. At best, this would only work to rebalance some of the shortage towards the private sector. If the service was not then available in the private sector, demand would revert to the public sector and the initial situation would reassert itself. A much more radical approach that emphasises the need to ensure an adequate supply of trained personnel is required. The next section examines the likely ability of the existing training system to meet these needs.

<sup>20</sup> This is not a judgement as to the general necessity, or otherwise, of alterations to the rewards system in the public healthcare sector.

#### 3. Education, Training and Supply

#### 3.1 The Supply System

The 1994 Health Strategy recognises that the development of a modern health service has increased demand for qualified personnel in a range of health related disciplines. The therapy professions would fall within this ambit. However, it goes on to state that 'the output of these from the education/training system has not kept pace with demand. This has led to shortages in many areas.' There is a clear recognition in this that the non-availability of qualified personnel is placing a constraint on the development of the health services. In addition, it is worth noting the identification of the training system and the education system as a source of the problem. For example, in training a critical issue is the availability of clinical placement opportunities. In education, issues are the number of places available, the allocation of these to persons, the vast majority of whom are second level school leavers, together with the availability, solely, of fixed duration degree courses.

The supply of personnel is tightly regulated. Without undertaking any examination of the basis of the regulation that is currently in place, there are good reasons to accept the contention that some regulation is appropriate to control entry into the profession. The main argument is favour of regulation is quality control. Another criterion is cost control, by availing of such economies of scale as might be available in the delivery of education and training and the avoidance of excessive education leading to over-supply. However, since this latter outcome appears a remote possibility, the main arguments in favour of the current regulation must relate predominantly to the preservation of the quality of the training. Finally, declining secondary school leaving cohorts complicate the issue of supply in the future.

The consultants are not in a position to comment on the quality of the education and training that is being provided currently, or the relative quality of available alternatives. However, it can be stated that arguments for quality regulation through quantity control – such as existed in many parts of the economy in the past – have, on deeper examination in recent years, been generally shown to be inefficient, costly and harmful. Of course, this assumes that the objective of quantity control assured quality in the first place. The onus therefore, is for the case to be proven that restricting quantity is the best way to preserve quality. The role of the consultants in this report is to point out that this has proven to be a very costly way to achieve the goal in the case of the healthcare therapists, while acknowledging that the primary role reason for restricting quantity has not been to preserve quality.

One major cost arises from the misallocation of talent that can occur in a highly distorted market. A result of the disparity between the entry requirements of the courses and the minimum ability required to successfully undertake the study, is that Physiotherapy, Occupational Therapy and Clinical Speech Therapy courses have been attracting school-leavers who are very highly qualified in terms of their Leaving Certificate performance. While this increases the probability that there will be intelligent therapists produced, it is a very costly situation from a welfare point of view. There are two aspects to this. First, there is an increased risk that many of these students, having been attracted by the prestige of the course, will be unfulfilled by the demands of the course and subsequent career. It may be noted, for example, that there is significant drift from therapy into general management. The idea that 'points should not be wasted' by accepting a course for which there are lower points requirements is widespread, but seriously erroneous. The Commission on the Points System considered these issues. It concluded that the existing system should remain, while also recommending that there should be active consideration of different entry requirements to professional healthcare courses.

The second loss arises from a resource allocation perspective. Murphy, Shleifer and Vishny (1991) divide economic activity into rent seeking and production<sup>21</sup>. Thus, rent seeking activities are concerned solely with the distribution of welfare, in other words the share of wealth that already exists; production is wealth creating. Their analysis used the number of lawyers as an indicator of rent seeking activity and the number of engineers as an indicator of entrepreneurship. Not surprisingly, economies with a

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<sup>&</sup>lt;sup>21</sup> Murphy, K., A. Shleifer and R. Vishny (1991) 'The Allocation of Talent: Implications for Growth' *Quarterly Journal of Economics*, Vol. CVI (2), pp. 503-530.

greater proportion of lawyers tended to grow slower than those countries with more engineers. However, incentives exist in modern economies for the most able people in an economy to become rent-seekers rather than entrepreneurs. What is happening is that the incentives are allocating talent in a sub-optimal manner.

Fingleton (1994) has applied this analysis to the Irish economy and argued that where the level of competition is weak, the opportunities for rent seeking behaviour, and thus the incentives, are greater<sup>22</sup>. There is a clear case of this type of situation created in healthcare education. Regulation has created a sector with high entry requirements. The only people gaining entry are those of high ability. However, there is a danger that the talents of these people are being under-utilised. This type of misallocation imposes a cost on the economy.

The next section of this part of the report provides an estimation of the likely supply of qualified professionals in all three therapies in the future. The output of Irish training institutions is an important element in this. Also important are UK trained personnel and the rate of employment uptake by qualified personnel. While, once again, the estimates produced require some assumptions, the conclusion can be expressed in a fairly straightforward manner regarding the number of trained personnel that are, and will be, required. However, this gives rise to two more problematic issues that are discussed in the final section of this report. These relate to the need for reform of the training system in addition to expansion of capacity.

#### 3.2 The Policy Options Available

Solving the problem of under-supply in the therapy labour market can be approached in different ways distinguished according to the speed of adjustment from a position of deficit to efficiently functioning labour market. This will imply a major adjustment to the approach that has existed to date to ensure that the situation that has appeared can be avoided in the future. However, as in many such cases, the way to achieve this is a pragmatic compromise between what is desirable and what is possible in the short term, taking due cognisance of the difficulties that must be overcome.

Irrespective of the approach that is taken, there will be no labour market effects before 2005, in the absence of such measures as an international recruitment drive and the introduction of an accelerated learning programme, (see Section 4.2 below). In fact, given that structures take time to be put in place, it may be the case, even with rapid decisions, that not much difference will appear before 2007, except for the initial output from the new physiotherapy posts that have been created in RCSI and UCD. Two options – rapid adjustment to solve the problem by 2010 and gradual adjustment to solve it by 2015 – are considered. The differences between these options are laid out visually<sup>23</sup> and in terms of the number of places that are required to achieve them as follows.

#### **Option 1: Rapid adjustment**

Serious under-supply exists at present. This is likely to get worse in the near future. As a result, a radical approach is required that will address the problem in the short term, even if it will require further adjustment in subsequent years to provide a long term solution. The labour market outcome resulting from this approach is profiled in Figure 3.1.<sup>24</sup>

<sup>&</sup>lt;sup>22</sup> Fingleton, J. (1994) 'Competition Policy and Employment' Economic and Social Review, Vol. 25 (1).
<sup>23</sup> Figures 3.1 and 3.2 are diagrammatic representations and are not necessarily drawn to scale.

<sup>&</sup>lt;sup>24</sup> Current supply refers to the supply of therapists that would result from a continuation of current output levels.

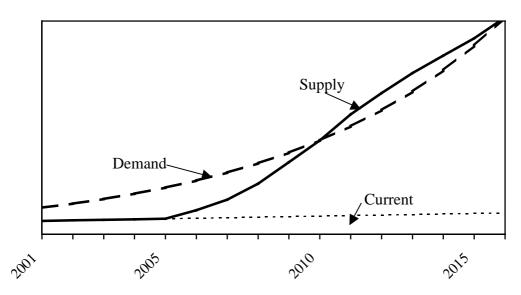


Figure 3.1: Profile of Labour Market with Rapid Adjustment

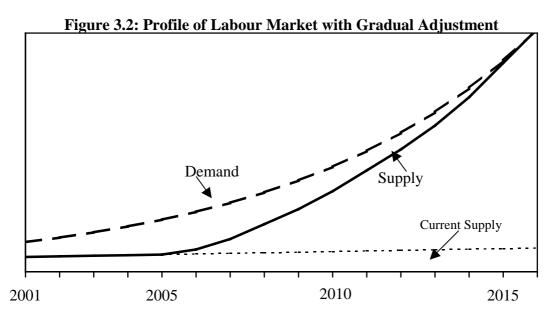
Demand will not grow linearly in the future because the effect of the future trends arising from a higher number of patients and higher incomes – Gaps 3 and 4 – will grow along with the overall size of demand. Thus, the number of additional therapists required each year rises each year.

The main benefit of a rapid adjustment path is that it would resolve the problem over a shorter time frame, thereby reducing the overall costs that arise from the deficits. However, there are two major problems with this approach. First, as shown in Figure 3.1, it requires an expansion in output that is considerably larger than the expected growth in demand that will occur over the period of the adjustment. This means that at some point – in the years following 2010, if the adjustment is planned for this period – the system will produce an excess supply of therapists. This would require a new phase of planning and the adjustment of the system to remove the excess. In fact, provided sufficient flexibility is introduced, this need not be an insurmountable difficulty and in reality it is no more than moving to a market-responsive system. However, there are costs implied in putting additional supply facilities in place in the knowledge that they may be excessive beyond the period of adjustment. The decision on this approach would depend on evaluating whether the costs involved were at least offset by the benefits of addressing the problem – and thereby avoiding a number of years of the costs arising from excess demand – rather than adopting a more gradual approach.

The second problem is probably more problematic. This approach requires a major increase in the ability of the system to facilitate a large expansion in the output of the colleges, particularly in terms of clinical training. Given the problems that exist at present, this will be difficult to achieve. Thus, while a rapid response to the problem is certainly desirable, there are trade-offs. The shorter the adjustment period, the more likely it is that costs of further adjustment to a stable growth trends will arise. In addition, the strains put on the system would be greater.

#### **Option 2: Gradual Adjustment**

This approach adopts a longer period of adjustment, in this case, seeking to solve the problem in the period up to 2015. The essence of this approach is that sufficient training places are put in place to meet the annual demand in 2015 (or some such date). Additional annual demand at this point in the future will be greater than at present due to the non-linear growth of demand. As a result, output in years in the near future will fall short of annual demand in those years. Thus the deficit will be reduced gradually. The period of adjustment is completed when annual demand equals output and the deficit has been eliminated. This is profiled in Figure 3.2.



The benefits of this option are that it avoids the problem of the more rapid approach, since no future reduction in places is required and the additional places required for training in the near future are kept to the minimum required to solve the problem. However, this approach is not without its problems, the most serious being that it means that a situation of under-supply of therapists will continue for at least another 15 years. In addition, it does not avoid the problems that arise from the need for additional clinical places. There is also a second problem with this approach. It requires careful initial planning of future developments to ensure that the under supply is resolved when the steady state is reached. As noted in this report, this requires a more sophisticated approach to manpower planning and demand estimation than has been evident to date. However, this should not be an insurmountable approach.

#### 3.3 Estimation of Current and Future Supply

There were four courses in Ireland to meet the training needs of all three, therapy professions, one in each profession in Trinity College and physiotherapy in UCD. With the introduction of the new physiotherapy course in the Royal College of Surgeons of Ireland (RSCI) this was increased to five courses. It should also be noted that UCD has expanded its course intake from around 35 to a potential 60 from this year. Applications to all these courses are very high and drop-out rates are low ensuring that the number of places is closely related to the number of graduates.

Details of place numbers and recent developments are shown in Table 3.1.

**Table 3.1: Number of Student Entrants and Graduates in Recent Years** 

| Entrants                | 1997/98 | 1998/99 | 1999/2000 | 2000/01 |
|-------------------------|---------|---------|-----------|---------|
| Physiotherapy           | 64      | 66      | <b>74</b> | 121     |
| TCD                     | 29      | 33      | 31        | 32      |
| UCD                     | 35      | 33      | 29        | 57      |
| RCSI                    | ~       | ~       | 14        | 32      |
| Speech & Language (TCD) | 25      | 26      | 24        | 28      |
| Occupational (TCD)      | 29      | 28      | 28        | 35      |
| Graduates               | 1997/98 | 1998/99 | 1999/2000 |         |
| Physiotherapy           | 65      | 69      | 64        |         |

| TCD                     | 28 | 35 | 30 |  |
|-------------------------|----|----|----|--|
| UCD                     | 37 | 34 | 34 |  |
| Speech & Language (TCD) | 25 | 25 | 29 |  |
| Occupational (TCD)      | 33 | 28 | 26 |  |

Table 2.10 and the accompanying text showed that an additional 1328 Chartered Physiotherapists, 875 Occupational Therapists and 985 Speech & Language therapists will be required by 2015, over and above those currently available, to meet demand. This means that the supply of Chartered Physiotherapists, Occupational Therapists and Speech & Language therapists must increase by approximately 100%, 160% and 330%, respectively in this period. Clearly, this is not going to be achieved by a marginal adjustment of the numbers being trained, although the increased number of places in physiotherapy in recent years is a significant change.

#### *Physiotherapy*

Data show that most graduates of physiotherapy courses register with the ISCP within three years although a considerable number gain employment abroad in the first year. More than balancing this outflow, the number of registrations has been about double the 65 graduates from Irish courses in recent years. When natural wastage is allowed for, the total register has increased from 1,123 in 1995-1996 to 1,453 in 1999-2000. This equates to growth of about 80 per year.

If foreign registrations were to continue at current rates then this would rise to about 130 extra per year after 2005. The IACP estimates that over 90% of registrants are working in Ireland. This means that by 2010, the potential physiotherapist workforce could be in the region of 800 to 900 above its current level. However, there are a few strong assumptions here. This analysis implies a growing dependence on registrations from the UK. Many of these people take up employment in Ireland and it is likely that many are Irish people who have undertaken training in the UK. There is no reason to expect that this will change in the future, although there is no over-supply in the UK and employment opportunities are likely to remain available. The issue relates to the factors that compel Irish student to travel to the UK to study. Clearly, these are committed people who have decided that they wish to study and work as physiotherapists, but have been denied the opportunity to do so in Ireland as a result mainly of the points requirements of the courses. In a situation of expanded numbers of places two factors could cause this to change. The first is that some of these people could get positions in Ireland due to new places coming on-stream. The second is that greater supply could reduce the entry points requirement and physiotherapy could lose its prestige course status and appeal. This would make more room for people who are attracted to physiotherapy as a profession rather than as prestige training. It is impossible to guess even how important this might be, but it would be a positive development in terms of making places available and in terms of reducing the mis-allocation of talent. The important point is that the number of people who are willing to travel to study in the UK in any year is limited and could be affected by these developments. As a result, the number of UK graduates entering the Irish market in the future could fall. The conclusion, therefore, is that the increase in the number of places available in Ireland is likely to be proportionately, rather than fully, reflected in increased registrations and workforce numbers.

Taking these points into account and on the basis of future requirements as detailed in Table 2.10, Table 3.2 provides an indication of the number of registrations required to achieve these requirements. This table assumes that recent trends in physiotherapy registrations continue until 2005. It is assumed beyond this point that 3.33% of registrants leave the register each year. This is equivalent to an assumption that therapists have a working life of 30 years. Given the very high proportion of females on the register this may be a bit generous and an argument for a higher rate of natural withdrawal from employment could be possible, particularly as pressure in the labour market eases in later years.

**Table 3.2: Physiotherapy Registrations Required** 

| Requirement | 178 Annua | l Registrations  | 167 Annu  | al Registrations |
|-------------|-----------|------------------|-----------|------------------|
|             | Available | Balance          | Available | Balance          |
|             |           | (-/+             |           | (-/+             |
|             |           | deficit/surplus) |           | deficit/surplus) |

| 2015 | 2628 | 2737 | 109  | 2635 | 6    |
|------|------|------|------|------|------|
| 2014 | 2547 | 2647 | 101  | 2553 | 6    |
| 2013 | 2468 | 2555 | 87   | 2468 | 0    |
| 2012 | 2391 | 2458 | 67   | 2380 | -11  |
| 2011 | 2317 | 2359 | 42   | 2289 | -28  |
| 2010 | 2245 | 2256 | 11   | 2195 | -50  |
| 2009 | 2176 | 2150 | -26  | 2098 | -77  |
| 2008 | 2108 | 2040 | -69  | 1998 | -110 |
| 2007 | 2043 | 1926 | -117 | 1894 | -149 |
| 2006 | 1979 | 1808 | -171 | 1786 | -193 |
| 2005 | 1918 | 1686 | -232 | 1675 | -243 |
| 2004 | 1823 | 1560 | -263 | 1560 | -263 |
| 2003 | 1733 | 1460 | -273 | 1460 | -273 |
| 2002 | 1647 | 1380 | -267 | 1380 | -267 |
| 2001 | 1566 | 1300 | -266 | 1300 | -266 |

Two scenarios are set out in the table. The first assumes an annual new registration rate of 178 persons. In this scenario, the labour market is in approximate balance in 2010 and a small, slowly growing surplus arises thereafter. This does not imply an excess supply since, as discussed in Section 1.4 above, for an efficient labour market that creates the flexibility necessary for the elimination of distortions, it is necessary for supply to exceed demand by some small percentage. The second projection shows gross annual registrations of 167 new persons and leads to a steady state of market balance in 2015. Clearly, given the possibilities for errors that have already been documented, a registration rate in the region of 175 new qualified persons per annum is most likely to be required. The question then is to determine how this might be achieved.

Output of chartered physiotherapists from Irish courses beyond 2005 will be 130. This means that the projections in Table 3.2 can be achieved only through a continuation of foreign registrations. If the recent rate of foreign registrations at about 65 per year continues then this output will be sufficient. However, as discussed above this cannot be relied on. About 20 registrations in recent years have been non-UK and should continue. Of the remainder, if it is assumed that 50% are accounted for by Irish people who will now get places in Irish colleges, the total for foreign will be about 40 to 45 per annum. This would be just about sufficient to eliminate the excess demand in the labour market over the long term. However, there is no room for error and no flexibility introduced. Furthermore, as the excess demand in Ireland recedes so will the number of foreign registrations. On this basis, a case could be made for additional places in Irish courses, the key determinant being the likelihood of foreign registrations.

It is the opinion of the consultants that manpower planning on the basis of continuing inflows of qualified manpower from abroad introduces a high degree of unnecessary uncertainty. As a result, some increase in the number of places available to bridge the gap between the output of Irish courses – 130 per annum – and the required number of registrations – 175 per year – is required.

#### Occupational Therapy

The results of a similar exercise for Occupational Therapy are shown in Table 3.3. Again, a 30-year working life is assumed. This shows that if the number of places on courses is increased such that there are 140 qualifications per year after 2005 then the excess supply will be eliminated in 2010. Beyond this date a considerable excess demand emerges and, while the rate of growth is falling, this amounts to almost 19% of the total available qualified persons in 2015. This situation is undesirable, so an adjustment of the output numbers would be required by 2010. The extent of the adjustment required would be best estimated closer to the time, but a reduction to about 65 to 70 per annum would appear likely. On the other hand, if the more gradual approach is adopted with 110 new qualified persons per year then the excess supply is eliminated in 2015. Beyond this date a small excess demand emerges and some adjustment might be required. However, even in the absence of any alteration, this excess would be unlikely to exceed 200 persons after a further 5 years.

Translating this requirement in the number of places required is more straightforward than for physiotherapy. In the case of Occupational Therapists, there have been about 20 foreign qualified persons coming to work in Ireland each year. In addition, there have been about 30 Irish people, a figure that will rise to about 35 in a couple of years. Clearly, even the gradual approach above implies a major expansion of the number of people required to gain qualifications in Ireland. This would almost certainly mean that the number of foreign qualifications would dwindle to an insignificant number. Thus, achieving a figure of 110 newly qualified persons each year requires 110 places on Irish courses each year. This implies 75 additional places on Occupational Therapy courses in Ireland with the first output in 2006, to achieve the targets identified in Table 3.3. If the faster approach is adopted, this number rises to 105 additional places per year, falling back to about 35 places over what is currently available from about 2010 onwards.

**Table 3.3: Occupational Therapy Requirements** 

|      | Requirement | 140 Annual | Annual Qualifications 110 Annu |           | al Qualifications |
|------|-------------|------------|--------------------------------|-----------|-------------------|
|      |             | Available  | Balance                        | Available | Balance           |
|      |             |            | (-/+                           |           | (-/+              |
|      |             |            | deficit/surplus)               |           | deficit/surplus)  |
| 2001 | 849         | 550        | -299                           | 550       | -299              |
| 2002 | 893         | 580        | -313                           | 580       | -313              |
| 2003 | 940         | 608        | -331                           | 608       | -332              |
| 2004 | 988         | 643        | -345                           | 643       | -345              |
| 2005 | 1040        | 677        | -363                           | 677       | -363              |
| 2006 | 1073        | 794        | -279                           | 764       | -309              |
| 2007 | 1107        | 908        | -200                           | 849       | -258              |
| 2008 | 1143        | 1017       | -125                           | 931       | -212              |
| 2009 | 1179        | 1124       | -56                            | 1010      | -170              |
| 2010 | 1217        | 1226       | 9                              | 1086      | -131              |
| 2011 | 1256        | 1325       | 69                             | 1160      | -96               |
| 2012 | 1296        | 1421       | 125                            | 1231      | -65               |
| 2013 | 1338        | 1514       | 176                            | 1300      | -38               |
| 2014 | 1381        | 1603       | 223                            | 1367      | -14               |
| 2015 | 1425        | 1690       | 265                            | 1431      | 7                 |

Speech & Language Therapists

The intake onto the Speech & Language course in TCD in recent years, means that only about 25 newly qualified persons will be available in the next few years. The enormous excess demand that was identified in Table 2.10 means that a major change is required. Table 3.4 shows that an increase to 170 per year would solve the problem by 2010. However, beyond this point a large excess supply arises. This would require a reduction to a steady state output of around 50 to 60 beyond this point. Since foreign registrations would be likely to be insignificant, at least 110 of the places that would be created would then be eliminated after 2010. Alternatively, an increase to 120 places would solve the problem by 2015. However, this volume also implies that there would be excess supply beyond this date. Adopting a target of 100 places, would resolve the situation by 2020 on the basis of these projections and would not require any reduction to avoid excess demand beyond this. On this approach, the excess demand remains about 100 in 2015, indicating a very tight but much more manageable situation than currently exists, or than would be created if a rapid solution is attempted.

Table 3.4: Speech & Language Therapy Requirements

| Requirement | 170 Annual Q | nnual Qualifications 120 Annual Qualifications 100 Annual Qualificat |           | 120 Annual Qualifications |           | ualifications |
|-------------|--------------|--|-----------|---------------------------|-----------|---------------|
|             | Available    | Balance  | Available | Balance                   | Available | Balance       |

| 2001 | 766  | 300  | -466 | 300  | -466 | 300  | -466 |
|------|------|------|------|------|------|------|------|
| 2002 | 806  | 315  | -491 | 315  | -491 | 315  | -491 |
| 2003 | 848  | 330  | -518 | 330  | -518 | 330  | -518 |
| 2004 | 892  | 344  | -548 | 344  | -548 | 344  | -548 |
| 2005 | 938  | 357  | -581 | 357  | -581 | 432  | -506 |
| 2006 | 968  | 515  | -453 | 465  | -503 | 518  | -450 |
| 2007 | 999  | 668  | -331 | 570  | -429 | 600  | -399 |
| 2008 | 1031 | 816  | -215 | 671  | -360 | 680  | -351 |
| 2009 | 1064 | 959  | -106 | 768  | -296 | 758  | -306 |
| 2010 | 1098 | 1097 | -1   | 863  | -235 | 833  | -266 |
| 2011 | 1133 | 1230 | 97   | 954  | -179 | 905  | -229 |
| 2012 | 1170 | 1359 | 190  | 1042 | -127 | 975  | -195 |
| 2013 | 1207 | 1484 | 277  | 1128 | -79  | 1042 | -165 |
| 2014 | 1246 | 1605 | 359  | 1210 | -36  | 1108 | -138 |
| 2015 | 1286 | 1721 | 436  | 1290 | 4    | 1171 | -115 |

This analysis shows that the extent of the problem in Speech & Language – and, to a lesser extent, in Occupational Therapy – means that no simple solutions are available. It is the consultant's opinion that error on the side of caution may be warranted in the case of Speech & Language therapists. On this basis it is recommended that the number of places should be increased to 100.

### 3.4 Reforms Required to Meet Demand

The current and prospective balance between demand and supply requires immediate action but there are problems in trying to resolve it in too short a time frame. It is important that the number of places in the adjustment period is not overly out of line with the number that will be required on an ongoing basis to maintain supply at its new higher level. One way to move towards this is to make the determination of the number of places as flexible as possible. This would be assisted by deregulation and also by initiatives, such as the integration of education for therapy professions with other health care professions, in as far as is possible. As a result, the argument that a broad review of the training system is required is just as important in terms of avoiding over supply beyond the adjustment period as it is to facilitating the actual period of adjustment.

Taking all these issues into account, it is clear that a major expansion of training places in Occupational Therapy and Speech & Language therapy is required, but that this must take place in the context of a more widespread reform of the system. An additional 75 places should be created immediately to train Occupational Therapists – giving a total of 110 – and an additional 75 places – giving a total of 100 – should be created for Speech & Language students. Even with these increases, the problems of undersupply will not be fully resolved for 15 to 20 years. However, to attempt a more immediate solution would risk moving the constraint to the clinical training point and a considerable over-supply of training places in the long-term future.

In summary, the following expansion of course places are recommended:

**Table 3.2: Additional Course Places Required** 

|                           | -       |            |       |
|---------------------------|---------|------------|-------|
|                           | Current | Additional | Total |
| Physiotherapy             | 120     | 25         | 145   |
| Occupational Therapy      | 35      | 75         | 110   |
| Speech & Language Therapy | 25      | 75         | 100   |
| Total Places              | 180     | 175        | 355   |

The current tightly controlled number of places in a limited number of training institutions that persist with established course designs (e.g. fixed duration and majority intake from second level school leavers) is placing significant constraints and costs on the health service sector, patients, other training institutes and healthcare professionals. It is set in a manner that was designed to meet broad education

targets in a previous era and, if it ever did meet the needs of the health sector, it is no longer appropriate. This will cause two major problems in the context of overcoming insufficient supply.

A big expansion of output is required. However, expanding the number of places merely shifts the problem since finding places for clinical training is already a problem. For example, there are currently fewer than 120 clinical training places in physiotherapy in total, but 120 per year will be required in about 2 years time. Current shortages mean that practising therapists do not have the time to provide clinical training places, a situation that will only be improved if more clinically trained personnel are produced. It is beyond the terms of reference of this study to examine the way in which this conundrum can be overcome, but tackling the problem will require more radical thinking than the application of greater funds to an already existing system.

The second issue is that it cannot be accepted, without examination, that the existing system of training, which is based exclusively on a fairly rigid system comprising three institutions – TCD, UCD and the RCSI - is the optimal way to educate and train therapists for employment in the health services. This is more than an argument that the restriction of courses to only three institutions requires examination. Over and above arguments that the number of courses should be increased are arguments that the nature and form of the courses should be examined. These latter include the range of third level institutions, which could contribute to future supply; the aspect of fixed duration of courses and the predominance of intake of second level school leavers. A consideration in expanding the number of institutions should be synergies and existing related expertise in teaching. It is not difficult to envisage alternative designs such as are proposed in the Report of the Commission on the Points System. This proposed a partial integration of healthcare education with general science, thereby allowing greater flexibility and economies of scale in the initial years with the option for students to reassess their initial course choice and specialise in later years. Furthermore, it shifts the key decision and deciding factor from the time of the Leaving Certificate results to performance over the initial years of university study.

Finding a solution to the problems that exist calls for a radical approach that discards incremental or marginal changes as viable options, and that examines the education of therapists, and other healthcare professions, as more than a numbers game. In essence, it means the identification of the key individuals whose interests should be defended and an assessment of the extent to which the current system does this. Priority of interests should be given to patients and then to service providers, with prospective healthcare professionals taking precedence over training service providers. The inescapable conclusion is that the current system has effectively reversed this order.

#### 4. Conclusion and Recommendations

#### 4.1 Discussion

The research, reported in this study, indicates that a situation of severe under-supply exists in the labour market for qualified personnel in physiotherapy, occupational therapy and Speech & Language therapy in Ireland. Attempts to quantify the precise size of this under-supply are hampered by a number of factors. For example, there is a lack of data in relation to who is actually working where. Apparently, a comprehensive, well-defined methodology does not exist describing the process whereby decisions to employ therapists – or, more accurately, to create posts in the hope that someone will be found to fill them – are made. This situation has developed in an environment where obtaining funding was the primary concern rather than the provision of some objectively set level of professional service.

As this environment changes, simply increasing supply – assuming that this is possible – will not provide the solution to the problems that exist. More therapists are certainly needed and achieving this will require expansion and reform of the training system as it currently operates. A solution to the problems that exist requires the adoption of appropriate techniques for estimating demand and the optimisation of the available workforce and resources.

A number of the recommendations below are proposed on the basis that making incremental changes to one part of the system alone will be inadequate and would probably open up opportunities for rent-seeking on the part of incumbents.

Difficulties in providing precise estimates in relation to actual and prospective demand and supply have been referred to at many points in this report and it is recognised that the estimates provided should be treated as indicative rather than absolute quantities. However, this does not undermine the conclusions that are reached. The outcome produced by the existing system appears costly in a number of respects. Thus, there is under-supply of qualified personnel. There are costs arising for aspirant therapists who cannot get into training. There are potential providers of training whose plans cannot be realised and, most importantly, patients who receive services that are, despite the best efforts and expertise of professionals in the area, often insufficient, irregular and uncertain. Against this background the costs that would arise from a situation of over-supply would be relatively minor unless the over-supply also reached extreme dimensions. The likelihood of this is remote within the parametres identified and recommended in this report.

It would be easy to characterise the general direction of the recommendations below as 'deregulation'. This is not altogether inaccurate and would be somewhat simplistic. Some comment on regulation and deregulation is required. The first point is that any regulation always implies costs. However, regulation becomes desirable when the costs of the regulation are less than the costs that would exist, in the case of the outcome produced by an unregulated market. It is not difficult to identify the sources of such costs in the case of a free market for the training of therapists. They include issues such as the uncertainty that would surround the viability of running courses and the difficulties of ensuring high and standard training. However, recognising the fact that all regulation is costly also means accepting that the balance can be altered such that the costs of regulation exceed the costs that are avoided through not having an unregulated outcome. In other words, there is a net loss. In such a situation of over-regulation – or inappropriate regulation – the solution is more likely to involve regulatory reform rather than deregulation as in the removal of regulations. The main exceptions to this in recent years have arisen in cases where the industry has been fundamentally changed, usually through technological progress that has altered the cost and competitive basis of the industry. Although there certainly has been progress in terms of understanding the role and management of the therapy professions it appears unlikely that this is of the nature that would fundamentally change the original basis on which the regulations were introduced.

There is a second issue of relevance also. The discussion so far has been in terms of the overall costs and benefits. However, in the healthcare professions – as in many service sectors – the distribution of costs and benefits between different categories of people is important. The most important distribution relates to the interests of service providers relative to patients. Of course, there are many instances in which there will be overlap and it is recognised that the creation of a high quality comprehensive

service is an important goal of both providers and patients. Other such balances also exist, such as between the interests of the providers of training and recipients – including those potential recipients who are excluded – and between the interests of health service managers and direct service providers.

Economic analysis often deals with these issues in a global or aggregate sense: all are members of society, and a gain for one group, provided it does not imply an equivalent or greater loss for another, is seen as a gain for society. However, it should be recognised that this is merely a simplifying methodology to get around the problem that in many cases it is impossible to compare the relative importance of the gains for one group over another. In other words, it is not a normative statement in the sense that it does not matter who benefits most. In fact, the avoidance of situations when incumbents can extract a rent is a fundamental requirement of a truly efficient, and equitable, system.

What this means is that it is necessary to set out some principles to facilitate decisions where potential conflicts between the interests of different groups may arise. The principle underlying the recommendations that follow is that, in such cases, the interests of the service recipients should dominate. Thus, for example, the interests of patients – in terms of the quality of service they receive – dominates those of service providers, who may wish to protect and ensure excess demand for their services. In addition, the interests of training service providers should be dominated by the interests of potential entrants to the market and the health services in general.

Much has been written regarding the outstanding performance of the Irish economy over much of the past decade. Although high economic growth alone is no guarantee of rising standards of living, it has facilitated real improvements in Ireland in actual standards and in the potential for what can be achieved. However, the problems that have been overcome are quite different from the challenges that remain and those that will be faced in the next decade. At the risk of over-simplification, the nature of challenges has altered from economic under-performance to deficiencies in the standard of life in Ireland. The provision of comprehensive healthcare for all has a major role to play in addressing these challenges. High economic growth, high employment and rising income per capita provide the means for overcoming these challenges. They do not, in themselves, provide the solutions, as the problems are structural rather than financial. Any failure to address, as a matter of urgency, the deficiencies that are highlighted in this report will undermine the process of translating the means to solve problems into desirable outcome and real improvements.

## 4.2 Recommendations

The main recommendation of this report is that initiatives should be formulated and put in place as a matter of urgency to improve the supply of qualified personnel in each of the three therapy professions. These will need to cover areas of finance, clinical training and such matters as course design, range of providing institutions, flexibility, etc. The extent of the excess demand for personnel varies, with the most serious shortage among speech and language therapists. However, there is also a serious deficit of occupational therapists that is hampering the development of the profession and the services offered. The crisis is somewhat less acute among physiotherapists but is no less in need of action. Although there may be some uncertainty in relation to the precise level of requirements in the future, the danger of over supply is minimal within the parameters discussed in this report. It is recommended that 75 additional places in Occupational Therapy and 75 additional places in Speech & Language should be created. These increases should be implemented in the expectation that further additional measures will be undertaken to accommodate the output of students into clinical training. About 25 additional places are recommended in physiotherapy, along with recent increases. This increase is seen as desirable to overcome the uncertainty created by relying on foreign qualifications, but is somewhat less critical than in the case of the other professions.

Furthermore, it is recommended that the scope for fast-tracking qualification should be examined, whereby graduates in relevant disciplines could enter a fast track process for gaining recognised qualification in any of the three therapy professions. The example of the Master's Programme in Physiotherapy, at the University of Ulster, may offer useful guidance. Indeed, initiatives to expand places should consider the question of providing such a course in Ireland.

It is recommended that, as a guiding principle, the interests of service recipients must at all times take precedence over the interests of service providers. The current system certainly does not

guarantee this outcome and there is a danger that expansion would create opportunities for incumbent service providers to benefit at the expense of recipients.

It is recognised that increases in the output of courses of the magnitude recommended will cause serious problems in relation to clinical training. If the expansion of training places is to be successful, it is essential that the requisite number of senior therapists be available in the system to take students on clinical placement. The consultants are aware that there has recently been a total restructuring of the career structure for the three therapy professions as a result of the implementation of the Expert Group report. This restructuring has resulted in an unprecedented increase in the number of senior posts.

It is understood that not all agencies have yet finalised their restructuring, so it is not yet possible to put a figure on the number of seniors now in post.

It is recommended that the Department of Health and Children review the career structure within these professions to ensure that the health sector is positioned to deal with the increased placement level.

It is noted that the Department proposes the introduction of Clinical Placement Co-ordinators for each of these professions within each Health Board area to deal with this increased activity level. The consultants support this initiative.

It is recommended that a fundamental review of the training system in all its aspects should be undertaken. However, this should not pre-empt the expansion of course places immediately and in the medium term. At this stage it is not possible to pre-empt the outcome of such a review, but failure to treat the shortage of qualified personnel as more than just a problem with the number of places on education courses will not sufficiently address the problem. As part of this review, it is recommended that consideration should be given to the development and validation of courses at different institutions. A much greater amount of flexibility needs to be introduced into the system.

It is recommended that appropriate two year courses should be made available in sufficient numbers to enable assistant therapy grades to be expanded significantly, freeing some time of fully qualified therapists for additional duties including in particular an expansion in clinical placement work. It is recommended that serious consideration should be given to options for more flexible training courses that integrate training for the therapy professions with general science degrees and other healthcare training. A good example of this is provided by the suggested reforms in the Report of the Commission on the Points System.

It is recognised that reform of the training system is a medium term development. It is recommended that such measures as may be practical should be undertaken to relieve the situation in the short term. These include a review of work-load and work practices, the use of therapy assistants and qualified physical therapists, and consideration of certain options contained in the Report of the Expert Group on Various Health Professions. For example, the Group recommended that initiatives should be undertaken to facilitate the return to work of qualified personnel who wish to do so, that the issue of establishing 'out-of-hours' clinics should be explored and that the role of therapy assistants should be developed to alleviate labour shortages. In addition, in the short term it could be useful to engage in a concerted drive to recruit from overseas.

The Expert Group on Various Health Professions recommended that people that have resigned from the profession should be facilitated in returning but did not offer any indication in regard to the potential or actual demand for such facilitation. It also recommended that, while recognising that increased overtime was not a solution, facilitation of out-of-hours clinics could ease the shortage at the margin, although the main reason was to provide a more tailored services. There is merit in this as a short term solution, but it sets a potentially difficult precedent whereby a stop-gap measure to ease the situation would become the permanent code of practice. This would mean a situation such as exists in medical consultancy and which has been identified as a weakness of the Irish health system. At best, this is a second best type of approach that aims to relieve the existing problems while effectively preserving the status quo in terms of protecting the interests of existing service providers – both education providers and healthcare providers. For an optimal outcome – that is, what is best from the point of view of patients – these are likely to be conflicting goals in the longer term.

It is recommended that the Department of Health and Children should formulate and apply models for the estimation and projection of demand for healthcare services as a basis for planning required supply of human resources. Previously, supply was determined within subjective constraints – funding, personnel, competence – but this will be inadequate in the future if the prospective growth in demand for service is to be met at an acceptable standard.

Current personnel management practices have been developed and modified in an environment of shortage. It is unlikely that these are optimal for an environment of more liberal supply, or even to make the best use of existing resources. Indeed, in the process of this consultation, many of the issues raised did not relate directly to the shortage of personnel but, rather, to issues that could broadly be described as industrial relations. Simply increasing the number of people will not solve this. In a situation that is going to see a dramatic increase in resources it would be appropriate to consider if current management is optimal, as regards these significant resources. One example is the fact that many professionals spend a non-trivial part of their time on administrative matters. In this respect, therapy assistants should not be viewed as apprentice therapists but as assistants to the undertaking by the professional of healthcare service supply.

It is recommended that a comprehensive system of professional registration should be introduced across all three professions. Furthermore, it is recommended that this should be undertaken centrally in a manner that separates registration from the professional representative organisation. Only by doing so can the interests of service recipients be identified and pursued independently from those of service suppliers. It is noted that there is a proposal to introduce a system of statutory registration for these three professions, which would be governed by a registration board for each therapy. It is important that this initiative should attempt to bring greater flexibility to the accreditation process. Registration should include collection of information annually, in relation to age, location of employment, the origin of qualification and other points to be determined. This is a vital input into proper supply planning.